Audit Committee Meeting
Friday, November 17, 2023 at 8:00 a.m.
www.glwater.org

Join Zoom Meeting

Meeting ID: **811 0241 1262** Passcode: **156443**

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

AGENDA

Note: Binders 1 and 2 have been combined and PDF was renumbered

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
    A. November 9, 2023 (Page 2)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
    A. Annual Financial Report Update (Page 7)
    B. Final Report: 2023 Tender, Refunding, and New Money Bond (Page 9) Transaction
7. NEW BUSINESS
    A. Proposed Calendar Year 2024 Audit Committee Meeting Dates (Page 60)
8. REPORTS
    A. CFO Report *(Verbal)*
    B. Monthly Financial Report (Page 62)
        i. July 2023
        ii. August 2023
    C. Business Inclusion and Diversity Program Update (Page 63)
    D. Charges Outreach & Modeling Update (Page 67)
    E. Affordability & Assistance Update (Page 81)
    F. Gifts, Grants & Other Resources Report (Page 82)
    G. Semi-Annual Debt Report as of September 30, 2023 (Page 90)
9. COMMUNICATIONS
10. LOOK AHEAD
    A. Next Audit Committee Meeting: December 15, 2023 at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT

AGENDA ITEM #4A

Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Thursday, November 9, 2023 **8:00 AM** **Zoom Telephonic Meeting**

Join Zoom Meeting:
https://glwater.zoom.us/j/82993934643?pwd=OWcvWDkwd2dXa0JxdkVPQWVGbGViUT09

Join By Telephone
US Toll-Free:
888 788 0099; or 877 853 5247
Meeting ID: 829 9393 4643
Passcode: 488727

Zoom Telephonic Meeting

1. Call To Order

Chairperson Baker called the meeting to order at 8:02 a.m.

2. Quorum Call

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

3. Approval of Agenda

Chairperson Baker requested a Motion to Approve the Agenda.

Nicolette Bateson, Chief Financial Officer/Treasurer, indicated the CFO Report would be given verbally.

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Approved
The motion carried by a unanimous vote.

4. Approval of Minutes

A. 2023-392 Approval of Minutes - September 22, 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 4A Minutes - September 22, 2023 Audit Committee Meeting

Chairperson Baker requested a Motion to Approve the September 22, 2023 Audit Committee Meeting Minutes.

Motion By: Jaye Quadrozzi
Support By: Gary Brown
Action: Approved
The motion carried by a unanimous vote.

5. Public Comment

There were no public comments.

6. Old Business

A. 2023-396 Annual Financial Audit Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 6A1 FY 2023 Annual Financial Audit Update

6A1.1 FY 2023 Annual Financial Audit BT Timeline Update - SS 10.25.23

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

B. 2023-397 General Retirement System Component II Annual Pension Report Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 6B GRS Component II Pension Report Update

6B1 GRS Valuation Component II-Legacy Pension Final 6.30.2022

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

7. New Business

A. 2023-398 Annual Report on Water System Max Day

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 7A MaxDay-PeakHourAnnualReport 2023

Motion By: Jaye Quadrozzi
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.

B. 2023-427 **Resolution Regarding Approval of Schedule of Member Partner Bad Debt Recovery Credits #2023-2 Totaling $20,026,500 With Conditions Precedent Utilizing the Highland Park Bad Debt Recovery Credits Methodology**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 7B2.1 Board Letter Attachment Bad Debt Recovery 2023-427
7B3 Fully Executed Term Sheet by HP, GLWA, and SOM
7B4 Draft HP Bad Debt Credit Calculations 102323
7B5 CWW Resolution GLWA Highland Park 2023 with signature

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Referred to the Board of Directors Workshop Meeting for consideration Agenda of November 16, 2023
The motion carried by a unanimous vote.

8. Reports

A. CFO Report (Verbal)

Nicolette Bateson, Chief Financial Officer/Treasurer, provided a verbal update on the implementation of Workday, training programs, and bond transactions.

B. 2023-400 Monthly Financial Report for June 2023 (unaudited)

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8B June 2023 Financial Report

Motion By: Jaye Quadrozzi
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.

C. 2023-401 Business Inclusion and Diversity Program Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8C Business Inclusion and Diversity Program Update
8C1 REVISED B.I.D. Program Update September 2023

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

D. 2023-406 Charges Outreach & Modeling Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8D Charges Outreach and Modeling Update - 10-27-2023

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

E. 2023-402 Affordability & Assistance Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8E1 Affordability and Assistance Update

Motion By: Jaye Quadrozzi
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.

F. 2023-403 Gifts, Grants & Other Resources Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8F Grants Gifts and Other Resources Report

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

G. 2023-404 Qualified Financial Institution Review

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8G Qualified Financial Institutions Memo for Audit Committee Package

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

9. Communications

A. 2023-405 The Procurement Pipeline for October 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 9A The Procurement Pipeline for October 2023

No Action Taken.

B. 2023-399 Canceled Meeting Binder from October 27, 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 9B1 Cover Memo-Canceled Meeting Binder from October 27, 2023
9B2 Canceled Meeting Binder from October 27, 2023

Motion By: Gary Brown
Support By: Jaye Quadrozzi
Action: Received and Filed
The motion carried by a unanimous vote.

10. Look Ahead

The next Audit Committee Meeting is scheduled for Friday, November 17, 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: Jaye Quadrozzi
Support By: Gary Brown
Action: Approved
The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 9:31 a.m.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 2023

To: Great Lakes Water Authority Audit Committee

From: Steve Hoover, CPA, Financial Reporting Manager

Re: Annual Financial Audit Update

Background: Each year, the Great Lakes Water Authority (GLWA) prepares an Annual Comprehensive Financial Report (ACFR) and Schedule of Expenditures of Federal Awards (SEFA) in accordance with financial accounting standards and federal guidelines. GLWA has engaged Baker Tilly US, LLP (Baker Tilly) to perform the GLWA annual financial audit and issue an opinion as to whether the financial statements are fairly stated in accordance with accounting standards for fiscal years ending 2022, 2023 and 2024.

Analysis: The GLWA Financial Services area and Baker Tilly are working to finalize any last-minute items related to the FY 2023 audit. As shown in the attached memo from Baker Tilly, the audit remains on target to file the audit with the State of Michigan Department of Treasury in December 2023.

A related but separate item is the request of a special Audit Committee meeting prior to the Board of Directors meeting on Wednesday, December 13, 2023. The purpose of this meeting is to formally review the audit report and potentially act to recommend the Board of Directors approve the report for timely filing with the state, federal and other regulatory bodies.

Proposed Action: Receive and file this report.

Memo

To:	Great Lakes Water Authority Audit Committee
From:	Gwen Zech, Senior Manager (Baker Tilly) Stephanie Silva, Senior Associate (Baker Tilly)
c.c.	Jodi Dobson, Partner (Baker Tilly)
Date:	November 17, 2023
Subject:	Great Lakes Water Authority Audit Status and Annual Comprehensive Financial Report (ACFR)

We have prepared this memo to communicate to the audit committee our expectations regarding the timing of fieldwork, review, draft reports and issuance of the ACFR. The schedule below summarizes expected milestone dates to meet a deadline of issuance on December 15, 2023.

Activity	**Due Date** **Friday, December 15, 2023**
All audit workpapers uploaded to portal for audit	**Tuesday, October 3, 2023** **Complete with open items**
GLWA to provide preliminary draft of footnotes	**Monday, October 9, 2023** **Complete with open items**
End of Fieldwork (Including first review)	**Friday, October 13, 2023** **Complete**
Baker Tilly to complete all internal reviews - comments accumulated and provided to GLWA	**Friday, November 3, 2023** **On Track**
Final draft provided to Baker Tilly (Notes, RSI, SI and available statistical schedules)	**Tuesday, November 7, 2023** **On Track**
Update to Audit Committee	**Friday, November 17, 2023** **On Track**
Preparation of separate water and sewage reports	**Friday, December 1, 2023**
Presentation of draft to full Board of Directors	**Wednesday, December 13, 2023**
Issuance of the ACFRs' upon Board of Directors Approval	**Friday, December 15, 2023**

The information provided here is of a general nature and is not intended to address the specific circumstances of any individual or entity. In specific circumstances, the services of a professional should be sought. Baker Tilly US, LLP trading as Baker Tilly is a member of the global network of Baker Tilly International Ltd., the members of which are separate and independent legal entities. © 2018 Baker Tilly US, LLP

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 2023

To: Great Lakes Water Authority Audit Committee

From: Nicolette N. Bateson, CPA, Chief Financial Officer & Treasurer

Re: Final Report: 2023 Tender, Refunding, and New Money Bond Transaction

Background: A goal the Great Lakes Water Authority (GLWA) for calendar year 2023 was to seek financial savings from a tender and refunding transaction that also aligned with new money needs for the capital improvement program. That goal was met with a successful tender period that ended November 10, 2023 followed by a favorable refunding and new money pricing on November 14, 2023. Closing on the transaction will be completed in early December 2023.

Analysis: Attached is a summary report from GLWA's financial advisor PFM which will be presented at the Audit Committee. Key elements of this transaction include the following.

- ✓ Ratings upgrades that brought GLWA into the AA-category by Fitch and Moody's and affirmed the prior AA-category rating by S&P
- ✓ Above expectations on the tender invitation with 35% participation as the day ended on November 10, 2023
- ✓ Excellent investor participation with 80 unique institutional investors in addition to retail investor participation through the pricing on November 14, 2023
- ✓ A combination of investor interest and timing resulted in $8.1 billion in orders for the $513 million in par bonds, meaning investor demand exceeded available bonds by 14.7 times in aggregate
- ✓ $46 million of cash flow savings in total with $11 million for water and $35 million for sewer ($29 million of present value savings in total)
- ✓ $250 million in new money bonds at a favorable 4.64 percent given fluctuating market conditions over the past few months with $150 million for water and $100 million for sewer system capital improvements

Also attached are the rating agency reports. We will discuss highlights of those reports at the meeting with a more detailed discussion in early calendar year 2024 as we incorporate that feedback into our upcoming financial planning cycle.

Proposed Action: Receive and file this report.



Great Lakes Water Authority

Summary of 2023 Financing Results

$215,745,000 Water Supply System Revenue and Revenue Refunding Bonds, Series 2023

$67,210,000 Water Supply System Revenue Refunding Senior Lien Bonds, Series 2023A
$148,535,000 Water Supply System Revenue Senior Lien Bonds, Series 2023B

$297,060,000 Sewage Disposal System Revenue and Revenue Refunding Bonds, Series 2023

$185,235,000 Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2023A
$14,965,000 Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2023B
$96,860,000 Sewage Disposal System Revenue Senior Lien Bonds, Series 2023C

Executive Summary

Recent bond transactions for the Water System and Sewer System achieved favorable outcomes for GLWA

- Long-term funding procured at fixed interest rates for approximately $150 million of regional Capital Improvement Program projects for the Water System and $100 million for the Sewer system
- Achieved all-in cost of new money borrowing consistent with prior issues during a period of increasing interest rates and volatile market: 4.64% for each of the Water System and the Sewer System
- Rating agency upgrades were achieved from both Moody's (Water and Sewer) and Fitch (Sewer), continuing the Authority's positive rating trajectory and credit story
- Extensive outreach to investors was effective and included an electronic investor roadshow and 8 one-on-one investor calls between the Authority and 7 major institutional investors
  - Orders from 80 unique institutional investors totaling $8.1 billion, including 57 investors that did not participate in GLWA's 2022 transactions
  - Level of interest enabled GLWA to reduce yields on the date of the sale by an average of nearly 0.15% from preliminary morning levels, reducing total debt service by a net present value of approximately $7.5 million
- Robust tender participation of 35% generates cash flow tender refunding savings of $45.9 million through 2040 (net present value of $28.8 million or 8.0% of refunded par)
- Series 2023 bond structures strategically aligned new money debt service requirements with tender refunding savings to achieve overall debt structuring goals lessening burden on budget from new debt for next ten years
  - Complex pricing process, with simultaneous sale of two separate credits (Water and Sewer) on multiple liens (Senior and Second) and with overlapping maturities

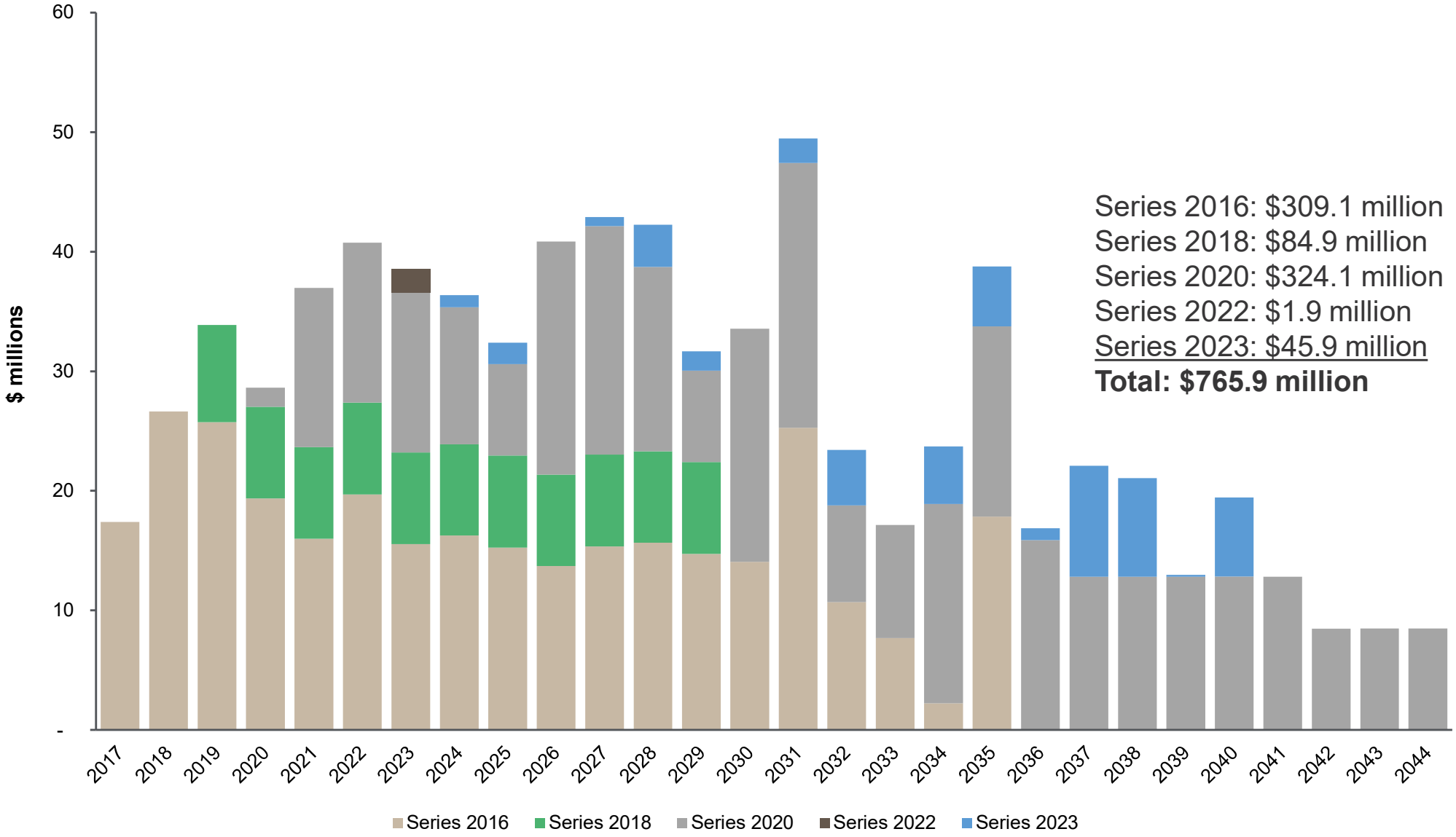
Goals Set… Goals Met

The goals for the Series 2023 financings were achieved and provide the Authority with a strong base with which to weather the challenges of a growing capital plan while still achieving future financial goals.

- Capture Available Debt Service Savings Through Innovative Tender Refunding Strategy
- Acquire Necessary Capital Funding At Favorable Levels
- Secure Continued Positive Ratings Trend
- Highlight Continued Strong Financial Results and Expand the Investor Base for GLWA Credits
- Enhance GLWA's Financial Flexibility

History of Debt Service Savings Since GLWA Standup

- Through the leadership of the Authority's management, the financing team has been able to achieve over $765 million in cash flow debt service savings since the stand-up of GLWA.



Rating Upgrades Achieved

- GLWA and the finance team have conducted an aggressive, multi-year rating agency strategy that resulted in rating upgrades by Moody's and Fitch, **achieving long-term goal of 'AA' category Senior Lien ratings**
  - Water System: Moody's upgrade from A1 to Aa3 on Senior Liens and A2 to A1 on Second Liens
  - Sewer System: Moody's upgrade from A1 to Aa3 on Senior Liens and A2 to A1 on Second Liens and Fitch upgrade from A+ to AA- on Sewer Senior Lien and A to A+ on Sewer Second Lien (Positive Outlook)

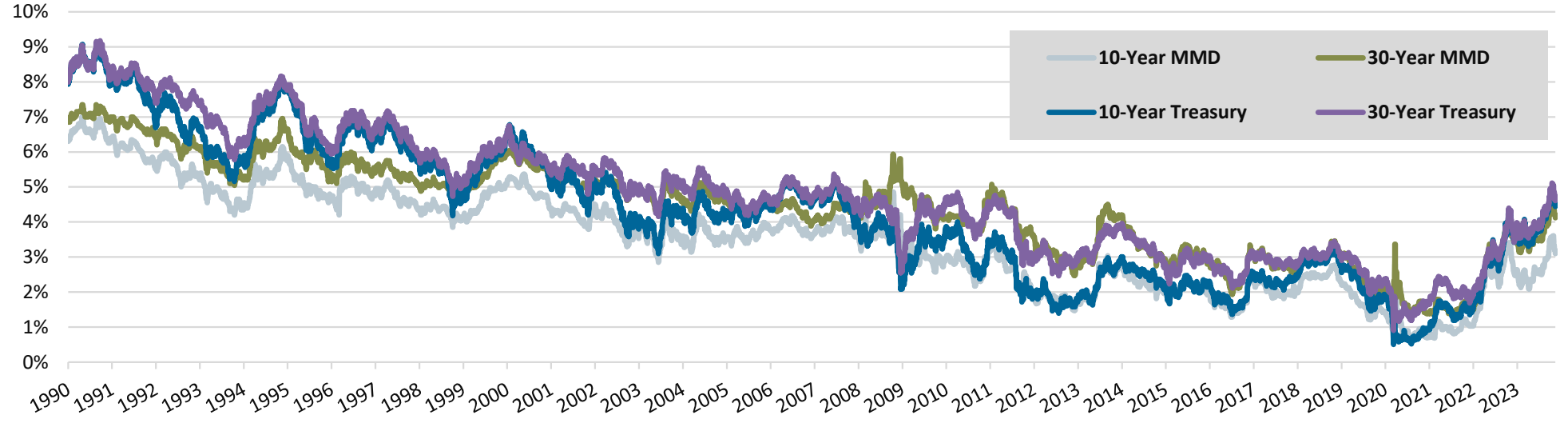
Water System	S&P	Fitch	Moody's
Senior Lien	AA- (stable)	A+ (stable)	Aa3 (stable)
Second Lien	A+ (stable)	A (stable)	A1 (stable)

Sewer System	S&P	Fitch	Moody's
Senior Lien	AA- (stable)	AA- (positive)	Aa3 (stable)
Second Lien	A+ (stable)	A+ (positive)	A1 (stable)

- In connection with the Series 2023 transactions, GLWA hosted each of the rating agencies in Detroit to showcase the strength of management, industry leadership in operations, and the improving economy in the City
  - Full-day meetings included briefing with Executive Leadership Team, bus tour of Detroit, and walk-through of Water Works Park
  - Although preparation for meetings was a significant commitment of GLWA management and finance team time, each of these elements was cited by the rating agencies in their commentary
- In 2020, the Bond Ordinances were amended to give the option to reduce/eliminate the Reserve Requirements upon achieving "AA" category Senior Lien ratings from at least two of the rating agencies
  - Now this criteria has been met, it may impact future transactions
  - A deciding factor will include securing confirmation that ratings will not be reduced as a result of the change in the reserve requirement

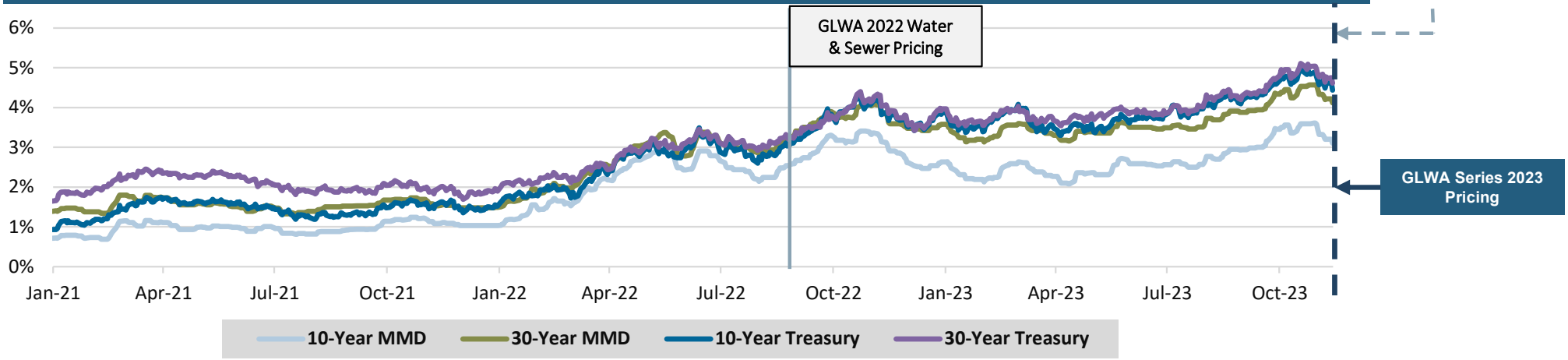
10-Year and 30-Year MMD and Treasury Yields

Long Term Interest Rate Landscape Over 30 Years: 10-Year and 30-Year MMD and UST Rates



1/1/2021 – Present

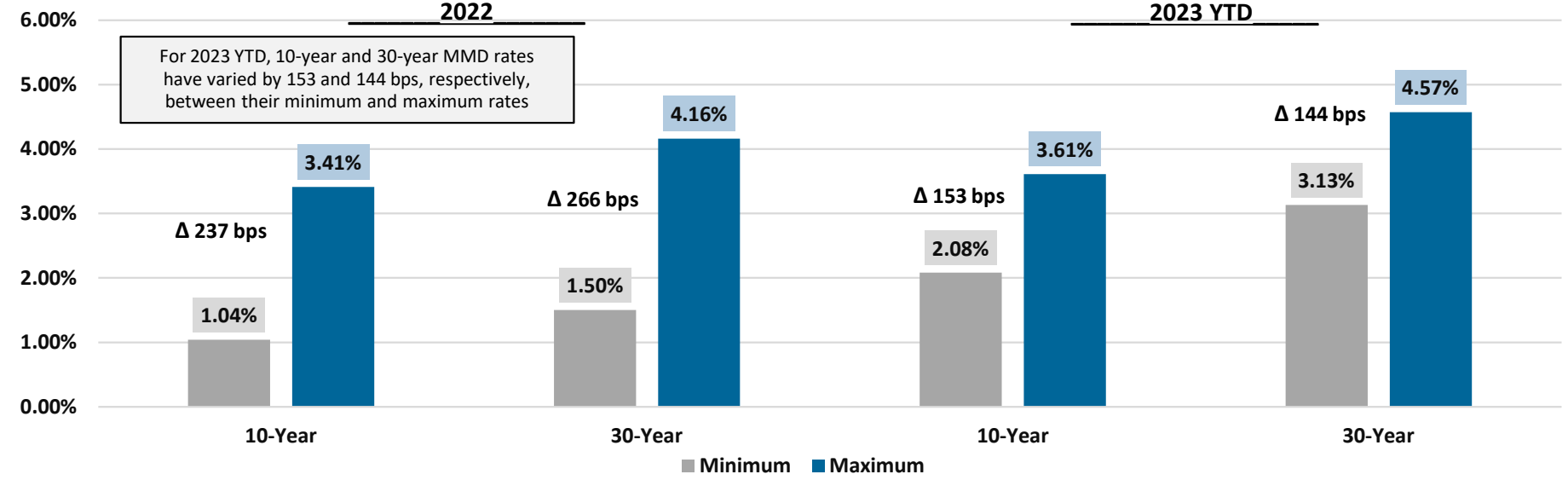
10-Year and 30-Year MMD and UST Rates from 1/1/2021 to Present



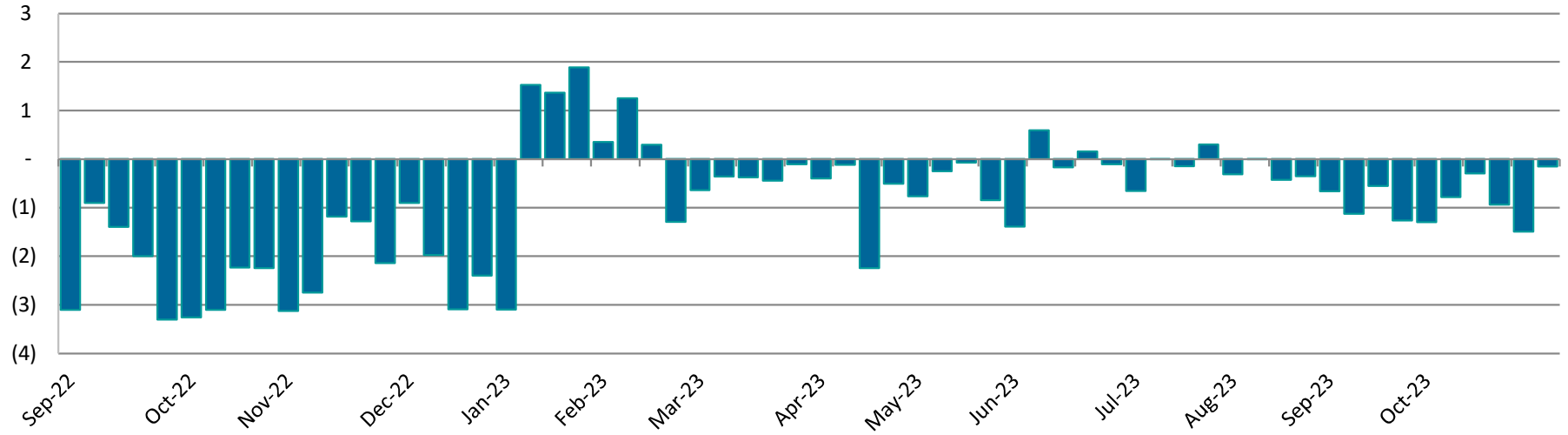
Note: All rates, analyses, and commentary are as of November 14, 2023
Sources: MMD provided by TM3, US Treasury rates provided by US Department of Treasury

Changing Market Fundamentals and Volatility

10-Year and 30-Year MMD Rate Movements



Municipal Bond Mutual Fund Inflows and Outflows ($billions)

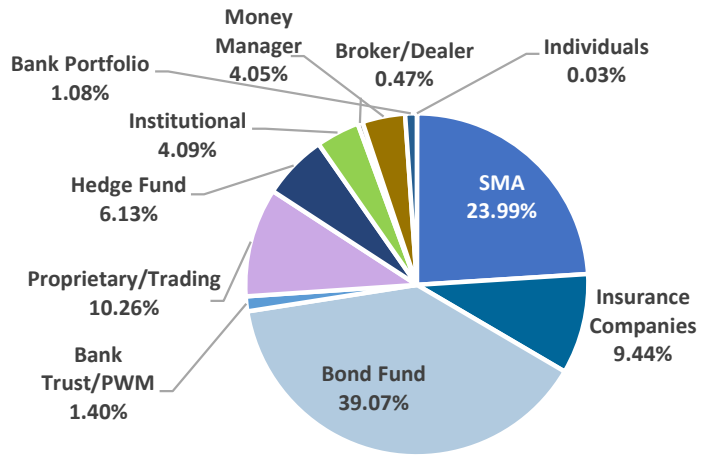


Note: All rates, analyses, and commentary are as of November 14, 2023
Sources: Bloomberg and TM3

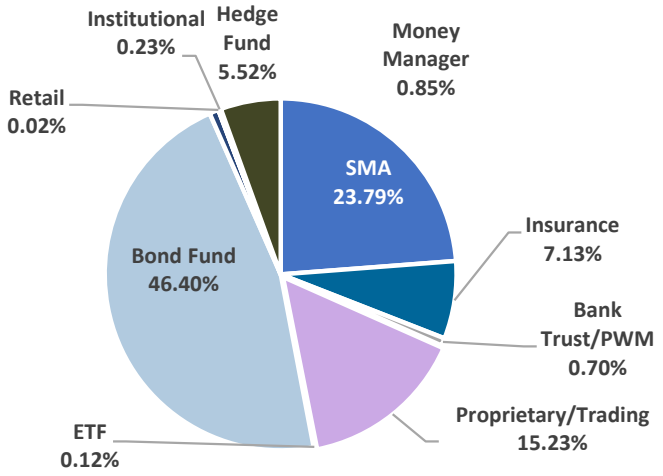
Comprehensive Marketing Outreach

- An extensive premarketing effort led by Siebert Williams Shank & Co., LLC in the days leading up to the sale generated demand from a wide variety of institutional accounts
  - Marketing outreach efforts included 8 one-on-one investor calls, 92 unique investor views of the POS, and 55 unique investor views of the investor roadshow
  - Of the roadshow viewers, 27 unique investors followed through with orders on either the water or sewer credits
  - All 7 investors requesting one-on-one calls with GLWA management followed through with orders
- **Institutional Orders:**
  - **The Water System** transaction was extremely well received, attracting $3.17 billion in priority orders
    - 64 unique investors participated, including 47 institutional investors that did not participate in GLWA's 2022 water transaction
  - **The Sewer System** transaction was extremely well received, attracting $4.97 billion in priority orders
    - 59 unique investors participated, including 41 institutional investors that did not participate in GLWA's 2022 sewer transaction
- **Subscriptions:**
  - Orders were received from a mix of investors including insurance companies, bond funds, separately managed accounts ("SMA"), and bank portfolios
    - **Water System:** Subscription levels (excluding stock) ranged from 1.0x to a high of 21.1x for the Senior Lien
    - **Sewer System:** Subscription levels (excluding stock) ranged from 0.0x to a high of 21.4x for the Second Lien 2034 maturity

Water System
Orders Breakdown by Investor Type



Sewer System
Orders Breakdown by Investor Type



Acronyms
ETF = Exchange Traded Fund
POS = Preliminary Official Statement
PWM = Private Wealth Management
SMA = Separately Managed Account

Tender Refunding Results

The taxable to tax-exempt tender refunding is an element of GLWA's continued focus on prudent management of the debt portfolio, with Series 2023 generating $45.9 million of unexpected savings

- ***Series 2023 transaction represents one of the largest and most successful liability management transactions in the municipal market this year***
- GLWA invited the holders of $1.04 billion of Series 2020A and 2020B Sewer Bonds and Series 2020C Water Bonds to sell their bonds back to the Authority at attractive prices below face value
- Holders of $361.6 million of bonds accepted GLWA's offer, representing an overall participation rate of approximately 35%
  - Participation exceeds planning estimate of 20% and average participation in recent transactions of 25%
- Tender refunding will reduce GLWA debt service by $45.9 million over the next 17 years, representing a net present value to GLWA of $28.9 million
  - Savings exceeds most recent estimates provided to the Audit Committee and Board of $11-14 million
- The major focus of GLWA's strategy was to garner interest in all maturities and for all credits
  - Tenders were submitted for 90% of the maturities (26 out of 29)
- Tender refunding savings is generated from taxable bonds that were never expected to generate additional refunding savings when issued because they were issued at extremely low interest rates with limited economic call option
  - Taxable bonds themselves were issued to refund bonds for significant savings
  - In 2020, GLWA took advantage of historically low interest rates to lock in $324 million of cashflow savings on a portion of the outstanding Water and Sewer bonds, which required refinancing with taxable bonds
  - Taxable to tax-exempt tender refunding opportunity is driven by the increased difference between GLWA's taxable and tax-exempt borrowing costs since 2020 and not the absolute level of interest rates

Tender Refunding Results (Continued)

Tender Participation by Maturity

Series	Maturity (07/01)	Tendered ($000s)	% Tendered
Sewer Senior 2020A	2024	$2,765	36%
	2025	3,365	29%
	2026	2,495	29%
	2027	1,480	64%
	2028	4,285	45%
	2029	2,770	22%
	2030	-	-
	2031	4,135	39%
	2032	20,220	42%
	2033	1,625	24%
	2034	5,255	61%
	2035	3,115	36%
	2036	1,515	17%
	2039 Term	184,720	56%
	2044 Term	11,285	10%
Sewer Second 2020B	2036 Term	20,110	30%
	2044 Term	1,000	7%
Water Senior 2020C	2024	5,860	47%
	2025	2,495	22%
	2026	-	-
	2027	4,650	31%
	2028	3,000	60%
	2029	1,865	38%
	2030	425	10%
	2031	1,050	24%
	2032	175	4%
	2033	-	-
	2034	240	6%
	2041 Term	71,740	24%
Total		**$361,640**	**35%**

Recent Taxable to Tax-Exempt Tender Transactions

Launch Date	Issuer	Outstanding Par ($000s)	Total Tendered Par ($000s)	Total Participation
10/27/23	Great Lakes Water Authority	$1,042,680	$361,640	**35%**
10/11/23	Dormitory Authority of The State of New York	1,437,585	126,310	**9%**
09/29/23	The Water Works Board of the City of Birmingham	200,875	75,660	**38%**
09/21/23	North Texas Tollway Authority System	466,335	140,420	**30%**
09/14/23	Utah Transit Authority	263,560	93,825	**36%**
09/12/23	The State of New York	494,365	133,680	**27%**
09/11/23	San Diego County Regional Airport Authority	330,945	40,435	**12%**
09/08/23	Dormitory Authority of The State of New York	1,787,390	246,485	**14%**
08/31/23	The Ohio State University	600,000	138,433	**23%**
08/24/23	Stockton Public Financing Authority	52,570	11,135	**21%**
08/22/23	Regional Transportation District (Colorado)	505,145	154,430	**31%**
08/18/23	Arizona Transportation Board	415,650	83,045	**20%**
08/18/23	Michigan State Housing Development Authority	184,930	24,800	**13%**
08/07/23	State University of New York	782,730	300,965	**38%**
07/27/23	Chippewa Valley Schools	114,435	21,140	**18%**
07/21/23	Papio-Missouri River Natural Resources District	50,005	17,945	**36%**
07/17/23	Leander ISD	303,140	42,690	**14%**
07/14/23	DASNY	1,066,925	551,530	**52%**
07/14/23	Gering Public Schools	26,235	2,055	**8%**

New Money Financing Results

Series 2023 Bonds were sold at an attractive all-in interest rate and will allow the Authority to fund Regional System projects efficiently

- Issued $148.5 million of new money bonds for the Water System and $96.9 million for the Sewer System, each meeting the project funding target of $150 million for the Water System and $100 million for the Sewer System
  - Series 2023 expected to provide approximately 18 months of funding for the CIP
  - True Interest Cost (TIC) of 4.64% for each of the new money Water System bonds and Sewer System bonds
- Opportunistic issuance of new money at the same time as tender refunding generates efficiencies for GLWA
  - Takes advantage of fixed costs of issuance and substantial management efforts that are already being incurred
  - In the current interest rate environment, there is no negative cost of carry for construction funds on hand because short term investment rates are higher than GLWA's long-term borrowing rate
- New money debt service designed as 30-year level debt service but optimized around tender refunding savings to achieve overall debt structuring goals in alignment with board approved debt policy
  - Resulting structure generates adjusted debt service savings on a level annual basis through 2040, which is the final maturity of refunded debt

Water System - Transaction Overview

- GLWA issued $215.7 million in Water System Bonds to fund $150 million for capital improvements and to fund the purchase of tendered bonds for savings
- Tender refunding and new money portions were structured together to optimize transaction cashflows
  - Tender refunding was structured to create level savings through the term of the refunded debt, to the extent possible
  - New money was designed as 30-year level debt service, with principal amortization beginning in 2026
  - Individual components were optimized where necessary to generate combined structure best meeting these goals
- Tender refunding generated over $7.9 million in NPV savings (~9.0% of refunded par)

Water System Sources and Uses

Sources	Senior Lien Series 2023A Tender Refunding	Senior Lien Series 2022B New Money	Aggregate Series 2023 Bonds
Par Amount	67,210,000.00	148,535,000.00	215,745,000.00
Premium	5,736,686.60	9,719,565.65	15,456,252.25
GLWA Cash Contributions[1]	1,966,133.51	-	1,966,133.51
Total	**74,912,820.11**	**158,254,565.65**	**233,167,385.76**

Uses	Senior Lien Series 2023A Tender Refunding	Senior Lien Series 2022B New Money	Aggregate Series 2023 Bonds
Tender Purchase	74,146,284.85	-	74,146,284.85
Construction Fund	-	150,000,000.00	150,000,000.00
DSRF Deposit	-	7,211,692.94	7,211,692.94
UWD	264,836.50	472,892.92	737,729.42
COI	501,698.76	569,979.79	1,071,678.55
Total	**74,912,820.11**	**158,254,565.65**	**233,167,385.76**

1: Represents accrued interest and principal on refunded obligations

Water System Cashflow Impacts

Fiscal Year	Tender Refunding (Savings)	New Money Principal	New Money Interest	Combined Change in DS
2024	(707,069.97)	-	4,360,447.78	3,653,377.81
2025	(700,936.26)	-	7,620,200.00	6,919,263.74
2026	537,562.04	1,290,000.00	7,620,200.00	9,447,762.04
2027	(1,642,437.96)	3,530,000.00	7,555,700.00	9,443,262.04
2028	(1,639,242.46)	3,705,000.00	7,379,200.00	9,444,957.54
2029	(1,321,142.46)	3,570,000.00	7,193,950.00	9,442,807.54
2030	165,389.30	2,265,000.00	7,015,450.00	9,445,839.30
2031	(448,794.46)	2,990,000.00	6,902,200.00	9,443,405.54
2032	453,978.04	2,235,000.00	6,752,700.00	9,441,678.04
2033	633,781.80	2,170,000.00	6,640,950.00	9,444,731.80
2034	393,781.80	2,520,000.00	6,532,450.00	9,446,231.80
2035	(1,639,030.20)	4,675,000.00	6,406,450.00	9,442,419.80
2036	(1,995,082.26)	5,265,000.00	6,172,700.00	9,442,617.74
2037	(1,639,616.90)	5,175,000.00	5,909,450.00	9,444,833.10
2038	(1,641,728.56)	5,435,000.00	5,650,700.00	9,443,971.44
2039	-	4,765,000.00	5,378,950.00	10,143,950.00
2040	-	5,005,000.00	5,140,700.00	10,145,700.00
2041	-	5,255,000.00	4,890,450.00	10,145,450.00
2042	-	5,515,000.00	4,627,700.00	10,142,700.00
2043	-	5,790,000.00	4,351,950.00	10,141,950.00
2044	-	6,080,000.00	4,062,450.00	10,142,450.00
2045	-	6,400,000.00	3,743,250.00	10,143,250.00
2046	-	6,735,000.00	3,407,250.00	10,142,250.00
2047	-	7,090,000.00	3,053,662.50	10,143,662.50
2048	-	7,460,000.00	2,681,437.50	10,141,437.50
2049	-	7,855,000.00	2,289,787.50	10,144,787.50
2050	-	8,265,000.00	1,877,400.00	10,142,400.00
2051	-	8,700,000.00	1,443,487.50	10,143,487.50
2052	-	9,155,000.00	986,737.50	10,141,737.50
2053	-	9,640,000.00	506,100.00	10,146,100.00
Totals	**(11,190,588.51)**	**148,535,000.00**	**148,154,060.28**	**285,498,471.77**

Sewer System - Transaction Overview

- GLWA issued $297.1 million in Sewer System Bonds to fund $100 million for capital improvements and to fund the purchase of tendered bonds for savings
- Tender refunding and new money portions were structured together to optimize transaction cashflows
  - Tender refunding was structured to create level savings through the term of the refunded debt, to the extent possible
  - New money was designed as 30-year level debt service, with principal amortization beginning in 2026
  - Individual components were optimized where necessary to generate combined structure best meeting these goals
- Tender refunding generated over $20.8 million in NPV savings (~7.7% of refunded par)

Sewer System Sources and Uses

Sources	Senior Lien Series 2023A Tender Refunding	Second Lien Series 2023B Tender Refunding	Senior Lien Series 2022C New Money	Aggregate Series 2023 Bonds
Par Amount	185,235,000.00	14,965,000.00	96,860,000.00	297,060,000.00
Premium	16,422,898.15	1,636,273.10	6,516,996.75	24,576,168.00
DSRF Release	-	209,161.15	-	209,161.15
GLWA Cash Contributions[1]	4,273,743.94	240,383.95	-	4,514,127.89
Total	**205,931,642.09**	**17,050,818.20**	**103,376,996.75**	**326,359,457.04**

Uses	Senior Lien Series 2023A Tender Refunding	Second Lien Series 2023B Tender Refunding	Senior Lien Series 2022C New Money	Aggregate Series 2023 Bonds
Tender Purchase	204,076,611.58	16,888,420.35	-	220,965,031.93
Construction Fund	-	-	100,000,000.00	100,000,000.00
DSRF Deposit	-	-	2,768,408.99	2,768,408.99
UWD	608,653.88	49,396.10	293,090.36	951,140.34
COI	1,246,376.63	113,001.75	315,497.40	1,674,875.78
Total	**205,931,642.09**	**17,050,818.20**	**103,376,996.75**	**326,359,457.04**

Sewer System Cashflow Impacts

Fiscal Year	Tender Refunding (Savings)	New Money Principal	New Money Interest	Combined Change in DS
2024	(310,434.42)	-	2,843,479.51	2,533,045.09
2025	(1,098,156.16)	-	4,969,187.50	3,871,031.34
2026	(172,499.06)	-	4,969,187.50	4,796,688.44
2027	888,234.30	-	4,969,187.50	5,857,421.80
2028	(1,888,897.30)	980,000.00	4,969,187.50	4,060,290.20
2029	(283,269.56)	5,000.00	4,920,187.50	4,641,917.94
2030	2,546,700.94	5,000.00	4,919,937.50	7,471,638.44
2031	(1,588,299.06)	730,000.00	4,919,687.50	4,061,388.44
2032	(5,112,573.80)	4,290,000.00	4,883,187.50	4,060,613.70
2033	872,379.20	5,000.00	4,668,687.50	5,546,066.70
2034	(5,228,377.06)	4,620,000.00	4,668,437.50	4,060,060.44
2035	(3,375,120.06)	3,000,000.00	4,437,437.50	4,062,317.44
2036	1,007,127.44	5,000.00	4,287,437.50	5,299,564.94
2037	(7,643,255.30)	7,420,000.00	4,287,187.50	4,063,932.20
2038	(6,608,106.10)	6,755,000.00	3,916,187.50	4,063,081.40
2039	(154,152.10)	640,000.00	3,578,437.50	4,064,285.40
2040	(6,609,152.10)	7,125,000.00	3,546,437.50	4,062,285.40
2041	-	3,425,000.00	3,190,187.50	6,615,187.50
2042	-	3,600,000.00	3,018,937.50	6,618,937.50
2043	-	3,780,000.00	2,838,937.50	6,618,937.50
2044	-	3,965,000.00	2,649,937.50	6,614,937.50
2045	-	4,175,000.00	2,441,775.00	6,616,775.00
2046	-	4,395,000.00	2,222,587.50	6,617,587.50
2047	-	4,625,000.00	1,991,850.00	6,616,850.00
2048	-	4,865,000.00	1,749,037.50	6,614,037.50
2049	-	5,125,000.00	1,493,625.00	6,618,625.00
2050	-	5,390,000.00	1,224,562.50	6,614,562.50
2051	-	5,675,000.00	941,587.50	6,616,587.50
2052	-	5,975,000.00	643,650.00	6,618,650.00
2053	-	6,285,000.00	329,962.50	6,614,962.50
Totals	**(34,757,850.20)**	**96,860,000.00**	**100,490,117.01**	**162,592,266.81**

1: Represents accrued interest and principal on refunded obligations

Transaction Participants

Transaction Role	Firm
Issuer	▪ Great Lakes Water Authority
Financial Advisor	▪ PFM Financial Advisors LLC
Bond Counsel	▪ Dickinson Wright, PLLC
Feasibility Consultant	▪ The Foster Group
Trustee	▪ U.S. Bank, N.A.
Senior Bookrunning Manager	▪ Siebert Williams Shank & Co., LLC
Co-Senior Manager	▪ Goldman Sachs & Co. LLC
Co-Managing Underwriters	▪ Citigroup Global Markets Inc. ▪ JP Morgan Securities LLC ▪ Loop Capital Markets LLC ▪ Morgan Stanley & Co. LLC ▪ Ramirez & Co., Inc. ▪ Wells Fargo Securities
Dealer Managers for Tender	▪ Goldman Sachs & Co. and Siebert Williams Shank & Co.
Underwriter's Counsel	▪ Kutak Rock, LLP
Auditor	▪ Baker Tilly Virchow Krause, LLP

FitchRatings

Public Finance
Water & Sewer
United States

Great Lakes Water Authority (Water System), Michigan

Assessment

Standalone Credit Profile (SCP)	a

Outlook

Stable

New Issue

$60,000,000 Water Supply System Revenue Refunding Senior Lien Bonds, Series 2023	A+
$150,000,000 Water Supply System Revenue Senior Lien Bonds, Series 2023B	A+

Sale Date

The bonds are expected to sell via negotiation the week of November 13, 2023.

Outstanding Debt

Great Lakes Water Authority (MI) Water Supply System Revenue Senior Lien Bonds	A+
Great Lakes Water Authority (MI) Water Supply System Revenue 2nd Lien Bonds	A

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (April 2023)

U.S. Water and Sewer Rating Criteria (March 2023)

Related Research

Fitch Rates Great Lakes Water Auth's Series 2023 Water System Rev Bonds 'A+'; Outlook Stable

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The 'A+'/'A' bond ratings on the Great Lakes Water Authority's (GLWA, or the authority) senior and subordinate bonds, respectively, and the 'a' SCP consider the system's strong financial profile within the context of very strong revenue defensibility and operating risk profiles, both assessed at 'aa'. Leverage, measured by Fitch Ratings as net adjusted debt to adjusted funds available for debt service (FADS), was approximately 10.2x in fiscal 2022, a modest increase from 10.0x in fiscal 2021. Moving forward, projected increases in capital spending and associated debt issuances are anticipated to move leverage incrementally higher, but overall it should remain in line with the current rating.

The revenue defensibility assessment considers the authority's ability to reallocate any shortfalls from a non-performing customer to its performing customers via a rate increase and the overall strength of such customers. While the credit quality of city's water system is considered midrange by Fitch, other significant customers have stronger credit profiles, resulting in strong overall purchaser credit quality (PCQ). The operating risk profile considers the authority's very low operating cost burden, coupled with its low, but recently rising life cycle ratio.

The system's leverage is anticipated to rise through fiscal 2027 as it implements a robust capital improvement plan (CIP). Revenue requirements to fund the CIP are likely to be higher than historical but are expected to remain manageable overall. Leverage may reach 12.2x by fiscal 2027 but remains below 12.0x in most years of the five-year horizon ending fiscal 2027.

The notching distinction between the senior- and the second-lien bonds reflects the meaningful protection afforded to senior debt given the sizable balance of subordinated obligations, the latter of which include the second-lien bonds, state revolving fund loans, and the long-term leases payable under the lease agreement between the Detroit Water and Sewerage Department (DWSD) and the authority, as well as the absence of an automatic cross-default or acceleration between the liens. Senior-lien debt comprises just over 50% of GLWA's total obligations.

Security

Senior-lien bonds are secured by a first lien on net revenues of the system. Second-lien bonds are secured by net revenues after payment of the senior-lien bonds.

Key Rating Drivers

Revenue Defensibility - 'aa'

Strong Purchaser Credit Quality, Very Strong Revenue Source Characteristics

The authority has contract provisions that allow for full cost recovery and the unlimited reallocation of costs across users. Under the water and sewer services agreements (WSSA) in place with the wholesale customers, the authority has the exclusive right to establish rates for the water service it provides. The authority has delegated to the city its right to establish rates with respect to services provided to city of Detroit customers.

Revenue defensibility is supported by purchasers that exhibit strong credit quality. The city of Detroit accounts for approximately 29% of projected fiscal 2023 operating revenues (inclusive of the city's water system operating revenues). Key wholesale customers include Southwest Oakland County Water Authority, Shelby Township, Livonia and Sterling Heights. Although the city's system exhibits midrange credit quality, the strong PCQ incorporates credit quality of suburban members.

Operating Risk - 'aa'

Very Low Operating Cost Burden, Moderate Investment Needs

In fiscal 2022, the system's operating cost burden was considered very low at $2,341 per million gallons (mg), consistent with the operating risk assessment. The life cycle ratio was very low at 32% in fiscal 2022. Capex to depreciation has been weak, despite improving to a five-year average of 60% in fiscal 2022. Planned capital spending for the next five years should generally outpace historical depreciation, supporting a continued very low life cycle ratio.

GLWA's revenues fund the DWSD CIP through the lease payments and debt issued by GLWA for local DWSD projects. Estimated actual spending in fiscal 2023 and planned CIP spending for 2024-2027 for the consolidated GLWA and DWSD system approximate $1.5 billion. Estimated 2023 spending for the system is in excess of $195 million, continuing a trend of increasing capital investment. The CIP is anticipated to be primarily funded with debt, including state revolving fund proceeds.

Financial Profile - 'a'

Leverage to Increase Modestly; Neutral Liquidity

The system had moderate leverage of 10.2x as of fiscal 2022, which is in line with historical performance of between 9.7x and 10.5x since fiscal 2018. The liquidity profile is neutral to the overall assessment, with a liquidity cushion of 515 days and coverage of full obligations (COFO) of 1.8x. Fitch-calculated total debt service coverage was also 1.8x in fiscal 2022.

The Fitch Analytical Stress Test (FAST) considers the potential trend of key ratios in a base case and stress case over a five-year period. The stress case is designed to impose capital costs 10% above expected base case levels and evaluate potential variability in projected key ratios. The FAST reflects Fitch's view of a reasonable scenario, which is generally informed by publicly available and/or management provided information with respect to capital expenditures, user charges and rate of revenue and expenditure growth.

In the base case scenario, the leverage ratio is projected to increase to 11.7x in fiscal 2025 and then decrease to 11.6x through fiscal 2027. In the stress case, the leverage ratio is expected to increase to 12.2x over the next five years. Liquidity is expected to remain neutral to the assessment over the five-year horizon.

Sensitivities

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- Sustained leverage approaching 13.0x through the forward period, assuming stability in the revenue defensibility and operating risk assessments.
- Downward revisions to the system's overall PCQ.
- Material declines in liquidity that expose bondholders to the timing risk of the true-up.
- The senior-lien rating could converge at the SCP assessment if there is a significant erosion of the financial cushion afforded to senior bondholders that results in a lack of meaningful difference in the probability of payment default between the liens.

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- Sustained improvements in leverage to less than 11.0x, assuming stability in the current revenue defensibility and operating risk assessments.

Profile

GLWA provides wholesale water services to a population of approximately 3.8 million, or 38% of the state's population. In January 2016, the authority assumed operational control of Detroit's system assets (excluding its local distribution infrastructure) via a 40-year lease agreement and authorized GLWA the right to set and collect rates from the customers historically served by the city.

Separately, a security interest in the city's system-related revenues was granted under the Master Bond Ordinance (MBO), while the WSSA assigned the city the right to set and collect rates from its retail customers. The agreement required GLWA to assume all liabilities of the regional water and sewer systems, including outstanding indebtedness related to the respective systems.

System assets include five water treatment plants that collectively can treat around 1.7 billion gallons per day, an extensive conveyance system and many water-storage reservoirs. Water is supplied to the treatment plants via the Detroit River, Lake Huron and Lake St. Clair. Supply and capacity are robust and more than sufficient for the long-term anticipated needs of the service area.

Revenue Defensibility

Revenue Source Characteristics

Revenue source characteristics reflect the strength of legal agreements between the city and the authority's regional municipal customers and the ability to reallocate costs should the need arise. Any bad-debt expense from a wholesale customer may be charged to other customers via a true-up. Payments are an operating expense of each respective system, senior to any debt service. Most contracts last 30 years with an automatic 10-year renewal and a five-year notice requirement for termination. There is no meaningful, feasible alternate supply in the region to which the purchasers could look to replace the authority’s supply.

Rate Flexibility

GLWA has very strong rate flexibility; no external approval is required to adjust rates. The wholesale agreements for the majority of the authority's regional water municipal customers are based on a 60% fixed-service charge component and a 40% commodity charge, which is reviewed and adjusted annually. Rates for customers within the city of Detroit are currently established by the city, and there is no external approval required to establish these rates. Further, should the city fail to perform its duties or meet its obligations under the WSSA, the authority may terminate the agency relationship.

Purchaser Credit Quality

Detroit is projected to comprise about 29% of operating revenues in fiscal 2023. Other large municipal customers include the Southeast Oakland County Water Authority (6%), North Oakland County Water Authority (5%), and Sterling Heights (4%).

The PCQ reflects a Purchaser Credit Index (PCI) score of 2.1, including a midrange assessment for the city of Detroit system. The PCI also includes the city of Livonia, Southeast Oakland County Water Authority, Sterling Heights and Shelby Township. Fitch made an additional assumption that 5% of revenues from other suburban wholesale customers are assessed as very strong.

Asymmetric Factor Considerations

No asymmetric factor considerations affected the revenue defensibility assessment.

Operating Risk

Operating Cost Burden

The system's operating cost burden is very low, approximating $2,340 per mg in fiscal 2022, which is up just modestly from fiscal 2018 when it measured about $2,080 per mg. System operating costs are anticipated to rise over time, reflecting in part recent inflationary pressures with respect to chemicals and power. However, given the economies of scale, Fitch expects the operating cost burden to remain very low over the near to intermediate term, supporting the overall operating risk assessment.

The system's pension obligations and associated expenses should continue to trend downward. Detroit's General Retirement System Plan was frozen in 2014. Under an agreement between GLWA and DWSD, payments to fund the pension liability were made over the nine years ended June 30, 2023. Remaining payments will reflect updated actuarial valuations, which will be made over a time frame as yet to be finalized.

Capital Planning and Management

The system's operating risk assessment is supported by a very low life cycle ratio. In fiscal 2022, the life cycle ratio was 32%, increasing from 14% in 2018. The current life cycle ratio, while still low, reflects capital investment that has lagged reported depreciation over the past several years. Capex-to-depreciation has averaged 62% over the past five fiscal years.

More recently, capital investment has increased, with fiscal 2022 capex of almost $160 million, or 109% of depreciation; estimated fiscal 2023 capex was $195 million. The system's capital plan for the near to intermediate term is robust and is anticipated to support a continued low life cycle ratio.

Asymmetric Factor Considerations

No asymmetric factor considerations affected the operating risk assessment.

Financial Profile and FAST Analysis

The system's overall financial profile is strong and is assessed at 'a'. The system's leverage ratio finished 2022 at about 10.2x, generally in line with results since 2018. Senior and all-in debt service coverage finished at 2.0x and 1.8x, respectively, in fiscal 2022. Liquidity has remained very robust, with a liquidity cushion averaging 737 days over the past five years. COFO has been above 1.5x since 2018.

FAST

The FAST base-case assumptions used by Fitch include the authority's latest forecasts and projected capex. Revenues and operating expenses are projected to average 4% to 5% annually through 2027. together leading to FADS improvement through the five-year horizon. However, the increasing capital plan and higher capital execution rate result in increasing leverage in the FAST, with the base case peaking in fiscal 2027 at 11.6x and the stress case peaking at 12.2x in the same year. This leverage remains consistent with the financial profile and current ratings. The liquidity profile is expected to remain neutral to the assessment with COFO of at least 1.2x and sound days cash annually.

Asymmetric Additive Risk Considerations

No asymmetric additive considerations affected this rating determination.

ESG Considerations

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/topics/esg/products#esg-relevance-scores.

Financial Summary

($000, Audited Fiscal Years Ended June 30)	2018	2019	2020	2021	2022
Operating Risk					
Operating Cost Burden					
Operating Cost Burden ($/mg)	2,077	2,207	2,371	2,327	2,341
Capital Planning and Management					
Life Cycle Ratio (%)	14	20	25	28	32
Annual CapEx/Depreciation (%)	24	40	51	88	109
5-Year Average Capex/Depreciation (%)	36	35	32	46	62
Financial Profile					
Current Unrestricted Cash/Investments	384,417	419,944	463,296	415,754	294,240
Current Restricted Cash/Invest (Available Liquidity)	15,652	16,474	17,264	6,612	7,187
Current Cash Available	400,069	436,418	480,560	422,366	301,426
Available Cash	400,069	436,418	480,560	422,366	301,426
Current Restricted Cash/Invest (Debt Service or Debt Service Reserve)	36,681	53,559	39,621	50,347	61,146
Noncurrent Restricted Cash/Invest (Debt Service or Debt Service Reserve)	26,067	16,898	11,100	11,171	5,094
Funds Restricted for Debt Service	62,747	70,457	50,721	61,518	66,240
Total Debt	3,115,909	3,038,250	3,026,901	2,965,961	2,917,015
Adjusted Net Pension Liability	81,597	67,090	64,601	63,388	26,501
Available Cash	400,069	436,418	480,560	422,366	301,426
Funds Restricted for Debt Service	62,747	70,457	50,721	61,518	66,240
Net Adjusted Debt	2,734,689	2,598,465	2,560,221	2,545,465	2,575,849
Total Operating Revs	453,332	433,125	449,087	456,421	462,181
Other Operating Expenses	199,004	185,003	206,337	213,307	213,715
EBITDA	254,328	248,122	242,750	243,114	248,466
Investment Income/(Loss)	6,130	14,754	10,485	4,215	-2,361
Other Cash Revenues/(Expenses)	-545	114	2,186	-177	389
Capital Contributions	—	—	—	—	—
Funds Available for Debt Service	259,913	262,991	255,422	247,152	246,493
Net Transfers In/(Out)	—	—	—	—	—
Pension Expense	—	6,014	7,221	8,075	4,988
Adjusted Funds Available for Debt Service	259,913	269,005	262,642	255,228	251,482
Net Adjusted Debt/Adjusted Funds Available for Debt Service (x)	10.5	9.7	9.8	10.0	10.2
Funds Available for Debt Service	259,913	262,991	255,422	247,152	246,493
Net Transfers In/(Out)	—	—	—	—	—
Adjusted FADS for Coverage of Full Obligations	259,913	262,991	255,422	247,152	246,493
Total Annual Debt Service	164,296	136,695	145,633	134,265	135,962
Adjusted Debt Service (Includes Fixed Services Expense)	164,296	136,695	145,633	134,265	135,962
Coverage of Full Obligations (x)	1.58	1.92	1.75	1.84	1.81
Coverage of Full Obligations Excluding Connection Fees (x)	1.58	1.92	1.75	1.84	1.81
Current Days Cash on Hand	734	861	850	723	515
Liquidity Cushion Ratio (Days)	734	861	850	723	515
All—In Debt Service Coverage (x)	1.58	1.92	1.75	1.84	1.81

Note: Fitch may have reclassified certain financial statement items for analytical purposes. N.A. – Not available.
Source: Fitch Ratings, Fitch Solutions, Great Lakes Water Authority (MI)

SOLICITATION & PARTICIPATION STATUS

For information on the solicitation status of the ratings included within this report, please refer to the solicitation status shown in the relevant entity's summary page of the Fitch Ratings website.

For information on the participation status in the rating process of an issuer listed in this report, please refer to the most recent rating action commentary for the relevant issuer, available on the Fitch Ratings website.

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FitchRatings

Public Finance
Water & Sewer
United States

Great Lakes Water Authority Sewage Disposal System, Michigan

The upgrades to 'AA-' and 'A+' on the Great Lakes Water Authority's (GLWA, or the authority) senior and subordinate bond ratings, respectively, are based on sustained improvements in leverage, measured as net adjusted debt to adjusted funds available for debt service, over the past several years due to amortization of existing debt and savings from bond refinancings. The maintenance of the Positive Rating Outlook is based on the leverage trend, which Fitch Ratings expects will stabilize near current levels of about 8.5x to 9.5x. Yet, Fitch would like greater clarity on upcoming capital spending, as the system's capital improvement plan (CIP) has increased more than 20% yoy, due largely to inflation.

The 'a+' SCP considers the sewer system's financial profile assessment within the context of very strong revenue defensibility and operating risk profiles, both assessed at 'aa'. Leverage was approximately 8.3x at fiscal year-end 2022, down from 9.5x the prior year. The revenue defensibility assessment considers the authority's ability to reallocate any shortfalls from a non-performing customer to its performing customers via a rate increase, and the overall strength of such customers. While the credit quality of Detroit Water and Sewerage Department (DWSD) is considered midrange, the authority's other large wholesale customers have stronger credit profiles, resulting in a strong aggregate purchaser credit quality (PCQ). The operating risk profile considers the authority's very low operating cost burden, coupled with its very favorable life cycle ratio.

The notching distinction between the senior and the second lien bonds reflects the meaningful protection afforded to senior debt, given the sizable balance of subordinated obligations, which include the second lien bonds, state revolving fund loans, and long-term leases payable under the lease agreement between GLWA and DWSD, as well as the absence of an automatic cross-default or acceleration between the liens. Senior lien debt comprises about 50% of GLWA's total obligations.

Security

Senior-lien bonds are secured by a first lien on net revenues of the system. Second lien bonds are secured by net revenues after payment of the senior lien bonds.

Rating

Standalone Credit Profile (SCP)	a+

Outlook

Positive

New Issue

$90,000,000 Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2023A	AA–
$12,000,000 Sewage Disposal System Revenue Refunding Second Lien Bonds, Series 2023B	A+
$100,000,000 Sewage Disposal System Revenue Senior Lien Bonds, Series 2023C	AA–

Sale Date

The bonds are expected to sell via negotiation the week of Nov. 13, 2023.

Outstanding Debt

Sewage Disposal System Revenue Senior Lien Bonds	AA–
Sewage Disposal System Revenue Second Lien Bonds	A+

Applicable Criteria

Public Sector, Revenue-Supported Entities Rating Criteria (April 2023)

U.S. Water and Sewer Rating Criteria (March 2023)

Related Research

Fitch Rates Great Lakes Water Auth's Ser. 2023 Sewage Revs 'AA-'/'A+'; Outlook Positive (October 2023)

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Key Rating Drivers

Revenue Defensibility - 'aa'

Strong Purchaser Credit Quality, Very Strong Revenue Source Characteristics

The authority has contract provisions that allow for full cost recovery and the unlimited reallocation of costs across users. Under the water and sewer services agreements (WSSAs) in place with the wholesale customers, the authority has the exclusive right to establish rates for the water and sewer services it provides. The authority has delegated to the city of Detroit its right to establish rates with respect to services provided to city customers.

After the city of Detroit, which accounted for about 52% of the system's operating revenues (inclusive of the local system operating revenues) in fiscal 2022, the largest customers include the Oakland-Macomb Interceptor Drainage District (13%), Wayne County's Rouge Valley (10%) and Oakland County's George Kuhn Drainage District (8%). Although the city exhibits just midrange PCQ alone, the authority's large suburban members contribute to a strong overall PCQ.

Operating Risk - 'aa'

Very Low Operating Cost Burden, Moderate Investment Needs

In fiscal 2022, the system had a very low operating cost burden of $2,804 per million gallons (mg), consistent with the operating risk assessment. The life cycle ratio was also very low at 26% in fiscal 2022. Capital investment has lagged annual depreciation the past few years but is expected to increase, in accordance with the authority's latest CIP.

GLWA's revenues fund the DWSD's CIP through the lease payments and debt issued by GLWA for local DWSD projects. Estimated actual spending in fiscal 2023 and planned CIP spending for 2024-2027 for the consolidated GLWA and DWSD systems total approximately $1.2 billion. The CIP focuses on implementation of the authority's sewer master plan; projects include those tied to general repair and maintenance, with a focus on resiliency.

Given inflationary pressure, expected spending has increased over prior years, but costs associated with the CIP appear manageable overall. Funding for the CIP is expected to be provided by approximately 70% new debt proceeds and 30% existing funds on hand.

Financial Profile - 'aa'

Leverage to Stabilize

The authority had very low leverage of 8.3x as of fiscal 2022; this measure has been on a generally downward trend since fiscal 2018, when it measured 10.3x. The liquidity profile is neutral to the overall assessment with a Fitch-calculated liquidity ratio of 282 days and coverage of full obligations (COFO) of 1.7x in fiscal 2022. Fitch-calculated total debt service coverage for fiscal 2022 was also about 1.7x.

The FAST considers the potential trend of key ratios in a base case and stress case over a five-year period. The stress case is designed to impose capital costs 10% above expected base case levels and evaluate potential variability in projected key ratios. The FAST reflects Fitch's view of a reasonable scenario, which is generally informed by publicly available and/or management-provided information with respect to capital expenditures, user charges, and rate of revenue and expenditure growth.

In the base case scenario, the leverage ratio is expected to remain within a range of 8.5x and 9.4x over the five-year horizon. In the stress case, the leverage ratio is projected to range incrementally higher, or from 8.8x to 9.5x. These levels support the current ratings and, potentially, additional improvement, depending on the system's future operational performance and capex. Liquidity is expected to remain neutral to the assessment over the five-year horizon.

Sensitivities

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- Leverage exceeding 10.0x would likely stabilize the outlook.
- Sustained weakening in the leverage ratio such that it approaches 12.0x would pressure the ratings.
- Downward revisions to the system's overall PCQ and/or revenue defensibility assessment.
- Material declines in liquidity that expose bondholders to timing risk of the true-up.

- The senior lien rating could converge at the SCP assessment if there is a significant erosion of the financial cushion afforded to senior bondholders that results in a lack of meaningful difference in the probability of payment default between the liens.

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- Greater certainty that upcoming planned capital spending has fully accounted for inflationary pressures and keeps leverage within current expectations.
- Sustained leverage below 10.0x, assuming stability in the current revenue defensibility and operating risk assessments.

Profile

GLWA provides wholesale sewer services to a population of approximately 2.8 million, or 28% of the state population. In January 2016, the authority assumed operational control of Detroit's system assets (excluding its local distribution infrastructure) via a 40-year lease agreement, and authorized GLWA the right to set and collect rates from the customers historically served by the city.

Separately, security interest in the city's system-related revenues was granted under the master bond ordinance (MBO), while the WSSA assigned the city the right to set and collect rates from its retail customers. The agreement required GLWA to assume all liabilities of the DWSD's regional water and sewer systems, including outstanding indebtedness related to the respective systems.

System assets include a wastewater treatment plant (the water resource recovery facility, or WRRF), which is one of the largest single-site facilities in the U.S., with capacity of 1,700 mg per day. The treatment plant can accommodate dry-weather flows without further mediation, but also operates eight combined sewer overflow retention treatment basins to accommodate wet-weather flows. Wholesale customers retain ownership in collection system infrastructure, which conveys flows and ultimately discharges such flows into GLWA's interceptors.

Revenue Defensibility

Revenue Source Characteristics

The revenue derived from GLWA's three largest wholesale customers, in addition to Detroit's sewer-system revenue, accounts for about 80% of total revenue. There is no meaningful alternate supply in the region to which the purchasers could look to replace the authority's services.

The wholesale agreements for the majority of the authority's regional sewer customers are based on a 100% fixed-service charge component, which is reviewed and adjusted annually. Any bad-debt expense from a wholesale customer is charged to other wholesale customers via a true-up. Payments from customers are an operating expense of each respective system, senior to any debt service. Most contracts last 30 years with an automatic 10-year renewal and a five-year notice requirement for termination.

Rate Flexibility

Rates are set by the authority's board and are not subject to external approval. Customer rate increases have averaged below 1% over the past five years. A recent cost of service study completed in fiscal 2023 shows rate increases in the 3%-4% range over the next five years, all within the authority's targeted limit of 4%. Affordability metrics of the underlying customers generally vary based on local income statistics, resulting in some affordability pressure for Detroit, but the other wholesale customers exhibit more rate flexibility, given their much higher income levels.

Purchaser Credit Quality

The purchaser credit index (PCI) score is 2.3, and is based on the authority's largest four customers; it is heavily weighted to the city of Detroit. In the recent past, the city's population experienced annual declines for many years. However, recent estimates indicate that the population has stabilized. Income levels in the city are low (about 54% of the U.S. median), while poverty and unemployment rates are elevated, yet have recently improved. Economic measures for the other regional members are generally in line with or better than state and national levels.

Asymmetric Factor Considerations

No asymmetric risk considerations affected the revenue defensibility assessment.

Operating Risk

Operating Cost Burden

The operating cost burden was just $2,804 per mg in fiscal 2022, which Fitch considers to be very low. The cost burden has operated within a fairly stable range of $2,478 per mg and $3,636 per mg over the past five years, which comfortably supports the operating risk assessment.

Capital Planning and Management

Given the recent conveyance of the system assets from the city to GLWA, at which time the authority began depreciating infrastructure, the authority's life cycle ratio is very favorable at 26%. Capex to depreciation has averaged just 46% over the past five years, but in accordance with the authority's latest CIP, capex is expected to be robust over at least the next five years, which should sustain the very favorable life cycle ratio.

The authority is responsible for its own capital funding as well as the city's via the lease payment and by borrowing on behalf of the city. Debt funding of $1.2 billion in capex is provided both by future revenue bonds and expected state revolving fund loans. Only a small portion of the plan is driven by mandated regulatory requirements, which means that it is largely discretionary.

The authority's water system CIP is said to be moving from a planning to construction phase, while the sewer system projects focus on resiliency. Essentially, this means that water-system spending is expected to accelerate and sewer-system spending, although also accelerating, will generally stabilize first. This fact is recognized somewhat in the lower leverage numbers exhibited by the sewer system vis-à-vis the water system.

Spending outlined in the authority's plan is allocated to the maintenance of the WRRF (41%), collection system upgrades (47%) and combined system overflow mitigation (10%). Much of DWSD's CIP will be funded by existing funds on hand, the lease payment from the authority, and future federal loans and grants to the extent they become available.

Asymmetric Factor Considerations

No asymmetric risk considerations affected the operating risk assessment.

Financial Profile and FAST Analysis

The system's overall financial profile is very strong, and is assessed at 'aa'. As noted, leverage has been on a generally downward trend for the last several years and measured a low of 8.3x in fiscal 2022. Senior and all-in debt service coverage finished at 2.6x and 1.7x, respectively, in fiscal 2022. Liquidity has remained sound over the past five years; the liquidity cushion most recently finished at 282 days. The system's sound COFO of around 1.7x and cash balances result in a liquidity profile that is considered neutral to the overall financial profile assessment.

Fitch Analytical Stress Test (FAST)

The FAST base case assumptions used by Fitch were informed by the authority's latest forecasts and projected capex. Revenues and expenses are projected at about 3%-4% annually beginning in 2023. The expansion of the capital plan plus the authority's higher-planned execution rate, which increased to 100% from 75% at Fitch's review of the system in 2022, are expected to be supported by higher revenues. Thus, leverage over the next five years is expected to remain between a stable bandwidth of 8.5x and 9.4x in Fitch's base case, and from 8.8x to 9.5x in the stress case. Longer-term projections provided in the authority's CIP show spending peaking around 2027, before lowering to a still-robust level in years six through 10, further supporting the trend of lower leverage and the maintenance of the Positive Rating Outlook. The liquidity profile is expected to remain neutral to the assessment with COFO of at least 1.2x and sound days cash annually.

Asymmetric Additive Risk Considerations

No asymmetric additive considerations affected this rating determination.

ESG Considerations

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.

Financial Summary

($000, audited fiscal years ended June 30)	2018	2019	2020	2021	2022
Operating risk					
Operating cost burden					
Operating cost burden ($/mg)	2,742	2,478	2,966	3,636	2,804
Capital planning and management					
Life cycle ratio (%)	13	17	24	27	26
Annual capex/depreciation (%)	34	49	50	54	44
5-year average capex/depreciation (%)	59	48	35	43	46
Financial profile					
Current unrestricted cash/investments	288,313	294,805	330,873	358,755	348,601
Current restricted cash/invest (available liquidity)	16,837	21,227	21,078	25,397	21,749
Current cash available	305,150	316,032	351,950	384,152	370,349
Available cash	305,150	316,032	351,950	384,152	370,349
Current restricted cash/invest (debt service or debt service reserve)	69,786	108,089	92,049	91,791	98,966
Noncurrent restricted cash/invest (debt service or debt service reserve)	73,609	53,902	21,813	12,444	17,673
Funds restricted for debt service	143,394	161,992	113,863	104,235	116,640
Total debt	3,789,625	3,805,363	3,651,203	3,544,442	3,411,201
Adjusted net pension liability	144,258	120,070	115,616	113,444	47,428
Available cash	305,150	316,032	351,950	384,152	370,349
Funds restricted for debt service	143,394	161,992	113,863	104,235	116,640
Net adjusted debt	**3,485,339**	**3,447,409**	**3,301,005**	**3,169,499**	**2,971,639**
Total operating revs	764,713	767,824	798,331	807,544	833,832
Other operating expenses	445,349	437,829	469,162	491,238	479,394
EBITDA	319,365	329,996	329,169	316,306	354,438
Investment income/(loss)	5,266	11,763	8,960	2,825	-3,023
Other cash revenues/(expenses)	-710	-6,221	366	-299	-235
Capital contributions	—	—	11,920	—	—
Funds available for debt service	323,921	335,538	350,415	318,832	351,180
Net transfers in/(out)	—	—	—	—	—
Pension expense	15,988	10,764	12,923	14,453	8,927
Adjusted funds available for debt service	**339,910**	**346,302**	**363,337**	**333,285**	**360,107**
Net adjusted debt/adjusted funds available for debt service (x)	**10.3**	**10.0**	**9.1**	**9.5**	**8.3**
Funds available for debt service	323,921	335,538	350,415	318,832	351,180
Net transfers in/(out)	—	—	—	—	—
Adjusted FADS for coverage of full obligations	323,921	335,538	350,415	318,832	351,180
Total annual debt service	230,235	208,340	229,535	203,294	207,113
Adjusted debt service (includes fixed services expense)	230,235	208,340	229,535	203,294	207,113
Coverage of full obligations (x)	**1.41**	**1.61**	**1.53**	**1.57**	**1.70**
Coverage of full obligations excluding connection fees (x)	1.41	1.61	1.47	1.57	1.70
Current days cash on hand	250	263	274	285	282
Liquidity cushion ratio (days)	**250**	**263**	**274**	**285**	**282**
All-in debt service coverage (x)	1.41	1.61	1.53	1.57	1.70

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
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MOODY'S INVESTORS SERVICE

CREDIT OPINION
26 October 2023

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Great Lakes Wtr Auth, MI

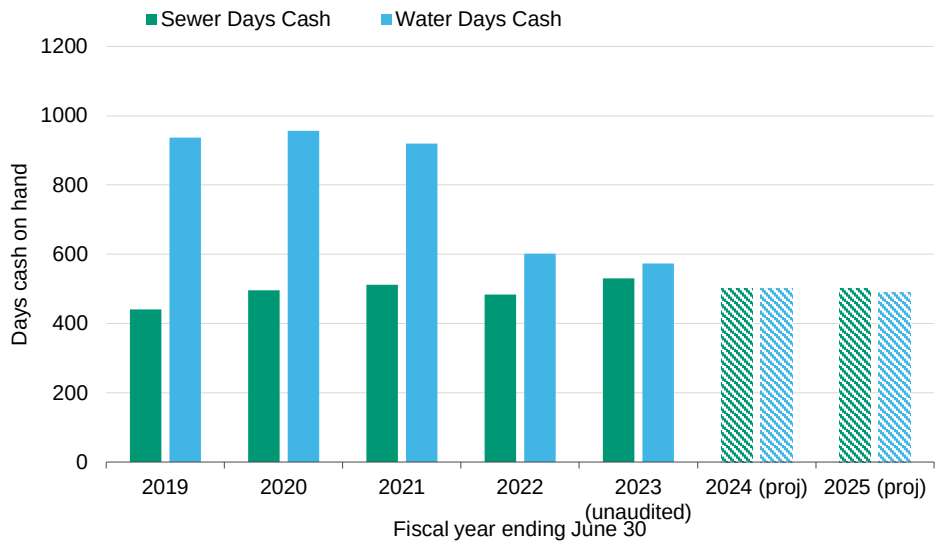
Update to credit analysis

Summary

The Great Lakes Water Authority's (GLWA) water and sewer enterprises (both senior liens rated Aa3 stable; both subordinate liens rated A1 stable) have solid credit profiles, bolstered by very large service areas that continue to improve and a sizable scale of operations. GLWA has effectively balanced its hefty capital needs with an affordable rate structure, stable operating performance, consistent debt service coverage (see exhibit 1) and good liquidity for both systems since its inception in 2016. The systems have above-average leverage, however, and the City of Detroit (Ba1 positive) makes up a significant portion of their service area. Building greater resilience to extreme wet-weather events will likely be an ongoing challenge.

On Oct. 24, we upgraded the authority's senior lien ratings to Aa3 from A1 and subordinate liens to A1 from A2. The outlook was revised to stable.

Exhibit 1
Liquidity will remain strong for both systems, even as cash is spent for water projects
Days cash on hand through audited fiscal 2022, unaudited 2023 and projected 2024 and 2025



Figures shown on a GAAP-basis
Source: Moody's Investors Service

Credit strengths

» Very large utility systems, providing essential water and wastewater services to a substantial portion of the state's population

» Commitment to annual revenue enhancements to support sound debt service coverage and healthy liquidity

» Track record of strong budget management and good transparency

Credit challenges

» Debt service coverage trails higher-rated large utilities

» High leverage will persist given outstanding capital needs and plans to issue additional debt

» Increasing occurrence of extreme wet weather events placing strain on stormwater and sewer treatment capacity in certain segments of the system

Rating outlook

The outlook is stable because the authority will maintain solid coverage and liquidity metrics given its strong management, stable operations and improving service area.

Factors that could lead to an upgrade

» Sustained expansion and diversification of the service area's economic base

» Growth in revenue that continues to outpace borrowing so as to moderate leverage of pledged resources

Factors that could lead to a downgrade

» Renewed economic stress that pressures consumption and revenue trends

» Material reduction to the water or sewer system's liquidity or debt service coverage ratios

» Growth in leverage of the water or sewer system's net revenue

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Exhibit 2

Great Lakes Water Authority, MI Sewer Enterprise						
System Characteristics						
Asset Condition (Net Fixed Assets / Annual Depreciation)	18 years					
System Size - O&M (in $000s)	$262,941					
Service Area Wealth: MFI % of US median	96%					
Legal Provisions						
Rate Covenant (x)	1.20					
Debt Service Reserve Requirement	DSRF funded at less than 3-prong test OR springing DSRF (A)					
Management						
Rate Management	Aa					
Regulatory Compliance and Capital Planning	Aa					
Financial Strength						
	2017	2018	2019	2020	2021	2022
Operating Revenue ($000)	$557,396	$561,784	$550,959	$562,231	$559,812	$607,690
System Size - O&M ($000)	$206,540	$250,551	$244,468	$243,438	$255,908	$262,941
Net Revenues ($000)	$350,856	$311,233	$306,491	$318,793	$303,904	$344,749
Net Funded Debt ($000)	$3,144,592	$3,076,993	$3,093,347	$3,039,222	$2,907,522	$2,788,196
Annual Debt Service ($000)	$234,555	$232,281	$239,172	$245,783	$230,163	$235,848
Annual Debt Service Coverage (x)	1.5x	1.3x	1.3x	1.3x	1.3x	1.5x
Cash on Hand	455 days	460 days	440 days	496 days	512 days	484 days
Debt to Operating Revenues (x)	5.6x	5.5x	5.6x	5.4x	5.2x	4.6x

Figures shown on a GAAP-basis. Revenue and O&M include GLWA wholesale operations and DWSD local retail operations.
Source: Moody's Investors Service

Exhibit 3

Great Lakes Water Authority, MI Water Ent.						
System Characteristics						
Asset Condition (Net Fixed Assets / Annual Depreciation)	18 years					
System Size - O&M (in $000s)	$178,539					
Service Area Wealth: MFI % of US median	96%					
Legal Provisions						
Rate Covenant (x)	1.20					
Debt Service Reserve Requirement	DSRF funded at less than 3-prong test OR springing DSRF (A)					
Management						
Rate Management	Aa					
Regulatory Compliance and Capital Planning	Aa					
Financial Strength						
	2017	2018	2019	2020	2021	2022
Operating Revenue ($000)	$428,044	$425,245	$407,231	$419,479	$411,583	$426,889
System Size - O&M ($000)	$145,499	$153,930	$163,519	$176,822	$164,995	$178,539
Net Revenues ($000)	$282,545	$271,315	$243,712	$242,657	$246,588	$248,351
Outstanding Revenue Debt ($000)	$2,358,137	$2,310,261	$2,250,181	$2,301,253	$2,361,338	$2,325,475
Annual Debt Service ($000)	$175,010	$172,550	$167,966	$172,869	$179,214	$176,589
Annual Debt Service Coverage (x)	1.6x	1.6x	1.5x	1.4x	1.4x	1.4x
Cash on Hand	676 days	912 days	937 days	956 days	920 days	602 days
Debt to Operating Revenues (x)	5.5x	5.4x	5.5x	5.5x	5.7x	5.4x

Figures shown on a GAAP-basis. Revenue and O&M include GLWA wholesale operations and DWSD local retail operations.
Source: Moody's Investors Service

Profile

The Great Lakes Water Authority (GLWA) is the regional wholesale provider of water and sewer services to southeast Michigan (Aa1 stable). The water enterprise treats water from Lake Huron, Lake St. Clair and the Detroit River and distributes treated water to a service area population of about 3.8 million. The sewer enterprise collects, treats and disposes of wastewater produced by a service area population of about 2.8 million. GLWA is an incorporated municipal authority, established in 2016, operating under the guidance of a six-member board, consisting of one appointee each of the counties of Macomb, Oakland and Wayne, two appointees of the Mayor of Detroit and one of the Governor of Michigan.

Detailed credit considerations

Service area and system characteristics: very large service area in southeast Michigan

The systems will continue to benefit from large service areas with broad and diverse customer bases. The regional water supply system covers roughly 1,700 square miles in southeast Michigan, providing treated water to 112 communities and roughly 40% of the state's population. The sewer system is a little smaller; covering 944 square miles and providing wastewater services to about a third of the state's population across 79 communities.

The bulk of water and sewer revenue comes from wholesale contracts with suburban communities. Wholesale contracts generate roughly three quarters of water revenue and a little over half of sewer revenue. Detroit residents and businesses are retail customers of the Detroit Water and Sewerage Department (DWSD), which manages the system assets within the city as an agent of GLWA. The revenue generated within the City of Detroit is assigned to GLWA and is deposited directly with the bond trustee.

GLWA's water usage rates, like many systems, have fallen somewhat over the past several years because of conservation efforts and the region's stagnant population. While that trend will likely stabilize, it is unlikely to materially reverse without an expansion of the system.

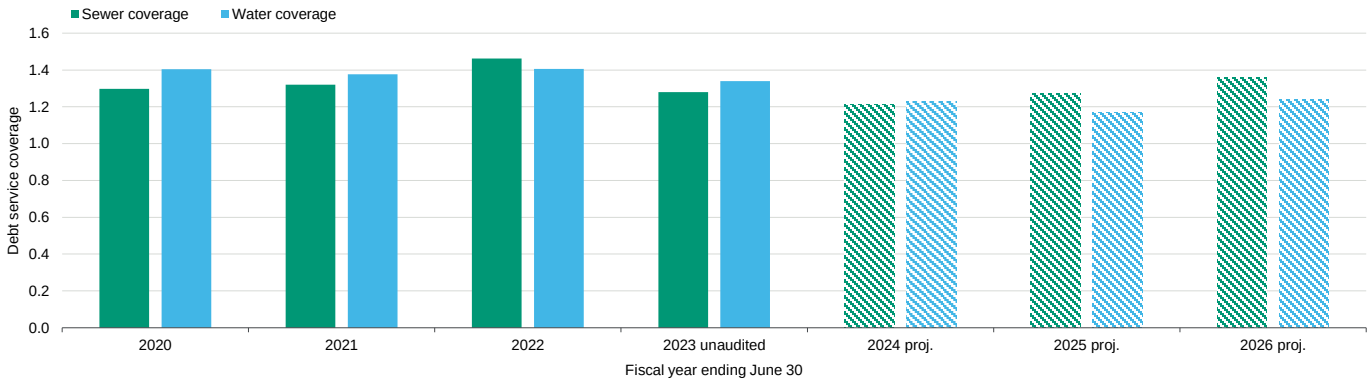
Debt service coverage and liquidity: coverage likely to narrow in short-term and then will improve

Coverage will narrow for both systems through fiscal 2025 (year-end June 30) because of rising costs, planned borrowing and the authority's commitment to a 4% revenue growth limit through fiscal 2025. The revenue limit sunsets in fiscal 2026 and the authority then plans to grow its water and sewer budgets by 6% and 5%, respectively, in fiscal 2026. The authority projects 1.2x total debt service coverage for both water and sewer revenue bonds in fiscal 2024 and 1.3x coverage for both systems for unaudited fiscal 2023 (see exhibit 2). The system could outperform management's projections. The narrowing coverage in fiscal 2024 and 2025 does not assume any savings from its current tender refunding bonds.

Exhibit 4

Coverage will narrow through fiscal 2025 and likely recover thereafter

Total debt service coverage



Source: Moody's Investors Service

The authority typically maintains adequate annual debt service coverage and ample liquidity because of management's close monitoring of revenue targets, the stability of its wholesale charges and its ability to set rates. Most revenue in both systems comes

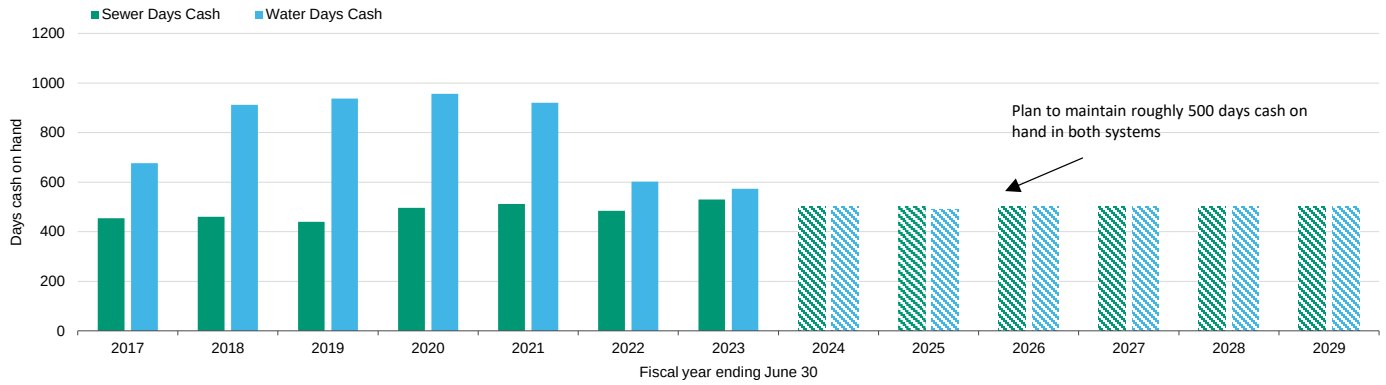
from fixed monthly wholesale charges (roughly 60% in the water system and 100% in the sewer system), which enhances revenue reliability and dependability.

Liquidity

Liquidity is strong for both systems and will remain so even after planned spending for capital investments in the water system (Exhibit 4). Management plans to maintain roughly 500 days cash on hand. The two systems also have significant restricted cash assets held for budget stabilization, debt service and capital.

Exhibit 5

Days cash on hand will remain strong for both systems, even as the authority spends down cash for water projects



Source: Moody's Investors Service

Debt and legal covenants: high debt burden will stay level with sustained revenue growth

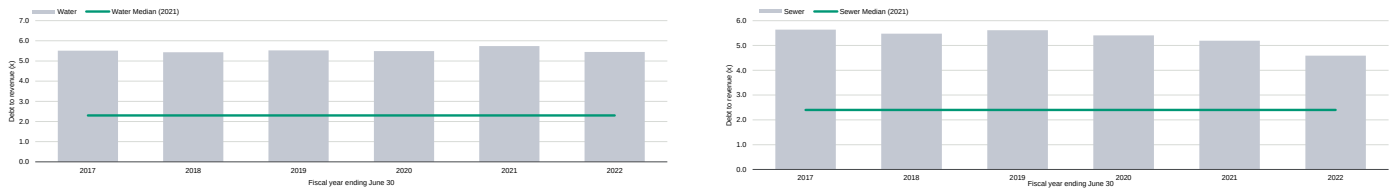
Each system has a very high debt burden that will remain elevated because of high capital needs. Still, leverage metrics will likely remain stable because GLWA has control over its rates and it plans to finance a portion its CIP with cash. The CIP for fiscal 2024 through 2029 includes about $1.3 billion of water projects and $1.13 billion of sewer projects.

The systems have a variety of capital needs, including reducing combined sewer overflow (CSO) and enhancing transmission and storage. The systems will also likely need to build greater resilience to extreme wet-weather events over the long-term. Favorably, the systems are not operating under any federal or state consent decrees. The authority has historically had high nonrevenue water volume because of pipe leaks and breaks. While water loss and other nonrevenue water increased to 14.6% in fiscal 2022 from 10.6% the year before, both are materially improved from where the system performed in the past.

The water and sewer systems' long-term debt leverage across all liens is materially higher than sector medians (Exhibit 5). GLWA had about $5.1 billion of combined total revenue debt outstanding at the end of fiscal 2022, about $2.3 billion for the water system and $2.8 billion for the sewer system.

Exhibit 6

Leverage metrics are much higher than US medians for both the water and sewer systems



Latest medians are for fiscal 2021
Source: Moody's Investors Service

Legal security

Water and sewer revenue bonds are backed by the net revenue of the respective systems. Legal provisions are solid and are the same for both systems. The rate covenant requires projected net revenue coverage of debt service equal to 120% for senior lien bonds, 110% for second lien bonds and 100% for any subordinate lien debt. Per the master bond ordinance, projected net revenue includes the revenue of the respective systems plus any estimated revenue increase from approved rate increases.

The money collected from regional wholesale and local retail customer payments are deposited to a lockbox, which is administered by a third-party trustee. Operations and maintenance (O&M) expenses are defined as cash transfers made to GLWA's and DWSD's respective O&M funds. The revenue and O&M expenses related to GLWA are reported in its segregated business funds while the revenue and expenses of DWSD are accounted for in Detroit's water and sewer funds, respectively. The bifurcated accounting requires adjustments from reported figures to assess rate covenant coverage under the master bond ordinance.

Senior and second lien bonds benefit from debt service reserve funds (DSRF) sized at the lesser of the standard three-prong test and are primarily funded via surety from various providers including Financial Guaranty Insurance Company (FGIC), Municipal Bond Insurance Association (MBIA, Ba3 stable), Assured Guaranty Municipal Corp. (AGM/FSA, A1 stable). The MBIA portion is reinsured by National Public Finance Guarantee Corp (Baa2) and the FGIC sureties are also backed by National via a notation agreement. The authority is allowed to reduce or eliminate its reserve requirement if the senior lien is rated Aa3/AA- by two or more rating agencies.

Debt structure

All of GLWA's water revenue debt and most of its sewer bonds are fixed rate. The sewer system has one series of variable rate debt: its Series 2006D bonds. The bonds are floating rate notes, are fully callable and make up a little less than 10% of sewer debt. The bonds do not have any demand risk. Interest rates are reset quarterly based upon a formula using a three-month Term SOFR rate.

The water system held about 45% of total GLWA debt at the end of fiscal 2022, with roughly $1.5 billion of senior lien bonds, $638 million of second lien water revenue bonds and $109 million of junior lien state revolving fund (SRF) loans. The remainder is held by the sewer system, inclusive of $1.7 billion of senior lien bonds, $715 million of second lien sewer revenue bonds and $377 million junior lien state revolving fund (SRF) loans. The debt service schedule is front-loaded and the bulk of both system's debt matures over the next 15 years.

Debt-related derivatives

The GLWA is not party to any derivative agreements.

Pensions and OPEB

GLWA employees are participants in a defined contribution benefit plan. There are some former DWSD employees who were hired by GLWA that qualify for accrued pension benefits from the City of Detroit's frozen defined benefit General Retirement System (GRS). Pursuant to the City of Detroit's bankruptcy plan of adjustment, GLWA contributed annually to GRS through fiscal 2023 to accelerate amortization of the GRS unfunded liability associated with GLWA's agreed share, which was based on the liability determined to be associated with the regional system before GLWA began operations. A little less than half of the annual GRS payment is considered O&M, making it effectively senior to debt service.

Starting in fiscal 2024, GLWA's payments to GRS will be based on the actuarial needs of the plan and sized to amortize any unfunded liability associated with GLWA's agreed upon share that is still remaining. GLWA makes no payments toward accrued retiree healthcare liabilities because the City of Detroit's bankruptcy settlement eliminated those benefits. GLWA established a new defined-contribution retiree healthcare savings plan, resulting in no potential unfunded liability.

ESG considerations

The authority's ESG Credit Impact Score of CIS-2 indicates that ESG considerations have a low impact on its credit rating, reflecting moderately negative exposure to environmental risks and low exposure to social and governance risks.

Environmental

The authority's E Issuer Profile Score is E-3 reflecting moderately negative exposure to physical climate and water management risks and low exposure to carbon transition, natural capital, and waste and pollution risks. Climate change and extreme weather are likely to impact the authority's future operations, particularly on the sewer system. For example, major wet weather events, like those that occurred during the summer of 2021, can overwhelm the system's ability to store and process infiltration. The water system benefits from access to a vast amount of fresh water and the sewer system includes one of the largest single-site wastewater treatment plants in the world. Both systems are subject to extensive regulation pursuant to the federal Clean Water Act, the Clean Air Act, the Michigan Natural Resources and Environmental Protection Act and various administrative rules and regulations. The authority is in material compliance with all existing permits relating to the operation of the regional water and sewer systems.

Social

The authority's Issuer Profile Score is S-2, reflecting moderately negative responsible production risks because of ongoing product quality risks and low exposure to most social risks including customer relations, demographic and social trends, health and safety and human capital. Population in the Detroit MSA grew a little over 2% between 2010 and 2020. The system's sizable service area and customer base provides a high level of diversity, balancing social challenges in portions of the customer base, such as high poverty areas in the City of Detroit. GLWA provides payment and conservation assistance to low-income retail customers through its Water Residential Assistance Program, which helps to avoid delinquencies and support revenue stability.

Governance

The authority's governance Issuer Profile Score is G-2, reflecting strong management credibility and compliance and reporting, a moderately negative organizational structure given its heavy exposure to the City of Detroit, and low financial strategy and board structure risks. GLWA was created in the aftermath of the Detroit bankruptcy. It obtained possession and control of the city's water supply and sewage disposal systems via regional system leases (effective January 1, 2016) for an initial 40-year term and replaced the city as the obligor on all outstanding debt obligations related to the systems, pursuant to bondholder consent. Pursuant to the lease, the City of Detroit has irrevocably assigned its right, title and interest in all revenue of the sewer and water enterprises to GLWA. The lease will automatically extend to correspond with scheduled repayment of newly issued revenue debt. All revenues of both systems were assigned to GLWA.

GLWA is governed by a six-member board. The board has full authority to set service charges on municipal customers. Rates charged to retail customers in the City of Detroit are established by the city's Board of Water Commissioners pursuant to an agency agreement with GLWA. The lease agreement grants the GLWA board the ability to override the city's authority of retail rates and collections should the city not make adjustments sufficient to meet annual revenue requirements. All wholesale customers retain responsibility for levying local charges sufficient to cover costs charged by GLWA. Pursuant to the memorandum of understanding between GLWA and DWSD, GLWA assumes an annual increase of not more than 4% in the revenue requirements through fiscal 2025.

GLWA has demonstrated strong budget management since its inception, enhancing operational efficiencies and regional cooperation. Each year GLWA conducts an extensive study of both its wholesale service charges and allocated annual revenue requirement to retail customers, with the purpose of adjusting revenue to reflect the cost of operations, depreciation expense and return on the rate base. Additionally, since system capacity exceeds demand, management is de-rating parts of its water treatment plants. This allows the water system to reduce capital costs while preserving flexibility to put the facilities back to use.

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REPORT NUMBER 1369275

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

S&P Global
Ratings

Standard & Poor's Credit Research

Summary:

Great Lakes Water Authority, Michigan; Water/Sewer

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Credit Highlights

Outlook

Related Research

Summary:

Great Lakes Water Authority, Michigan; Water/Sewer

Credit Profile		
US$152.22 mil wtr supp sys rev sr ln bnds ser 2023 due 07/01/2053		
Long Term Rating	AA-/Stable	New
US$58.225 mil wtr supp sys rev rfdg sr ln bnds ser 2023 due 07/01/2041		
Long Term Rating	AA-/Stable	New
Great Lakes Wtr Auth wtr (Sr lien)		
Long Term Rating	AA-/Stable	Affirmed

Credit Highlights

- S&P Global Ratings assigned its 'AA-' rating to the Great Lakes Water Authority (GLWA), Mich.'s series 2023 water supply system revenue senior-lien bonds.
- At the same time, S&P Global Ratings affirmed its 'AA-' rating on GLWA's existing senior-lien bonds and affirmed its 'A+' rating on GLWA's second-lien bonds.
- The outlook is stable.

Security

The bonds are secured by a statutory lien on pledged assets of the system, pursuant to both the bond ordinance and Michigan Act 94 of 1933 (as amended), and prioritized by the lien status. Pledged assets include net revenues of GLWA's water supply system, along with investments credited to the water system and earnings on those investments. The net revenue pledge is constituted from gross revenues of the Detroit Water and Sewer Board (DWSD) retail and GLWA regional systems, which cover both systems' operating and maintenance (O&M) expenses. A rate covenant stipulates that the GLWA board set rates to produce at least 1.2x coverage of senior-lien debt, 1.1x for second-lien bonds, and 1x for junior-lien bonds. The ability to issue additional bonds exists if net revenues for the previous fiscal year, or net revenues adjusted by approved rate increases and system expansion for the current or next fiscal year, produce coverage of maximum annual debt service (MADS; including the proposed bonds) of at least those levels indicated in the rate covenant for the particular liens.

There is also a debt service reserve (DSR) for both senior- and second-lien bonds equal to the lesser of MADS or what is permitted by the Internal Revenue Code of 1986. On achieving senior-lien ratings from two credit rating agencies no lower than 'AA-' or the equivalent, GLWA, through amendments to the master bond ordinance, has the option to eliminate this reserve requirement on its outstanding and future bonds on any lien. If the DSRs are eliminated, we currently view the effects as credit neutral given the significant amounts of unrestricted liquidity GLWA currently carries. If management decides to liquidate the DSRs, we would seek to understand how it would use other pledged funds to continue minimizing the potential for debt payment disruptions. At the fiscal year ended June 30, 2022, the

senior-lien DSR totaled $101.6 million and the second-lien plus junior-lien DSRs totaled $47.8 million; DSR investments consist of cash, securities, and sureties.

Credit overview

For a utility of its size, serving about 3.8 million people, we consider the existing financial benchmarks of debt service coverage (DSC) and unrestricted liquidity consistent for the rating category. In our analysis of DSC, however, our fixed-charge coverage analysis generally follows the presentation in GLWA's master bond ordinance (MBO) calculation for junior-lien DSC, with additional revenue offsets due to pension payments made to Detroit for its frozen general retirement system expenses and additional fixed costs due to pension note payments made to Detroit for its B and C note payments. Our calculation focuses on how net revenues are covering all of GLWA's fixed costs instead of reporting coverage based on MBO definitions of operating and nonoperating expenses. The effect of this treatment lowers fixed-charge coverage by about five-to-10 basis points compared with MBO junior-lien DSC.

Detroit's recovering employment base still has weak underlying fundamentals, in our view, with median household effective buying income only about 50% of the national average. Still, the rating is supported by a revenue base that is well-diversified geographically beyond the city limits (75% from suburban wholesale customers).

Overall higher inflation and interest rates could weaken GLWA's capital and operating budget, potentially pressuring water rates. Because account delinquencies in the DWSD retail customer class are already high, worsening economic conditions could reduce revenue collections; Management reports that about 45% of DWSD's 338,000 active retail accounts are 60 days or more delinquent, but that figure has been slowly declining since at least 2020.

A number of key provisions in the lease agreement, service agreement, and memorandum of understanding (MOU) between GLWA and Detroit support the ability of the GLWA regional system to help make the net revenues originating from Detroit's local system more predictable despite these economic and collection risks:

- GLWA sets revenue requirements for DWSD that are related to the costs for providing services, and, in turn, Detroit sets retail rates in a fashion that meets GLWA's revenue requirement.
- Explicit language that requires all revenues collected by Detroit be held in segregated accounts in trust and remitted within five days of receipt to a trustee-held pledged revenue account under the MBO.
- A services agreement between GLWA and Detroit that holds the city to performance and administrative standards to maintain its agency relationship with GLWA for rate-setting and revenue collection.
- Requirements that both GLWA and Detroit retail maintain a biennial budget and a five-year capital improvement plan (CIP).
- DWSD is required to submit periodic budget and operational reporting requirements to GLWA and discuss these results at a Reconciliation Committee, which is also the initial mechanism to develop a plan for DWSD to cure any budget shortfalls. If there are any, then the MOU between the two entities describes a workout mechanism to recover the budget shortfalls over a period no longer than the next three fiscal years.

Additional overall credit strengths that we believe will continue to support the rating include:

- A revenue stream that arises from about 60% fixed-cost recovery not dependent on water sale volume.

- Active management of governance risks through formal working relationships with both suburban wholesale customers and DWSD. Coordination of all aspects of the utility's operations are managed, including environmental compliance, asset management, procurement, rate-setting, two separate bill assistance programs, and future capital needs.

Environmental, social, and governance

Minimizing governance risk lies primarily in maintaining collaboration with both suburban wholesale customers and DWSD management. All these efforts require considerable staff resources, but these efforts also are credit supportive as long as GLWA is able to continue providing its services without significant customer discord that disrupts revenue collections. Litigation with Highland Park has been ongoing for decades, but has just been resolved with financial assistance for improvements to Highland Park's utility system coming from the state of Michigan.

Many procedures involving DWSD regarding capital and budget planning, management of budget variances, sharing of services to gain efficiencies, and reporting requirements are built into key documents to which GLWA and Detroit are party. The "One Water Partnership" between GLWA and its suburban wholesale customers generally facilitates information sharing, capital project coordination, and technical assistance.

GLWA has significant social risks to manage given the wide diversity in economic and demographic bases served by the utility. We consider social risks credit neutral, but both GLWA and DWSD management will need to continue balancing implementation of its assistance programs while also achieving higher collection rates within Detroit. GLWA's Water Residential Assistance Program (WRAP) is designed to both provide bill assistance and household water audits to all qualified residents within GLWA's service territory. DWSD management also has a dedicated shut-off program implemented by an outside contractor. In 2022, DWSD also launched a lifeline program for residents in Detroit that is funded by WRAP and other state grants and federal resources such as the Low Income Water Assistance Program (LIWAP). WRAP is supported from revenues generated from water and sewer rates.

We view environmental risks to be credit neutral, with the most acute potential risk being exposure to future lead and copper rule changes and Polyfluoroalkyl Substances (PFAS) regulation. We believe lead and copper rule changes would mostly directly affect DWSD operations and capital requirements, but could also affect GLWA's operations if corrosion control measures need to be substantially modified. Management has represented that PFAS is currently undetectable in its water sources (surface water) but has a monitoring program to identify point sources of the substances. GLWA's five water treatment plants provide significant excess capacity of 1,720 million gallons per day (mgd) compared with 350 mgd average use in 2022.

Outlook

The stable outlook reflects our expectation that GLWA will continue its steady financial performance while funding all its needed capital projects without being impaired by economic headwinds or inflationary pressures. Because the authority's CIP is not currently regulatory driven, we believe that flexibility to shift capital spend targets and/or revenue requirements due to economic or inflationary pressures will help minimize downside risks to meeting or outperforming currently projected financial projections. However, if compliance costs associated with PFAS remediation or mandated lead and copper pipe replacements accelerate, it could influence our view of the GLWA's

credit quality.

We would also expect management to continue its collaborative efforts with both suburban customers and DWSD to minimize Environmental, social, and governance risks that could have a negative influence on credit quality.

Downside scenario

Continuing to implement the provisions of the lease agreement, service agreement, and MOU that help make the budget for both DWSD and GLWA more predictable while minimizing revenue fluctuations are key factors in maintaining the current rating; if these become less robust, then we would likely lower the rating.

But even if these practices continue, the rating or outlook could be weakened if actual financial performance falls below current projections. Significant deferral of capital projects, considering the current inflationary environment, that artificially increases liquidity but causes deferred maintenance could also lead to downside pressure on the rating or outlook.

Upside scenario

If economic recovery in Detroit continues and starts to have meaningful positive effects on its economic fundamentals and utility collection rates, then the rating could be improved. We also would consider an upgrade if GLWA meaningfully outperforms its current forecast while still funding its CIP generally as planned. We would also need to consider these improvements as sustainable over a long-term horizon for us to do so.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Ratings Detail (As Of October 26, 2023)		
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2005-SRF1 due 10/01/2026		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2005-SRF2 due 10/01/2026		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2006-SRF due 10/01/2026		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2008-SRF due 10/01/2028		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2016A-SRF due 04/01/2048		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2016B-SRF due 04/01/2048		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr supp sys rev bnds ser 2017-SRF due 10/01/2048		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr (BAM) (SECMKT		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed

Ratings Detail (As Of October 26, 2023) (cont.)		
Great Lakes Wtr Auth wtr (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (Sr lien) (AGM)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (Sr lien) 2005B (BHAC)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (2nd lien)		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth wtr (2nd lien) (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (2nd lien) (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (2nd lien) (MBIA)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth wtr (2nd lien) (MBIA) (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Finance Authority, Michigan		
Great Lakes Water Authority, Michigan		
Michigan Fin Auth (Great Lakes Wtr Auth) wtr (AGM)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) wtr (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) wtr (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Long Term Rating	AA-/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Long Term Rating	A+/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR (AGM)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.spglobal.com/ratings for further information. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.spglobal.com/ratings.

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S&P Global
Ratings

Standard & Poor's Credit Research

Summary:

Great Lakes Water Authority, Michigan; Water/Sewer

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Outlook

Related Research

Summary:

Great Lakes Water Authority, Michigan; Water/Sewer

Credit Profile		
US$103.655 mil swg disp sys rev sr ln bnds ser 2023C due 07/01/2053		
Long Term Rating	AA-/Stable	New
US$89.775 mil swg disp sys rev rfdg sr ln bnds ser 2023A due 07/01/2044		
Long Term Rating	AA-/Stable	New
US$11.9 mil swg disp sys rev rfdg 2nd ln bnds ser 2023B due 07/01/2036		
Long Term Rating	A+/Stable	New

Credit Highlights

- S&P Global Ratings assigned its 'AA-' rating to the Great Lakes Water Authority (GLWA), Mich.'s sewage disposal system revenue senior-lien bonds, series 2023A and 2023C; and its 'A+' rating to GLWA's sewage disposal system revenue second-lien bonds, series 2023B.
- At the same time, S&P Global Ratings affirmed its 'AA-' and 'A+' ratings on GLWA's senior- and second-lien bonds outstanding, respectively.
- The outlook is stable.

Security

The bonds are secured by a statutory lien on pledged assets of the system, pursuant to both the bond ordinance and Michigan Act 94 of 1933 (as amended), and prioritized by the lien status. Pledged assets include net revenues of GLWA's sewage disposal system, along with investments credited to the sewage disposal system and earnings on those investments. The net revenue pledge is constituted from gross revenues of the Detroit Water and Sewer Board (DWSD) retail and GLWA regional systems, which cover both systems' operating and maintenance expenses. A rate covenant stipulates that the GLWA board set rates to produce at least 1.2x coverage of senior-lien debt, 1.1x for second-lien bonds, and 1.0x for junior-lien bonds. The ability to issue additional bonds exists if net revenues for the previous fiscal year, or net revenues adjusted by approved rate increases and system expansion for the current or next fiscal year, produce coverage of maximum annual debt service (MADS; including the proposed bonds) of at least those levels indicated in the rate covenant for the particular liens.

There is also a debt service reserve (DSR) for both senior- and second-lien bonds equal to the lesser of MADS or what is permitted by the Internal Revenue Code of 1986. On achieving senior-lien ratings from two credit rating agencies no lower than 'AA-' or the equivalent, GLWA, through amendments to the master bond ordinance, has the option to eliminate this reserve requirement on its outstanding and future bonds on any lien. If the DSRs are eliminated, we view the effects as credit neutral given the significant amounts of unrestricted liquidity GLWA carries. If management decides to liquidate the DSRs, we would seek to understand how it would use other pledged funds to continue

minimizing the potential for debt payment disruptions. At the fiscal year ended June 30, 2022, the senior-lien DSR totaled $111 million and the second-lien plus junior-lien DSRs totaled $48.7 million; DSR investments consist of cash, securities, and sureties.

Credit overview

For a utility of its size, serving about 2.8 million people, in our opinion, GLWA's existing financial benchmarks of debt service coverage (DSC) and unrestricted liquidity are consistent with the rating category. However, in our analysis of DSC, our fixed-charge coverage analysis generally follows the presentation in GLWA's master bond ordinance (MBO) calculation for junior-lien DSC, with additional revenue offsets due to pension payments made to Detroit for its frozen general retirement system expenses and additional fixed costs due to pension note payments made to Detroit for its B and C note payments. Our calculation focuses on how net revenues are covering all of GLWA's fixed costs instead of reporting coverage based on MBO definitions of operating and nonoperating expenses. The effect of this treatment lowers fixed-charge coverage by about five-10 basis points compared with MBO junior-lien DSC.

Detroit's recovering employment base still has weak underlying fundamentals, in our view, with median household effective buying income only about 50% of the national average. Still, the rating is supported by a revenue base that is well diversified geographically beyond the city limits (50% from suburban wholesale customers).

Overall higher inflation and interest rates could weaken GLWA's capital and operating budget, potentially pressuring water rates. Because account delinquencies in the DWSD retail customer class are already high, worsening economic conditions could reduce revenue collections; management reports that about 45% of DWSD's 338,000 active retail accounts are 60 days or more delinquent, but that figure has been slowly declining since at least 2020.

A number of key provisions in the lease agreement, service agreement, and memorandum of understanding (MOU) between GLWA and Detroit support the ability of the GLWA regional system to help make the net revenues originating from Detroit's local system more predictable despite these economic and collection risks:

- GLWA sets revenue requirements for DWSD that are related to the costs for providing services, and, in turn, Detroit sets retail rates in a fashion that meets GLWA's revenue requirement.
- Explicit language requires all revenues collected by Detroit be held in segregated accounts in trust and remitted within five days of receipt to a trustee-held pledged revenue account under the MBO.
- A services agreement between GLWA and Detroit holds the city to performance and administrative standards to maintain its agency relationship with GLWA for rate setting and revenue collection.
- Both GLWA and Detroit retail are required to maintain a biennial budget and a five-year capital improvement plan (CIP).
- DWSD is required to submit periodic budget and operational reporting requirements to GLWA and discuss these results at a reconciliation committee, which is also the initial mechanism to develop a plan for DWSD to cure any budget shortfalls. If there are any, the MOU between the two entities describes a workout mechanism to recover the budget shortfalls over a period no longer than the next three fiscal years.

Additional overall credit strengths that we believe will continue to support the rating include:

- A revenue stream that arises from 100% fixed-cost recovery not dependent on volume; and

- Active management of governance risks through formal working relationships with both suburban wholesale customers and DWSD; coordination of all aspects of the utility's operations are managed, including environmental compliance, asset management, procurement, rate setting, two separate bill assistance programs, and future capital needs.

Environmental, social, and governance

Minimizing governance risk lies primarily in maintaining collaboration with both suburban wholesale customers and DWSD management. All these efforts require considerable staff resources, but they also are credit supportive as long as GLWA is able to continue providing its services without significant customer discord that disrupts revenue collections. Litigation with Highland Park has been ongoing for decades but has just been resolved with financial assistance for improvements to Highland Park's utility system coming from the State of Michigan.

Many procedures involving DWSD regarding capital and budget planning, management of budget variances, sharing of services to gain efficiencies, and reporting requirements are built into key documents to which GLWA and Detroit are party. The "One Water Partnership" between GLWA and its suburban wholesale customers generally facilitates information sharing, capital project coordination, and technical assistance.

GLWA has significant social risks to manage given the wide diversity in economic and demographic bases the utility serves. We consider social risks credit neutral, but both GLWA and DWSD management will need to continue balancing implementation of assistance programs while also achieving higher collection rates within Detroit. GLWA's Water Residential Assistance Program (WRAP) is designed to both provide bill assistance and for household water audits to all qualified residents within GLWA's service territory. DWSD management also has a dedicated shut-off program implemented by an outside contractor. In 2022, DWSD also launched a lifeline program for residents in Detroit that is funded by WRAP and other state grants and federal resources such as the Low Income Water Assistance Program (LIWAP). WRAP is supported from revenues generated from water and sewer rates.

We view environmental risks to be credit neutral, with the most acute potential risk being exposure to Polyfluoroalkyl Substances (PFAS) regulation that could affect discharge requirements. One positive recent outcome related to environmental risks is that GLWA was released from an administrative consent order with the Michigan Department of Environment, Great Lakes, and Energy for monitoring of sewer treatment facility operations and biosolids handling; the order had been in place prior to Detroit's bankruptcy. Also of note is that GLWA maintains a strong record of discharge permit and combined sewer overflow compliance.

Outlook

The stable outlook reflects our expectation that GLWA will continue its steady financial performance while funding all its needed capital projects without being impaired by economic headwinds or inflationary pressures. Because the authority's CIP is not currently regulatory driven, we believe that flexibility to shift capital spend targets and/or revenue requirements due to economic or inflationary pressures will help minimize downside risks to meeting or outperforming projected financial projections. However, if compliance costs associated with PFAS remediation or other discharge requirements accelerate, it could influence our view of GLWA's credit quality.

We would also expect management to continue its collaborative efforts with both suburban customers and DWSD to minimize environmental, social, and governance risks that could have a negative effect on credit quality.

Downside scenario

Continuing to implement the provisions of the lease agreement, service agreement, and MOU that help make the budget for both DWSD and GLWA more predictable while minimizing revenue fluctuations are key factors in maintaining the current rating; if these become less robust, we would likely lower the rating.

But even if these practices continue, we could lower the rating or revise the outlook to negative if actual financial performance falls below current projections. Significant deferral of capital projects, considering the current inflationary environment, that artificially increases liquidity but causes deferred maintenance could also lead to a lower rating or negative outlook.

Upside scenario

If economic recovery in Detroit continues and starts to have meaningful positive effects on its economic fundamentals and utility collection rates, we could raise the rating. We also would consider an upgrade if GLWA meaningfully outperforms its current forecast while still funding its CIP generally as planned. We would also need to consider these improvements as sustainable over a long-term horizon for us to consider a positive rating action.

Related Research

- Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Ratings Detail (As Of October 26, 2023)		
Great Lakes Wtr Auth swg disp sys rev bnds ser 2001-SRF1 due 10/01/2024		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2001-SRF2 due 10/01/2024		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2002-SRF3 due 10/01/2024		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2003-SRF1 due 10/01/2025		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2003-SRF2 due 04/01/2025		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2004-SRF1 due 10/01/2024		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2004-SRF2 due 04/01/2024		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2004-SRF3 due 04/01/2025		
Long Term Rating	A+/Stable	Affirmed

Ratings Detail (As Of October 26, 2023) (cont.)		
Great Lakes Wtr Auth swg disp sys rev bnds ser 2007-SRF1 due 10/01/2029		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2009-SRF1 due 04/01/2030		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2010-SRF1 due 04/01/2031		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2012-SRF1 due 10/01/2034		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2015A-SRF due 04/01/2036		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2015B-SRF due 10/01/2035		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2015D-SRF due 10/01/2035		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2016-SAW due 10/01/2038		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2016-SRF1 due 04/01/2038		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2016-SRF2 due 04/01/2039		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2017-SRF1 due 10/01/2038		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2018-SRF1 due 10/01/2042		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2018-SRF2 due 10/01/2039		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg (wrap of insured) (MBIA, National & ASSURED GTY) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (Sr lien)		
Long Term Rating	AA-/Stable	Affirmed
Great Lakes Wtr Auth swg (Sr lien) (AGM)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (Sr lien) (AGM) (SECMKT)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien)		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (wrap of insured) (FGIC & AGM) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed

Ratings Detail (As Of October 26, 2023) (cont.)		
Great Lakes Wtr Auth swg (2nd lien) (wrap of insured) (FGIC) (MBIA) (SEC MKT) (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (wrap of insured) (FGIC, AGM & BHAC) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (MBIA) (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swg (2nd lien) (MBIA) (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Great Lakes Wtr Auth swr (wrap of insured) (FGIC) (ASSURED GTY - SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Finance Authority, Michigan		
Great Lakes Water Authority, Michigan		
Michigan Fin Auth (Great Lakes Wtr Auth) swg disposal (AGM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) swg disposal (BAM)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) swg (BAM) (SECMKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) swg (National)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Long Term Rating	AA-/Stable	Affirmed
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Long Term Rating	AA-/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Long Term Rating	AA-/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR		
Long Term Rating	A+/Stable	Affirmed

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.spglobal.com/ratings for further information. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.spglobal.com/ratings.

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GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 2023

To: Great Lakes Water Authority Audit Committee

From: Nicolette Bateson, CPA
Chief Financial Officer/Treasurer

Re: Proposed Calendar Year 2024 Audit Committee Meeting Dates

Background: Annually in November, the Audit Committee establishes its meeting schedule for the upcoming calendar year.

Analysis: Listed below are the proposed 2024 Audit Committee meeting dates following the cadence of meeting on the *fourth* Friday of each month with some exceptions as noted below.

The proposed meeting time is 8:00 a.m. with the meetings continuing to be held online and/or as posted to provide for remote telephonic and online participation by the public.

January 26, 2024	May 24, 2024	September 27, 2024
February 23, 2024	June 28, 2024	October 25, 2024
March 22, 2024	July 26, 2024	November 22, 2024
April 26, 2024	August 23, 2024	December 20, 2024*

* Moved up one week due to holidays scheduled.

It should be noted that the Audit Committee is a sub-quorum advisory committee which, except for the meetings where the Audit Committee selects an external auditor, the Committee is not subject to the Open Meetings Act. As a matter of practice, the GLWA Audit Committee encourages public participation by remote telephonic and electronic means with access information posted on the Audit Committee agendas.

Proposed Action: Approve the meeting schedule as proposed or amended.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

PROPOSED AUDIT COMMITTEE ANNUAL MEETING SCHEDULE

(As of November 17, 2023 – Subject to Change based on Audit Committee Review)

Meetings begin at 8:00 a.m. on the fourth Friday of the month (unless noted otherwise) and are held online and/or as posted to provide for remote telephonic and electronic participation by the public.

January 26, 2024
February 23, 2024
March 22, 2024
April 26, 2024
May 24, 2024
June 28, 2024
July 26, 2024
August 23, 2024
September 27, 2024
October 25, 2024
November 22, 2024
December 20, 2024 *(third Friday)*

Audit Committee materials are posted online at https://www.glwater.org/financials/

Any questions regarding this meeting notice or Audit Committee agendas may be directed to Office of the Chief Financial Officer & Treasurer at 313.999.4149 or to CFO@glwater.org.

GLWA

Great Lakes Water Authority

Monthly Financial Report Binder

July 2023

Presented to the
Great Lakes Water Authority
Audit Committee on November 17, 2023

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Financial Report
Executive Summary Dashboard
for the Month Ended July 31, 2023

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)

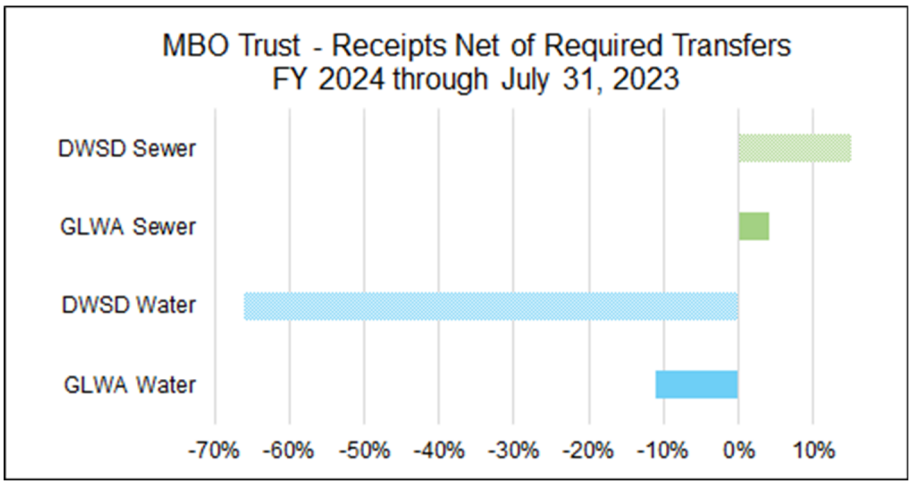
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Staff reviews the need for budget amendments quarterly and requests necessary amendments when required based on the most current information available.

For the current year, water billed revenue and usage and both water and sewer capital spend reflect variances to budget outside the normal range. Water revenue and usage variances are due to increased rain activity during the summer months. Capital spend variances reflect the increased costs and ongoing resource challenges facing the construction industry as a whole. These variances will be under consideration for first quarter budget amendments.

As of July 31, 2023					
Metric	FY 2024 Budget	FY 2024 Amended Budget	FY 2024 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue ($M)	$34.3	$34.3	$32.0	-7%	48
Wholesale Water Billed Usage (mcf)	1,607,000	1,607,000	1,396,000	-13%	50
Wholesale Sewer Billed Revenue ($M)	$23.5	$23.5	$23.5	0%	
Wholesale Water Operations & Maintenance ($M)		$12.7	$12.5	-2%	5
Wholesale Sewer Operations & Maintenance ($M)	$17.1	$17.1	$16.2	-6%	
Investment Income ($M)	$1.3	$1.3	$3.9	206%	37
Water Prorated Capital Spend w/SRA* ($M)	$19.9	$19.9	$10.4	-48%	28
Sewer Prorated Capital Spend w/SRA* ($M)	$16.6	$16.6	$6.9	-58%	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 54)



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 shortfall of $4.0 million and DWSD Sewer reports a surplus of $8.3 million of net receipts over disbursements through July 2023. The Water shortfall relates to the routine monthly transfer of credit balances to the Sewer account which was impacted by a recent change in the customer deposit policy. Preliminary review of August and September activity reflects improvement.

Budget to Actual Analysis (page 3)

- The total Revenue Requirements are on target through July 2023.
- The total overall Operations & Maintenance expenses are at 8.0% of budget through July 2023. This positive variance equates to a dollar amount of $1.3 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 July 2023 is $11.1 million for the Water fund (31.9% of total revenues) and $11.6 million for the Sewer fund (28.2 % of total revenues).
- Water Net Position increased by $ 7.5 million, and Sewage Disposal Net Position increased by $ 5.0 million for the year to date through July 2023.

Capital Improvement Plan Financial Summary (page 27)

- Water system costs incurred to date are below the 100% Capital Spend Ratio assumption.
- Sewer system costs incurred to date are below the 100% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 30)

- For July, transfers of $13.5 million and $18.1 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for July, transfers of $5.6 million and $6.9 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 37)

- Total cash & investments are $466 million for Water and $602 million in the Sewer fund.
- Total, combined, cumulative, FY 2024 investment income through July is $3.9 million.

DWSD Retail Revenues, Receivables & Collections (page 41)

- Water usage through July 31, 2023 is 103.89% and revenues are 104.46% of budget.
- Sewer usage through July 31, 2023 is 103.79%and revenues are 100.02% of budget.
- Combined accounts receivable balances for the water and sewer funds report a decrease of $19.7 million over the prior year.
- Past dues over 180 days make up of 67.0% the total accounts receivable balance. The current bad debt allowance covers 100.0% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 47)

- GLWA accounts receivable past due balance net of Highland Park is 9.00% 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 $54.4 million. It includes $40.4 million for wastewater treatment services, $1.9 million for industrial waste control services, and $12.2 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 $6.3 million as of July 31, 2023.

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

Adjustments related to the fiscal year end 2023 audit will affect the FY 2023 columns of the tables in the Budget to Actual Analysis. This includes the final amendment of the budget to allocate the administrative and centralized budget categories to the *water* and *sewer* categories.

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 July 2023, the pro-rata benchmark is 8.3% (1 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, total revenues for FY 2024 are slightly above the pro-rata benchmark; the *water* system is at 9.6% while the *sewer* system is at 8.5%. 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 July 31, 2023, these payments total $539,100 for FY 2024.

2. ***Investment Earnings:*** For both systems, investment earnings are above the pro-rata benchmark for FY 2024; the *water* system is at 28.3% while the *sewer* system is at 21.6%. 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 expenses[1] for *both* systems are slightly below the pro-rata benchmark for FY 2024 the *water* system is at 8.1% while the *sewer* system O&M expenses is at 7.9%.
5. ***Debt Service:*** For FY 2024, both systems are on target with the pro-rata benchmark for debt service; the *water* system is at 8.3% while the *sewer* system is at 8.3%. 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. Funding levels are currently being evaluated to determine if additional transfers to this reserve will be required in FY 2024.
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 2023, DWSD ended the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2024, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through July 31, 2023. 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.

[1]The 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)

Water System	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 7/31/2022	Percent Year-to-Date at 7/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 7/31/2023	Percent Year-to-Date at 7/31/2023
Revenues							
Suburban Wholesale Customer Charges	$ 333,856	$ 33,595	10.1%	$ 340,541	$ 340,541	$ 32,184	9.5%
Retail Service Charges	22,834	1,916	8.4%	25,537	25,537	2,128	8.3%
Investment Earnings	9,670	(68)	-0.7%	4,062	4,062	1,150	28.3%
Other Revenues	995	77	7.7%	175	175	76	43.5%
Total Revenues	$ 367,356	$ 35,520	9.7%	$ 370,315	$ 370,315	$ 35,538	9.6%
Revenue Requirements							
Operations & Maintenance Expense	$ 156,748	$ 10,632	6.8%	$ 152,906	$ 152,906	$ 12,450	8.1%
General Retirement System Legacy Pension	6,048	504	8.3%	-	-	-	0.0%
Debt Service	150,055	12,564	8.4%	159,483	159,483	13,290	8.3%
General Retirement System Accelerated Pension	6,268	522	8.3%	3,396	3,396	283	8.3%
Extraordinary Repair & Replacement Deposit	200	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,771	148	8.3%	1,852	1,852	154	8.3%
Regional System Lease	22,500	1,875	8.3%	22,500	22,500	1,875	8.3%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,766	2,025	8.5%	30,178	30,178	2,515	8.3%
Total Revenue Requirements	$ 367,356	$ 28,269	7.7%	$ 370,315	$ 370,315	$ 30,568	8.3%
Net Difference		$ 7,250				$ 4,970	
Recap of Net Positive Variance							
Revenue Variance		$ 4,907				$ 4,678	
Revenue Requirement Variance		2,344				292	
Overall Variance		$ 7,250				$ 4,970	

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

Sewer System	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 7/31/2022	Percent Year-to-Date at 7/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 7/31/2023	Percent Year-to-Date at 7/31/2023
Revenues							
Suburban Wholesale Customer Charges	$ 274,907	$ 22,948	8.3%	$ 282,688	$ 282,688	$ 23,568	8.3%
Retail Service Charges	191,042	15,920	8.3%	196,570	196,570	16,381	8.3%
Industrial Waste Control Charges	8,420	691	8.2%	8,584	8,584	702	8.2%
Pollutant Surcharges	4,951	296	6.0%	5,328	5,328	260	4.9%
Investment Earnings	13,532	325	2.4%	7,057	7,057	1,527	21.6%
Other Revenues	2,355	31	1.3%	400	400	34	8.4%
Total Revenues	$ 495,207	$ 40,212	8.1%	$ 500,627	$ 500,627	$ 42,471	8.5%
Revenue Requirements							
Operations & Maintenance Expense	$ 204,123	$ 12,860	6.3%	$ 205,644	$ 205,644	$ 16,163	7.9%
Pension	10,824	902	8.3%	-	-	-	0.0%
Debt Service	212,509	17,217	8.1%	228,328	228,328	19,027	8.3%
General Retirement System Accelerated Pension	11,621	968	8.3%	6,479	6,479	540	8.3%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,394	200	8.3%	2,503	2,503	209	8.3%
Regional System Lease	27,500	2,292	8.3%	27,500	27,500	2,292	8.3%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	26,237	3,279	12.5%	30,173	30,173	2,514	8.3%
Total Revenue Requirements	$ 495,207	$ 37,718	7.6%	$ 500,627	$ 500,627	$ 40,745	8.1%
Net Difference		$ 2,494				$ 1,725	
Recap of Net Positive Variance							
Revenue Variance		$ (1,056)				$ 752	
Revenue Requirement Variance		3,550				974	
Overall Variance		$ 2,494				$ 1,725	

All amounts are unaudited unless otherwise noted.

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of July 31, 2023, is 8.3% (one month). When comparing FY 2024 to FY 2023 in ***Table 2 – Operations & Maintenance Budget – Major Budget Categories***, the overall spending is slightly higher in FY 2024.

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 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 7/31/2022	Percent Year-to-Date at 7/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 7/31/2023	Percent Year-to-Date at 7/31/2023
Water	$ 85,337	$ 7,290	8.5%	$ 82,733	$ 82,733	$ 6,726	8.1%
Sewer	136,348	9,430	6.9%	132,934	132,934	11,246	8.5%
Centralized	104,503	4,478	4.3%	106,901	106,901	7,885	7.4%
Administrative	34,682	2,294	6.6%	35,983	35,983	2,757	7.7%
Employee Benefits	-	-	0.0%	-	-	-	0.0%
Total O&M Budget	$ 360,870	$ 23,492	6.5%	$ 358,550	$ 358,550	$ 28,613	8.0%

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 8.0% which is slightly below the pro-rata benchmark of 8.3%. This positive variance equates to a dollar amount of $1.3 million. The expense category commentary is provided below for items highlighted on Table 3.

Personnel Costs: The overall category is slightly above the pro-rata benchmark; coming in at 8.7% through July 2023.

Utilities: The overall category is above the pro-rata benchmark; coming in at 9.9% through July 2023. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is above the pro-rata benchmark, coming in at 10.9%. 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. This category is being reviewed for a first quarter budget amendment due to the increase in kWh.
- **Gas** is coming in at 4.7% which is lower than the benchmark of 8.3%. Variances within this category are not unexpected as usage varies throughout the year. This category is under review.
- **Sewage service** is slightly lower than the benchmark, coming in at 7.6%. This category is under review.
- **Water service** is higher than the benchmark, coming in at 12.1%. 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 have been 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. This category is being reviewed for a first quarter budget amendment.

Chemicals: This category is slightly higher than the benchmark; coming in at 9.2% through July 2023. While variances within this category are not unexpected as usage varies throughout the year, this category is being reviewed for a first quarter budget amendment due to the increase in the cost of various chemicals.

Supplies & Other: This category is lower than the pro-rata benchmark; coming in at 6.0% through July 2023. 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 6.8% through July 2023. 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 are 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 4.1% through July 2023. 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 slightly lower than the benchmark; coming in at 8.1% through July 2023. 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 2024. 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 Entity-wide	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 7/31/2022	Percent Year-to-Date at 7/31/2022	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date at 6/30/2023	FY 2024 AMENDED BUDGET	FY 2024 PRORATED AMENDED BUDGET (1 MONTH)	FY 2024 ACTIVITY THRU 7/31/2023	Percent Year-to-Date 7/31/2023	FY 2024 Prorated Amended Budget Less FY 2024 Activity
Salaries & Wages	$ 71,395	$ 5,897	8.3%	$ 70,114	8.4%	$ 74,765	$ 6,230	$ 6,643	8.9%	$ (412)
Workforce Development	1,326	103	7.7%	1,414	7.2%	1,392	116	175	12.6%	(59)
Overtime	8,411	751	8.9%	8,571	8.8%	7,383	615	818	11.1%	(203)
Employee Benefits	25,582	1,754	6.9%	24,790	7.1%	28,219	2,352	2,122	7.5%	230
Transition Services	9,432	781	8.3%	9,920	7.9%	9,129	761	808	8.9%	(48)
Employee Benefits Fund	-	-	0.0%	-	0.0%	-	-	-	0.0%	-
Personnel Costs	*116,145*	*9,286*	*8.0%*	*114,808*	8.1%	*120,887*	*10,074*	*10,567*	*8.7%*	*(492)*
Electric	47,963	4,297	9.0%	48,176	8.9%	42,820	3,568	4,669	10.9%	(1,100)
Gas	12,042	459	3.8%	10,821	4.2%	10,168	847	477	4.7%	371
Sewage Service	3,028	278	9.2%	3,052	9.1%	2,563	214	194	7.6%	20
Water Service	11,589	726	6.3%	15,228	4.8%	7,844	654	950	12.1%	(296)
Utilities	*74,622*	*5,760*	*7.7%*	*77,277*	7.5%	*63,395*	*5,283*	*6,289*	*9.9%*	*(1,006)*
Chemicals	29,525	1,899	6.4%	30,542	6.2%	30,452	2,538	2,790	9.2%	(253)
Supplies & Other	36,163	1,704	4.7%	35,766	4.8%	34,020	2,835	2,028	6.0%	807
Contractual Services	106,625	5,081	4.8%	108,725	4.7%	106,889	8,907	7,245	6.8%	1,662
Capital Program Allocation	(2,135)	(73)	3.4%	(2,190)	3.3%	(4,233)	(353)	(172)	4.1%	(181)
Shared Services	(1,571)	(165)	10.5%	(3,270)	5.0%	(1,656)	(138)	(134)	8.1%	(4)
Unallocated Reserve	1,497	-	0.0%	-	0.0%	8,796	733	-	0.0%	733
Total Expenses	$ 360,870	$ 23,492	6.5%	$ 361,658	6.5%	$ 358,550	$ 29,879	$ 28,613	8.0%	$ 1,266

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 2023 comparative amounts are presented in a draft format. Adjustments related to fiscal year end 2023 audit affect the basic financial statements. The results of these adjustments will be presented in the audited annual report.

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 July 31, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2023
Assets				
Cash - unrestricted (a)	$ 212,840	$ 282,700	$ 495,540	$ 482,736
Cash - restricted (a)	129,775	125,394	255,169	470,204
Investments - unrestricted (a)	29,505	54,180	83,685	63,241
Investments - restricted (a)	56,600	172,982	229,582	177,998
Accounts Receivable	105,586	60,082	165,668	171,747
Due from (to) Other Funds (b)	13,814	(13,814)	-	-
Other Assets (c)	663,746	396,978	1,060,725	1,056,956
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,232,646	1,972,324	3,204,971	3,229,243
Land	293,617	126,816	420,433	420,433
Construction Work in Process (e)	388,161	298,688	686,849	668,326
Total assets	3,126,291	3,476,331	6,602,622	6,740,885
Deferred Outflows (f)	56,200	124,599	180,799	181,672
Liabilities				
Liabilities - Liabilities-ST	154,575	174,793	329,367	424,229
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,072	5,611	7,683	7,500
Cash Held FBO DWSD (d)	14,704	33,929	48,633	42,464
Liabilities - Long-Term (i)	3,083,558	3,452,507	6,536,065	6,598,619
Total liabilities	3,254,909	3,666,840	6,921,749	7,072,812
Deferred Inflows (f)	43,903	36,798	80,700	81,327
Total net position (j)	$ (116,321)	$ (102,708)	$ (219,028)	$ (231,582)

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, 2023 are also reported at market value. The July 31, 2023 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 July 2023 Financial Report Binder. Prior year ending balances are provided in the June 30, 2023 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 One Month ended July 31, 2023
($000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business-Type Activities	Comparative June 30, 2023
Revenue						
Wholesale customer charges	$ 32,723	93.7%	$ 23,568	57.6%	$ 56,291	$ 616,511
Local system charges	2,128	6.1%	16,381	40.0%	18,509	213,877
Industrial waste charges		0.0%	702	1.7%	702	8,393
Pollutant surcharges		0.0%	260	0.6%	260	4,895
Other revenues	76	0.2%	34	0.1%	110	2,011
Total Revenues	**34,927**	**100.0%**	**40,944**	**100.0%**	**75,871**	**845,686**
Operating expenses						
Operations and Maintenance	12,590	36.0%	15,984	39.0%	28,574	366,823
Depreciation	10,907	31.2%	13,365	32.6%	24,273	289,957
Amortization of intangible assets	297	0.9%	37	0.1%	334	4,006
Total operating expenses	**23,794**	**68.1%**	**29,386**	**71.8%**	**53,180**	**660,786**
Operating Income	11,133	31.9%	11,558	28.2%	22,691	184,900
Total Nonoperating (revenue) expense	3,594	10.3%	6,544	16.0%	10,137	197,183
Increase/(Decrease) in Net Position	**7,539**	**21.6%**	**5,014**	**12.2%**	**12,554**	**(12,283)**
Net Position (deficit), beginning of year	(123,860)		(107,722)		(231,582)	(219,299)
Net position (deficit), end of year	$ (116,321)		$ (102,708)		$ (219,028)	$ (231,582)

Totals may be off due to rounding

Water Fund

- ✓ The increase in Water Fund Net Position is $7.5 million.
- ✓ Wholesale water customer charges of $32.7 million account for 93.7% of Water System revenues.
- ✓ Operating expenses of $23.8 million represent 68.1% of total operating revenue. Depreciation is the largest operating expense at $10.9 million or 45.8% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals $11.1 million or 31.9% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $7.1 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 $5.0 million.
- ✓ Wholesale customer charges of $23.6 million account for 57.6% 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 $16.4 million account for 40.0% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of $29.4 million represent 71.8% of total operating revenue. Depreciation is the largest operating expense at $13.4 million or 45.5% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals $11.6 million or 28.2% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $8.5 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 July 2023 Financial Report Binder. Explanatory notes follow this schedule.

Table 3 – Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined
For the One Month ended July 31, 2023
($000)

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business-Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	2,543	20.2%	5,084	31.8%	7,627	26.7%
Overtime	484	3.8%	334	2.1%	818	2.9%
Benefits	1,537	12.2%	586	3.7%	2,122	7.4%
Total Personnel	$ 4,564	36.3%	$ 6,003	37.6%	$ 10,567	37.0%
Utilities						
Electric	3,068	24.4%	1,601	10.0%	4,669	16.3%
Gas	11	0.1%	465	2.9%	477	1.7%
Sewage	23	0.2%	171	1.1%	194	0.7%
Water		0.0%	950	5.9%	950	3.3%
Total Utilities	$ 3,102	24.6%	$ 3,187	19.9%	$ 6,289	22.0%
Chemicals	861	6.8%	1,929	12.1%	2,790	9.8%
Supplies and other	697	5.5%	1,330	8.3%	2,028	7.1%
Contractual services	3,525	28.0%	3,680	23.0%	7,206	25.2%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(75)	-0.6%	(98)	-0.6%	(172)	-0.6%
Intergovernmental Agreement	-	0.0%	-	0.0%	-	0.0%
Shared services allocation	(86)	-0.7%	(49)	-0.3%	(134)	-0.5%
Operations and Maintenance Expenses	**$ 12,590**	**100.0%**	**$ 15,984**	**100.0%**	**$ 28,574**	**100.0%**

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (22.0% of total O&M expenses) and chemicals (9.8% of total O&M expenses).
- ✓ Personnel costs (37.0% 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 (25.2%) includes:
    - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately $385 thousand);
    - Sewage Disposal System costs for the operation and maintenace of the biosolids dryer facility (approximately $1.5 million); and
    - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenace, 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 offets 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 One Month ended July 31, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2023
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	$ (2,007)	$ (1,312)	$ (3,319)	$ (41,059)
Investment earnings	(1,703)	(2,218)	(3,921)	(35,344)
Net (incr) decr in fair value of invstmt	(1,305)	(2,617)	(3,921)	(2,257)
Other nonoperating revenue	-	-	-	(3,872)
Interest Expense				
Bonded debt	9,134	9,848	18,982	228,066
Lease obligation	1,389	1,697	3,086	37,319
Other obligations	352	124	476	5,906
Total interest expense	10,875	11,670	22,544	271,291
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	-	-	(2,176)
Amortization, issuance costs, debt	(2,265)	1,024	(1,241)	(3,998)
(Gain) loss on disposal of capital assets	(1)	(4)	(5)	2,119
Loss on impairment of capital assets	-	-	-	-
Discontinued Capital Projects	-	-	-	20,903
Water Residential Assistance Program	-	-	-	12,343
Legacy pension expense	-	-	-	(20,765)
Total Nonoperating (Revenue)/Expense	**$ 3,594**	**$ 6,544**	**$ 10,137**	**$ 197,183**

- ✓ 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.
- ✓ 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 2022 market value adjustments for Water and Sewer total $2.8 million and $3.9 million, respectively. FY 2023 market value adjustments for Water and Sewer total $1.3 million and $2.6 million, respectively. Any difference is due to realized gain or loss on investments.

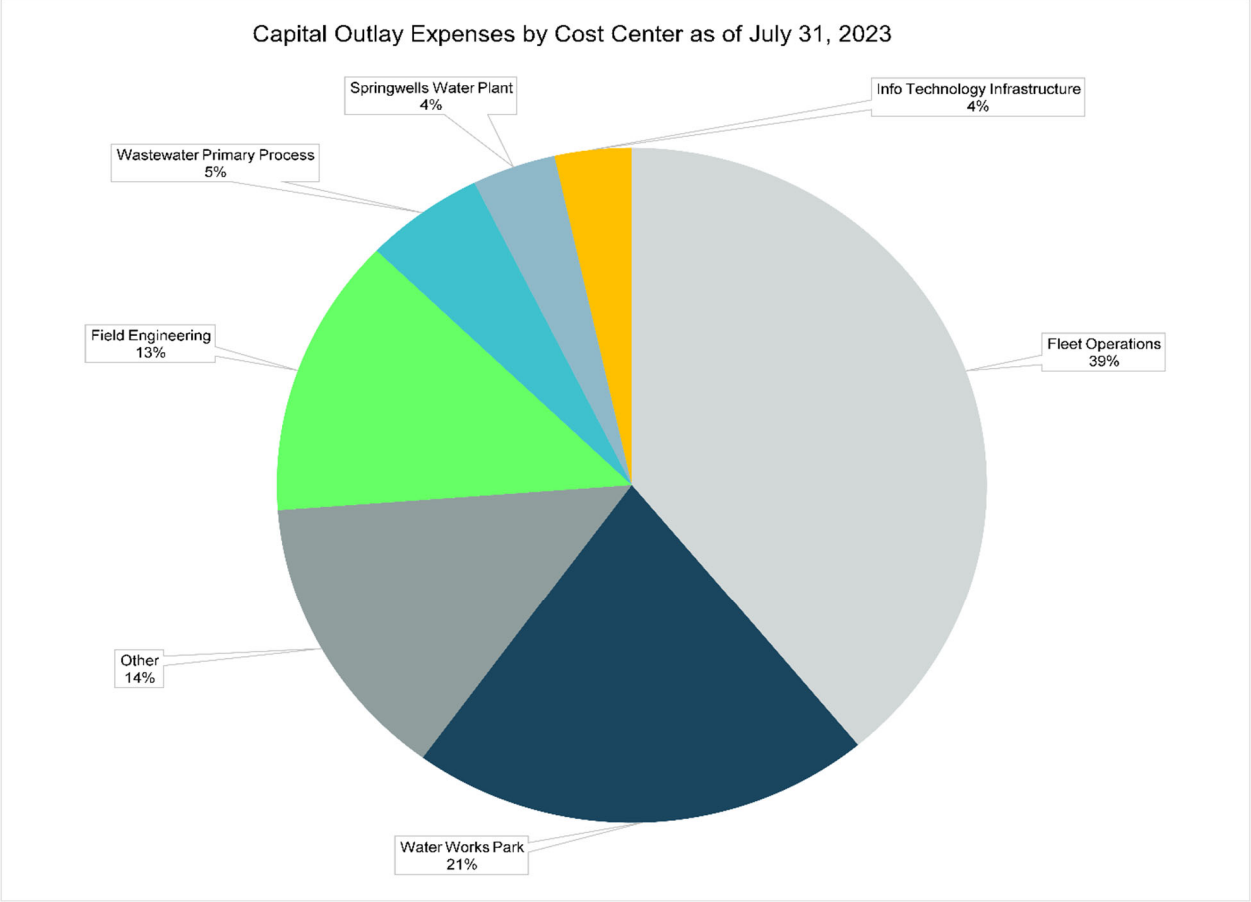
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
  - Bonded debt;
  - Lease obligation for the regional assets from the City of Detroit; and
  - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ FY 2023 other non-operating income primarily represents FEMA Covid-19 grant income for the Water and Sewage Disposal systems.
- ✓ The FY 2023 capital contribution in Nonoperating (revenue) expense represents funds from the Evergreen Farmington Sewer District for a maximum discharge capacity of 227 cubic feet per second (cfs) to the regional sewer system.
- ✓ FY 2023 Sewage Disposal loss on disposal of capital assets includes sale of McKinstry warehouse.
- ✓ For FY 2023, GLWA is recognizing non-operating pension revenue rather than expense as a result of improved investment earnings for the plan.
- ✓ The FY 2023 Discontinued capital projects represents the cancellation of three Water CIP projects to repurpose the Northeast Water Treatment Plant.

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 July 31, 2023, total capital outlay spend is $1.1 million. Following this chart is a sample list of projects and purchases from the total spend of $1.1 million:



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

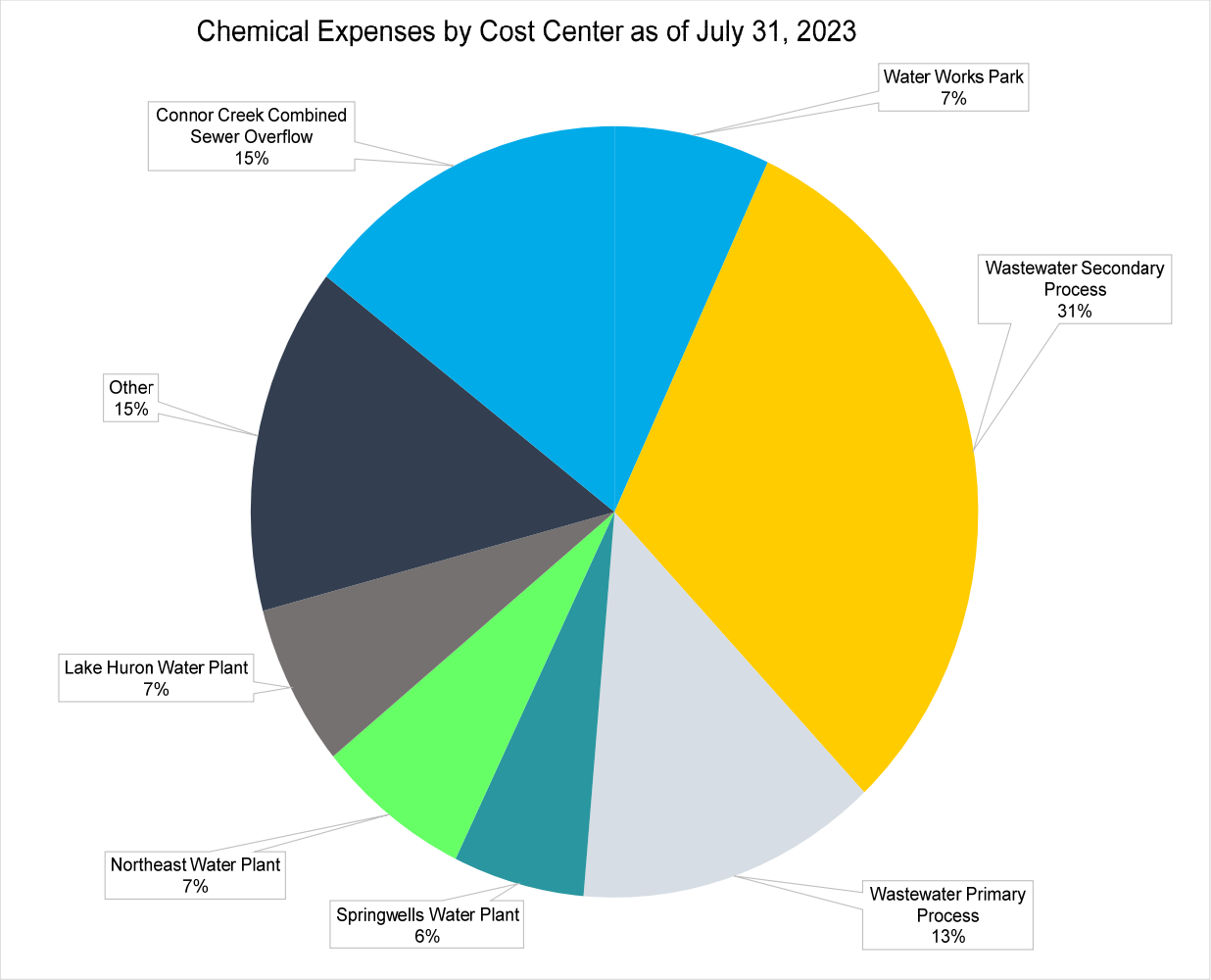
Water Operations: Water Works Park build out ($210k) and Asset Centre Implementation ($40k).

Wastewater Operations: Complex A pump replacement ($142k) and Instrumentation and Controls ($32k).

Centralized & Administrative Facilities: Trucks and vehicles ($413k); Pumps ($39k) and Software ($37k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

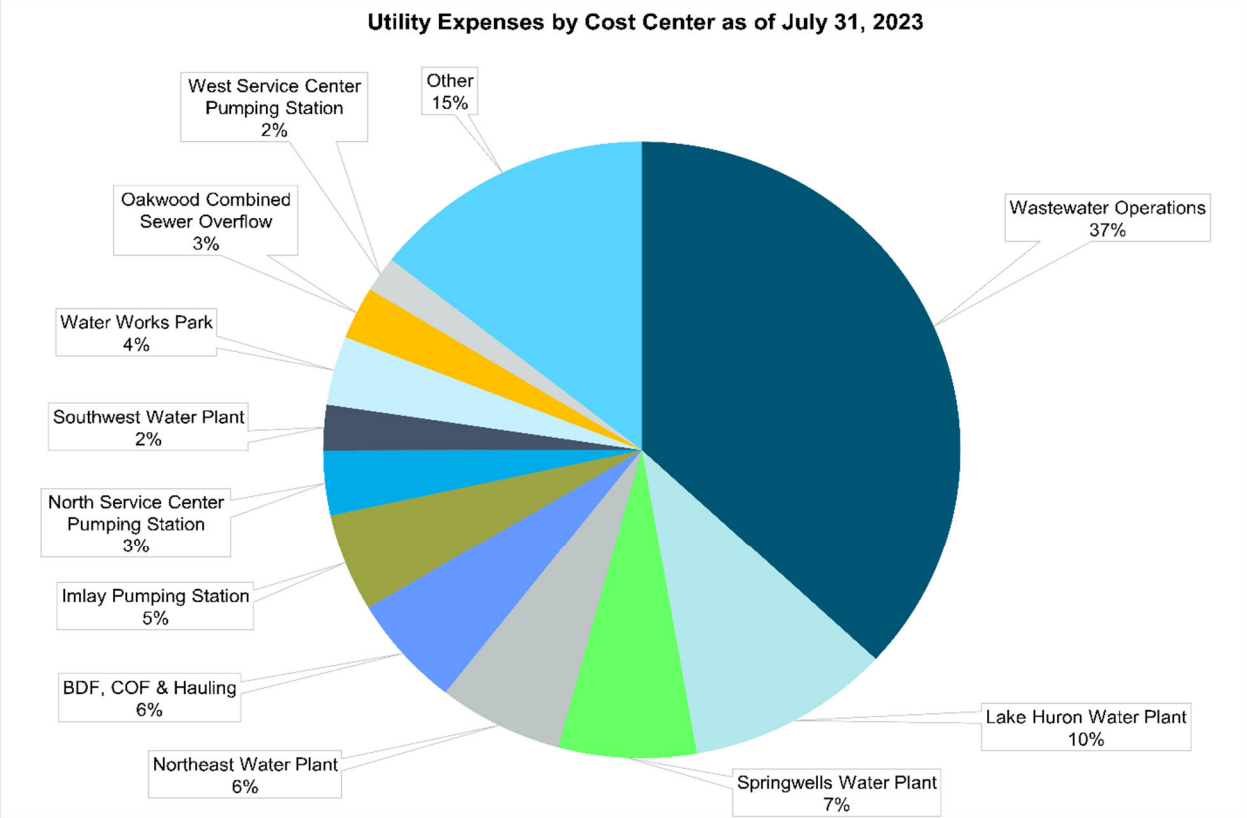
Chemical expenses are $2.8 million through July 31, 2023. The allocation is shown in the chart below and remains consistent with prior periods.



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 $6.3 million through July 31, 2023. 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 July 31, 2023 all reconciliations are up-to-date and complete.

There were no accounts added in the general ledger accounts since June 2023.

Chart 1 – Bank Reconciliation Completion Status

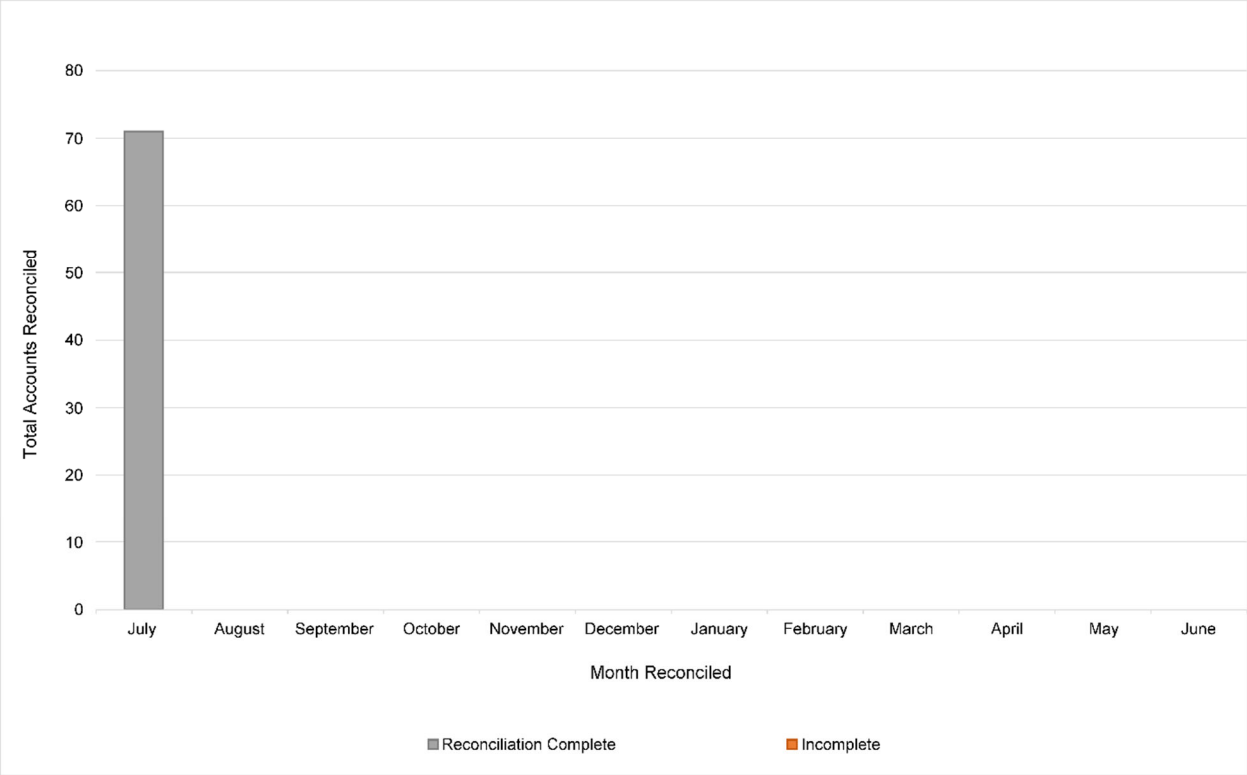


Table 1 – Fiscal Year 2024 GL Cash Account Rollforward

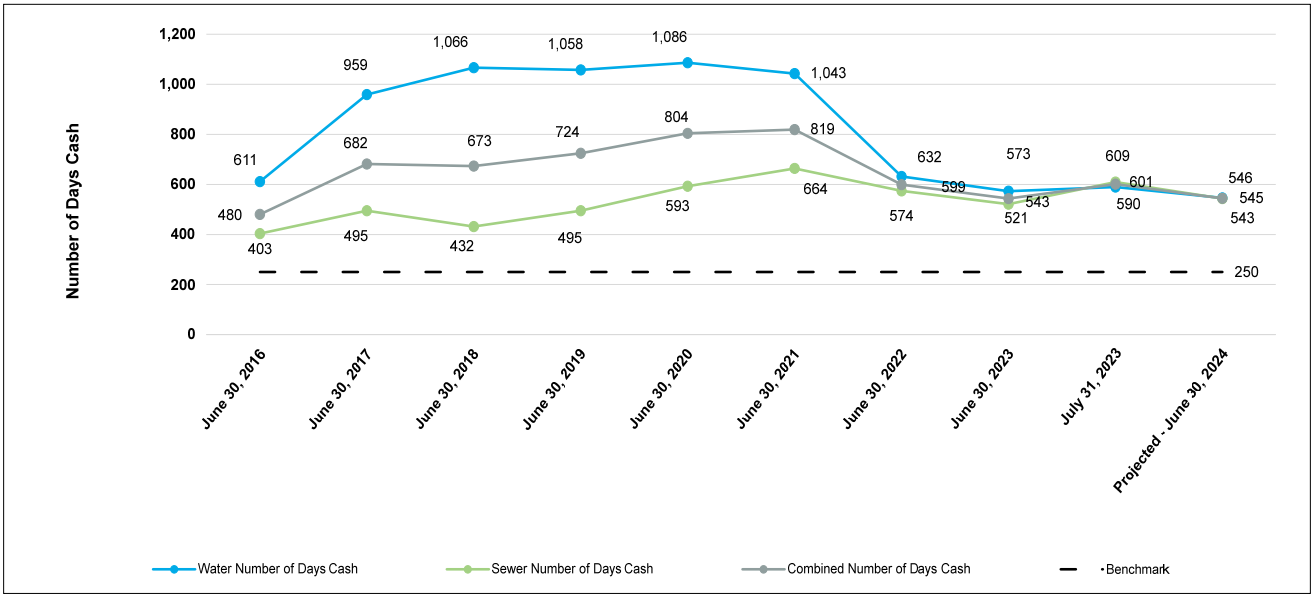
Total GL Cash accounts as of July 1, 2023	71
New GL Cash accounts	0
Inactivated GL Cash accounts	0
Total GL Cash accounts as of July 31, 2023	71

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 590 and Sewer at 609 days cash on hand as of July 31, 2023. 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 replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2024 projection is calculated based on values from the GLWA FY 2024 – 2028 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

	June 30, 2023	July 31, 2023	Projected June 30, 2024
Water Fund			
Cash and Investments - Unrestricted	$ 243,707,000	$ 242,345,000	$ 228,800,000
Operating Expense			
Operating Expense (a)	$ 285,220,000	$ 24,514,000	$ 294,173,000
Less: Depreciation (a)	(126,486,000)	(11,475,000)	(137,700,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(297,000)	(3,567,000)
Net Operating Expense	$ 155,167,000	$ 12,742,000	$ 152,906,000
Operating Expense per Day	$ 425,000	$ 411,000	$ 419,000
Days Cash			
Number of Days Cash	573	590	546
Sewage Disposal Fund			
Cash and Investments - Unrestricted	$ 302,270,000	$ 336,881,000	$ 306,100,000
Operating Expense			
Operating Expense (a)	$ 375,567,000	$ 30,929,000	$ 371,144,000
Less: Depreciation (a)	(163,471,000)	(13,792,000)	(165,500,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	$ 211,657,000	$ 17,137,000	$ 205,644,000
Operating Expense per Day	$ 580,000	$ 553,000	$ 563,000
Days Cash			
Number of Days Cash	521	609	543
Combined			
Cash and Investments - Unrestricted	$ 545,977,000	$ 579,226,000	$ 534,900,000
Operating Expense			
Operating Expense (a)	$ 660,787,000	$ 55,443,000	$ 665,317,000
Less: Depreciation (a)	(289,957,000)	(25,267,000)	(303,200,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(297,000)	(3,567,000)
Net Operating Expense	$ 366,824,000	$ 29,879,000	$ 358,550,000
Operating Expense per Day	$ 1,005,000	$ 964,000	$ 982,000
Days Cash			
Number of Days Cash	543	601	545

Totals may be off due to rounding

(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 One Month Ended July 31, 2023

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	$ 4,970	$ 1,725	$ 6,695
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	210	376	586
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	6,163	10,491	16,654
Accelerated pension B&C notes obligation portion (g)	18	40	58
Regional System lease (h)	486	595	1,081
GASB 87 & GASB 96 adjustments (h)	-	358	358
WRAP (i)	154	209	363
Extraordinary Repair & Replacement Fund transfers (j)	-	-	-
Improvement & Extension Fund transfers (j)	2,515	2,514	5,029
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(11,204)	(13,402)	(24,606)
Amortization - debt related (k)	2,265	(1,024)	1,241
Discontinued capital projects (k)	-		-
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	1	4	5
Raw water rights obligation (l)	242	-	242
Investment earnings for construction fund (m)	554	691	1,243
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	1,305	2,617	3,922
Improvement & extension fund operating expenses (p)	(140)	(180)	(318)
Capital Contribution (q)	-	-	-
Net Position Increase/(Decrease) per Financial Statements (b)	$ 7,539	$ 5,014	$ 12,553

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) Payments for the warehouse lease and subscription-based information technology arrangements (SBITA) are expensed for budget purposes. For financial reporting purposes, the warehouse lease is recorded under GASB 87 and payments are treated as a reduction in the lease liability and interest expense (which is a nonoperating expense). The SBITA payments are recorded under GASB 96 and are treated as a prepaid subscription asset as the software is currently in the implemented phase.

(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 Improvement & Extension Fund and Extraordinary Repair & Replacement 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.

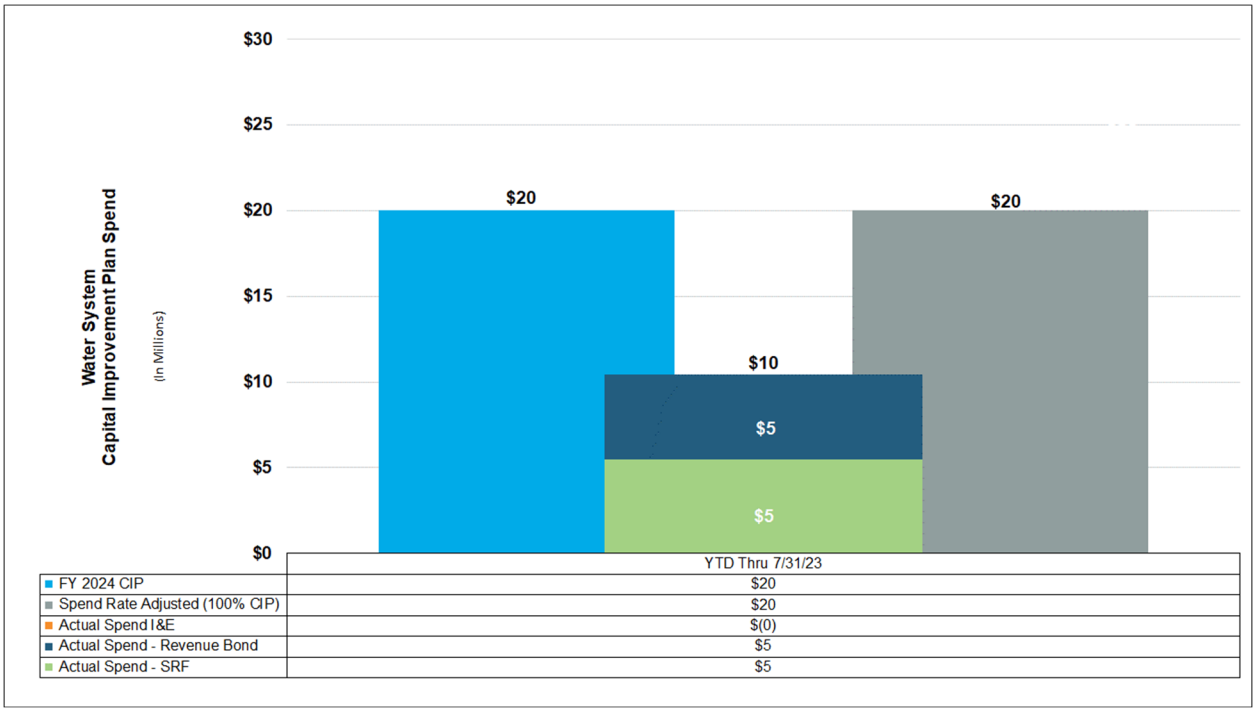
This report presents quarterly and monthly CIP spending against the prorated CIP in total and the CIP adjusted for the SRA. For FY2024 the Board approved capital spend rate is 100%. The prorated CIP is calculated by dividing the total fiscal year 2024 board-approved CIP plan by twelve equal months. It should be noted that for operational purposes, GLWA utilizes Primavera P6 for refined monthly projections for cash management and project management.

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

As of July 2023, the water system incurred $10 million of construction costs to date. This spend represents 52% of the original, Board-approved CIP, and 52% of the Board approved spend rate adjustment.

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

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



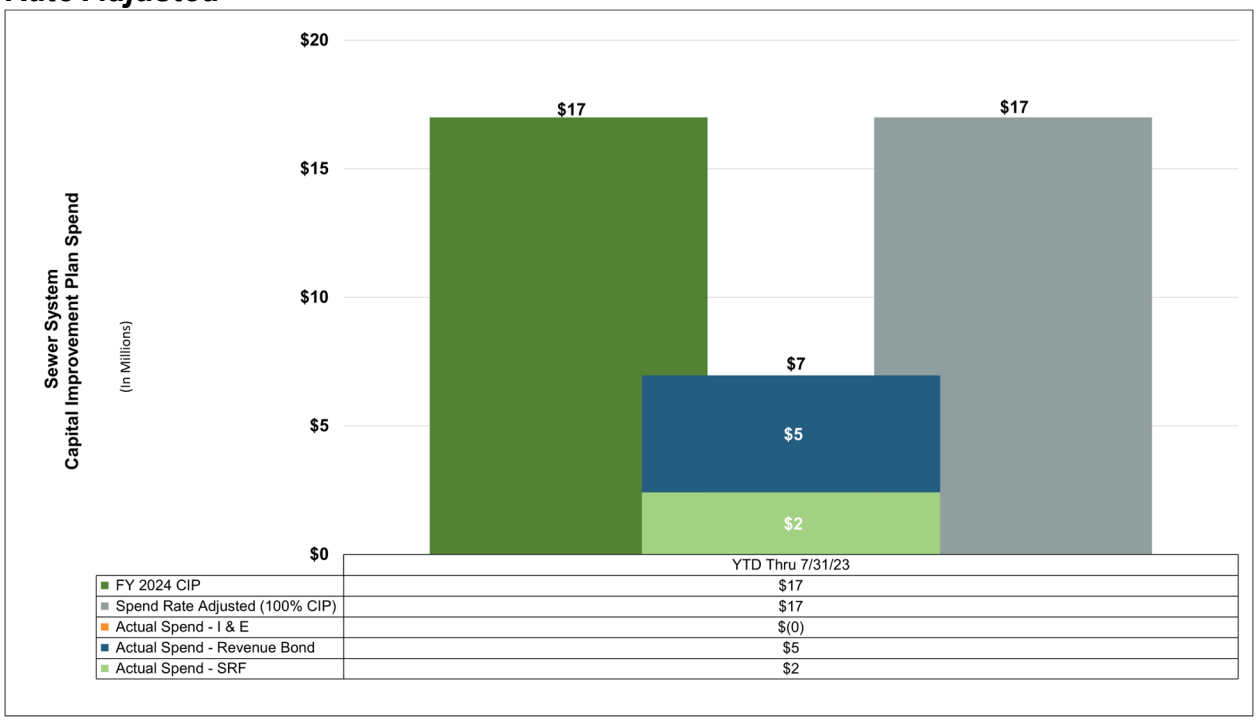
	YTD Thru 7/31/23
FY 2024 CIP	$20
Spend Rate Adjusted (100% CIP)	$20
Actual Spend I&E	$(0)
Actual Spend - Revenue Bond	$5
Actual Spend - SRF	$5

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

As of July 2023, the Sewer system incurred $7 million of construction costs to date. This spend represents 41% of the original, Board-approved CIP, and 41% of the Board approved spend rate adjustment.

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

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



	YTD Thru 7/31/23
FY 2024 CIP	$17
Spend Rate Adjusted (100% CIP)	$17
Actual Spend - I & E	$(0)
Actual Spend - Revenue Bond	$5
Actual Spend - SRF	$2

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.

As of June 30, 2023, GLWA and DWSD have meet the requirements of the Plan of Adjustment requiring contributions to the Detroit General Retirement System (GRS) pension plan through Operational and Maintenance Pension sub-accounts. GLWA and DWSD staff monitor the remaining pension obligation closely. Budgeted, annual contributions toward that remaining obligation, at this time identified as limited administrative fee contributions, are transferred to the Pension Obligation Payment fund and reflected in the reported activity found here.

Table 1 – GLWA FY 2024 Water MBO Transfers reflects the required transfers for FY 2024 completed through July 2023. MBO transfers for water totaling $13.5 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2024 Sewer MBO Transfers reflects the required transfers for FY 2024 completed through July 2023. MBO transfers for sewer totaling $18.1 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2024 to date.

Table 1 – GLWA FY 2024 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 2024							
July 2023	$ 12,742,200	$ -	$482,808	$225,850	-	-	$13,450,858
August 2023							
September 2023							
October 2023							
November 2023							
December 2023							
January 2024							
February 2024							
March 2024							
April 2024							
May 2024							
June 2024							
Total FY 2024	$ 12,742,200	$ -	$ 482,808	$ 225,850	$ -	$ -	$13,450,858

Table 2 – GLWA FY 2024 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 2024							
July 2023	$ 17,136,975	-	$682,459	$319,700	-	-	$18,139,134
August 2023							
September 2023							
October 2023							
November 2023							
December 2023							
January 2024							
February 2024							
March 2024							
April 2024							
May 2024							
June 2024							
Total FY 2024	$ 17,136,975	-	$682,459	$319,700	$ -	$ -	$18,139,134

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	156,747,700	6,048,000	10,695,700	2,611,800	-	2,200,000	178,303,200
Total FY 2024 (year to date)	12,742,200	-	482,808	225,850	-	-	13,450,858
Life to Date	$1,000,448,012	$48,362,300	$85,251,383	$17,800,154	$2,686,900	$2,806,000	$1,157,354,749

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	204,122,500	10,824,000	14,687,400	3,673,800	-	-	233,307,700
Total FY 2024 (year to date)	17,136,975	-	682,459	319,700	-	-	18,139,134
Life to Date	$1,436,273,067	$86,620,800	$116,859,868	$25,323,396	$8,246,100	$779,600	$1,674,102,831

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 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.

As of June 30, 2023, GLWA and DWSD have meet the requirements of the Plan of Adjustment requiring contributions to the Detroit General Retirement System (GRS) pension plan through Operational and Maintenance Pension sub-accounts. GLWA and DWSD staff monitor the remaining pension obligation closely. Budgeted, annual contributions toward that remaining obligation, at this time identified as limited administrative fee contributions, are transferred to the Pension Obligation Payment fund and reflected in the reported activity found here.

Table 4 – DWSD FY 2024 Water MBO Transfers reflects the required transfers for FY 2024 completed through July 2023. MBO transfers for Water totaling $5.6 million have been transferred to accounts held by DWSD.

Table 5 – DWSD FY 2024 Sewer MBO Transfers reflects the required transfers for FY 2024 completed through July 2023. MBO transfers for Sewer totaling $6.9 million have been transferred to accounts held by DWSD.

Table 6 – DWSD Water MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2024 to date.

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2024 to date.

Table 4 – DWSD FY 2024 Water MBO Transfers

WATER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Water
FY 2024				
July 2023	$3,731,400	-	$1,875,000	$5,606,400
August 2023				
September 2023				
October 2023				
November 2023				
December 2023				
January 2024				
February 2024				
March 2024				
April 2024				
Total FY 2024	$3,731,400	-	$1,875,000	$5,606,400

Table 5 – DWSD FY 2024 Sewer MBO Transfers

SEWER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2024				
July 2023	$4,642,142	-	$2,291,667	$6,933,809
August 2023				
September 2023				
October 2023				
November 2023				
December 2023				
January 2024				
February 2024				
March 2024				
April 2024				
May 2024				
June 2024				
Total FY 2024	$4,642,142	-	$2,291,667	$6,933,809

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				
MBO/Lease Requirement	42,581,600	4,272,000	22,500,000	69,353,600
Offset to Debt Service	-	-	(2,922,100)	(2,922,100)
Net MBO Transfer	42,581,600	4,272,000	19,577,900	66,431,500
FY 2024 (year to date)				
MBO/Lease Requirement	3,731,400	-	1,875,000	5,606,400
Offset to Debt Service	-	-	-	-
Net MBO Transfer	3,731,400	-	1,875,000	5,606,400
Life-to-Date				
MBO/Lease Requirement	277,124,304	34,157,100	181,875,000	493,156,404
Offsets	-	-	(31,847,900)	(31,847,900)
Total Water	**277,124,304**	**34,157,100**	**150,027,100**	**461,308,504**

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				
MBO/Lease Requirement	51,396,400	2,856,000	27,500,000	81,752,400
Offset to Debt Service	-	-	(4,388,300)	(4,388,300)
Total MBO Transfer	51,396,400	2,856,000	23,111,700	77,364,100
FY 2024 (year to date)				
MBO/Lease Requirement	4,642,142	-	2,291,667	6,933,809
Offset to Debt Service	-	-	-	-
Total MBO Transfer	4,642,142	-	2,291,667	6,933,809
Life-to-Date				
MBO/Lease Requirement	428,194,554	22,859,800	222,291,667	672,424,474
Offsets	(7,100,000)	-	(51,780,661)	(57,959,114)
Total Sewer	**421,094,554**	**22,859,800**	**170,511,006**	**614,465,360**

* Note: FY 2016 lease transfer amounts shown do not incude 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

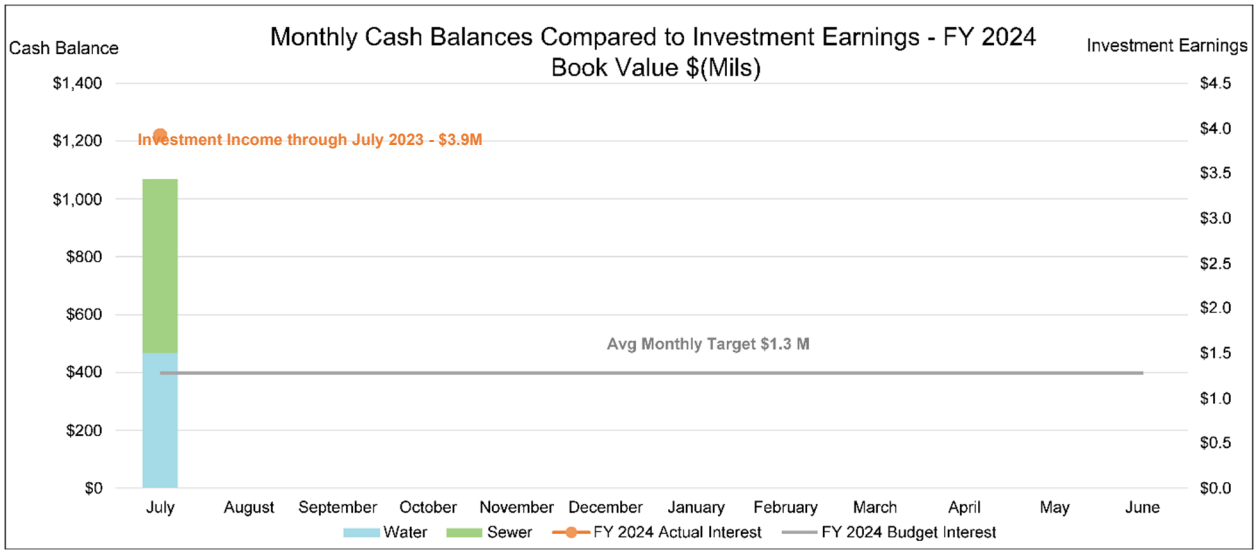
Monthly Cash Balances Compared to Investment Income

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 July 2023, GLWA earned investment income of $3.9 million and cumulative FY 2024 earnings through July 2023 of $3.9 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 July 2023



$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	$466	-	-	-	-	-	-	-	-	-	-	-
Sewer	$602	-	-	-	-	-	-	-	-	-	-	-
Total	$1,068	-	-	-	-	-	-	-	-	-	-	-
Investment Income	$3.9	-	-	-	-	-	-	-	-	-	-	-

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:

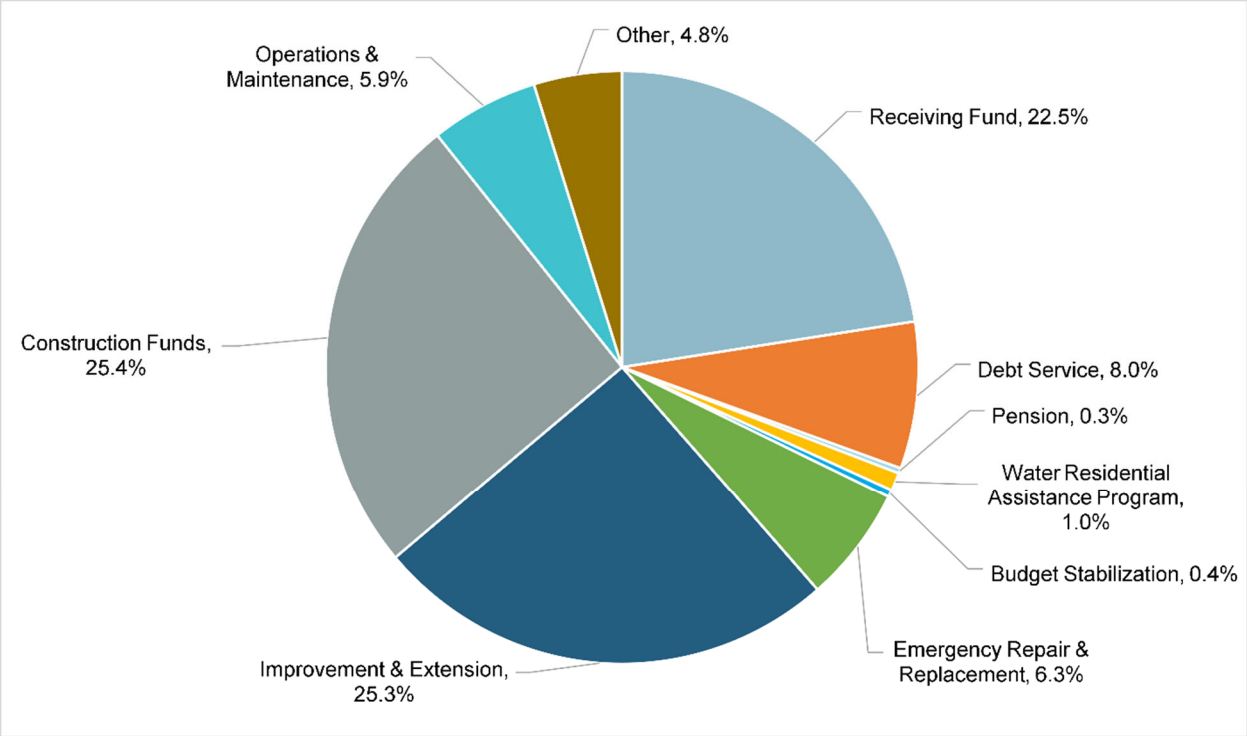
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors, security deposit funds held on behalf of the City of Flint, and capital contribution funds provided by the Evergreen Farmington Sewer District recognized as related project work is completed

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 July 2023 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of July 31, 2023 is $466 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 are funding the capital program.

Chart 2 – Cash Balances - Water Funds as of July 2023

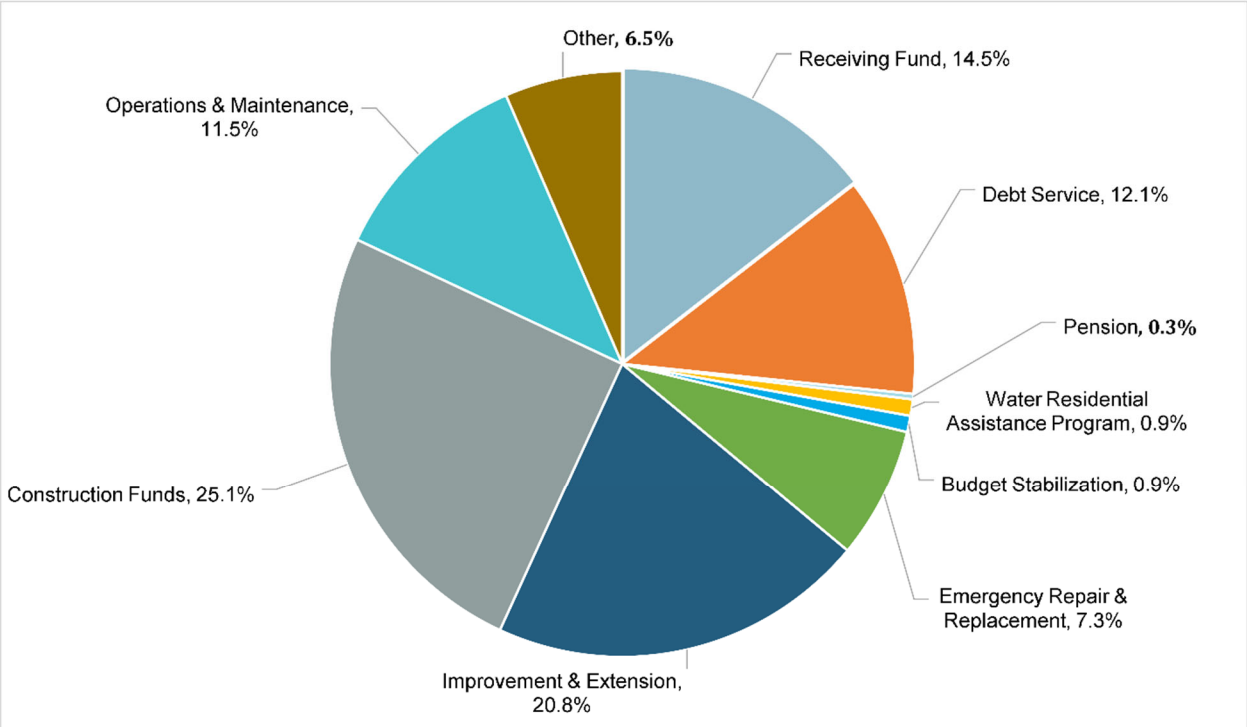


Note: *Due to rounding totals may not equal 100%.*

Chart 3 – Cash Balances - Sewer Funds as of July 2023 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of July 31, 2023 is $602 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 are currently funding the capital program.

Chart 3 – Cash Balances - Sewer Funds as of July 2023



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 2024 water usage and billed revenue which are provided by DWSD staff. As of July 31, 2023, the DWSD usage was at 103.89% of the budget and billed revenue was at 104.46% 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								
	FY 2024 - Original Budget		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	Mcf	*$*
July	239,000	12,068,200	248,307	12,606,397	9,307	538,197	244,749	9,490,589
August	237,000	11,985,000					277,313	13,301,941
September	246,000	12,236,000					234,806	11,591,601
October	216,000	11,118,000					239,062	11,730,809
November	205,000	10,664,000					212,663	10,706,519
December	196,000	10,293,000					222,502	11,073,513
January	197,000	10,334,000					227,748	11,257,742
February	208,000	10,788,000					208,568	10,569,468
March	191,000	10,086,000					229,264	11,383,630
April	214,000	11,036,000					198,665	10,121,640
May	186,000	10,000,000					241,525	11,820,301
June	225,000	11,489,000					257,749	12,567,250
Total	2,560,000	132,097,200	248,307	12,606,397	9,307	538,197	2,794,614	135,615,003
Subtotals ytd	*239,000*	*12,068,200*	*248,307*	*12,606,397*	*9,307*	*538,197*		
Achievement of Budget			*103.89%*	*104.46%*				

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

Table 2 – DWSD Retail Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
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%
December	11,630,994	8,121,586	3,509,408	43.21%
January	8,857,268	6,919,040	1,938,228	28.01%
February	8,244,713	10,156,126	(1,911,413)	-18.82%
March	10,417,832	11,093,125	(675,293)	-6.09%
April	9,417,449	7,431,900	1,985,549	26.72%
May	12,162,719	7,660,852	4,501,867	58.76%
June	13,467,858	9,123,179	4,344,679	47.62%
July	5,943,286	8,518,373	(2,575,087)	-30.23%
Rolling, 12-Month Total	118,214,048	102,093,316		
Rolling, 12-Month Average	9,851,171	8,507,776		

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 2024 sewer billed revenue which are provided by DWSD staff. As of July 31, 2023, the DWSD usage was at 103.79% of the budget and billed revenue was at 100.02% 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								
	FY 2024 - Original Budget		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume	Revenue	Volume (2)	Revenue (3)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	Mcf	*$*
July	200,000	29,187,700	207,574	29,192,723	7,574	5,023	223,661	29,297,748
August	199,000	29,128,000					231,809	29,640,202
September	203,000	29,340,000					197,455	27,523,933
October	182,000	28,119,000					194,154	27,375,180
November	172,000	27,526,000					172,579	26,525,064
December	165,000	27,111,000					174,896	26,676,360
January	166,000	27,170,000					175,562	26,403,544
February	175,000	27,704,000					160,804	25,814,735
March	161,000	26,873,000					181,217	26,720,229
April	179,000	27,941,000					167,727	26,120,878
May	160,000	26,839,000					195,191	27,508,373
June	188,000	28,475,000					206,163	28,018,277
Total	2,150,000	335,413,700	207,574	29,192,723	7,574	5,023	2,281,218	327,624,524
Subtotals ytd	*200,000*	*29,187,700*	*207,574*	*29,192,723*		*5,023*		
Achievement of Budget/Goal			*103.79%*	*100.02%*				

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

(2) Reflects billed volume based on actual usage except for residential customers where the billed volume differs from actual usage due to residential sewer volume caps implemented in FY 2023.

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
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%
December	23,756,153	24,880,743	(1,124,590)	-4.52%
January	23,760,629	23,020,491	740,138	3.22%
February	23,867,073	24,495,922	(628,849)	-2.57%
March	30,697,464	29,410,086	1,287,378	4.38%
April	21,542,671	22,115,076	(572,405)	-2.59%
May	24,419,561	20,952,592	3,466,969	16.55%
June	23,769,626	25,922,279	(2,152,653)	-8.30%
July	32,379,222	30,935,343	1,443,879	4.67%
Rolling 12-Month Total	295,696,595	298,029,015		
Rolling, 12-Month Average	24,641,383	24,835,751		

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 July 31, 2023 with comparative totals from June 30, 2023, June 30, 2022, and June 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 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 held in check overall due to a consistent practice of adjusting the allowance for doubtful accounts monthly. 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 July 31, 2023 with comparative totals from July 31, 2022. 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 July 31, 2023 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				
	Monthly	Receivables		
Period Ending	Sales	Total	Allowance	Net	Days in AR (1)
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
June 30, 2023	$ 39,443,000	$ 327,023,000	$ (272,012,000)	$ 55,011,000	42
July 31, 2023	$ 40,671,000	$ 290,065,000	$ (238,499,000)	$ 51,566,000	38

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	215,542	$ 785.64	$ 12,149,000	$ 11,052,000	$ 29,571,000	$ 116,565,000	$ 169,338,000
			7.2%	*6.5%*	*17.5%*	*68.8%*	*100.0%*
Commercial	21,356	1,455.28	8,034,000	2,550,000	5,858,000	14,638,000	31,079,000
			25.8%	*8.2%*	*18.8%*	*47.1%*	*100.0%*
Industrial	4,370	3,226.55	4,885,000	1,048,000	1,985,000	6,181,000	14,100,000
			34.6%	*7.4%*	*14.1%*	*43.8%*	*100.0%*
Tax Exempt	3,799	843.68	587,000	196,000	828,000	1,594,000	3,205,000
			18.3%	*6.1%*	*25.8%*	*49.7%*	*100.0%*
Government	47,877	415.46	5,190,000	2,226,000	621,000	11,854,000	19,891,000
			26.1%	*11.2%*	*3.1%*	*59.6%*	*100.0%*
Drainage	45,488	657.35	2,416,000	1,394,000	4,544,000	21,549,000	29,902,000
			8.1%	*4.7%*	*15.2%*	*72.1%*	*100.0%*
Subtotal - Active Accounts	**338,432**	**$ 790.45**	**$ 33,261,000**	**$ 18,466,000**	**$ 43,407,000**	**$ 172,381,000**	**$ 267,514,000**
			12.4%	*6.9%*	*16.2%*	*64.4%*	*100.0%*
Inactive Accounts	335,872	67.14	(182,000)	10,000	756,000	21,967,000	22,551,000
			(0.8%)	*0.0%*	*3.4%*	*97.4%*	*100.0%*
Total	**674,304**	**$ 430.17**	**$ 33,079,000**	**$ 18,476,000**	**$ 44,163,000**	**$ 194,347,000**	**$ 290,065,000**
% of Total A/R			*11.4%*	*6.4%*	*15.2%*	*67.0%*	*100.0%*
Water Fund	230,544	236.54	$ 8,145,000	$ 4,772,000	$ 8,963,000	$ 32,654,000	$ 54,534,000
Sewer Fund	258,018	912.85	$ 24,934,000	$ 13,704,000	$ 35,199,000	$ 161,693,000	$ 235,531,000
Total June 30, 2023 (a)	674,304	$ 430.17	$ 33,079,000	$ 18,476,000	$ 44,163,000	$ 194,347,000	**$ 290,065,000**
Water Fund- Allowance							$ (45,292,000)
Sewer Fund- Allowance							$ (193,206,000)
Total Bad Debt Allowance							**$ (238,499,000)**
Comparative - July 2022 (b)	651,284	$ 475.67	$ 35,807,000	$ 15,536,000	$ 43,864,000	$ 214,587,000	$ 309,793,000
Difference (a) - (b)	23,020		$ (2,728,000)	$ 2,941,000	$ 298,000	$ (20,240,000)	$ (19,729,000)

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 2024 water billed usage and revenues. As of July 31, 2023, the billed usage was at 86.85% of the original plan and billed revenue at 93.21% of the original plan. Billings and usage from the City of Flint *are* included as they were assumed in the FY 2024 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 the prior year for the twelve-month period ending July 31, 2022.

Table 1 – FY 2024 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
	FY 2024 Charges (3)		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	Mcf	$
July	1,607,433	34,283,300	1,396,012	31,956,320	(211,421)	(2,326,980)	1,664,936	34,349,872
August	1,469,739	32,797,900	-	-			1,418,347	31,555,444
September	1,284,305	30,543,500	-	-			1,308,481	30,306,713
October	1,037,450	27,748,500	-	-			1,055,245	27,391,089
November	898,776	26,395,000	-	-			906,669	25,911,801
December	966,122	26,990,700	-	-			990,177	26,652,607
January	963,772	27,002,600	-	-			979,573	26,536,118
February	874,396	26,142,700	-	-			869,843	25,535,320
March	960,207	26,930,300	-	-			961,541	26,356,490
April	917,893	26,581,600	-	-			917,599	25,997,955
May	1,136,342	29,098,000	-	-			1,169,448	28,895,975
June	1,460,066	32,678,300	-	-			1,570,958	33,407,419
Total	13,576,500	347,192,400	1,396,012	31,956,320	(211,421)	(2,326,980)	13,812,817	342,896,802
Subtotals ytd	*1,607,433*	*34,283,300*	*1,396,012*	*31,956,320*	*(211,421)*	*(2,326,980)*		
Achievement of Original Plan			*86.85%*	*93.21%*				
Billing Adjustments (4)			*2,670*	*36,447*				
			1,398,682	*31,992,767*				
			87.01%	*93.32%*				

(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 Madison Heights.

Table 2 - Wholesale Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
August	41,154,992	31,668,492	(31,668,492)	-100.00%
September	21,887,632	23,849,618	(1,961,986)	-8.23%
October	38,029,648	29,212,277	8,817,371	30.18%
November	30,903,329	25,265,770	5,637,559	22.31%
December	34,298,469	25,302,369	8,996,100	35.55%
January	19,182,054	31,280,599	(12,098,545)	-38.68%
February	26,553,529	24,919,847	1,633,682	6.56%
March	26,074,213	22,123,572	3,950,641	17.86%
April	20,940,451	21,726,941	(786,490)	-3.62%
May	29,265,308	27,717,969	1,547,339	5.58%
June	29,370,704	26,379,503	2,991,201	11.34%
July	22,645,008	14,435,092	8,209,916	56.87%
Rolling 12-Month Total	340,305,337	303,882,049		
Rolling, 12-Month Average	28,358,778	25,323,504		

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	12
Emergency	0
Older Contracts	6
Total	18

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 2024 sewer billed revenue. As of July 31, 2023 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 above the twelve-month period ending July 31, 2022.

Table 3 – FY 2024 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
	FY 2024 Charges		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	*Mcf*	*$*
July	N/A	23,494,800	N/A	23,494,800	N/A	-	N/A	22,888,100
August	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
September	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
October	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
November	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
December	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
January	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
February	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
March	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
April	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
May	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
June	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
Total		281,937,600		23,494,800		-		274,657,200
Subtotals ytd		*23,494,800*		*23,494,800*		-		
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**
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%
December	18,314,222	21,765,958	(3,451,736)	-15.86%
January	17,636,972	26,436,258	(8,799,286)	-33.28%
February	33,102,769	23,937,258	9,165,511	38.29%
March	23,746,469	24,713,158	(966,689)	-3.91%
April	17,769,710	19,937,558	(2,167,848)	-10.87%
May	18,213,966	10,226,700	7,987,266	78.10%
June	38,287,549	29,659,245	8,628,304	29.09%
July	22,331,831	28,223,515	(5,891,684)	-20.88%
Rolling 12-Month Total	277,274,774	272,174,816		
Rolling, 12-Month Average	23,106,231	22,681,235		

City of Highland Park Billings and Collections

Until October 25, 2023 and the approval of a proposed term sheet, City of Highland Park was provided water service pursuant to an emergency service basis. Sewer service was 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 July 31, 2023, Highland Park had a delinquent balance of $54.4 million, including $40.4 million for wastewater treatment services, $1.9 million for industrial waste control services, and $12.2 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 2024 through July 31, 2023. 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

	Service Month	Water	Sewer	IWC	Total
August 2022 Billing	July 2022	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	August 2022	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	September 2022	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	October 2022	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
December 2022 Billing	November 2022	103,645	451,700	4,025	559,370
December 2022 Payments		-	(641,773)	-	(641,773)
December 31, 2022 Balance		11,587,242	41,679,514	1,842,271	55,109,027
January 2023 Billing	December 2022	99,260	451,700	3,997	554,957
January 2023 Payments		-	(1,341,522)	-	(1,341,522)
January 31, 2023 Balance		11,686,502	40,789,692	1,846,268	54,322,462
February 2023 Billing	January 2023	106,448	451,700	3,998	562,146
February 2023 Payments		-	(434,682)	-	(434,682)
February 28, 2023 Balance		11,792,950	40,806,710	1,850,266	54,449,926
March 2023 Billing	February 2023	99,164	451,700	3,889	554,753
March 2023 Payments		-	(347,442)	-	(347,442)
March 31, 2023 Balance		11,892,114	40,910,969	1,854,155	54,657,238
April 2023 Billing	March 2023	101,068	451,700	3,897	556,665
April 2023 Payments		-	(358,010)	-	(358,010)
April 30, 2023 Balance		11,993,182	41,004,659	1,858,052	54,855,893
May 2023 Billing	April 2023	98,870	451,700	3,906	554,476
May 2023 Payments		-	(349,566)	-	(349,566)
May 31, 2023 Balance		12,092,052	41,106,793	1,861,958	55,060,803
June 2023 Billing	May 2023	103,555	451,700	3,906	559,161
June 2023 Payments		(126,000)	(1,261,249)		(1,387,249)
June 30, 2023 Balance		12,069,607	40,297,244	1,865,864	54,232,714
July 2023 Billing	June 2023	107,088	451,700	3,906	562,694
July 2023 Payments		-	(386,031)	-	(386,031)
July 31, 2023 Balance		12,176,695	40,362,913	1,869,769	54,409,377

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 July 31, 2023.

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. Five water accounts comprise the past due balances over 46 days. Two accounts make up a past due balance of $87 thousand which were subsequently paid in September & October. One of the past due accounts is currently under review. The remaining two past due amounts relate to ongoing disputes regarding the Highland Park portion of their water charges.

The Pollutant Surcharge past due balance consist 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	$ 65,594,116.35	$ 47,529,627.23	$ 1,108,277.58	$ 1,056,239.10	$ 15,899,972.44
Sewer	$ 53,774,779.43	$ 13,863,566.32	$ 451,700.00	$ 451,700.00	$ 39,007,813.11
IWC	$ 2,322,128.72	$ 460,170.89	$ 3,905.78	$ 3,896.83	$ 1,854,155.22
Pollutant Surcharge	$ 457,795.86	$ 461,566.17	$ (7,801.44)	$ 3,414.78	$ 616.35
Total	$ 122,148,820.36	$ 62,314,930.61	$ 1,556,081.92	$ 1,515,250.71	$ 56,762,557.12
	100.00%	51.02%	1.27%	1.24%	46.47%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 53,417,421.25	$ 47,318,984.47	$ 1,009,407.50	$ 955,171.09	$ 4,133,858.19
Sewer	$ 13,411,866.32	$ 13,411,866.32	$ -	$ -	$ -
IWC	$ 452,359.33	$ 452,359.33	$ -	$ -	$ -
Pollutant Surcharge	$ 457,795.86	$ 461,566.17	$ (7,801.44)	$ 3,414.78	$ 616.35
Total	$ 67,739,442.76	$ 61,644,776.29	$ 1,001,606.06	$ 958,585.87	$ 4,134,474.54
	100.00%	91.00%	1.48%	1.42%	6.10%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 45,803,411.75	$ 45,638,954.11	$ 166,375.87	$ -	$ (1,918.23)
Sewer	$ 13,411,866.32	$ 13,411,866.32	$ -	$ -	$ -
IWC	$ 452,359.33	$ 452,359.33	$ -	$ -	$ -
Pollutant Surcharge	$ 457,795.86	$ 461,566.17	$ (7,801.44)	$ 3,414.78	$ 616.35
Total	$ 60,125,433.26	$ 59,964,745.93	$ 158,574.43	$ 3,414.78	$ (1,301.88)
	100.00%	99.73%	0.26%	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 2024 reflects one month of activity to date.

Water fund receipts fell short of required disbursements by 10% through July 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 4% since July 1, 2019.

Sewer fund receipts exceeded required disbursements by 4% through July 31, 2023 in line with the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2019.

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 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru July 31
	Water					
1	Receipts	$ 332,606,196	$ 336,642,021	$ 338,117,694	$ 363,335,474	$ 25,609,121
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	332,606,196	336,642,021	338,117,694	363,335,474	25,609,121
4	Disbursements	(296,190,425)	(308,713,407)	(316,495,360)	(349,186,375)	(28,473,826)
5	Receipts Net of Required Transfers	36,415,771	27,928,614	21,622,334	14,149,099	(2,864,705)
6	I&E Transfer	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)	-
7	Net Receipts	$ 10,696,020	$ (4,063,073)	$ (5,000,528)	$ 4,250,999	$ (2,864,705)
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*112%*	*109%*	*107%*	*104%*	*90%*
	Sewer					
9	Receipts	$ 490,461,356	$ 472,871,853	$ 471,979,297	$ 498,888,416	$ 41,157,810
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	490,461,356	472,871,853	471,979,297	498,888,416	41,157,810
12	Disbursements	(445,604,952)	(436,600,883)	(450,701,751)	(473,516,238)	(39,468,557)
13	Receipts Net of Required Transfers	44,856,404	36,270,970	21,277,546	25,372,178	1,689,253
14	I&E Transfer	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)	-
15	DWSD Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	17,542,669	18,206,431	8,296,578	-	-
17	Net Receipts	$ 43,302,873	$ 13,972,674	$ (8,077,664)	$ (1,394,022)	$ 1,689,253
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*110%*	*108%*	*105%*	*105%*	*104%*
	Combined					
19	Receipts	$ 823,067,552	$ 809,513,874	$ 810,096,991	$ 862,223,890	$ 66,766,931
20	MOU Adjustments	-	-	-	-	-
21	Adjusted Receipts	823,067,552	809,513,874	810,096,991	862,223,890	66,766,931
22	Disbursements	(741,795,377)	(745,314,290)	(767,197,111)	(822,702,613)	(67,942,383)
23	Receipts Net of Required Transfers	81,272,175	64,199,584	42,899,880	39,521,277	(1,175,452)
24	I&E Transfer	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)	-
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	17,542,669	18,206,431	8,296,578	-	-
27	Net Receipts	$ 53,998,893	$ 9,909,601	$ (13,078,192)	$ 2,856,977	$ (1,175,452)
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*111%*	*109%*	*106%*	*105%*	*98%*

Chart 1 – GLWA 12-Month Net Receipts – Water

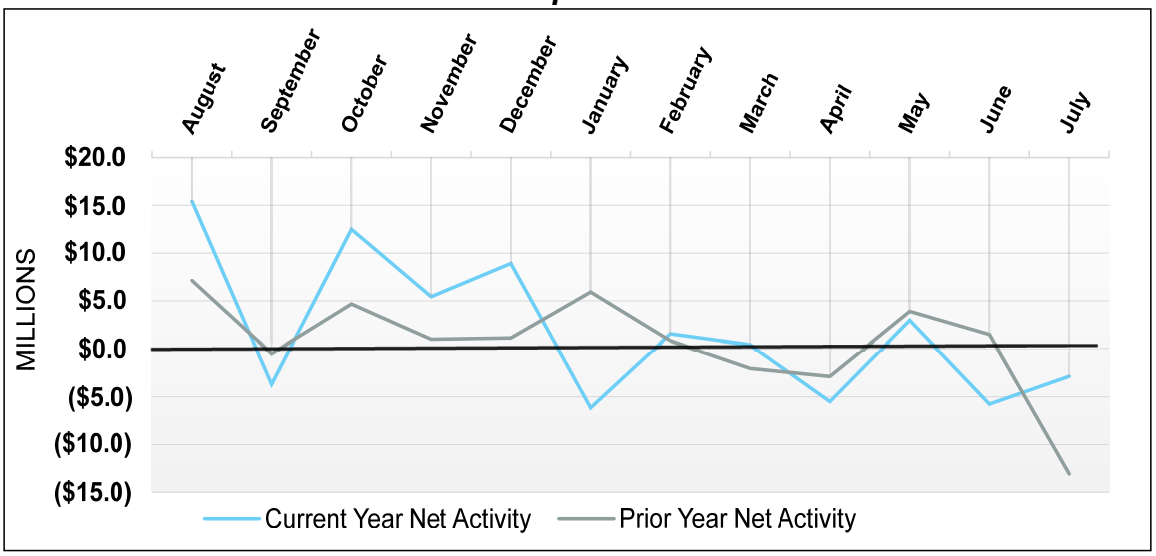
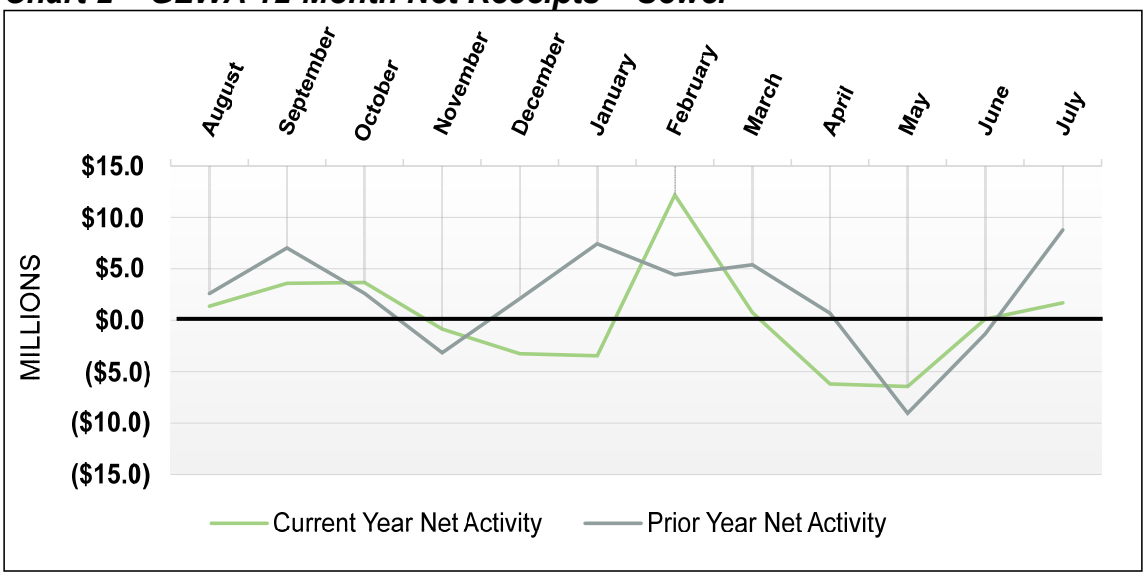


Chart 2 – GLWA 12-Month Net Receipts – Sewer



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 2024 reflects one month of activity to date.

Water fund receipts fell short of required disbursements by 40% through July 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 5% since July 1, 2019. This one-month shortfall is due to the transfer of credit balances on water accounts to sewer accounts. While this is a process that occurs monthly, in July 2023 the release of customer deposits due to a change of policy for the water system resulted in a much higher volume of credit balances subsequently transferred to offset sewer balances due. Preliminary review of August receipt activity reflects improvement.

Sewer fund receipts exceeded required disbursements by 34% through July 31, 2023 compared to the four-year historical average of required receipts exceeding disbursements by 9% since July 1, 2019.

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

		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru July 31
	Water					
1	Receipts	$ 96,885,723	$ 102,067,423	$ 101,964,963	$ 123,766,624	$ 5,948,104
2	MOU Adjustments	-	-	-		-
3	Adjusted Receipts	96,885,723	102,067,423	101,964,963	123,766,624	5,948,104
4	Disbursements	(97,823,097)	(100,707,200)	(94,495,601)	(117,666,100)	(9,878,000)
5	Receipts Net of Required Transfers	(937,374)	1,360,223	7,469,362	6,100,524	(3,929,896)
6	I&E Transfer	-	-	-	-	-
7	Net Receipts	$ (937,374)	$ 1,360,223	$ 7,469,362	$ 6,100,524	$ (3,929,896)
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*99%*	*101%*	*108%*	*105%*	*60%*
	Sewer					
9	Receipts	$ 264,689,559	$ 308,210,767	$ 291,280,896	$ 298,896,942	$ 32,396,543
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	264,689,559	308,210,767	291,280,896	298,896,942	32,396,543
12	Disbursements	(275,507,374)	(295,100,771)	(285,256,000)	(283,095,100)	(24,094,800)
13	Receipts Net of Required Transfers	(10,817,815)	13,109,996	6,024,896	15,801,842	8,301,743
14	I&E Transfer	-	-	-	-	-
15	Shortfall Advance from GLWA	-	-	-	-	-
16	Net Receipts	$ (10,817,815)	$ 13,109,996	$ 6,024,896	$ 15,801,842	$ 8,301,743
17	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*96%*	*104%*	*102%*	*106%*	*134%*
	Combined					
18	Receipts	$ 361,575,282	$ 410,278,190	$ 393,245,859	$ 422,663,566	$ 38,344,647
19	MOU Adjustments	-	-	-	-	-
20	Adjusted Receipts	361,575,282	410,278,190	393,245,859	422,663,566	38,344,647
21	Disbursements	(373,330,471)	(395,807,971)	(379,751,601)	(400,761,200)	(33,972,800)
22	Receipts Net of Required Transfers	(11,755,189)	14,470,219	13,494,258	21,902,366	4,371,847
23	I&E Transfer	-	-	-	-	-
24	Shortfall Advance from GLWA	-	-	-	-	-
25	Net Receipts	$ (11,755,189)	$ 14,470,219	$ 13,494,258	$ 21,902,366	$ 4,371,847
26	*Ratio of Receipts to Required Disbursements (Line 20/Line 21)*	*97%*	*104%*	*104%*	*105%*	*113%*

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

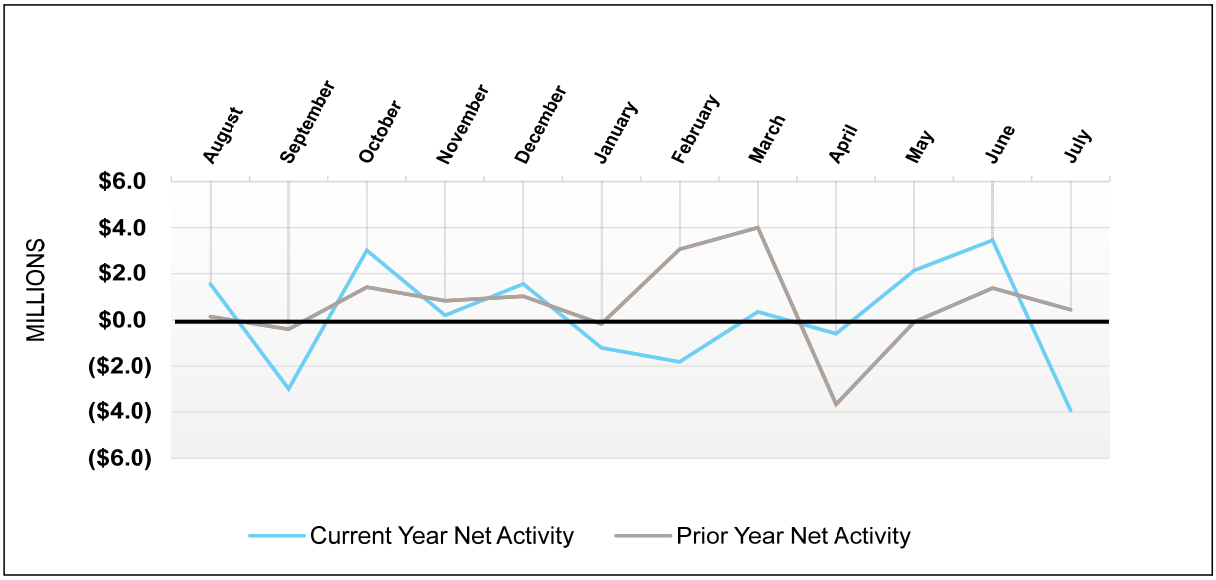
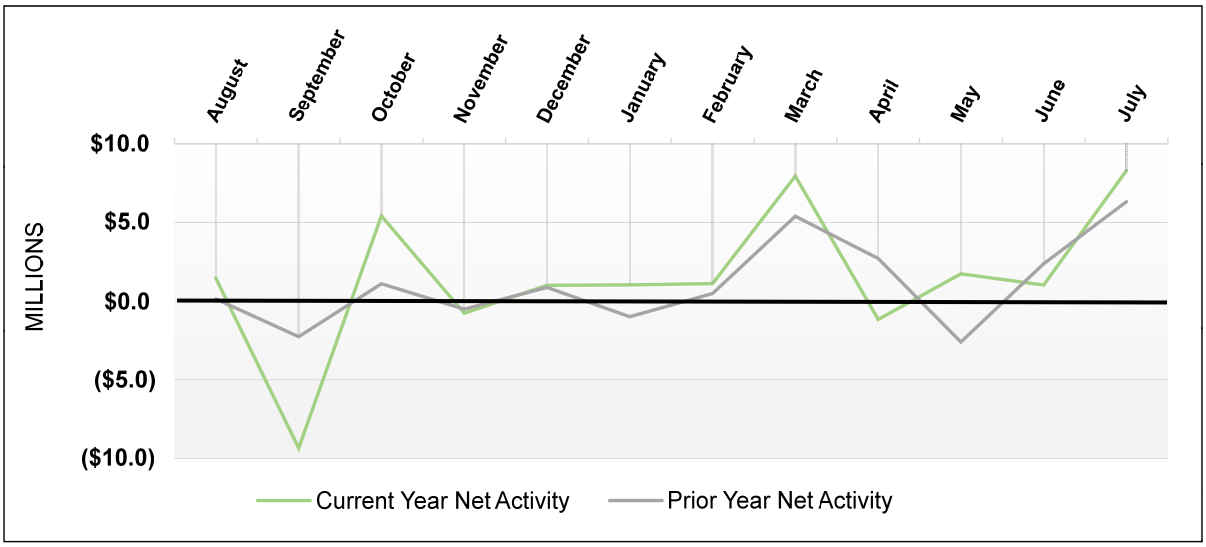


Chart 4 – DWSD 12-Month Net Receipts – Sewer



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 2024 reflects one month of activity to date.

Water fund receipts fell short of required disbursements by 18% through July 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2019.

Sewer fund receipts exceeded required disbursements by 16% through July 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 5% since July 1, 2019.

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

		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru July 31
	Water					
1	Receipts	$ 429,491,919	$ 438,709,444	$ 440,082,657	$ 487,102,098	$ 31,557,225
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	429,491,919	438,709,444	440,082,657	487,102,098	31,557,225
4	Disbursements	(394,013,522)	(409,420,607)	(410,990,961)	(466,852,475)	(38,351,826)
5	Receipts Net of Required Transfers	35,478,397	29,288,837	29,091,696	20,249,623	(6,794,601)
6	I&E Transfer	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)	-
7	Net Receipts	$ 9,758,646	$ (2,702,850)	$ 2,468,834	$ 10,351,523	$ (6,794,601)
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*109%*	*107%*	*107%*	*104%*	*82%*
	Sewer					
9	Receipts	$ 755,150,915	$ 781,082,620	$ 763,260,193	$ 797,785,358	$ 73,554,353
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	755,150,915	781,082,620	763,260,193	797,785,358	73,554,353
12	Disbursements	(721,112,326)	(731,701,654)	(735,957,751)	(756,611,338)	(63,563,357)
13	Receipts Net of Required Transfers	34,038,589	49,380,966	27,302,442	41,174,020	9,990,996
14	I&E Transfer	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)	-
15	Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	17,542,669	18,206,431	8,296,578	-	-
17	Net Receipts	$ 32,485,058	$ 27,082,670	$ (2,052,768)	$ 14,407,820	$ 9,990,996
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*105%*	*107%*	*104%*	*105%*	*116%*
	Combined					
19	Receipts	$ 1,184,642,834	$ 1,219,792,064	$ 1,203,342,850	$ 1,284,887,456	$ 105,111,578
20	MOU Adjustments	-	-	-	-	-
21	Adjusted Receipts	1,184,642,834	1,219,792,064	1,203,342,850	1,284,887,456	105,111,578
22	Disbursements	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(1,223,463,813)	(101,915,183)
23	Receipts Net of Required Transfers	69,516,986	78,669,803	56,394,138	61,423,643	3,196,395
24	I&E Transfer	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)	-
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	17,542,669	18,206,431	8,296,578	-	-
27	Net Receipts	$ 42,243,704	$ 24,379,820	$ 416,066	$ 24,759,343	$ 3,196,395
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*106%*	*107%*	*105%*	*105%*	*103%*

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$231,663.34	$231,663.34	$0.00	$0.00	$0.00
ALMONT VILLAGE	$22,825.70	$22,825.70	$0.00	$0.00	$0.00
ASH TOWNSHIP	$78,711.34	$78,711.34	$0.00	$0.00	$0.00
BELLEVILLE	$30,646.53	$30,646.53	$0.00	$0.00	$0.00
BERLIN TOWNSHIP	$74,592.62	$74,592.62	$0.00	$0.00	$0.00
BROWNSTOWN TOWNSHIP	$389,731.06	$389,731.06	$0.00	$0.00	$0.00
BRUCE TOWNSHIP	$58,141.56	$58,141.56	$0.00	$0.00	$0.00
BURTCHVILLE TOWNSHIP	$42,931.01	$42,931.01	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$1,245,832.40	$1,245,832.40	$0.00	$0.00	$0.00
CENTER LINE	$87,011.32	$87,011.32	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$467,610.14	$467,610.14	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$780,141.88	$780,141.88	$0.00	$0.00	$0.00
COMMERCE TOWNSHIP	$436,869.49	$436,869.49	$0.00	$0.00	$0.00
DEARBORN	$7,614,009.50	$1,680,030.36	$843,031.63	$955,171.09	$4,135,776.42
DEARBORN HEIGHTS	$692,445.45	$689,342.77	$3,102.68	$0.00	$0.00
EASTPOINTE	$142,616.71	$142,616.71	$0.00	$0.00	$0.00
ECORSE	$113,736.96	$113,736.96	$0.00	$0.00	$0.00
FARMINGTON	$103,376.18	$103,376.18	$0.00	$0.00	$0.00
FARMINGTON HILLS	$956,011.27	$956,011.27	$0.00	$0.00	$0.00
FERNDALE	$272,968.79	$189,218.38	$83,750.41	$0.00	$0.00
FLAT ROCK	$127,165.16	$127,165.16	$0.00	$0.00	$0.00
FLINT	$383,397.60	$383,397.60	$0.00	$0.00	$0.00
FRASER	$120,975.10	$120,975.10	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	$156,630.93	$156,630.93	$0.00	$0.00	$0.00
GENESEE COUNTY DRAIN COMM	$0.00	$0.00	$0.00	$0.00	$0.00
GIBRALTAR	$62,578.73	$62,578.73	$0.00	$0.00	$0.00
GREATER LAPEER CUA	$0.00	$0.00	$0.00	$0.00	$0.00
GREENWOOD TWP. (DTE)	$387,419.25	$387,419.25	$0.00	$0.00	$0.00
GROSSE ILE TOWNSHIP	$123,135.46	$123,135.46	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$263,235.13	$263,235.13	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$75,870.66	$75,870.66	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$138,684.92	$138,684.92	$0.00	$0.00	$0.00
HAMTRAMCK	$(1,918.23)	$0.00	$0.00	$0.00	$(1,918.23)
HARPER WOODS	$79,621.99	$79,621.99	$0.00	$0.00	$0.00
HARRISON TWP	$166,188.89	$166,188.89	$0.00	$0.00	$0.00
HAZEL PARK	$70,514.35	$70,514.35	$0.00	$0.00	$0.00
HIGHLAND PARK	$12,176,695.10	$210,642.76	$98,870.08	$101,068.01	$11,766,114.25
HURON TOWNSHIP	$196,619.17	$196,619.17	$0.00	$0.00	$0.00
IMLAY CITY	$155,374.52	$155,374.52	$0.00	$0.00	$0.00
IMLAY TOWNSHIP (CHAMPION BUS	$1,616.00	$1,616.00	$0.00	$0.00	$0.00
INKSTER	$228,125.87	$228,125.87	$0.00	$0.00	$0.00
KEEGO HARBOR	$29,878.78	$29,878.78	$0.00	$0.00	$0.00
LAPEER	$302,630.38	$302,630.38	$0.00	$0.00	$0.00
LENOX TOWNSHIP	$29,918.67	$29,918.67	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	$235,098.35	$235,098.35	$0.00	$0.00	$0.00
LIVONIA	$2,309,191.89	$2,309,191.89	$0.00	$0.00	$0.00
MACOMB TWP	$2,800,339.40	$2,800,339.40	$0.00	$0.00	$0.00
MADISON HEIGHTS	$206,491.46	$206,491.46	$0.00	$0.00	$0.00
MAYFIELD TOWNSHIP (KAMAX)	$8,046.72	$8,046.72	$0.00	$0.00	$0.00
MELVINDALE	$120,427.41	$120,427.41	$0.00	$0.00	$0.00
NEW HAVEN	$39,900.95	$39,900.95	$0.00	$0.00	$0.00
NOCWA	$2,443,997.65	$2,443,997.65	$0.00	$0.00	$0.00
NORTHVILLE	$82,099.72	$82,099.72	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$701,185.44	$701,185.44	$0.00	$0.00	$0.00
NOVI	$1,848,029.38	$1,848,029.38	$0.00	$0.00	$0.00
OAK PARK	$127,552.11	$127,552.11	$0.00	$0.00	$0.00
OAKLAND CO DR COM	$8,451.15	$8,451.15	$0.00	$0.00	$0.00
PLYMOUTH	$214,053.13	$214,053.13	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$937,012.54	$921,512.54	$15,500.00	$0.00	$0.00
REDFORD TOWNSHIP	$599,315.89	$599,315.89	$0.00	$0.00	$0.00
RIVER ROUGE	$131,885.51	$131,885.51	$0.00	$0.00	$0.00
RIVERVIEW	$86,023.72	$86,023.72	$0.00	$0.00	$0.00
ROCKWOOD	$26,778.43	$26,778.43	$0.00	$0.00	$0.00
ROMEO	$39,512.64	$39,512.64	$0.00	$0.00	$0.00
ROMULUS	$780,054.50	$780,054.50	$0.00	$0.00	$0.00
ROSEVILLE	$243,179.70	$243,179.70	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$19,399.45	$19,399.45	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	$3,124,087.55	$3,124,087.55	$0.00	$0.00	$0.00
SOCWA	$4,692,246.34	$4,647,261.56	$44,984.78	$0.00	$0.00
SOUTH ROCKWOOD	$10,997.35	$10,997.35	$0.00	$0.00	$0.00
SOUTHGATE	$223,750.51	$223,750.51	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$309,341.30	$309,341.30	$0.00	$0.00	$0.00
STERLING HEIGHTS	$1,613,610.88	$1,613,610.88	$0.00	$0.00	$0.00
SUMPTER TOWNSHIP	$71,677.72	$71,677.72	$0.00	$0.00	$0.00
SYLVAN LAKE	$24,745.45	$24,745.45	$0.00	$0.00	$0.00
TAYLOR	$920,982.54	$901,944.54	$19,038.00	$0.00	$0.00
TRENTON	$320,462.88	$320,462.88	$0.00	$0.00	$0.00
TROY (SEOC)	$1,476,948.83	$1,476,948.83	$0.00	$0.00	$0.00
UTICA	$114,123.41	$114,123.41	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$700,219.79	$700,219.79	$0.00	$0.00	$0.00
WALLED LAKE	$80,170.98	$80,170.98	$0.00	$0.00	$0.00
WARREN	$1,963,488.66	$1,963,488.66	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$311,435.13	$311,435.13	$0.00	$0.00	$0.00
WAYNE	$624,547.32	$624,547.32	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (C-O)	$2,155,367.35	$2,155,367.35	$0.00	$0.00	$0.00
WESTLAND	$1,082,234.98	$1,082,234.98	$0.00	$0.00	$0.00
WIXOM	$294,401.31	$294,401.31	$0.00	$0.00	$0.00
WOODHAVEN	$323,346.56	$323,346.56	$0.00	$0.00	$0.00
YCUA	$2,031,670.69	$2,031,670.69	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	$65,594,116.35	$47,529,627.23	$1,108,277.58	$1,056,239.10	$15,899,972.44

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 07/31/23

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	$40,362,913.11	$451,700.00	$451,700.00	$451,700.00	$39,007,813.11
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	$5,953,266.82	$5,953,266.82	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$22,600.00	$22,600.00	$0.00	$0.00	$0.00
ROUGE VALLEY	$0.00	$0.00	$0.00	$0.00	$0.00
SOUTH MACOMB SANITATION DIST	$0.00	$0.00	$0.00	$0.00	$0.00
WAYNE COUNTY-AREA #3	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL SEWER ACCOUNTS	**$53,774,779.43**	**$13,863,566.32**	**$451,700.00**	**$451,700.00**	**$39,007,813.11**

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 07/31/23

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	$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	$0.00	$0.00	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
CENTER LINE	$5,232.17	$5,232.17	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF INDEPENI	$0.00	$0.00	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$13,140.39	$13,140.39	$0.00	$0.00	$0.00
CITY OF FARMINGTON (E-F)	$0.00	$0.00	$0.00	$0.00	$0.00
CITY OF FERNDALE	$17,935.80	$17,935.80	$0.00	$0.00	$0.00
CITY OF ROCHESTER	$0.00	$0.00	$0.00	$0.00	$0.00
CLARKSTON	$0.00	$0.00	$0.00	$0.00	$0.00
CLARKSTON (C-O) ADMIN	$0.00	$0.00	$0.00	$0.00	$0.00
CLAWSON	$3,148.61	$3,148.61	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$27,551.68	$27,551.68	$0.00	$0.00	$0.00
DEARBORN	$36,950.97	$36,950.97	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	$2,511.37	$2,511.37	$0.00	$0.00	$0.00
DETROIT METRO WC AIRPORT	$107.40	$107.40	$0.00	$0.00	$0.00
EASTPOINTE	$13,000.77	$13,000.77	$0.00	$0.00	$0.00
FARMINGTON	$0.00	$0.00	$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	$1,591.31	$1,591.31	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$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	$0.00	$0.00	$0.00	$0.00	$0.00
HAMTRAMCK	$0.00	$0.00	$0.00	$0.00	$0.00
HARPER WOODS	$1,811.48	$1,811.48	$0.00	$0.00	$0.00
HARRISON TWP	$0.00	$0.00	$0.00	$0.00	$0.00
HAZEL PARK	$3,359.83	$3,359.83	$0.00	$0.00	$0.00
HIGHLAND PARK	$1,869,769.39	$7,811.56	$3,905.78	$3,896.83	$1,854,155.22
HUNTINGTON WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
INDEPENDENCE (C-O) ADMIN	$1,318.59	$1,318.59	$0.00	$0.00	$0.00
INKSTER	$5,599.12	$5,599.12	$0.00	$0.00	$0.00
KEEGO HARBOR	$710.63	$710.63	$0.00	$0.00	$0.00
LATHRUP	$1,415.89	$1,415.89	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LENOX TOWNSHIP	$327.57	$327.57	$0.00	$0.00	$0.00
LIVONIA	$41,347.21	$41,347.21	$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	$7,081.24	$7,081.24	$0.00	$0.00	$0.00
NEW HAVEN	$619.34	$619.34	$0.00	$0.00	$0.00
NORTHVILLE	$2,348.48	$2,348.48	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
NOVI	$18,075.42	$18,075.42	$0.00	$0.00	$0.00
OAK PARK	$0.00	$0.00	$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)	$4,376.55	$4,376.55	$0.00	$0.00	$0.00
ORION TOWNSHIP (C-O) ADMIN	$499.80	$499.80	$0.00	$0.00	$0.00
OXFORD TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
OXFORD VILLAGE	$1,267.32	$1,267.32	$0.00	$0.00	$0.00
PLEASANT RIDGE	$275.66	$275.66	$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	$12,651.72	$12,651.72	$0.00	$0.00	$0.00
ROCHESTER HILLS	$19,038.44	$19,038.44	$0.00	$0.00	$0.00
ROMULUS	$787.60	$787.60	$0.00	$0.00	$0.00
ROSEVILLE	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROYAL OAK	$7,383.75	$7,383.75	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
SHELBY TOWNSHIP	$15,200.68	$15,200.68	$0.00	$0.00	$0.00
SOUTHFIELD (E-F)	$28,917.45	$28,917.45	$0.00	$0.00	$0.00
SOUTHFIELD (SEOC)	$3,349.09	$3,349.09	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$12,204.22	$12,204.22	$0.00	$0.00	$0.00
STERLING HEIGHTS	$32,304.13	$32,304.13	$0.00	$0.00	$0.00
TROY (E-F)	$773.28	$773.28	$0.00	$0.00	$0.00
TROY (SEOC)	$38,184.28	$38,184.28	$0.00	$0.00	$0.00
UTICA	$3,075.22	$3,075.22	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$2,409.34	$2,409.34	$0.00	$0.00	$0.00
VILLAGE OF FRANKLIN	$0.00	$0.00	$0.00	$0.00	$0.00
VILLAGE OF LAKE ORION	$809.08	$809.08	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW (ADMI	$3,214.13	$3,214.13	$0.00	$0.00	$0.00
WAYNE	$0.00	$0.00	$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)	$12,297.76	$12,297.76	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP. (C-O) A	$474.33	$474.33	$0.00	$0.00	$0.00
WESTLAND	$23,235.99	$23,235.99	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	$2,322,128.72	$460,170.89	$3,905.78	$3,896.83	$1,854,155.22

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	$0.00	$0.00	$0.00	$0.00	$0.00
A & R PACKING CO., LLC	$1,338.73	$1,338.73	$0.00	$0.00	$0.00
AACTRON	$0.00	$0.00	$0.00	$0.00	$0.00
ACADEMY PACKING CO.	$179.45	$179.45	$0.00	$0.00	$0.00
ACME RUSTPROOF	$67.67	$67.67	$0.00	$0.00	$0.00
ADORING PET FUNERAL HOME	$78.78	$78.78	$0.00	$0.00	$0.00
ADVANCE ENGINEERING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
AEVITAS SPECIALITY SERVICES	$272.53	$272.53	$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	$92.64	$92.64	$0.00	$0.00	$0.00
AMERICAN WASTE TECH INC.	$0.00	$0.00	$0.00	$0.00	$0.00
AMERITI MFG. CO.	$3,409.02	$3,409.02	$0.00	$0.00	$0.00
APPLIED TECHNOLOGY INDUSTRIE	$1,039.28	$1,039.28	$0.00	$0.00	$0.00
ATWATER IN THE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
AUTOMOTIVE FINISH	$2.29	$2.29	$0.00	$0.00	$0.00
AXLE BREWING COMPANY, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
B. NEKTAR MEADERY	$31.48	$31.48	$0.00	$0.00	$0.00
BAFFIN BREWING COMPANY	$274.52	$137.26	$0.00	$137.26	$0.00
BARON INDUSTRIES	$1,406.56	$1,406.56	$0.00	$0.00	$0.00
BARTZ BAKERY	$37.95	$37.95	$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 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	$98.61	$98.61	$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	$31,336.37	$31,336.37	$0.00	$0.00	$0.00
BLACK LOTUS BREWING CO.	$61.25	$0.00	$0.00	$0.00	$61.25
BOZEK'S MARKET	$(1,216.05)	$0.00	$0.00	$0.00	$(1,216.05)
BREW DETROIT	$6,435.10	$6,435.10	$0.00	$0.00	$0.00
BROADWAY MKT CORNED BEEF	$0.00	$0.00	$0.00	$0.00	$0.00
BROOKS BREWING, LLC.	$30.64	$30.64	$0.00	$0.00	$0.00
BROWN IRON BREWHOUSE	$0.00	$0.00	$0.00	$0.00	$0.00
CADILLAC STRAITS BREWING CO.	$22.62	$22.62	$0.00	$0.00	$0.00
CANTON BREW WORKS	$0.00	$0.00	$0.00	$0.00	$0.00
CAPITOL REPRODUCTIONS	$0.00	$0.00	$0.00	$0.00	$0.00
CF BURGER CREAMERY	$25,385.15	$25,385.15	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF CLINTON	$0.00	$0.00	$0.00	$0.00	$0.00
CHIEFTAN COATING, LLC.	$2,798.78	$2,798.78	$0.00	$0.00	$0.00
CHILANGO'S BAKERY	$178.13	$29.90	$14.95	$13.80	$119.48
CINTAS CORP. - MACOMB TWP.	$37,409.40	$37,409.40	$0.00	$0.00	$0.00
CINTAS CORPORATION	$9,946.91	$9,946.91	$0.00	$0.00	$0.00
CINTAS CORPORATION	$5,221.81	$5,221.81	$0.00	$0.00	$0.00
CITY LAUNDRY, INC.	$6.29	$6.29	$0.00	$0.00	$0.00
CLASSIC CONTAINER CORP.	$104.75	$104.75	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
CLEAN EARTH OF MICHIGAN, LLC	$36.54	$36.54	$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
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.	$459.89	$459.89	$0.00	$0.00	$0.00
DANA CONTAINER, INC.	$131.76	$131.76	$0.00	$0.00	$0.00
DARLING INGREDIENTS, INC.	$6,718.89	$6,718.89	$0.00	$0.00	$0.00
DAVE'S SAUSAGE FACTORY 2	$288.09	$288.09	$0.00	$0.00	$0.00
DEARBORN BREWING	$25.19	$25.19	$0.00	$0.00	$0.00
DEARBORN SAUSAGE	$3,983.30	$3,983.30	$0.00	$0.00	$0.00
DEARBORN SAUSAGE CO., INC.	$5,425.39	$5,425.39	$0.00	$0.00	$0.00
DETROIT BEER CO.	$53.93	$53.93	$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	$714.95	$714.95	$0.00	$0.00	$0.00
DETROIT SAUSAGES CO INC	$40.26	$22.36	$8.95	$8.95	$0.00
DETRONIC INDUSTRIES, INC.	$33.89	$33.89	$0.00	$0.00	$0.00
DIFCO LABORATORIES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
DIVERSIFIED CHEM TECH. INC.	$91.06	$91.06	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$444.05	$444.05	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DOMESTIC UNIFORM RENTAL	$1,459.69	$1,459.69	$0.00	$0.00	$0.00
DOWNEY BREWING COMPANY	$26.07	$26.07	$0.00	$0.00	$0.00
DUBOIS CHEMICALS, INC.	$93.40	$93.40	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$148.49	$148.49	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$133.14	$133.14	$0.00	$0.00	$0.00
E.W. GROBBEL'S SONS, INC.	$3,515.13	$3,515.13	$0.00	$0.00	$0.00
EASTERN MARKET BREWING COMPA	$29.97	$29.97	$0.00	$0.00	$0.00
ENVIROSOLIDS, L.L.C.	$0.00	$0.00	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$554.95	$554.95	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$1,869.97	$1,869.97	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$(0.59)	$0.00	$0.00	$0.00	$(0.59)
EQ DETROIT, INC.	$(0.01)	$0.00	$0.00	$0.00	$(0.01)
ETON ST BREWERY- GRIFFIN CLA	$1,248.82	$1,248.82	$0.00	$0.00	$0.00
EXTRUDE HONE CORPORATION	$50.89	$50.89	$0.00	$0.00	$0.00
EXTRUDEHODE	$0.00	$0.00	$0.00	$0.00	$0.00
FARMINGTON BREWING COMPANY	$19.38	$3.10	$0.00	$16.28	$0.00
FAYGO BEVERAGES, INC.	$5,794.99	$5,794.99	$0.00	$0.00	$0.00
FITZGERALD FINISHING LLC	$0.00	$0.00	$0.00	$0.00	$0.00
FIVES CINETIC CORP.	$4,363.43	$4,363.43	$0.00	$0.00	$0.00
FORD MOTOR CO- STERLING PLAN	$3,101.10	$3,101.10	$0.00	$0.00	$0.00
FORD NEW MODEL PROGRAM	$0.00	$0.00	$0.00	$0.00	$0.00
FOUNDERS BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
FRESH-PAK	$486.86	$486.86	$0.00	$0.00	$0.00
FRESH-PAK	$0.00	$0.00	$0.00	$0.00	$0.00
GENERAL LINEN SUPPLY CO.	$4,287.81	$4,287.81	$0.00	$0.00	$0.00
GENERAL MOTORS, LLC ROMULUS	$1,614.37	$1,614.37	$0.00	$0.00	$0.00
GLOBAL TITANIUM, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$16.91	$16.91	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$39.61	$39.61	$0.00	$0.00	$0.00
GREAT BARABOO BREWING CO.	$167.83	$79.25	$0.00	$88.58	$0.00
HACIENDA MEXICAN FOODS	$120.30	$91.26	$29.04	$0.00	$0.00
HACIENDA MEXICAN FOODS	$1,098.60	$1,098.60	$0.00	$0.00	$0.00
HENKEL CORPORATION	$121.83	$121.83	$0.00	$0.00	$0.00
HENRY FORD MACOMB HOSPITAL	$0.00	$0.00	$0.00	$0.00	$0.00
HOME STYLE FOOD INC.	$3,570.74	$2,713.45	$857.29	$0.00	$0.00
HOMEGROWN BREWING COMPANY	$36.18	$36.18	$0.00	$0.00	$0.00
HOODS CLEANERS	$211.33	$0.00	$0.00	$0.00	$211.33
HUNTINGTON CLEANERS	$263.34	$263.34	$0.00	$0.00	$0.00
IDP, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
INDUSTRIAL METAL COATING	$175.87	$175.87	$0.00	$0.00	$0.00
INTRASTATE DISTRIBUTORS	$700.44	$700.44	$0.00	$0.00	$0.00
ISLAMIC SLAUGHTER HOUSE	$254.83	$254.83	$0.00	$0.00	$0.00
ITALIAN BUTTER BREAD STICKS	$0.00	$0.00	$0.00	$0.00	$0.00
JAMEX BREWING CO.	$41.29	$19.98	$0.00	$21.31	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
JELD-WEN, INC.	$938.92	$444.04	$153.81	$163.73	$177.34
KAR NUT PRODUCTS	$2,202.29	$2,202.29	$0.00	$0.00	$0.00
KOWALSKI SAUSAGES, CO.	$846.04	$846.04	$0.00	$0.00	$0.00
KUHNHENN BREWING	$0.00	$0.00	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$618.05	$618.05	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$39.40	$39.40	$0.00	$0.00	$0.00
LEAR CORPORATION DBA EAGLE C	$243.74	$243.74	$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	$76.59	$36.63	$0.00	$39.96	$0.00
LIQUID ENVIRONMENTAL OF ILLI	$0.00	$0.00	$0.00	$0.00	$0.00
LIQUID ENVIRONMENTAL SOLUTIC	$3,008.23	$1,780.17	$583.58	$644.48	$0.00
MACDERMID, INC.	$342.38	$342.38	$0.00	$0.00	$0.00
MCCLURE'S PICKLES	$679.00	$679.00	$0.00	$0.00	$0.00
MCGEAN CHEMICALS	$374.70	$374.70	$0.00	$0.00	$0.00
MCNICHOLS POLISHING & ANODIZ	$(31.54)	$0.00	$0.00	$0.00	$(31.54)
MELLO MEATS INC, - KUBISCH S	$44.75	$44.75	$0.00	$0.00	$0.00
METROPOLITAN BAKERY	$804.00	$804.00	$0.00	$0.00	$0.00
MIBA HYDRAMECHANICA CORP.	$1,826.54	$837.53	$377.19	$338.58	$273.24
MICHIGAN DAIRY	$92,270.33	$92,270.33	$0.00	$0.00	$0.00
MICHIGAN PROD. MACHINING	$2,205.03	$2,205.03	$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

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MILANO BAKERY	$544.75	$544.75	$0.00	$0.00	$0.00
MILTON CHILI CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MINNIE MARIE BAKERS, INC	$1,144.23	$1,144.23	$0.00	$0.00	$0.00
MISTER UNIFORM & MAT RENTALS	$(7.12)	$0.00	$0.00	$0.00	$(7.12)
MOTOR CITY BREWING WORKS	$59.94	$59.94	$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
NATIONAL CHILI COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
ND INDUSTRIES, INC.	$564.49	$564.49	$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 & MEA	$32.06	$32.06	$0.00	$0.00	$0.00
OAKWOOD BAKERY	$0.00	$0.00	$0.00	$0.00	$0.00
OLIVER HATCH CONSTRUCTION	$0.00	$0.00	$0.00	$0.00	$0.00
PARKEDALE PHARMACEUTICALS/PE	$198.35	$198.35	$0.00	$0.00	$0.00
PARKER'S HILLTOP BREWER & SE	$125.61	$58.61	$0.00	$67.00	$0.00
PELLERITO FOODS INC.	$30.59	$30.59	$0.00	$0.00	$0.00
PEPSI COLA, INC.	$26,969.19	$26,969.19	$0.00	$0.00	$0.00
PERDUE PREMIUM MEAT COMPANY	$18,295.96	$18,295.96	$0.00	$0.00	$0.00
PERDUE PREMIUM MEAT COMPANY	$8,598.95	$8,598.95	$0.00	$0.00	$0.00
PERDUE PREMIUM MEAT COMPANY	$1,225.20	$1,225.20	$0.00	$0.00	$0.00
PERSONAL UNIFORM SERVICE, IN	$(18.19)	$0.00	$0.00	$0.00	$(18.19)
PETRO ENVIRON TECH, INC.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PINE TREE ACRES, INC.	$75,675.86	$75,675.86	$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	$671.13	$671.13	$0.00	$0.00	$0.00
PREMIER PLATING- STERLING HE	$0.00	$0.00	$0.00	$0.00	$0.00
PRODUCTION SPRING, LLC.	$196.70	$196.70	$0.00	$0.00	$0.00
QUAKER HOUGHTON - PLANT #2	$49.33	$49.33	$0.00	$0.00	$0.00
QUAKER HOUGHTON - PLANT #2	$(606.02)	$0.00	$0.00	$0.00	$(606.02)
QUAKER HOUGHTON - PLANT #2	$2,355.29	$2,355.29	$0.00	$0.00	$0.00
QUALA SERVICES, LLC	$16.62	$16.62	$0.00	$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	$151.38	$151.38	$0.00	$0.00	$0.00
ROCHESTER MILLS PROD BREWERY	$3,455.15	$703.57	$0.00	$1,885.23	$866.35
ROYAL OAK BREWERY	$98.17	$98.17	$0.00	$0.00	$0.00
RTT	$0.00	$0.00	$0.00	$0.00	$0.00
SEAFARE FOODS, INC.	$147.25	$147.25	$0.00	$0.00	$0.00
SHERWOOD BREWING COMPANY	$29.64	$29.64	$0.00	$0.00	$0.00
SMITH-WATKINS, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
SPRAYTEK INC.- MADISON HEIGH	$(140.97)	$0.00	$0.00	$(140.97)	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SPRAYTEK, INC.	$14.52	$0.00	$0.00	$0.00	$14.52
SUPERNATURAL SPIRITS & BREWI	$66.60	$66.60	$0.00	$0.00	$0.00
SWEETHEART BAKERY, INC.	$475.49	$156.77	$75.79	$61.25	$181.68
THE CROWN GROUP-LIVONIA PLAN	$0.00	$0.00	$0.00	$0.00	$0.00
THE DEBURRING COMPANY	$(7.01)	$(7.01)	$0.00	$0.00	$0.00
THERMO FISHER SCIENTIFIC	$(9,902.04)	$0.00	$(9,902.04)	$0.00	$0.00
TOM LAUNDRY CLEANERS	$0.56	$0.56	$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.	$382.80	$382.80	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$21,139.97	$21,139.97	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$1,464.93	$1,464.93	$0.00	$0.00	$0.00
UNIQUE LINEN SERVICES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
UNITED FISH DISTRIBUTORS	$0.77	$0.77	$0.00	$0.00	$0.00
UNITED LINEN SERVICE, LLC.	$169.69	$169.69	$0.00	$0.00	$0.00
UNITED MEAT & DELI	$0.00	$0.00	$0.00	$0.00	$0.00
URBANREST BREWING COMPANY	$138.68	$69.34	$0.00	$69.34	$0.00
US ECOLOGY MICHIGAN	$563.45	$563.45	$0.00	$0.00	$0.00
US ECOLOGY ROMULUS, INC.	$740.26	$740.26	$0.00	$0.00	$0.00
USHER OIL SERVICES	$135.41	$135.41	$0.00	$0.00	$0.00
VALICOR ENVIROMENTAL SERVICE	$221.00	$221.00	$0.00	$0.00	$0.00
VALICOR ENVIRONMENTAL SERVIC	$499.58	$499.58	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 07/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
VAUGHAN INDUSTRIES, INC.	$53.47	$53.47	$0.00	$0.00	$0.00
VERNDALE PRODUCTS	$6,991.24	$6,991.24	$0.00	$0.00	$0.00
VERNDALE PRODUCTS, INC.	$2,556.92	$2,556.92	$0.00	$0.00	$0.00
WIGLEY'S MEAT PROCESS	$373.67	$373.67	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$355.24	$355.24	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$107.65	$107.65	$0.00	$0.00	$0.00
WOLVERINE PACKING CO	$1,921.34	$1,921.34	$0.00	$0.00	$0.00
WOLVERINE PACKING CO.	$2,219.61	$2,219.61	$0.00	$0.00	$0.00
WOLVERINE PACKING CO., PLANT	$0.00	$0.00	$0.00	$0.00	$0.00
WOODWARD AVENUE BREWERS	$144.24	$0.00	$0.00	$0.00	$144.24
X-R-I TESTING	$54.58	$54.58	$0.00	$0.00	$0.00
TOTAL POLLUTANT SURCHARGE ACCOUNTS	$457,795.86	$461,566.17	$(7,801.44)	$3,414.78	$616.35

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 (12 Months)	1,254,157	5,415,100	47,779	6,717,035
FY 2023 Payments (12 Months)	(126,000)	(5,748,903)	-	(5,874,903)
June 30, 2023 Balance	$ 12,069,607	$ 40,297,243	$ 1,865,863	$ 54,232,714
FY 2024 Billings (1 Month)	107,088	451,700	3,906	562,694
FY 2024 Payments (1 Month)	-	(386,031)	-	(386,031)
Balance as of July 31, 2023	**$ 12,176,695**	**$ 40,362,913**	**$ 1,869,769**	**$ 54,409,377**

GLWA

Great Lakes Water Authority



Monthly Financial Report Binder

August 2023

Presented to the
Great Lakes Water Authority
Audit Committee on November 17, 2023

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Financial Report
Executive Summary Dashboard
for the Month Ended August 31, 2023

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)

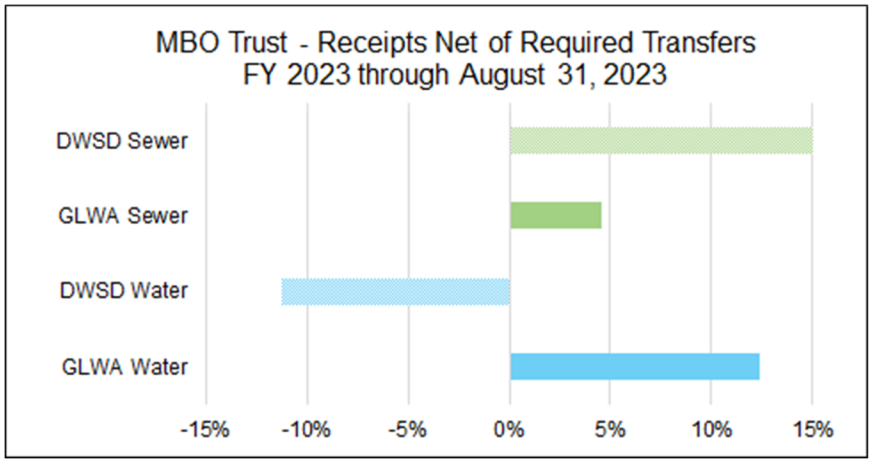
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Staff reviews the need for budget amendments quarterly and requests necessary amendments when required based on the most current information available.

For the current year, water billed revenue and usage and both water and sewer capital spend reflect variances to budget outside the normal range. Water revenue and usage variances are due to increased rain activity during the summer months. Capital spend variances reflect the increased costs and ongoing resource challenges facing the construction industry as a whole. These variances will be under consideration for first quarter budget amendments.

As of August 31, 2023					
Metric	FY 2024 Budget	FY 2024 Amended Budget	FY 2024 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue ($M)	$67.1	$67.1	$62.9	-6%	48
Wholesale Water Billed Usage (mcf)	3,077,000	3,077,000	2,692,000	-13%	
Wholesale Sewer Billed Revenue ($M)	$47.0	$47.0	$47.0	0%	50
Wholesale Water Operations & Maintenance ($M)	$25.5	$25.5	$25.2	-1%	5
Wholesale Sewer Operations & Maintenance ($M)	$34.3	$34.3	$34.7	1%	
Investment Income ($M)	$2.6	$2.6	$3.9	53%	37
Water Prorated Capital Spend w/SRA* ($M)	$39.9	$39.9	$26.4	-34%	28
Sewer Prorated Capital Spend w/SRA* ($M)	$33.2	$33.2	$17.0	-49%	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 54)



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 shortfall of $2.0 million and DWSD Sewer reports a surplus of $9.6 million of net receipts over disbursements through August 2023. The Water shortfall relates to the routine monthly transfer of credit balances to the Sewer account which was impacted by a recent change in the customer deposit policy. Preliminary review of September and October activity reflect continued improvement.

Budget to Actual Analysis (page 3)

- The total Revenue Requirements are on target through August 2023.
- The total overall Operations & Maintenance expenses are at 16.7% of budget through August 2023. There is a slight negative variance which equates to a dollar amount of $73 thousand.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for August 2023 is $19.2 million for the Water fund (28.7% of total revenues) and $19.8 million for the Sewer fund (24.4 % of total revenues).
- Water Net Position increased by $ 11.0 million, and Sewage Disposal Net Position increased by $ 4.6 million for the year to date through August 2023.

Capital Improvement Plan Financial Summary (page 28)

- Water system costs incurred to date are below the 100% Capital Spend Ratio assumption.
- Sewer system costs incurred to date are below the 100% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 31)

- For August, transfers of $13.5 million and $18.1 million were completed for the GLWA Water and Sewer funds, respectively.
- Also for August, transfers of $5.6 million and $6.9 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 38)

- Total cash & investments are $459 million for Water and $649 million in the Sewer fund.
- Total, combined, cumulative, FY 2024 investment income through August is $8.0 million.

DWSD Retail Revenues, Receivables & Collections (page 42)

- Water revenue through August 31, 2023 is 106.10% and usage is 105.75% of budget.
- Sewer revenue through August 31, 2023 is 100.27%and usage is 105.03% of budget.
- Combined accounts receivable balances for the water and sewer funds report a decrease of $20.7 million over the prior year.
- Past dues over 180 days make up of 67.2% the total accounts receivable balance. The current bad debt allowance covers over 100% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 48)

- GLWA accounts receivable past due balance net of Highland Park is 11.12% 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 $54.6 million. It includes $40.4 million for wastewater treatment services, $1.9 million for industrial waste control services, and $12.3 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 $6.6 million as of August 31, 2023.

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

Adjustments related to the fiscal year end 2023 audit will affect the FY 2023 columns of the tables in the Budget to Actual Analysis. This includes the final amendment of the budget to allocate the administrative and centralized budget categories to the *water* and *sewer* categories.

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 August 2023, the pro-rata benchmark is 16.7% (2 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, total revenues for FY 2024 are above the pro-rata benchmark; the *water* system is at 18.5% while the *sewer* system is at 16.9%. 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 August 31, 2023, these payments total $1.1 million for FY 2024.

2. ***Investment Earnings:*** For both systems, investment earnings are above the pro-rata benchmark for FY 2024; the *water* system is at 57.9% while the *sewer* system is at 45.9%. 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 expenses[1] for *both* systems are slightly below the pro-rata benchmark for FY 2024 the *water* system is at 16.5% while the *sewer* system O&M expenses is at 16.9%.
5. ***Debt Service:*** For FY 2024, both systems are either at or slightly above the pro-rata benchmark for debt service; the *water* system is at 16.7% while the *sewer* system is at 16.8%. 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. Funding levels are currently being evaluated to determine if additional transfers to this reserve will be required in FY 2024.
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 2023, DWSD ended the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2024, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through August 31, 2023. 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.

[1]The 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)

Water System	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 8/31/2022	Percent Year-to-Date at 8/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 8/31/2023	Percent Year-to-Date at 8/31/2023
Revenues							
Suburban Wholesale Customer Charges	$ 333,856	$ 64,847	19.4%	$ 340,541	$ 340,541	$ 61,631	18.1%
Retail Service Charges	22,834	3,831	16.8%	25,537	25,537	4,256	16.7%
Investment Earnings	9,670	234	2.4%	4,062	4,062	2,353	57.9%
Other Revenues	995	90	9.0%	175	175	236	134.9%
Total Revenues	$ 367,356	$ 69,001	18.8%	$ 370,315	$ 370,315	$ 68,476	18.5%
Revenue Requirements							
Operations & Maintenance Expense	$ 156,748	$ 24,104	15.4%	$ 152,906	$ 152,906	$ 25,162	16.5%
General Retirement System Legacy Pension	6,048	1,008	16.7%	-	-	-	0.0%
Debt Service	150,055	25,177	16.8%	159,483	159,483	26,581	16.7%
General Retirement System Accelerated Pension	6,268	1,045	16.7%	3,396	3,396	566	16.7%
Extraordinary Repair & Replacement Deposit	200	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,771	295	16.7%	1,852	1,852	309	16.7%
Regional System Lease	22,500	3,750	16.7%	22,500	22,500	3,750	16.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,766	4,050	17.0%	30,178	30,178	5,030	16.7%
Total Revenue Requirements	$ 367,356	$ 59,429	16.2%	$ 370,315	$ 370,315	$ 61,397	16.6%
Net Difference		$ 9,573				$ 7,079	
Recap of Net Positive Variance							
Revenue Variance		$ 7,775				$ 6,757	
Revenue Requirement Variance		1,797				322	
Overall Variance		$ 9,573				$ 7,079	

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

Sewer System	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 8/31/2022	Percent Year-to-Date at 8/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 8/31/2023	Percent Year-to-Date at 8/31/2023
Revenues							
Suburban Wholesale Customer Charges	$ 274,907	$ 45,895	16.7%	$ 282,688	$ 282,688	$ 46,268	16.4%
Retail Service Charges	191,042	31,840	16.7%	196,570	196,570	32,762	16.7%
Industrial Waste Control Charges	8,420	1,397	16.6%	8,584	8,584	1,437	16.7%
Pollutant Surcharges	4,951	663	13.4%	5,328	5,328	555	10.4%
Investment Earnings	13,532	831	6.1%	7,057	7,057	3,236	45.9%
Other Revenues	2,355	71	3.0%	400	400	362	90.5%
Total Revenues	$ 495,207	$ 80,698	16.3%	$ 500,627	$ 500,627	$ 84,621	16.9%
Revenue Requirements							
Operations & Maintenance Expense	$ 204,123	$ 29,143	14.3%	$ 205,644	$ 205,644	$ 34,669	16.9%
Pension	10,824	1,804	16.7%	-	-	-	0.0%
Debt Service	212,509	34,524	16.2%	228,328	228,328	38,319	16.8%
General Retirement System Accelerated Pension	11,621	1,937	16.7%	6,479	6,479	1,080	16.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,394	399	16.7%	2,503	2,503	417	16.7%
Regional System Lease	27,500	4,583	16.7%	27,500	27,500	4,583	16.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	26,237	6,557	25.0%	30,173	30,173	5,029	16.7%
Total Revenue Requirements	$ 495,207	$ 78,947	15.9%	$ 500,627	$ 500,627	$ 84,097	16.8%
Net Difference		$ 1,751				$ 524	
Recap of Net Positive Variance							
Revenue Variance		$ (1,837)				$ 1,183	
Revenue Requirement Variance		3,588				(659)	
Overall Variance		$ 1,751				$ 524	

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of August 31, 2023, is 16.7% (two months). When comparing FY 2024 to FY 2023 in ***Table 2 – Operations & Maintenance Budget – Major Budget Categories***, the overall spending is slightly higher in FY 2024.

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 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 8/31/2022	Percent Year-to-Date at 8/31/2022	FY 2024 BOARD ADOPTED BUDGET	FY 2024 AMENDED BUDGET	FY 2024 ACTIVITY THRU 8/31/2023	Percent Year-to-Date at 8/31/2023
Water	$ 85,337	$ 14,080	16.5%	$ 82,733	$ 82,733	$ 13,715	16.6%
Sewer	136,348	20,275	14.9%	132,934	132,934	24,160	18.2%
Centralized	104,503	14,035	13.4%	106,901	106,901	16,556	15.5%
Administrative	34,682	4,622	13.3%	35,983	35,983	5,400	15.0%
Employee Benefits	-	235	0.0%	-	-		0.0%
Total O&M Budget	$ 360,870	$ 53,247	14.8%	$ 358,550	$ 358,550	$ 59,831	16.7%

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 16.7% which is on target with the pro-rata benchmark of 16.7%. There is a slight negative variance (due to rounding) which equates to a dollar amount of $73,000. The expense category commentary is provided below for items highlighted on Table 3.

Personnel Costs: The overall category is slightly above the pro-rata benchmark; coming in at 17.1% through August 2023.

Utilities: The overall category is above the pro-rata benchmark; coming in at 20.2% through August 2023. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is above the pro-rata benchmark, coming in at 21.9%. 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. This category is being reviewed for a first quarter budget amendment due to the increase in kWh.
- **Gas** is coming in at 9.2% which is lower than the benchmark of 16.7%. Variances within this category are not unexpected as usage varies throughout the year. This category is under review.
- **Sewage service** is higher than the benchmark, coming in at 19.7%. This category is under review.
- **Water service** is higher than the benchmark, coming in at 25.4%. 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 have been 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. This category is being reviewed for a first quarter budget amendment.

Chemicals: This category is slightly higher than the benchmark; coming in at 17.7% through August 2023. While variances within this category are not unexpected as usage varies throughout the year, this category is being reviewed for a first quarter budget amendment due to the increase in the cost of various chemicals.

Supplies & Other: This category is lower than the pro-rata benchmark; coming in at 15.5% through August 2023. 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 15.1% through August 2023. 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 are 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 5.2% through August 2023. 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 slightly lower than the benchmark; coming in at 16.2% through August 2023. 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 2024. 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 Entity-wide	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 8/31/2022	Percent Year-to-Date at 8/31/2022	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date at 6/30/2023	FY 2024 AMENDED BUDGET	FY 2024 PRORATED AMENDED BUDGET (2 MONTHS)	FY 2024 ACTIVITY THRU 8/31/2023	Percent Year-to-Date 8/31/2023	FY 2024 Prorated Amended Budget Less FY 2024 Activity
Salaries & Wages	$ 71,395	$ 11,104	15.6%	$ 70,114	15.8%	$ 74,765	$ 12,461	$ 12,164	16.3%	$ 297
Workforce Development	1,326	214	16.1%	1,414	15.1%	1,392	232	360	25.9%	(128)
Overtime	8,411	1,538	18.3%	8,571	17.9%	7,383	1,231	1,554	21.0%	(324)
Employee Benefits	25,582	3,651	14.3%	24,790	14.7%	28,219	4,703	4,593	16.3%	110
Transition Services	9,432	1,858	19.7%	9,920	18.7%	9,129	1,521	2,022	22.1%	(500)
Employee Benefits Fund	-	235	0.0%	-	0.0%	-	-	-	0.0%	-
Personnel Costs	*116,145*	*18,600*	*16.0%*	*114,808*	16.2%	*120,887*	*20,148*	*20,692*	*17.1%*	*(545)*
Electric	47,963	8,547	17.8%	48,176	17.7%	42,820	7,137	9,383	21.9%	(2,246)
Gas	12,042	2,207	18.3%	10,821	20.4%	10,168	1,695	935	9.2%	760
Sewage Service	3,028	376	12.4%	3,052	12.3%	2,563	427	506	19.7%	(79)
Water Service	11,589	823	7.1%	15,228	5.4%	7,844	1,307	1,993	25.4%	(686)
Utilities	*74,622*	*11,952*	*16.0%*	*77,277*	15.5%	*63,395*	*10,566*	*12,817*	*20.2%*	*(2,251)*
Chemicals	29,525	4,275	14.5%	30,542	14.0%	30,452	5,075	5,394	17.7%	(319)
Supplies & Other	36,163	4,058	11.2%	35,766	11.3%	34,020	5,670	5,259	15.5%	411
Contractual Services	106,625	14,918	14.0%	108,725	13.7%	106,889	17,815	16,154	15.1%	1,661
Capital Program Allocation	(2,135)	(236)	11.0%	(2,190)	10.8%	(4,233)	(705)	(218)	5.2%	(487)
Shared Services	(1,571)	(321)	20.5%	(3,270)	9.8%	(1,656)	(276)	(268)	16.2%	(8)
Unallocated Reserve	1,497	-	0.0%	-	0.0%	8,796	1,466	-	0.0%	1,466
Total Expenses	$ 360,870	$ 53,247	14.8%	$ 361,658	14.7%	$ 358,550	$ 59,758	$ 59,831	16.7%	$ (73)

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 2023 comparative amounts are presented in a draft format. Adjustments related to fiscal year end 2023 audit affect the basic financial statements. The results of these adjustments will be presented in the audited annual report.

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 August 31, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2023
Assets				
Cash - unrestricted (a)	$ 225,480	$ 310,153	$ 535,633	$ 482,736
Cash - restricted (a)	108,687	101,724	210,411	470,204
Investments - unrestricted (a)	29,503	43,681	73,184	63,241
Investments - restricted (a)	86,684	199,928	286,612	177,998
Accounts Receivable	99,500	62,324	161,824	171,747
Due from (to) Other Funds (b)	12,716	(12,716)	-	-
Other Assets (c)	663,548	396,772	1,060,319	1,056,956
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,221,783	1,958,959	3,180,742	3,229,243
Land	293,617	126,816	420,433	420,433
Construction Work in Process (e)	404,652	308,952	713,604	668,326
Total assets	3,146,170	3,496,593	6,642,763	6,740,885
Deferred Outflows (f)	55,977	123,949	179,926	181,672
Liabilities				
Liabilities - Liabilities-ST	166,672	189,648	356,320	424,229
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	1,986	5,479	7,465	7,500
Cash Held FBO DWSD (d)	17,805	35,878	53,683	42,464
Liabilities - Long-Term (i)	3,084,984	3,456,183	6,541,167	6,598,619
Total liabilities	3,271,447	3,687,188	6,958,635	7,072,812
Deferred Inflows (f)	43,566	36,508	80,074	81,327
Total net position (j)	$ (112,867)	$ (103,153)	$ (216,020)	$ (231,582)

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, 2023 are also reported at market value. The August 31, 2023 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 August 2023 Financial Report Binder. Prior year ending balances are provided in the June 30, 2023 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 Two Months ended August 31, 2023
($000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business-Type Activities	Comparative June 30, 2023
Revenue						
Wholesale customer charges	$ 62,709	93.5%	$ 46,268	57.0%	$ 108,977	$ 616,511
Local system charges	4,256	6.3%	32,762	40.3%	37,018	213,877
Industrial waste charges		0.0%	1,437	1.8%	1,437	8,393
Pollutant surcharges		0.0%	555	0.7%	555	4,895
Other revenues	71	0.1%	191	0.2%	263	2,011
Total Revenues	**67,036**	**100.0%**	**81,213**	**100.0%**	**148,250**	**845,686**
Operating expenses						
Operations and Maintenance	25,399	37.9%	34,618	42.6%	60,017	366,823
Depreciation	21,815	32.5%	26,730	32.9%	48,545	289,957
Amortization of intangible assets	594	0.9%	73	0.1%	668	4,006
Total operating expenses	**47,808**	**71.3%**	**61,422**	**75.6%**	**109,230**	**660,786**
Operating Income	19,228	28.7%	19,792	24.4%	39,020	184,900
Total Nonoperating (revenue) expense	8,235	12.3%	15,223	18.7%	23,458	197,183
Increase/(Decrease) in Net Position	**10,993**	**16.4%**	**4,569**	**5.6%**	**15,561**	**(12,283)**
Net Position (deficit), beginning of year	(123,860)		(107,722)		(231,582)	(219,299)
Net position (deficit), end of year	$ (112,867)		$ (103,153)		$ (216,020)	$ (231,582)

Totals may be off due to rounding

Water Fund

- ✓ The increase in Water Fund Net Position is $11.0 million.
- ✓ Wholesale water customer charges of $62.7 million account for 93.5% of Water System revenues.
- ✓ Operating expenses of $47.8 million represent 71.3% of total operating revenue. Depreciation is the largest operating expense at $21.8 million or 45.6% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals $19.2 million or 28.7% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $14.3 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 $4.6 million.
- ✓ Wholesale customer charges of $46.3 million account for 57.0% 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 $32.8 million account for 40.3% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of $61.4 million represent 75.6% of total operating revenue. Depreciation is the largest operating expense at $26.7 million or 43.5% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals $19.8 million or 24.4% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $17.1 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 August 2023 Financial Report Binder. Explanatory notes follow this schedule.

Table 3 – Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined
For the Two Months ended August 31, 2023
($000)

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business-Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	4,451	17.5%	10,095	29.2%	14,546	24.2%
Overtime	959	3.8%	595	1.7%	1,554	2.6%
Benefits	3,317	13.1%	1,276	3.7%	4,593	7.7%
Total Personnel	$ 8,727	34.4%	$ 11,965	34.6%	$ 20,692	34.5%
Utilities						
Electric	6,078	23.9%	3,305	9.5%	9,383	15.6%
Gas	7	0.0%	928	2.7%	935	1.6%
Sewage	50	0.2%	456	1.3%	506	0.8%
Water		0.0%	1,993	5.8%	1,993	3.3%
Total Utilities	$ 6,135	24.2%	$ 6,682	19.3%	$ 12,817	21.4%
Chemicals	1,859	7.3%	3,535	10.2%	5,394	9.0%
Supplies and other	1,544	6.1%	3,632	10.5%	5,176	8.6%
Contractual services	7,405	29.2%	9,018	26.0%	16,423	27.4%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(102)	-0.4%	(117)	-0.3%	(218)	-0.4%
Intergovernmental Agreement	-	0.0%	-	0.0%	-	0.0%
Shared services allocation	(170)	-0.7%	(98)	-0.3%	(267)	-0.4%
Operations and Maintenance Expenses	**$ 25,399**	**100.0%**	**$ 34,618**	**100.0%**	**$ 60,017**	**100.0%**

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (21.4% of total O&M expenses) and chemicals (9.0% of total O&M expenses).
- ✓ Personnel costs (34.5% 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 (27.4%) includes:
    - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately $439 thousand);
    - Sewage Disposal System costs for the operation and maintenace of the biosolids dryer facility (approximately $3.1 million); and
    - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenace, 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 offets 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 Two Months ended August 31, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2023
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	$ (4,016)	$ (2,625)	$ (6,641)	$ (41,059)
Investment earnings	(3,417)	(4,573)	(7,990)	(35,344)
Net (incr) decr in fair value of invstmt	(1,305)	(2,617)	(3,921)	(2,257)
Other nonoperating revenue	(165)	(171)	(336)	(3,872)
Interest Expense				
Bonded debt	18,277	19,748	38,025	228,066
Lease obligation	2,776	3,392	6,168	37,319
Other obligations	703	267	971	5,906
Total interest expense	21,756	23,408	45,164	271,291
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	-	-	(2,176)
Amortization, issuance costs, debt	(4,460)	2,049	(2,411)	(3,998)
(Gain) loss on disposal of capital assets	(1)	(5)	(7)	2,119
Loss on impairment of capital assets	-	-	-	-
Discontinued Capital Projects	-	-	-	20,903
Water Residential Assistance Program	(157)	(243)	(400)	12,343
Legacy pension expense	-	-	-	(20,765)
Total Nonoperating (Revenue)/Expense	**$ 8,235**	**$ 15,223**	**$ 23,458**	**$ 197,183**

- ✓ 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.
- ✓ 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 2022 market value adjustments for Water and Sewer total $2.8 million and $3.9 million, respectively. FY 2023 market value adjustments for Water and Sewer total $1.3 million and $2.6 million, respectively. Any difference is due to realized gain or loss on investments.

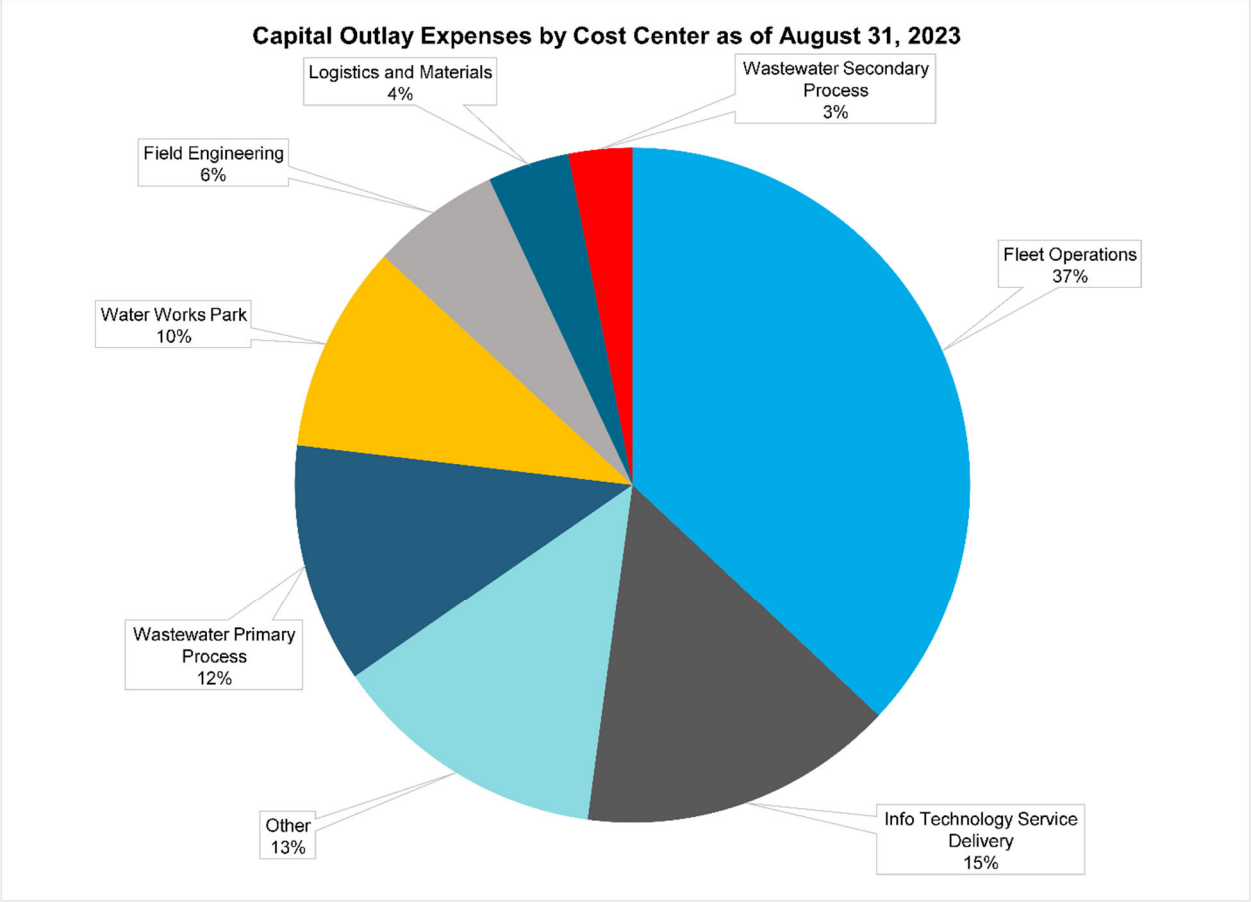
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
  - Bonded debt;
  - Lease obligation for the regional assets from the City of Detroit; and
  - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ FY 2024 and FY 2023 other non-operating income primarily represents FEMA Covid-19 grant income for the Water and Sewage Disposal systems.
- ✓ The FY 2023 capital contribution in Nonoperating (revenue) expense represents funds from the Evergreen Farmington Sewer District for a maximum discharge capacity of 227 cubic feet per second (cfs) to the regional sewer system.
- ✓ FY 2023 Sewage Disposal loss on disposal of capital assets includes sale of McKinstry warehouse.
- ✓ For FY 2023, GLWA is recognizing non-operating pension revenue rather than expense as a result of improved investment earnings for the plan.
- ✓ The FY 2023 Discontinued capital projects represents the cancellation of three Water CIP projects to repurpose the Northeast Water Treatment Plant.

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 August 31, 2023, total capital outlay spend is $2.3 million. Following this chart is a sample list of projects and purchases from the total spend of $2.3 million:



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

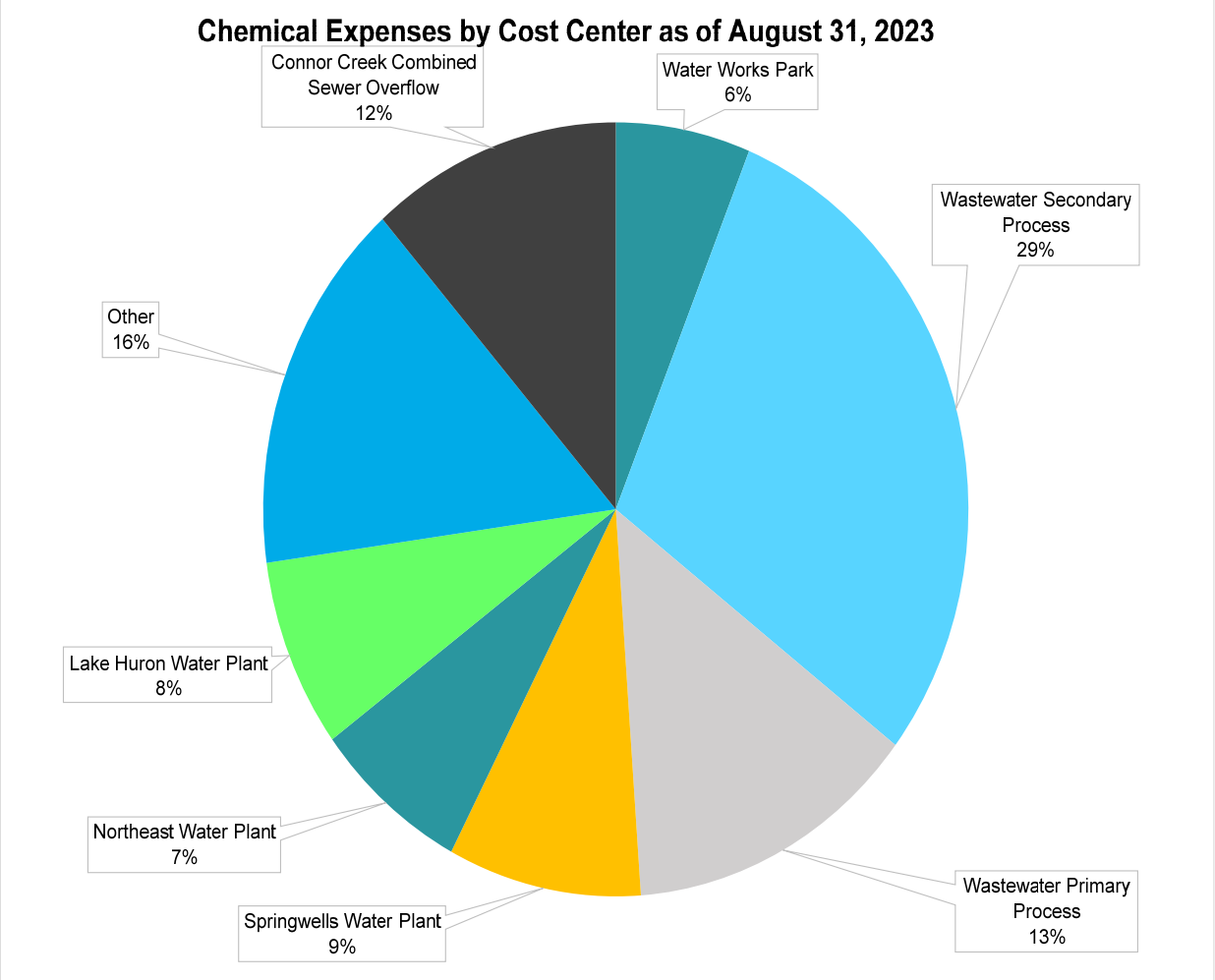
Water Operations: Water Works Park build out ($210k).

Wastewater Operations: MLP Replacement ($187k); Complex A pump replacement ($142k) and Chlorination scrubber pump ($70k).

Centralized & Administrative Facilities: Trucks and vehicles ($862k); Computer hardware and software ($348k); Forklift ($86k) and Electric Motor Analyzer ($58k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

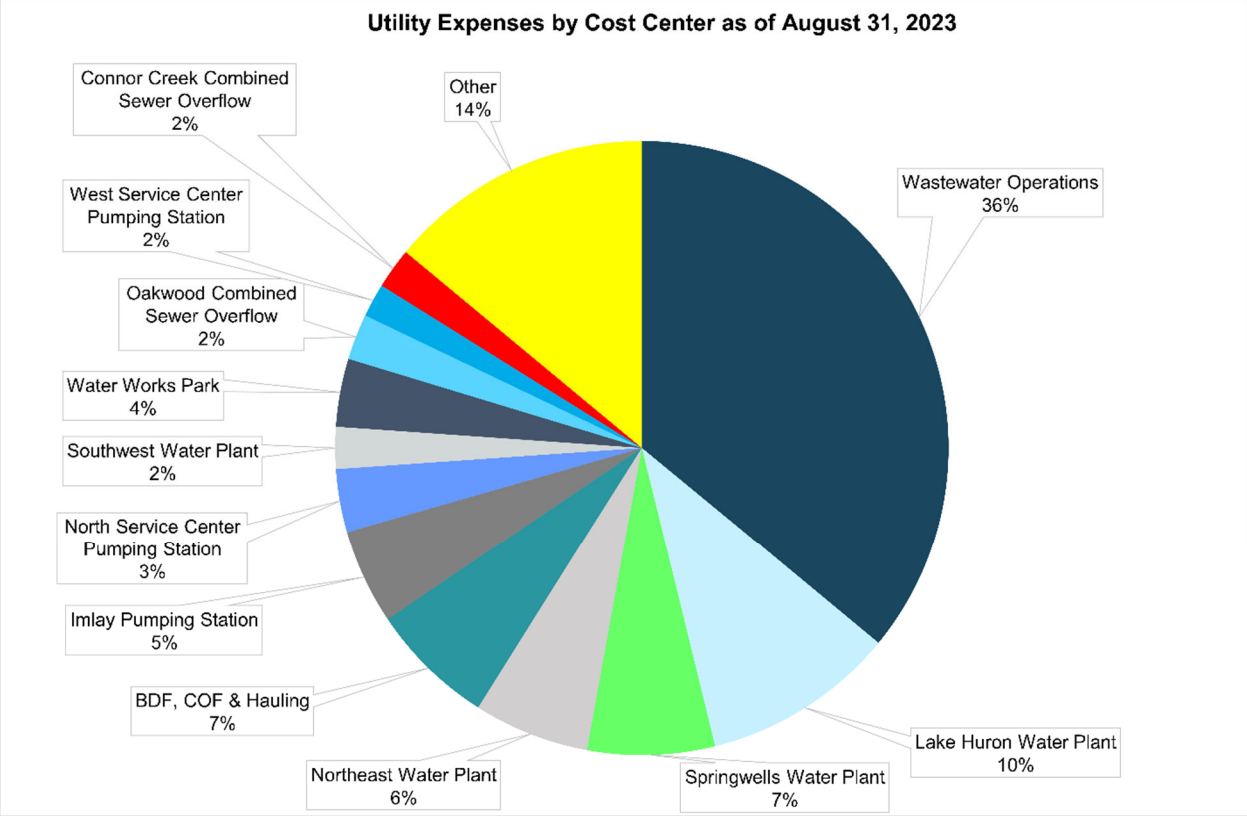
Chemical expenses are $5.4 million through August 31, 2023. The allocation is shown in the chart below and remains consistent with prior periods.



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 $12.8 million through August 31, 2023. 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 August 31, 2023 all reconciliations are up-to-date and complete.

There were no accounts added in the general ledger accounts since July 2023.

Chart 1 – Bank Reconciliation Completion Status

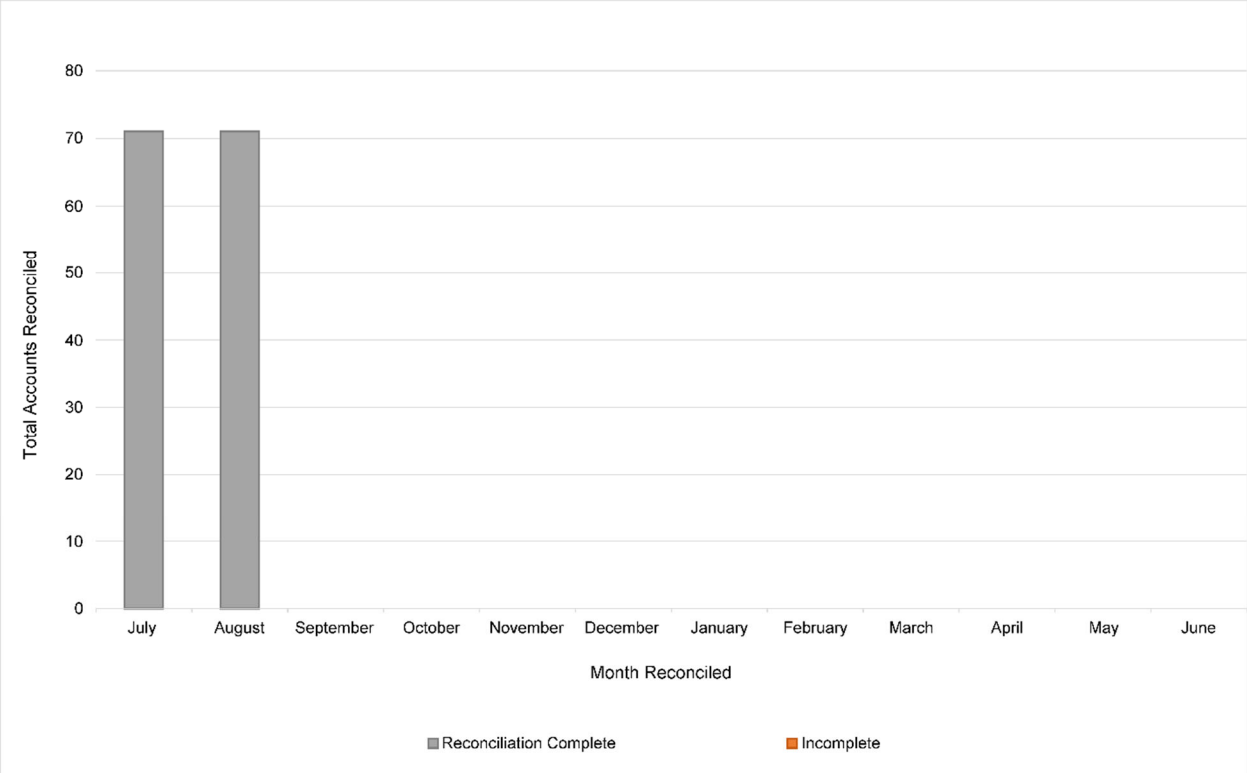


Table 1 – Fiscal Year 2024 GL Cash Account Rollforward

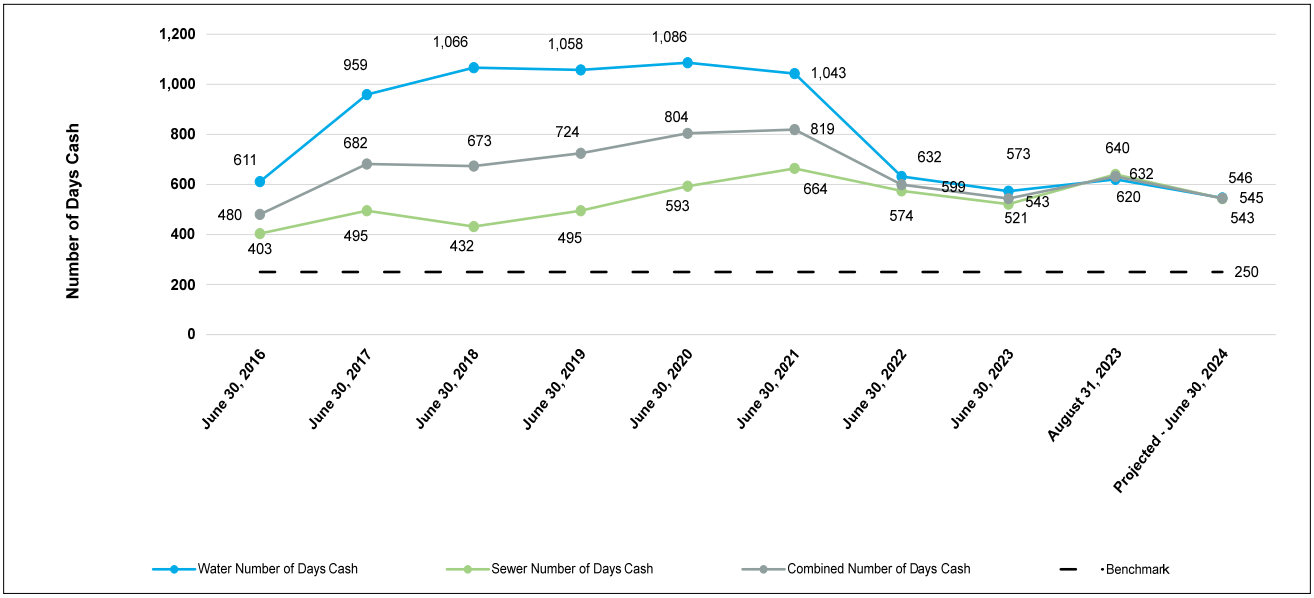
Total GL Cash accounts as of July 1, 2023	71
New GL Cash accounts	0
Inactivated GL Cash accounts	0
Total GL Cash accounts as of August 31, 2023	71

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 620 and Sewer at 640 days cash on hand as of August 31, 2023. 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 replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2024 projection is calculated based on values from the GLWA FY 2024 – 2028 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

	June 30, 2023	August 31, 2023	Projected June 30, 2024
Water Fund			
Cash and Investments - Unrestricted	$ 243,707,000	$ 254,983,000	$ 228,800,000
Operating Expense			
Operating Expense (a)	$ 285,220,000	$ 49,029,000	$ 294,173,000
Less: Depreciation (a)	(126,486,000)	(22,950,000)	(137,700,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(594,000)	(3,567,000)
Net Operating Expense	$ 155,167,000	$ 25,484,000	$ 152,906,000
Operating Expense per Day	$ 425,000	$ 411,000	$ 419,000
Days Cash			
Number of Days Cash	573	620	546
Sewage Disposal Fund			
Cash and Investments - Unrestricted	$ 302,270,000	$ 353,834,000	$ 306,100,000
Operating Expense			
Operating Expense (a)	$ 375,567,000	$ 61,857,000	$ 371,144,000
Less: Depreciation (a)	(163,471,000)	(27,583,000)	(165,500,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	$ 211,657,000	$ 34,274,000	$ 205,644,000
Operating Expense per Day	$ 580,000	$ 553,000	$ 563,000
Days Cash			
Number of Days Cash	521	640	543
Combined			
Cash and Investments - Unrestricted	$ 545,977,000	$ 608,817,000	$ 534,900,000
Operating Expense			
Operating Expense (a)	$ 660,787,000	$ 110,886,000	$ 665,317,000
Less: Depreciation (a)	(289,957,000)	(50,533,000)	(303,200,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(594,000)	(3,567,000)
Net Operating Expense	$ 366,824,000	$ 59,758,000	$ 358,550,000
Operating Expense per Day	$ 1,005,000	$ 964,000	$ 982,000
Days Cash			
Number of Days Cash	543	632	545

Totals may be off due to rounding

(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 Two Months Ended August 31, 2023

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	$ 7,079	$ 524	$ 7,603
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	420	752	1,172
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	12,320	21,196	33,516
Accelerated pension B&C notes obligation portion (g)	36	80	116
Regional System lease (h)	974	1,191	2,165
GASB 87 & GASB 96 adjustments (h)	-	64	64
WRAP (i)	466	660	1,126
Extraordinary Repair & Replacement Fund transfers (j)	-	-	-
Improvement & Extension Fund transfers (j)	5,030	5,029	10,059
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(22,409)	(26,803)	(49,212)
Amortization - debt related (k)	4,460	(2,049)	2,411
Discontinued capital projects (k)	-		-
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	1	5	6
Raw water rights obligation (l)	485	-	485
Investment earnings for construction fund (m)	1,063	1,335	2,398
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	1,305	2,617	3,922
Improvement & extension fund operating expenses (p)	(237)	(32)	(269)
Capital Contribution (q)	-	-	-
Net Position Increase/(Decrease) per Financial Statements (b)	$ 10,993	$ 4,569	$ 15,562

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) Payments for the warehouse lease and subscription-based information technology arrangements (SBITA) are expensed for budget purposes. For financial reporting purposes, the warehouse lease is recorded under GASB 87 and payments are treated as a reduction in the lease liability and interest expense (which is a nonoperating expense). The SBITA payments are recorded under GASB 96 and are treated as a prepaid subscription asset as the software is currently in the implemented phase.

(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 Improvement & Extension Fund and Extraordinary Repair & Replacement 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.

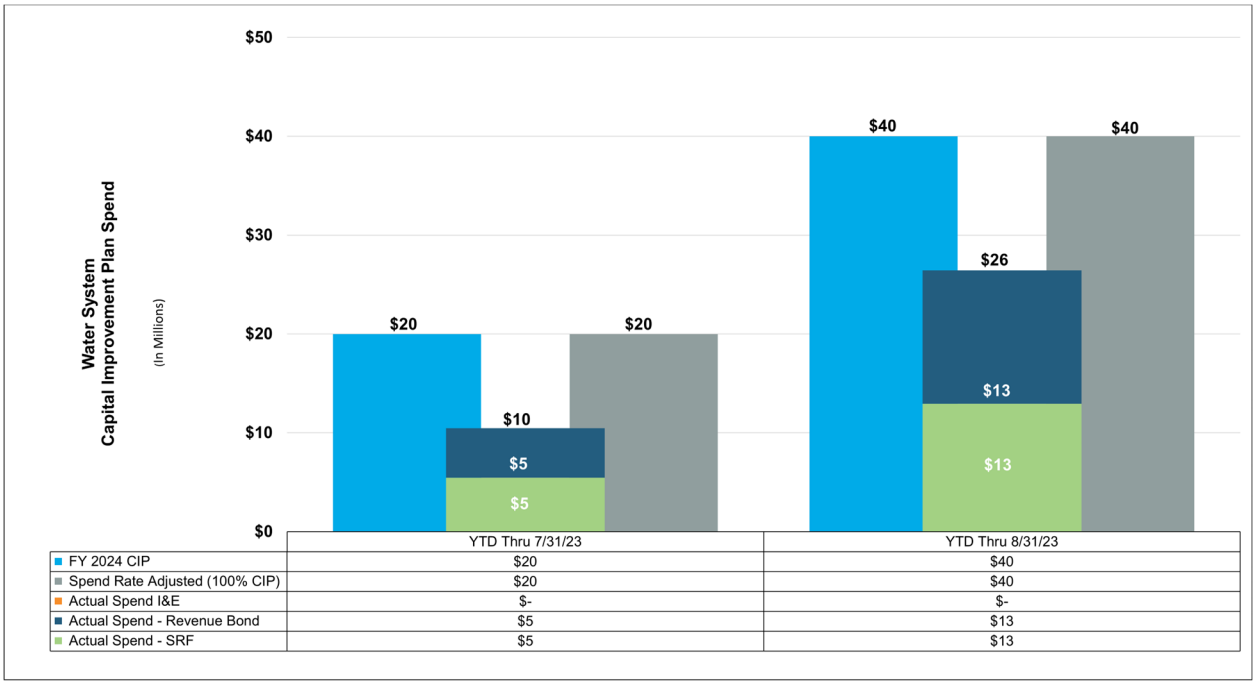
This report presents quarterly and monthly CIP spending against the prorated CIP in total and the CIP adjusted for the SRA. For FY 2024 the Board approved capital spend rate is 100%. The prorated CIP is calculated by dividing the total fiscal year 2024 board-approved CIP plan by twelve equal months. It should be noted that for operational purposes, GLWA utilizes Primavera P6 for refined monthly projections for cash management and project management.

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

As of August 2023, the water system incurred $26 million of construction costs to date. This spend represents 66% of the original, Board-approved CIP, and 66% of the Board approved spend rate adjustment.

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

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



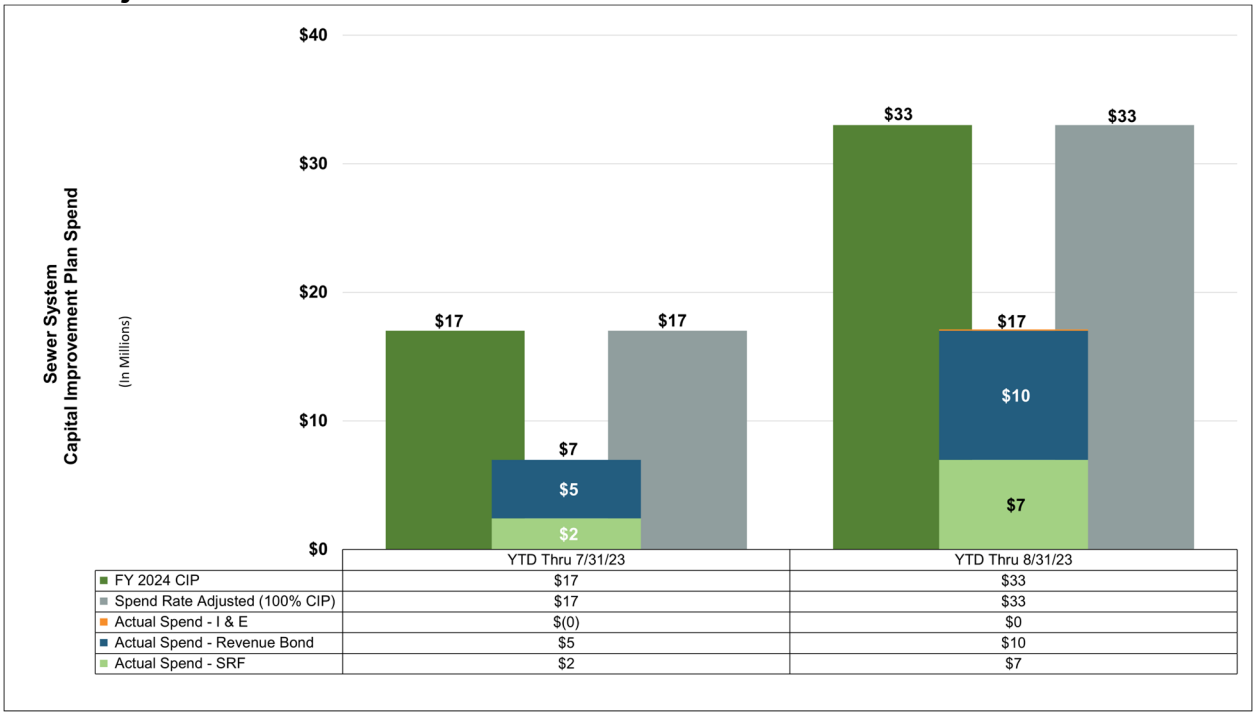
	YTD Thru 7/31/23	YTD Thru 8/31/23
FY 2024 CIP	$20	$40
Spend Rate Adjusted (100% CIP)	$20	$40
Actual Spend I&E	$-	$-
Actual Spend - Revenue Bond	$5	$13
Actual Spend - SRF	$5	$13

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

As of August 2023, the Sewer system incurred $17 million of construction costs to date. This spend represents 52% of the original, Board-approved CIP, and 52% of the Board approved spend rate adjustment.

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

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



	YTD Thru 7/31/23	YTD Thru 8/31/23
FY 2024 CIP	$17	$33
Spend Rate Adjusted (100% CIP)	$17	$33
Actual Spend - I & E	$(0)	$0
Actual Spend - Revenue Bond	$5	$10
Actual Spend - SRF	$2	$7

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.

As of June 30, 2023, GLWA and DWSD have meet the requirements of the Plan of Adjustment requiring contributions to the Detroit General Retirement System (GRS) pension plan through Operational and Maintenance Pension sub-accounts. GLWA and DWSD staff monitor the remaining pension obligation closely. Budgeted, annual contributions toward that remaining obligation, at this time identified as limited administrative fee contributions, are transferred to the Pension Obligation Payment fund and reflected in the reported activity found here.

Table 1 – GLWA FY 2024 Water MBO Transfers reflects the required transfers for FY 2024 completed through August 2023. MBO transfers for water totaling $26.9 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2024 Sewer MBO Transfers reflects the required transfers for FY 2024 completed through August 2023. MBO transfers for sewer totaling $36.3 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2024 to date.

Table 1 – GLWA FY 2024 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 2024							
July 2023	$ 12,742,200	-	$482,808	$225,850	-	-	$13,450,858
August 2023	$ 12,742,200	-	$482,808	$225,841	-	-	$13,450,849
September 2023							
October 2023							
November 2023							
December 2023							
January 2024							
February 2024							
March 2024							
April 2024							
May 2024							
June 2024							
Total FY 2024	$ 25,484,400	$ -	$ 965,616	$ 451,691	$ -	$ -	$26,901,707

Table 2 – GLWA FY 2024 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 2024							
July 2023	$ 17,136,975	-	$682,459	$319,700	-	-	$18,139,134
August 2023	$ 17,136,975	-	682,459	$ 319,700	-	-	$ 18,139,134
September 2023							
October 2023							
November 2023							
December 2023							
January 2024							
February 2024							
March 2024							
April 2024							
May 2024							
June 2024							
Total FY 2024	$ 34,273,950	-	$1,364,918	$639,400	$ -	$ -	$36,278,268

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	156,747,700	6,048,000	10,695,700	2,611,800	-	2,200,000	178,303,200
Total FY 2024 (year to date)	25,484,400	-	965,616	451,691	-	-	26,901,707
Life to Date	$1,013,190,212	$48,362,300	$85,734,191	$18,025,995	$2,686,900	$2,806,000	$1,170,805,598

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	204,122,500	10,824,000	14,687,400	3,673,800	-	-	233,307,700
Total FY 2024 (year to date)	34,273,950	-	1,364,918	639,400	-	-	36,278,268
Life to Date	$1,453,410,042	$86,620,800	$117,542,327	$25,643,096	$8,246,100	$779,600	$1,692,241,965

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 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.

As of June 30, 2023, GLWA and DWSD have meet the requirements of the Plan of Adjustment requiring contributions to the Detroit General Retirement System (GRS) pension plan through Operational and Maintenance Pension sub-accounts. GLWA and DWSD staff monitor the remaining pension obligation closely. Budgeted, annual contributions toward that remaining obligation, at this time identified as limited administrative fee contributions, are transferred to the Pension Obligation Payment fund and reflected in the reported activity found here.

Table 4 – DWSD FY 2024 Water MBO Transfers reflects the required transfers for FY 2024 completed through August 2023. MBO transfers for Water totaling $11.2 million have been transferred to accounts held by DWSD.

Table 5 – DWSD FY 2024 Sewer MBO Transfers reflects the required transfers for FY 2024 completed through August 2023. MBO transfers for Sewer totaling $13.9 million have been transferred to accounts held by DWSD.

Table 6 – DWSD Water MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2024 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 2024 Water MBO Transfers

WATER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Water
FY 2024				
July 2023	$3,731,400	-	$1,875,000	$5,606,400
August 2023	$3,731,400	-	$1,875,000	$5,606,400
September 2023				
October 2023				
November 2023				
December 2023				
January 2024				
February 2024				
March 2024				
April 2024				
Total FY 2024	$7,462,800	-	$3,750,000	$11,212,800

Table 5 – DWSD FY 2024 Sewer MBO Transfers

SEWER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2024				
July 2023	$4,642,142	-	$2,291,667	$6,933,809
August 2023	$4,642,142	-	$2,291,667	$6,933,809
September 2023				
October 2023				
November 2023				
December 2023				
January 2024				
February 2024				
March 2024				
April 2024				
May 2024				
June 2024				
Total FY 2024	$9,284,284	-	$4,583,334	$13,867,618

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				
MBO/Lease Requirement	42,581,600	4,272,000	22,500,000	69,353,600
Offset to Debt Service	-	-	(2,922,100)	(2,922,100)
Net MBO Transfer	42,581,600	4,272,000	19,577,900	66,431,500
FY 2024 (year to date)				
MBO/Lease Requirement	7,462,800	-	3,750,000	11,212,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	7,462,800	-	3,750,000	11,212,800
Life-to-Date				
MBO/Lease Requirement	280,855,704	34,157,100	183,750,000	498,762,804
Offsets	-	-	(31,847,900)	(31,847,900)
Total Water	**280,855,704**	**34,157,100**	**151,902,100**	**466,914,904**

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				
MBO/Lease Requirement	51,396,400	2,856,000	27,500,000	81,752,400
Offset to Debt Service	-	-	(4,388,300)	(4,388,300)
Total MBO Transfer	51,396,400	2,856,000	23,111,700	77,364,100
FY 2024 (year to date)				
MBO/Lease Requirement	9,284,284	-	4,583,334	13,867,618
Offset to Debt Service	-	-	-	-
Total MBO Transfer	9,284,284	-	4,583,334	13,867,618
Life-to-Date				
MBO/Lease Requirement	432,836,696	22,859,800	224,583,334	679,358,283
Offsets	(7,100,000)	-	(51,780,661)	(57,959,114)
Total Sewer	**425,736,696**	**22,859,800**	**172,802,673**	**621,399,169**

* Note: FY 2016 lease transfer amounts shown do not incude 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

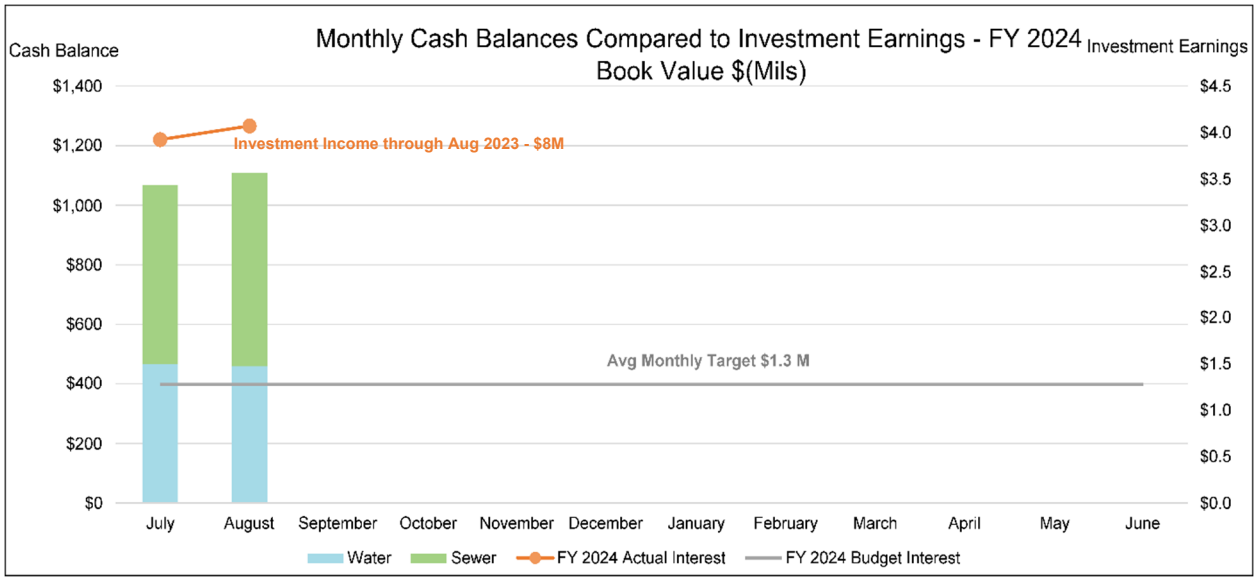
Monthly Cash Balances Compared to Investment Income

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 August 2023, GLWA earned investment income of $4.1 million and cumulative FY 2024 earnings through August 2023 of $8 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 August 2023



$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	$466	$459	-	-	-	-	-	-	-	-	-	-
Sewer	$602	$649	-	-	-	-	-	-	-	-	-	-
Total	$1,068	$1,107	-	-	-	-	-	-	-	-	-	-
Investment Income	$3.9	$4.1	-	-	-	-	-	-	-	-	-	-

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:

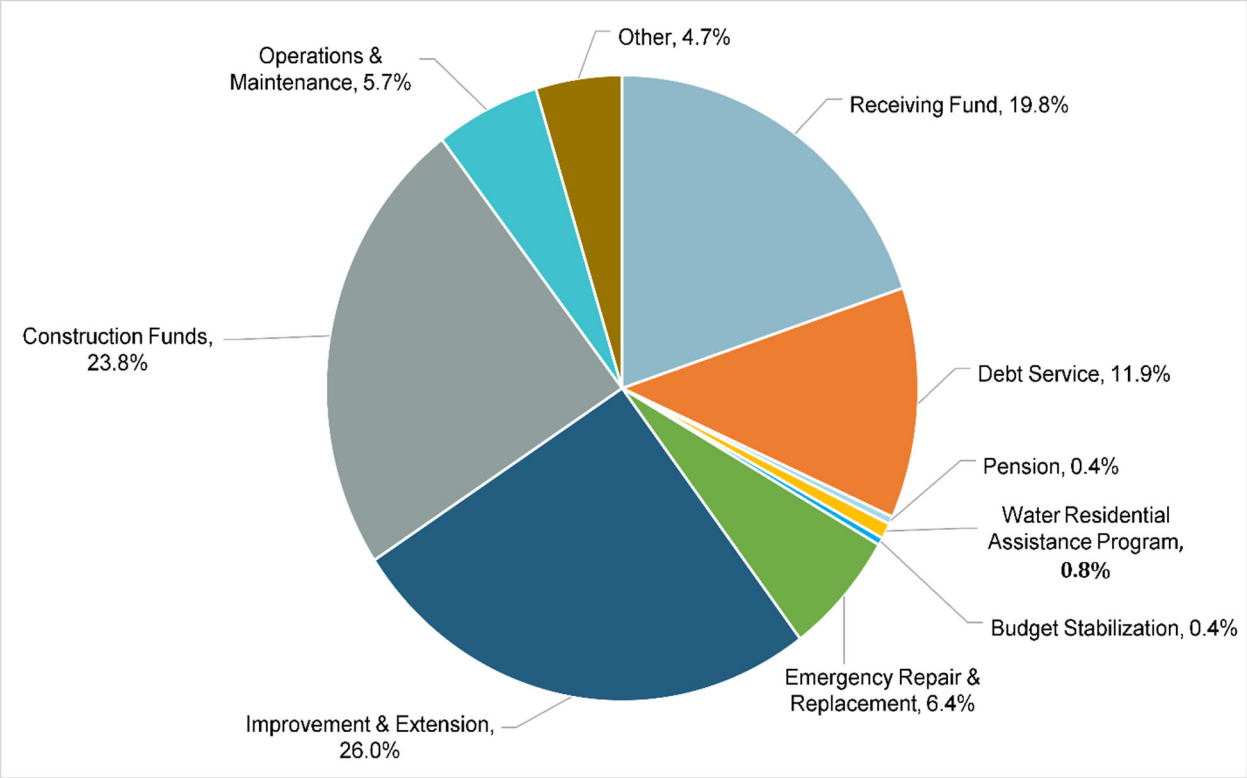
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors, security deposit funds held on behalf of the City of Flint, and capital contribution funds provided by the Evergreen Farmington Sewer District recognized as related project work is completed

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 August 2023 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of August 31, 2023 is $459 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 are funding the capital program.

Chart 2 – Cash Balances - Water Funds as of August 2023

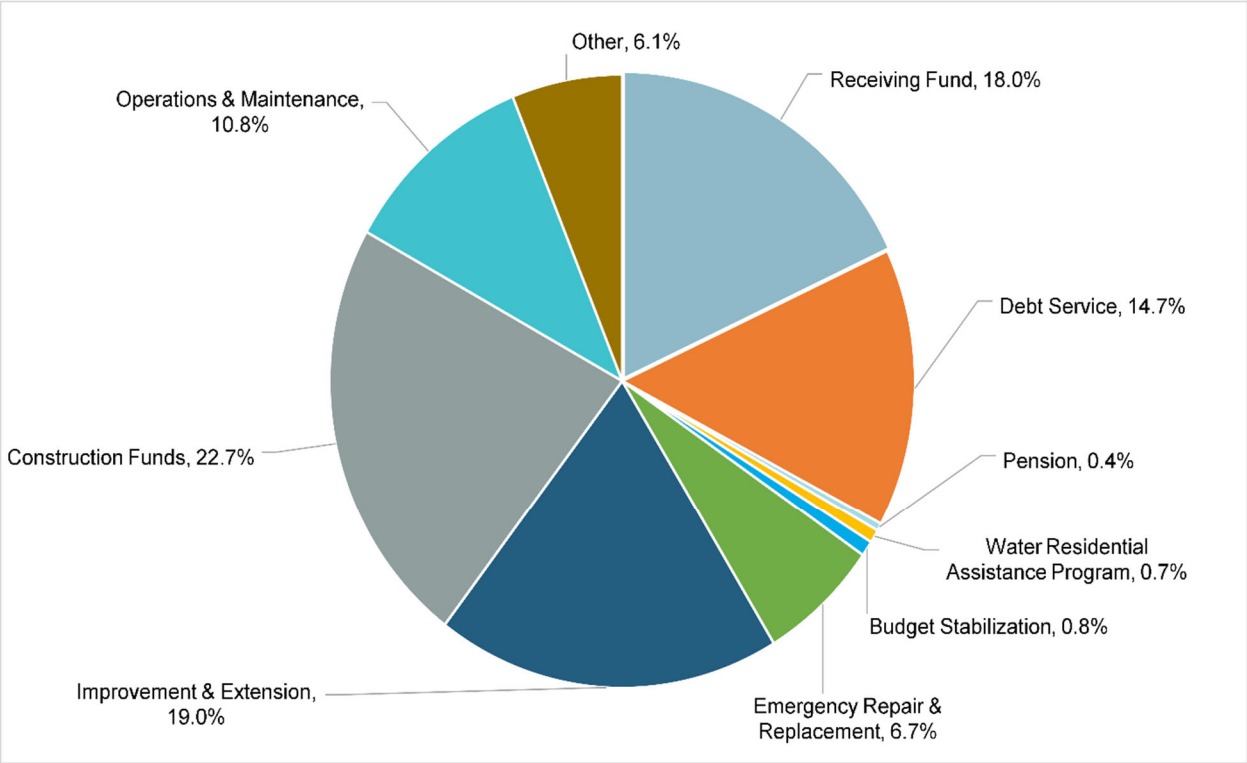


Note: *Due to rounding totals may not equal 100%.*

Chart 3 – Cash Balances - Sewer Funds as of August 2023 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of August 31, 2023 is $649 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 are currently funding the capital program.

Chart 3 – Cash Balances - Sewer Funds as of August 2023



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 2024 water usage and billed revenue which are provided by DWSD staff. As of August 31, 2023, the DWSD usage was at 105.75% of the budget and billed revenue was at 106.10% 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								
	FY 2024 - Original Budget		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume Mcf	Revenue $	Volume Mcf	Revenue (2) $	Volume Mcf	Revenue $	Volume Mcf	Revenue $
July	239,000	12,068,200	248,307	12,606,397	9,307	538,197	244,749	9,490,589
August	237,000	11,985,000	255,079	12,913,868	18,079	928,868	277,313	13,301,941
September	246,000	12,236,000					234,806	11,591,601
October	216,000	11,118,000					239,062	11,730,809
November	205,000	10,664,000					212,663	10,706,519
December	196,000	10,293,000					222,502	11,073,513
January	197,000	10,334,000					227,748	11,257,742
February	208,000	10,788,000					208,568	10,569,468
March	191,000	10,086,000					229,264	11,383,630
April	214,000	11,036,000					198,665	10,121,640
May	186,000	10,000,000					241,525	11,820,301
June	225,000	11,489,000					257,749	12,567,250
Total	2,560,000	132,097,200	503,386	25,520,265	27,386	1,467,065	2,794,614	135,615,003
Subtotals ytd	*476,000*	*24,053,200*	*503,386*	*25,520,265*	*27,386*	*1,467,065*		
Achievement of Budget			*105.75%*	*106.10%*				

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

Table 2 – DWSD Retail Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
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%
December	11,630,994	8,121,586	3,509,408	43.21%
January	8,857,268	6,919,040	1,938,228	28.01%
February	8,244,713	10,156,126	(1,911,413)	-18.82%
March	10,417,832	11,093,125	(675,293)	-6.09%
April	9,417,449	7,431,900	1,985,549	26.72%
May	12,162,719	7,660,852	4,501,867	58.76%
June	13,467,858	9,123,179	4,344,679	47.62%
July	5,943,286	8,518,373	(2,575,087)	-30.23%
August	11,794,131	9,636,219	2,157,912	22.39%
Rolling, 12-Month Total	120,371,960	103,141,028		
Rolling, 12-Month Average	10,030,997	8,595,086		

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 2024 sewer billed revenue which are provided by DWSD staff. As of August 31, 2023, the DWSD usage was at 105.03% of the budget and billed revenue was at 100.27% 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								
	FY 2024 - Original Budget		**FY 2024 - Actual**		**FY 2024 - Variance**		**FY 2023 - Actuals**	
Month (1)	Volume	Revenue	Volume (2)	Revenue (3)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	Mcf	*$*
July	200,000	29,187,700	207,574	29,192,723	7,574	5,023	223,661	29,297,748
August	199,000	29,128,000	211,503	29,278,602	12,503	150,602	231,809	29,640,202
September	203,000	29,340,000					197,455	27,523,933
October	182,000	28,119,000					194,154	27,375,180
November	172,000	27,526,000					172,579	26,525,064
December	165,000	27,111,000					174,896	26,676,360
January	166,000	27,170,000					175,562	26,403,544
February	175,000	27,704,000					160,804	25,814,735
March	161,000	26,873,000					181,217	26,720,229
April	179,000	27,941,000					167,727	26,120,878
May	160,000	26,839,000					195,191	27,508,373
June	188,000	28,475,000					206,163	28,018,277
Total	2,150,000	335,413,700	419,077	58,471,325	20,077	155,625	2,281,218	327,624,524
Subtotals ytd	*399,000*	*58,315,700*	*419,077*	*58,471,325*		*155,625*		
Achievement of Budget/Goal			*105.03%*	*100.27%*				

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

(2) Reflects billed volume based on actual usage except for residential customers where the billed volume differs from actual usage due to residential sewer volume caps implemented in FY 2023.

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
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%
December	23,756,153	24,880,743	(1,124,590)	-4.52%
January	23,760,629	23,020,491	740,138	3.22%
February	23,867,073	24,495,922	(628,849)	-2.57%
March	30,697,464	29,410,086	1,287,378	4.38%
April	21,542,671	22,115,076	(572,405)	-2.59%
May	24,419,561	20,952,592	3,466,969	16.55%
June	23,769,626	25,922,279	(2,152,653)	-8.30%
July	32,379,222	30,935,343	1,443,879	4.67%
August	25,391,891	26,064,896	(673,005)	-2.58%
Rolling 12-Month Total	295,023,590	299,057,713		
Rolling, 12-Month Average	24,585,299	24,921,476		

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 August 31, 2023 with comparative totals from June 30, 2023, June 30, 2022, and June 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 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 held in check overall due to a consistent practice of adjusting the allowance for doubtful accounts monthly. 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 August 31, 2023 with comparative totals from August 31, 2022. 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 August 31, 2023 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					
	Monthly	Receivables			
Period Ending	Sales	Total	Allowance	Net	Days in AR (1)
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
June 30, 2023	$ 39,443,000	$ 327,023,000	$ (272,012,000)	$ 55,011,000	42
August 31, 2023	$ 42,783,000	$ 295,398,000	$ (243,811,000)	$ 51,587,000	36

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	215,778	$ 791.16	$ 15,598,000	$ 8,067,000	$ 29,890,000	$ 117,159,000	$ 170,714,000
			9.1%	*4.7%*	*17.5%*	*68.6%*	*100.0%*
Commercial	21,311	1,500.39	8,129,000	2,908,000	5,764,000	15,174,000	31,975,000
			25.4%	*9.1%*	*18.0%*	*47.5%*	*100.0%*
Industrial	3,660	3,892.28	5,062,000	860,000	1,948,000	6,375,000	14,246,000
			35.5%	*6.0%*	*13.7%*	*44.8%*	*100.0%*
Tax Exempt	3,800	803.45	610,000	241,000	540,000	1,662,000	3,053,000
			20.0%	*7.9%*	*17.7%*	*54.4%*	*100.0%*
Government	48,722	423.61	4,276,000	2,874,000	1,239,000	12,251,000	20,639,000
			20.7%	*13.9%*	*6.0%*	*59.4%*	*100.0%*
Drainage	45,228	677.01	2,403,000	1,366,000	4,549,000	22,302,000	30,620,000
			7.8%	*4.5%*	*14.9%*	*72.8%*	*100.0%*
Subtotal - Active Accounts	**338,499**	**$ 801.32**	**$ 36,078,000**	**$ 16,317,000**	**$ 43,930,000**	**$ 174,922,000**	**$ 271,247,000**
			13.3%	*6.0%*	*16.2%*	*64.5%*	*100.0%*
Inactive Accounts	338,380	71.37	79,000	(126,000)	738,000	23,460,000	24,151,000
			0.3%	*(0.5%)*	*3.1%*	*97.1%*	*100.0%*
Total	**676,879**	**$ 436.41**	**$ 36,157,000**	**$ 16,191,000**	**$ 44,667,000**	**$ 198,382,000**	**$ 295,398,000**
% of Total A/R			*12.2%*	*5.5%*	*15.1%*	*67.2%*	*100.0%*
Water Fund	234,335	238.84	$ 9,904,000	$ 3,682,000	$ 8,431,000	$ 33,952,000	$ 55,970,000
Sewer Fund	264,061	906.72	$ 26,254,000	$ 12,509,000	$ 36,236,000	$ 164,430,000	$ 239,428,000
Total August 31, 2023 (a)	676,879	$ 436.41	$ 36,157,000	$ 16,191,000	$ 44,667,000	$ 198,382,000	**$ 295,398,000**
Water Fund- Allowance							$ (46,570,000)
Sewer Fund- Allowance							$ (197,240,000)
Total Bad Debt Allowance							**$ (243,811,000)**
Comparative-August 2022 (b)	652,179	$ 484.66	$ 34,479,000	$ 14,956,000	$ 44,031,000	$ 222,617,000	$ 316,083,000
Difference (a) - (b)	24,700		$ 1,678,000	$ 1,235,000	$ 637,000	$ (24,235,000)	$ (20,685,000)

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 2024 water billed usage and revenues. As of August 31, 2023, the billed usage was at 87.47% of the original plan and billed revenue at 93.77% of the original plan. Billings and usage from the City of Flint *are* included as they were assumed in the FY 2024 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 the prior year for the twelve-month period ending August 31, 2023.

Table 1 – FY 2024 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
	FY 2024 Charges (3)		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	Mcf	$
July	1,607,433	34,283,300	1,396,012	31,956,320	(211,421)	(2,326,980)	1,664,936	34,349,872
August	1,469,739	32,797,900	1,295,617	30,947,078	(174,122)	(1,850,822)	1,418,347	31,555,444
September	1,284,305	30,543,500	-	-			1,308,481	30,306,713
October	1,037,450	27,748,500	-	-			1,055,245	27,391,089
November	898,776	26,395,000	-	-			906,669	25,911,801
December	966,122	26,990,700	-	-			990,177	26,652,607
January	963,772	27,002,600	-	-			979,573	26,536,118
February	874,396	26,142,700	-	-			869,843	25,535,320
March	960,207	26,930,300	-	-			961,541	26,356,490
April	917,893	26,581,600	-	-			917,599	25,997,955
May	1,136,342	29,098,000	-	-			1,169,448	28,895,975
June	1,460,066	32,678,300	-	-			1,570,958	33,407,419
Total	13,576,500	347,192,400	2,691,629	62,903,398	(385,543)	(4,177,802)	13,812,817	342,896,802
Subtotals ytd	*3,077,172*	*67,081,200*	*2,691,629*	*62,903,398*	*(385,543)*	*(4,177,802)*		
Achievement of Original Plan			*87.47%*	*93.77%*				
Billing Adjustments (4)			*5,339*	*72,895*				
			2,696,968	*62,976,293*				
			87.64%	*93.88%*				

(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 2024 water supply system charge schedule.

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

Table 2 - Wholesale Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
September	21,887,632	23,849,618	(23,849,618)	-100.00%
October	38,029,648	29,212,277	8,817,371	30.18%
November	30,903,329	25,265,770	5,637,559	22.31%
December	34,298,469	25,302,369	8,996,100	35.55%
January	19,182,054	31,280,599	(12,098,545)	-38.68%
February	26,553,529	24,919,847	1,633,682	6.56%
March	26,074,213	22,123,572	3,950,641	17.86%
April	20,940,451	21,726,941	(786,490)	-3.62%
May	29,265,308	27,717,969	1,547,339	5.58%
June	29,370,704	26,379,503	2,991,201	11.34%
July	22,645,008	14,435,092	8,209,916	56.87%
August	36,275,672	41,154,992	(4,879,320)	-11.86%
Rolling 12-Month Total	335,426,017	313,368,549		
Rolling, 12-Month Average	27,952,168	26,114,046		

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	12
Emergency	0
Older Contracts	6
Total	18

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 2024 sewer billed revenue. As of August 31, 2023 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 below the twelve-month period ending August 31, 2022.

Table 3 – FY 2024 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
	FY 2024 Charges		FY 2024 - Actual		FY 2024 - Variance		FY 2023 - Actuals	
Month (1)	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	*Mcf*	*$*
July	N/A	23,494,800	N/A	23,494,800	N/A	-	N/A	22,888,100
August	N/A	23,494,800	N/A	23,494,800	N/A	-	N/A	22,888,100
September	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
October	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
November	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
December	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
January	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
February	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
March	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
April	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
May	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
June	N/A	23,494,800	N/A	0	N/A		N/A	22,888,100
Total		281,937,600		46,989,600		-		274,657,200
Subtotals ytd		*46,989,600*		*46,989,600*		-		
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**
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%
December	18,314,222	21,765,958	(3,451,736)	-15.86%
January	17,636,972	26,436,258	(8,799,286)	-33.28%
February	33,102,769	23,937,258	9,165,511	38.29%
March	23,746,469	24,713,158	(966,689)	-3.91%
April	17,769,710	19,937,558	(2,167,848)	-10.87%
May	18,213,966	10,226,700	7,987,266	78.10%
June	38,287,549	29,659,245	8,628,304	29.09%
July	22,331,831	28,223,515	(5,891,684)	-20.88%
August	22,377,366	21,036,661	1,340,705	6.37%
Rolling 12-Month Total	278,615,480	271,369,352		
Rolling, 12-Month Average	23,217,957	22,614,113		

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 August 31, 2023, Highland Park had a delinquent balance of $54.6 million, including $40.4 million for wastewater treatment services, $1.9 million for industrial waste control services, and $12.2 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 2024 through August 31, 2023. 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

	Service Month	Water	Sewer	IWC	Total
September 2022 Billing	August 2022	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	September 2022	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	October 2022	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
December 2022 Billing	November 2022	103,645	451,700	4,025	559,370
December 2022 Payments		-	(641,773)	-	(641,773)
December 31, 2022 Balance		11,587,242	41,679,514	1,842,271	55,109,027
January 2023 Billing	December 2022	99,260	451,700	3,997	554,957
January 2023 Payments		-	(1,341,522)	-	(1,341,522)
January 31, 2023 Balance		11,686,502	40,789,692	1,846,268	54,322,462
February 2023 Billing	January 2023	106,448	451,700	3,998	562,146
February 2023 Payments		-	(434,682)	-	(434,682)
February 28, 2023 Balance		11,792,950	40,806,710	1,850,266	54,449,926
March 2023 Billing	February 2023	99,164	451,700	3,889	554,753
March 2023 Payments		-	(347,442)	-	(347,442)
March 31, 2023 Balance		11,892,114	40,910,969	1,854,155	54,657,238
April 2023 Billing	March 2023	101,068	451,700	3,897	556,665
April 2023 Payments		-	(358,010)	-	(358,010)
April 30, 2023 Balance		11,993,182	41,004,659	1,858,052	54,855,893
May 2023 Billing	April 2023	98,870	451,700	3,906	554,476
May 2023 Payments		-	(349,566)	-	(349,566)
May 31, 2023 Balance		12,092,052	41,106,793	1,861,958	55,060,803
June 2023 Billing	May 2023	103,555	451,700	3,906	559,161
June 2023 Payments		(126,000)	(1,261,249)		(1,387,249)
June 30, 2023 Balance		12,069,607	40,297,244	1,865,864	54,232,714
July 2023 Billing	June 2023	107,088	451,700	3,906	562,694
July 2023 Payments		-	(386,031)	-	(386,031)
July 31, 2023 Balance		12,176,695	40,362,913	1,869,769	54,409,377
August 2023 Billing	July 2023	115,273	445,700	3,964	564,937
August 2023 Payments		-	(387,766)	-	(387,766)
August 31, 2023 Balance		12,291,968	40,420,847	1,873,733	54,586,548

All amounts are unaudited unless otherwise noted.

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 August 31, 2023.

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. Seven water accounts comprise the past due balances over 46 days. Five accounts make up a past due balance of $904 thousand which were subsequently paid in September and October. One of the past due accounts is currently under review. The remaining past due amount relates to ongoing disputes regarding the Highland Park portion of their water charges. The past due Sewer account was paid in full in September.

The Pollutant Surcharge past due balance consist 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	$ 60,661,975.60	$ 41,921,627.66	$ 1,750,877.60	$ 943,704.39	$ 16,045,765.95
Sewer	$ 54,024,832.97	$ 13,746,486.17	$ 773,400.00	$ 451,700.00	$ 39,053,246.80
IWC	$ 2,326,749.48	$ 460,885.87	$ 3,905.78	$ 3,905.78	$ 1,858,052.05
Pollutant Surcharge	$ 439,427.07	$ 440,471.71	$ 3,847.94	$ (8,187.58)	$ 3,295.00
Total	$ 117,452,985.12	$ 56,569,471.41	$ 2,532,031.32	$ 1,391,122.59	$ 56,960,359.80
	100.00%	48.16%	2.16%	1.18%	48.50%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 48,370,007.46	$ 41,699,266.64	$ 1,647,322.82	$ 844,834.31	$ 4,178,583.69
Sewer	$ 13,603,986.17	$ 13,282,286.17	$ 321,700.00	$ -	$ -
IWC	$ 453,016.13	$ 453,016.13	$ -	$ -	$ -
Pollutant Surcharge	$ 439,427.07	$ 440,471.71	$ 3,847.94	$ (8,187.58)	$ 3,295.00
Total	$ 62,866,436.83	$ 55,875,040.65	$ 1,972,870.76	$ 836,646.73	$ 4,181,878.69
	100.00%	88.88%	3.14%	1.33%	6.65%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 40,679,865.77	$ 39,738,140.15	$ 939,922.94	$ 1,802.68	$ -
Sewer	$ 13,603,986.17	$ 13,282,286.17	$ 321,700.00	$ -	$ -
IWC	$ 453,016.13	$ 453,016.13	$ -	$ -	$ -
Pollutant Surcharge	$ 439,427.07	$ 440,471.71	$ 3,847.94	$ (8,187.58)	$ 3,295.00
Total	$ 55,176,295.14	$ 53,913,914.16	$ 1,265,470.88	$ (6,384.90)	$ 3,295.00
	100.00%	97.71%	2.29%	-0.01%	0.01%

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 2024 reflects two months of activity to date.

Water fund receipts exceeded required disbursements by 14% through August 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 9% since July 1, 2019.

Sewer fund receipts exceeded required disbursements by 5% through August 31, 2023 in line with the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2019.

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 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru Aug 31
	Water					
1	Receipts	$ 332,606,196	$ 336,642,021	$ 338,117,694	$ 363,335,474	$ 65,075,127
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	332,606,196	336,642,021	338,117,694	363,335,474	65,075,127
4	Disbursements	(296,190,425)	(308,713,407)	(316,495,360)	(349,186,375)	(57,041,413)
5	Receipts Net of Required Transfers	36,415,771	27,928,614	21,622,334	14,149,099	8,033,714
6	I&E Transfer	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)	-
7	Net Receipts	$ 10,696,020	$ (4,063,073)	$ (5,000,528)	$ 4,250,999	$ 8,033,714
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*112%*	*109%*	*107%*	*104%*	*114%*
	Sewer					
9	Receipts	$ 490,461,356	$ 472,871,853	$ 471,979,297	$ 498,888,416	$ 82,833,864
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	490,461,356	472,871,853	471,979,297	498,888,416	82,833,864
12	Disbursements	(445,604,952)	(436,600,883)	(450,701,751)	(473,516,238)	(79,060,220)
13	Receipts Net of Required Transfers	44,856,404	36,270,970	21,277,546	25,372,178	3,773,644
14	I&E Transfer	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)	-
15	DWSD Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	17,542,669	18,206,431	8,296,578	-	-
17	Net Receipts	$ 43,302,873	$ 13,972,674	$ (8,077,664)	$ (1,394,022)	$ 3,773,644
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*110%*	*108%*	*105%*	*105%*	*105%*
	Combined					
19	Receipts	$ 823,067,552	$ 809,513,874	$ 810,096,991	$ 862,223,890	$ 147,908,991
20	MOU Adjustments	-	-	-	-	-
21	Adjusted Receipts	823,067,552	809,513,874	810,096,991	862,223,890	147,908,991
22	Disbursements	(741,795,377)	(745,314,290)	(767,197,111)	(822,702,613)	(136,101,633)
23	Receipts Net of Required Transfers	81,272,175	64,199,584	42,899,880	39,521,277	11,807,358
24	I&E Transfer	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)	-
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	17,542,669	18,206,431	8,296,578	-	-
27	Net Receipts	$ 53,998,893	$ 9,909,601	$ (13,078,192)	$ 2,856,977	$ 11,807,358
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*111%*	*109%*	*106%*	*105%*	*109%*

Chart 1 – GLWA 12-Month Net Receipts – Water

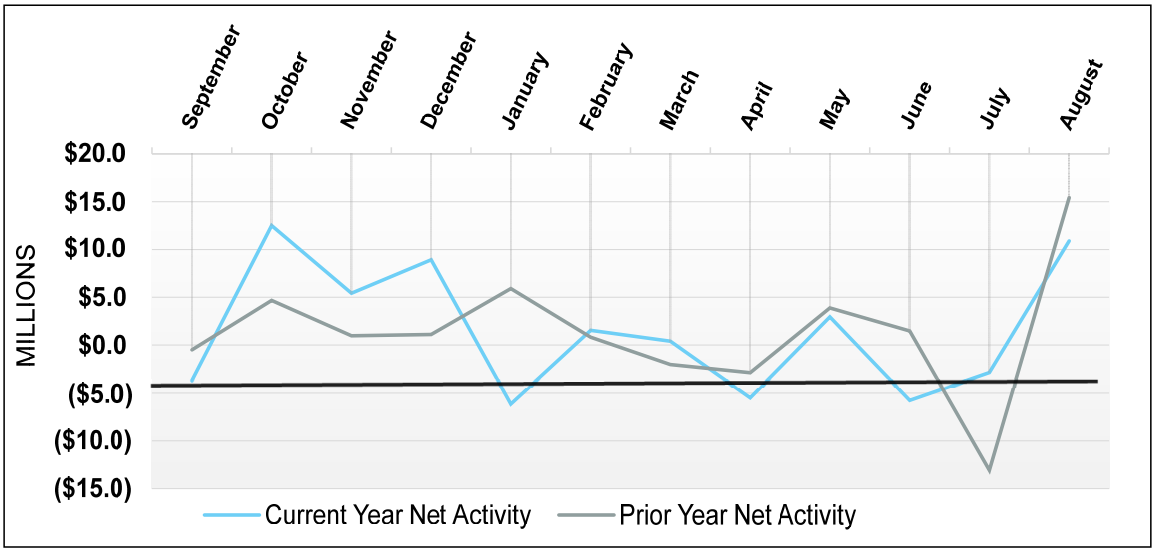
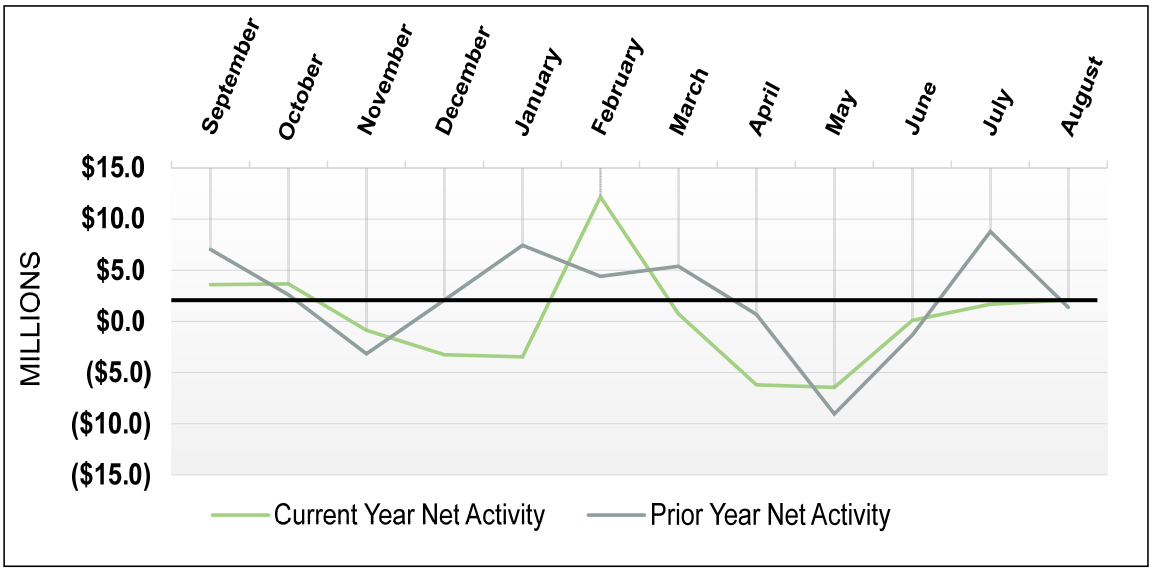


Chart 2 – GLWA 12-Month Net Receipts – Sewer



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 2024 reflects two months of activity to date.

Water fund receipts fell short of required disbursements by 10% through August 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 1% since July 1, 2019. This one-month shortfall is due to the transfer of credit balances on water accounts to sewer accounts. While this is a process that occurs monthly, in July 2023 the release of customer deposits due to a change of policy for the water system resulted in a much higher volume of credit balances subsequently transferred to offset sewer balances due. Preliminary review of August receipt activity reflects improvement.

Sewer fund receipts exceeded required disbursements by 20% through August 31, 2023 compared to the four-year historical average of required receipts exceeding disbursements by 6% since July 1, 2019.

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

		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru Aug 31
	Water					
1	Receipts	$ 96,885,723	$ 102,067,423	$ 101,964,963	$ 123,766,624	$ 17,749,032
2	MOU Adjustments	-	-	-		-
3	Adjusted Receipts	96,885,723	102,067,423	101,964,963	123,766,624	17,749,032
4	Disbursements	(97,823,097)	(100,707,200)	(94,495,601)	(117,666,100)	(19,740,100)
5	Receipts Net of Required Transfers	(937,374)	1,360,223	7,469,362	6,100,524	(1,991,068)
6	I&E Transfer	-	-	-	-	-
7	Net Receipts	$ (937,374)	$ 1,360,223	$ 7,469,362	$ 6,100,524	$ (1,991,068)
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*99%*	*101%*	*108%*	*105%*	*90%*
	Sewer					
9	Receipts	$ 264,689,559	$ 308,210,767	$ 291,280,896	$ 298,896,942	$ 57,802,439
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	264,689,559	308,210,767	291,280,896	298,896,942	57,802,439
12	Disbursements	(275,507,374)	(295,100,771)	(285,256,000)	(283,095,100)	(48,189,986)
13	Receipts Net of Required Transfers	(10,817,815)	13,109,996	6,024,896	15,801,842	9,612,453
14	I&E Transfer	-	-	-	-	-
15	Shortfall Advance from GLWA	-	-	-	-	-
16	Net Receipts	$ (10,817,815)	$ 13,109,996	$ 6,024,896	$ 15,801,842	$ 9,612,453
17	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*96%*	*104%*	*102%*	*106%*	*120%*
	Combined					
18	Receipts	$ 361,575,282	$ 410,278,190	$ 393,245,859	$ 422,663,566	$ 75,551,471
19	MOU Adjustments	-	-	-	-	-
20	Adjusted Receipts	361,575,282	410,278,190	393,245,859	422,663,566	75,551,471
21	Disbursements	(373,330,471)	(395,807,971)	(379,751,601)	(400,761,200)	(67,930,086)
22	Receipts Net of Required Transfers	(11,755,189)	14,470,219	13,494,258	21,902,366	7,621,385
23	I&E Transfer	-	-	-	-	-
24	Shortfall Advance from GLWA	-	-	-	-	-
25	Net Receipts	$ (11,755,189)	$ 14,470,219	$ 13,494,258	$ 21,902,366	$ 7,621,385
26	*Ratio of Receipts to Required Disbursements (Line 20/Line 21)*	*97%*	*104%*	*104%*	*105%*	*111%*

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

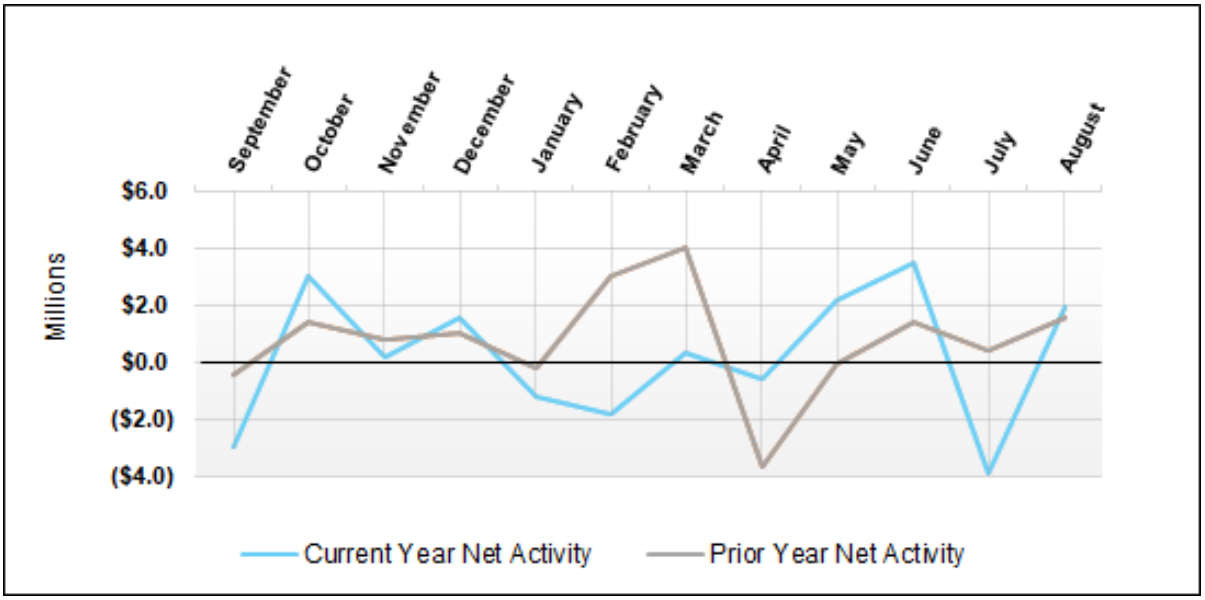
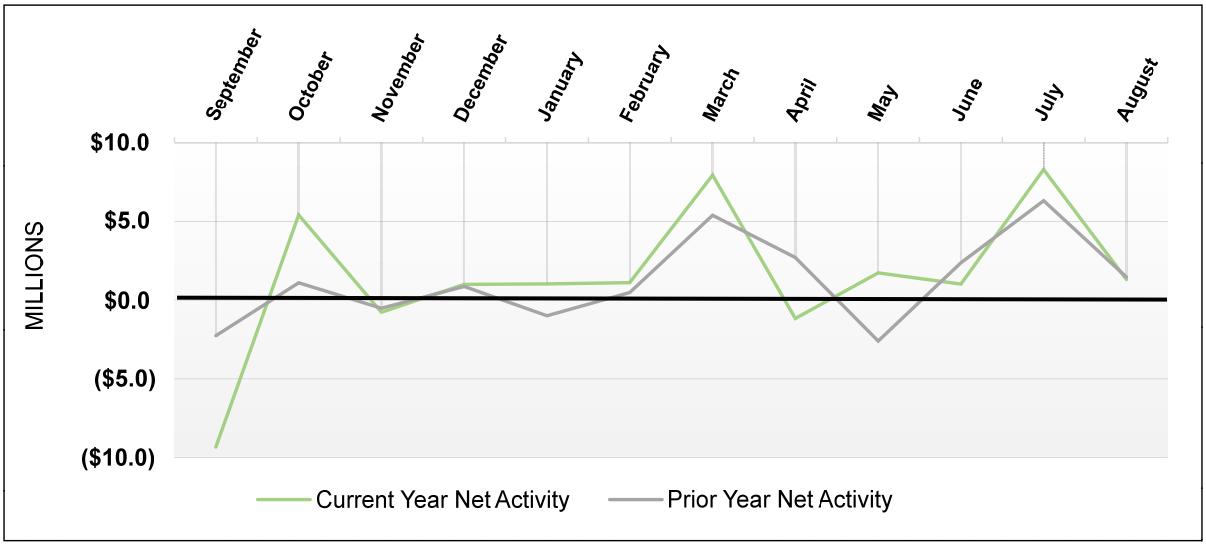


Chart 4 – DWSD 12-Month Net Receipts – Sewer



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 2024 reflects two months of activity to date.

Water fund net receipts exceeded required disbursements by 8% through August 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2019.

Sewer fund receipts exceeded required disbursements by 11% through August 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 6% since July 1, 2019.

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

		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024 Thru Aug 31
	Water					
1	Receipts	$ 429,491,919	$ 438,709,444	$ 440,082,657	$ 487,102,098	$ 82,824,159
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	429,491,919	438,709,444	440,082,657	487,102,098	82,824,159
4	Disbursements	(394,013,522)	(409,420,607)	(410,990,961)	(466,852,475)	(76,781,513)
5	Receipts Net of Required Transfers	35,478,397	29,288,837	29,091,696	20,249,623	6,042,646
6	I&E Transfer	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)	-
7	Net Receipts	$ 9,758,646	$ (2,702,850)	$ 2,468,834	$ 10,351,523	$ 6,042,646
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*109%*	*107%*	*107%*	*104%*	*108%*
	Sewer					
9	Receipts	$ 755,150,915	$ 781,082,620	$ 763,260,193	$ 797,785,358	$ 140,636,303
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	755,150,915	781,082,620	763,260,193	797,785,358	140,636,303
12	Disbursements	(721,112,326)	(731,701,654)	(735,957,751)	(756,611,338)	(127,250,206)
13	Receipts Net of Required Transfers	34,038,589	49,380,966	27,302,442	41,174,020	13,386,097
14	I&E Transfer	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)	-
15	Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	17,542,669	18,206,431	8,296,578	-	-
17	Net Receipts	$ 32,485,058	$ 27,082,670	$ (2,052,768)	$ 14,407,820	$ 13,386,097
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*105%*	*107%*	*104%*	*105%*	*111%*
	Combined					
19	Receipts	$ 1,184,642,834	$ 1,219,792,064	$ 1,203,342,850	$ 1,284,887,456	$ 223,460,462
20	MOU Adjustments	-	-	-	-	-
21	Adjusted Receipts	1,184,642,834	1,219,792,064	1,203,342,850	1,284,887,456	223,460,462
22	Disbursements	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(1,223,463,813)	(204,031,719)
23	Receipts Net of Required Transfers	69,516,986	78,669,803	56,394,138	61,423,643	19,428,743
24	I&E Transfer	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)	-
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	17,542,669	18,206,431	8,296,578	-	-
27	Net Receipts	$ 42,243,704	$ 24,379,820	$ 416,066	$ 24,759,343	$ 19,428,743
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*106%*	*107%*	*105%*	*105%*	*110%*

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$230,740.67	$230,740.67	$0.00	$0.00	$0.00
ALMONT VILLAGE	$21,982.50	$21,982.50	$0.00	$0.00	$0.00
ASH TOWNSHIP	$79,811.91	$79,811.91	$0.00	$0.00	$0.00
BELLEVILLE	$0.00	$0.00	$0.00	$0.00	$0.00
BERLIN TOWNSHIP	$68,961.03	$68,961.03	$0.00	$0.00	$0.00
BROWNSTOWN TOWNSHIP	$383,572.58	$383,572.58	$0.00	$0.00	$0.00
BRUCE TOWNSHIP	$35,718.00	$35,718.00	$0.00	$0.00	$0.00
BURTCHVILLE TOWNSHIP	$46,031.52	$46,031.52	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$1,142,899.21	$1,142,899.21	$0.00	$0.00	$0.00
CENTER LINE	$91,327.12	$91,327.12	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$907,917.58	$907,917.58	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$780,208.54	$780,208.54	$0.00	$0.00	$0.00
COMMERCE TOWNSHIP	$817,790.19	$817,790.19	$0.00	$0.00	$0.00
DEARBORN	$7,690,141.69	$1,961,126.49	$707,399.88	$843,031.63	$4,178,583.69
DEARBORN HEIGHTS	$1,052,239.43	$714,503.73	$335,933.02	$1,802.68	$0.00
EASTPOINTE	$147,497.13	$147,497.13	$0.00	$0.00	$0.00
ECORSE	$106,769.04	$106,769.04	$0.00	$0.00	$0.00
FARMINGTON	$99,288.52	$99,288.52	$0.00	$0.00	$0.00
FARMINGTON HILLS	$1,897,312.11	$1,897,312.11	$0.00	$0.00	$0.00
FERNDALE	$280,711.11	$199,065.90	$81,645.21	$0.00	$0.00
FLAT ROCK	$142,633.35	$142,633.35	$0.00	$0.00	$0.00
FLINT	$430,986.79	$430,986.79	$0.00	$0.00	$0.00
FRASER	$125,159.81	$125,159.81	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	$162,887.17	$162,887.17	$0.00	$0.00	$0.00
GENESEE COUNTY DRAIN COMM	$0.00	$0.00	$0.00	$0.00	$0.00
GIBRALTAR	$33,196.68	$33,196.68	$0.00	$0.00	$0.00
GREATER LAPEER CUA	$0.00	$0.00	$0.00	$0.00	$0.00
GREENWOOD TWP. (DTE)	$612,048.49	$454,194.28	$157,854.21	$0.00	$0.00
GROSSE ILE TOWNSHIP	$244,608.23	$244,608.23	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$137,609.66	$137,609.66	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$71,057.92	$71,057.92	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$133,047.70	$133,047.70	$0.00	$0.00	$0.00
HAMTRAMCK	$80,094.36	$80,094.36	$0.00	$0.00	$0.00
HARPER WOODS	$85,349.20	$85,349.20	$0.00	$0.00	$0.00
HARRISON TWP	$169,927.31	$169,927.31	$0.00	$0.00	$0.00
HAZEL PARK	$75,142.47	$75,142.47	$0.00	$0.00	$0.00
HIGHLAND PARK	$12,291,968.14	$222,361.02	$103,554.78	$98,870.08	$11,867,182.26
HURON TOWNSHIP	$199,438.50	$199,438.50	$0.00	$0.00	$0.00
IMLAY CITY	$159,978.29	$159,978.29	$0.00	$0.00	$0.00
IMLAY TOWNSHIP (CHAMPION BUS	$900.00	$900.00	$0.00	$0.00	$0.00
INKSTER	$351,057.20	$240,366.51	$110,690.69	$0.00	$0.00
KEEGO HARBOR	$61,188.94	$61,188.94	$0.00	$0.00	$0.00
LAPEER	$156,603.73	$156,603.73	$0.00	$0.00	$0.00
LENOX TOWNSHIP	$32,211.87	$32,211.87	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	$224,653.44	$224,653.44	$0.00	$0.00	$0.00
LIVONIA	$2,459,611.49	$2,459,611.49	$0.00	$0.00	$0.00
MACOMB TWP	$1,335,962.53	$1,335,962.53	$0.00	$0.00	$0.00
MADISON HEIGHTS	$241,959.52	$241,959.52	$0.00	$0.00	$0.00
MAYFIELD TOWNSHIP (KAMAX)	$6,051.50	$6,051.50	$0.00	$0.00	$0.00
MELVINDALE	$60,054.01	$60,054.01	$0.00	$0.00	$0.00
NEW HAVEN	$44,845.87	$44,845.87	$0.00	$0.00	$0.00
NOCWA	$2,389,160.31	$2,389,160.31	$0.00	$0.00	$0.00
NORTHVILLE	$78,474.51	$78,474.51	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$612,548.67	$612,548.67	$0.00	$0.00	$0.00
NOVI	$985,608.66	$985,608.66	$0.00	$0.00	$0.00
OAK PARK	$134,046.00	$134,046.00	$0.00	$0.00	$0.00
OAKLAND CO DR COM	$13,017.75	$13,017.75	$0.00	$0.00	$0.00
PLYMOUTH	$118,347.35	$118,347.35	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$505,282.03	$505,282.03	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$290,105.09	$290,105.09	$0.00	$0.00	$0.00
RIVER ROUGE	$50,589.81	$50,589.81	$0.00	$0.00	$0.00
RIVERVIEW	$86,412.10	$86,412.10	$0.00	$0.00	$0.00
ROCKWOOD	$24,465.29	$24,465.29	$0.00	$0.00	$0.00
ROMEO	$21,364.79	$21,364.79	$0.00	$0.00	$0.00
ROMULUS	$365,022.04	$365,022.04	$0.00	$0.00	$0.00
ROSEVILLE	$244,923.23	$244,923.23	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$40,601.39	$40,601.39	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	$1,227,266.10	$1,227,266.10	$0.00	$0.00	$0.00
SOCWA	$5,058,903.88	$5,022,119.10	$36,784.78	$0.00	$0.00
SOUTH ROCKWOOD	$11,592.88	$11,592.88	$0.00	$0.00	$0.00
SOUTHGATE	$0.00	$0.00	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$618,330.67	$618,330.67	$0.00	$0.00	$0.00
STERLING HEIGHTS	$1,514,739.94	$1,514,739.94	$0.00	$0.00	$0.00
SUMPTER TOWNSHIP	$72,506.83	$72,506.83	$0.00	$0.00	$0.00
SYLVAN LAKE	$23,609.49	$23,609.49	$0.00	$0.00	$0.00
TAYLOR	$479,370.76	$479,370.76	$0.00	$0.00	$0.00
TRENTON	$175,356.09	$175,356.09	$0.00	$0.00	$0.00
TROY (SEOC)	$1,495,441.67	$1,495,441.67	$0.00	$0.00	$0.00
UTICA	$64,523.77	$64,523.77	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$351,889.27	$351,889.27	$0.00	$0.00	$0.00
WALLED LAKE	$161,476.38	$161,476.38	$0.00	$0.00	$0.00
WARREN	$959,688.19	$959,688.19	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$267,162.16	$267,162.16	$0.00	$0.00	$0.00
WAYNE	$795,683.66	$578,668.63	$217,015.03	$0.00	$0.00
WEST BLOOMFIELD TWP (C-O)	$2,295,894.73	$2,295,894.73	$0.00	$0.00	$0.00
WESTLAND	$568,688.81	$568,688.81	$0.00	$0.00	$0.00
WIXOM	$265,304.62	$265,304.62	$0.00	$0.00	$0.00
WOODHAVEN	$147,747.11	$147,747.11	$0.00	$0.00	$0.00
YCUA	$2,135,675.52	$2,135,675.52	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	$60,661,975.60	$41,921,627.66	$1,750,877.60	$943,704.39	$16,045,765.95

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 08/31/23

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	$86,199.50	$86,199.50	$0.00	$0.00	$0.00
DEARBORN	$0.00	$0.00	$0.00	$0.00	$0.00
EVERGREEN-FARMINGTON	$2,990,100.00	$2,990,100.00	$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	$667,800.00	$346,100.00	$321,700.00	$0.00	$0.00
HARPER WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
HIGHLAND PARK	$40,420,846.80	$464,200.00	$451,700.00	$451,700.00	$39,053,246.80
MELVINDALE	$130,000.00	$130,000.00	$0.00	$0.00	$0.00
OAKLAND COUNTY GWK DD	$3,812,100.00	$3,812,100.00	$0.00	$0.00	$0.00
OMID	$5,895,286.67	$5,895,286.67	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$22,500.00	$22,500.00	$0.00	$0.00	$0.00
ROUGE VALLEY	$0.00	$0.00	$0.00	$0.00	$0.00
SOUTH MACOMB SANITATION DIST	$0.00	$0.00	$0.00	$0.00	$0.00
WAYNE COUNTY-AREA #3	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL SEWER ACCOUNTS	**$54,024,832.97**	**$13,746,486.17**	**$773,400.00**	**$451,700.00**	**$39,053,246.80**

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$1,650.74	$1,650.74	$0.00	$0.00	$0.00
AUBURN HILLS (C-O)	$11,731.72	$11,731.72	$0.00	$0.00	$0.00
AUBURN HILLS (C-O) ADMIN	$1,992.58	$1,992.58	$0.00	$0.00	$0.00
AUBURN HILLS (E-F)	$404.04	$404.04	$0.00	$0.00	$0.00
BERKLEY	$3,235.96	$3,235.96	$0.00	$0.00	$0.00
BEVERLY HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
BINGHAM FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
BIRMINGHAM (E-F)	$0.00	$0.00	$0.00	$0.00	$0.00
BIRMINGHAM (SEOC)	$0.00	$0.00	$0.00	$0.00	$0.00
BLOOMFIELD HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
BLOOMFIELD TOWNSHIP	$7,946.12	$7,946.12	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$87.36	$87.36	$0.00	$0.00	$0.00
CENTER LINE	$5,294.14	$5,294.14	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF INDEPENI	$0.00	$0.00	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$13,387.92	$13,387.92	$0.00	$0.00	$0.00
CITY OF FARMINGTON (E-F)	$0.00	$0.00	$0.00	$0.00	$0.00
CITY OF FERNDALE	$18,086.10	$18,086.10	$0.00	$0.00	$0.00
CITY OF ROCHESTER	$3,812.90	$3,812.90	$0.00	$0.00	$0.00
CLARKSTON	$0.00	$0.00	$0.00	$0.00	$0.00
CLARKSTON (C-O) ADMIN	$0.00	$0.00	$0.00	$0.00	$0.00
CLAWSON	$3,148.61	$3,148.61	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$28,004.34	$28,004.34	$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 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	$13,666.15	$13,666.15	$0.00	$0.00	$0.00
DETROIT METRO WC AIRPORT	$109.20	$109.20	$0.00	$0.00	$0.00
EASTPOINTE	$13,109.73	$13,109.73	$0.00	$0.00	$0.00
FARMINGTON	$0.00	$0.00	$0.00	$0.00	$0.00
FARMINGTON HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
FRASER	$0.00	$0.00	$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	$2,138.50	$2,138.50	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$349.44	$349.44	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
HAMTRAMCK	$4,273.36	$4,273.36	$0.00	$0.00	$0.00
HARPER WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
HARRISON TWP	$0.00	$0.00	$0.00	$0.00	$0.00
HAZEL PARK	$3,427.06	$3,427.06	$0.00	$0.00	$0.00
HIGHLAND PARK	$1,873,733.35	$7,869.74	$3,905.78	$3,905.78	$1,858,052.05
HUNTINGTON WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
INDEPENDENCE (C-O) ADMIN	$1,347.52	$1,347.52	$0.00	$0.00	$0.00
INKSTER	$11,292.08	$11,292.08	$0.00	$0.00	$0.00
KEEGO HARBOR	$710.63	$710.63	$0.00	$0.00	$0.00
LATHRUP	$1,439.62	$1,439.62	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LENOX TOWNSHIP	$660.63	$660.63	$0.00	$0.00	$0.00
LIVONIA	$42,096.60	$42,096.60	$0.00	$0.00	$0.00
MACOMB TWP	$0.00	$0.00	$0.00	$0.00	$0.00
MADISON HEIGHTS	$0.00	$0.00	$0.00	$0.00	$0.00
MELVINDALE	$3,599.96	$3,599.96	$0.00	$0.00	$0.00
NEW HAVEN	$1,249.06	$1,249.06	$0.00	$0.00	$0.00
NORTHVILLE	$0.00	$0.00	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
NOVI	$18,427.50	$18,427.50	$0.00	$0.00	$0.00
OAK PARK	$0.00	$0.00	$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)	$4,449.90	$4,449.90	$0.00	$0.00	$0.00
ORION TOWNSHIP (C-O) ADMIN	$515.48	$515.48	$0.00	$0.00	$0.00
OXFORD TOWNSHIP	$1,068.34	$1,068.34	$0.00	$0.00	$0.00
OXFORD VILLAGE	$0.00	$0.00	$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	$140.14	$140.14	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$12,903.80	$12,903.80	$0.00	$0.00	$0.00
ROCHESTER HILLS	$19,395.74	$19,395.74	$0.00	$0.00	$0.00
ROMULUS	$0.00	$0.00	$0.00	$0.00	$0.00
ROSEVILLE	$15,098.72	$15,098.72	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROYAL OAK	$7,620.07	$7,620.07	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
SHELBY TOWNSHIP	$15,151.50	$15,151.50	$0.00	$0.00	$0.00
SOUTHFIELD (E-F)	$29,349.32	$29,349.32	$0.00	$0.00	$0.00
SOUTHFIELD (SEOC)	$3,434.34	$3,434.34	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$12,408.76	$12,408.76	$0.00	$0.00	$0.00
STERLING HEIGHTS	$32,892.86	$32,892.86	$0.00	$0.00	$0.00
TROY (E-F)	$393.12	$393.12	$0.00	$0.00	$0.00
TROY (SEOC)	$38,917.06	$38,917.06	$0.00	$0.00	$0.00
UTICA	$3,126.76	$3,126.76	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$2,449.72	$2,449.72	$0.00	$0.00	$0.00
VILLAGE OF FRANKLIN	$0.00	$0.00	$0.00	$0.00	$0.00
VILLAGE OF LAKE ORION	$1,631.72	$1,631.72	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW (ADMI	$64.60	$64.60	$0.00	$0.00	$0.00
WAYNE	$5,137.86	$5,137.86	$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)	$6,210.81	$6,210.81	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP. (C-O) A	$241.32	$241.32	$0.00	$0.00	$0.00
WESTLAND	$23,734.62	$23,734.62	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	$2,326,749.48	$460,885.87	$3,905.78	$3,905.78	$1,858,052.05

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	$0.00	$0.00	$0.00	$0.00	$0.00
A & R PACKING CO., LLC	$1,889.88	$1,889.88	$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	$104.04	$68.70	$35.34	$0.00	$0.00
ADORING PET FUNERAL HOME	$145.06	$145.06	$0.00	$0.00	$0.00
ADVANCE ENGINEERING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
AEVITAS SPECIALITY SERVICES	$172.07	$172.07	$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 MANUFACTURING LLC	$7,600.00	$7,600.00	$0.00	$0.00	$0.00
AMERITI MFG. CO.	$6,271.43	$6,271.43	$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 & F SEPTIC INC.	$250.00	$250.00	$0.00	$0.00	$0.00
B. NEKTAR MEADERY	$31.48	$31.48	$0.00	$0.00	$0.00
BAFFIN BREWING COMPANY	$274.52	$137.26	$0.00	$0.00	$137.26
BARON INDUSTRIES	$1,406.56	$1,406.56	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BARTZ BAKERY	$0.00	$0.00	$0.00	$0.00	$0.00
BASTONE BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
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	$30,878.68	$30,878.68	$0.00	$0.00	$0.00
BLACK LOTUS BREWING CO.	$61.25	$0.00	$0.00	$0.00	$61.25
BOZEK'S MARKET	$(1,167.71)	$0.00	$0.00	$0.00	$(1,167.71)
BREW DETROIT	$6,884.30	$6,884.30	$0.00	$0.00	$0.00
BROADWAY MKT CORNED BEEF	$0.00	$0.00	$0.00	$0.00	$0.00
BROOKS BREWING, LLC.	$30.64	$30.64	$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
CAPITOL REPRODUCTIONS	$0.00	$0.00	$0.00	$0.00	$0.00
CF BURGER CREAMERY	$31,393.57	$31,393.57	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF CLINTON	$0.00	$0.00	$0.00	$0.00	$0.00
CHIEFTAN COATING, LLC.	$2,846.74	$2,846.74	$0.00	$0.00	$0.00
CHILANGO'S BAKERY	$194.69	$31.51	$14.95	$14.95	$133.28
CINTAS CORP. - MACOMB TWP.	$37,409.40	$37,409.40	$0.00	$0.00	$0.00
CINTAS CORPORATION	$9,946.91	$9,946.91	$0.00	$0.00	$0.00
CINTAS CORPORATION	$5,221.81	$5,221.81	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
CITY LAUNDRY, INC.	$6.46	$6.46	$0.00	$0.00	$0.00
CLASSIC CONTAINER CORP.	$0.00	$0.00	$0.00	$0.00	$0.00
CLEAN EARTH OF MICHIGAN, LLC	$28.60	$28.60	$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
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.	$459.89	$459.89	$0.00	$0.00	$0.00
DANA CONTAINER, INC.	$588.23	$588.23	$0.00	$0.00	$0.00
DARLING INGREDIENTS, INC.	$7,954.75	$7,954.75	$0.00	$0.00	$0.00
DAVE'S SAUSAGE FACTORY 2	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN BREWING	$25.19	$25.19	$0.00	$0.00	$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.	$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	$714.95	$714.95	$0.00	$0.00	$0.00
DETROIT SAUSAGES CO INC	$13.82	$13.82	$0.00	$0.00	$0.00
DETRONIC INDUSTRIES, INC.	$107.55	$107.55	$0.00	$0.00	$0.00
DIFCO LABORATORIES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DIVERSIFIED CHEM TECH. INC.	$111.04	$111.04	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$2,827.69	$2,827.69	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$1,331.24	$1,331.24	$0.00	$0.00	$0.00
DOWNEY BREWING COMPANY	$26.07	$26.07	$0.00	$0.00	$0.00
DUBOIS CHEMICALS, INC.	$93.40	$93.40	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$94.51	$94.51	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$49.28	$49.28	$0.00	$0.00	$0.00
E.W. GROBBEL'S SONS, INC.	$3,878.50	$3,878.50	$0.00	$0.00	$0.00
EASTERN MARKET BREWING COMPA	$0.00	$0.00	$0.00	$0.00	$0.00
ENVIROSOLIDS, L.L.C.	$0.00	$0.00	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$523.64	$523.64	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$1,426.36	$1,426.36	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$43.36	$43.36	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$(0.01)	$0.00	$0.00	$0.00	$(0.01)
ETON ST BREWERY- GRIFFIN CLA	$1,248.82	$1,248.82	$0.00	$0.00	$0.00
EXTRUDE HONE CORPORATION	$75.40	$75.40	$0.00	$0.00	$0.00
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.	$11,137.03	$11,137.03	$0.00	$0.00	$0.00
FITZGERALD FINISHING LLC	$0.00	$0.00	$0.00	$0.00	$0.00
FIVES CINETIC CORP.	$4,363.43	$4,363.43	$0.00	$0.00	$0.00
FORD MOTOR CO- STERLING PLAN	$3,323.25	$3,323.25	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
FORD NEW MODEL PROGRAM	$0.00	$0.00	$0.00	$0.00	$0.00
FOUNDERS BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
FRESH-PAK	$314.86	$314.86	$0.00	$0.00	$0.00
FRESH-PAK	$0.00	$0.00	$0.00	$0.00	$0.00
GENERAL LINEN SUPPLY CO.	$4,585.71	$4,585.71	$0.00	$0.00	$0.00
GENERAL MOTORS, LLC ROMULUS	$1,864.36	$1,864.36	$0.00	$0.00	$0.00
GLOBAL TITANIUM, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$16.91	$16.91	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$39.61	$39.61	$0.00	$0.00	$0.00
GREAT BARABOO BREWING CO.	$0.00	$0.00	$0.00	$0.00	$0.00
HACIENDA MEXICAN FOODS	$192.83	$122.31	$41.48	$29.04	$0.00
HACIENDA MEXICAN FOODS	$1,095.29	$1,095.29	$0.00	$0.00	$0.00
HENKEL CORPORATION	$0.00	$0.00	$0.00	$0.00	$0.00
HENRY FORD MACOMB HOSPITAL	$0.00	$0.00	$0.00	$0.00	$0.00
HOME STYLE FOOD INC.	$4,966.33	$2,770.40	$1,338.64	$857.29	$0.00
HOMEGROWN BREWING COMPANY	$36.18	$36.18	$0.00	$0.00	$0.00
HOODS CLEANERS	$211.33	$0.00	$0.00	$0.00	$211.33
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	$217.23	$217.23	$0.00	$0.00	$0.00
INTRASTATE DISTRIBUTORS	$727.72	$727.72	$0.00	$0.00	$0.00
ISLAMIC SLAUGHTER HOUSE	$214.12	$214.12	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ITALIAN BUTTER BREAD STICKS	$0.00	$0.00	$0.00	$0.00	$0.00
JAMEX BREWING CO.	$41.29	$19.98	$0.00	$0.00	$21.31
JELD-WEN, INC.	$1,143.03	$486.91	$161.24	$153.81	$341.07
KAR NUT PRODUCTS	$0.00	$0.00	$0.00	$0.00	$0.00
KOWALSKI SAUSAGES, CO.	$1,408.50	$1,209.61	$198.89	$0.00	$0.00
KUHNHENN BREWING	$0.00	$0.00	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$855.46	$855.46	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$42.67	$42.67	$0.00	$0.00	$0.00
LEAR CORPORATION DBA EAGLE C	$0.00	$0.00	$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 OF ILLI	$0.00	$0.00	$0.00	$0.00	$0.00
LIQUID ENVIRONMENTAL SOLUTIC	$3,315.22	$1,069.92	$1,017.24	$583.58	$644.48
MACDERMID, INC.	$645.31	$645.31	$0.00	$0.00	$0.00
MCCLURE'S PICKLES	$795.14	$795.14	$0.00	$0.00	$0.00
MCGEAN CHEMICALS	$594.71	$449.11	$145.60	$0.00	$0.00
MCNICHOLS POLISHING & ANODIZ	$(31.54)	$0.00	$0.00	$0.00	$(31.54)
MELLO MEATS INC, - KUBISCH S	$46.04	$46.04	$0.00	$0.00	$0.00
METROPOLITAN BAKERY	$1,337.37	$970.32	$367.05	$0.00	$0.00
MIBA HYDRAMECHANICA CORP.	$1,213.24	$767.75	$445.49	$0.00	$0.00
MICHIGAN DAIRY	$96,576.73	$96,576.73	$0.00	$0.00	$0.00
MICHIGAN PROD. MACHINING	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
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	$511.90	$511.90	$0.00	$0.00	$0.00
MILTON CHILI CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MINNIE MARIE BAKERS, INC	$1,054.40	$1,054.40	$0.00	$0.00	$0.00
MISTER UNIFORM & MAT RENTALS	$(6.86)	$0.00	$0.00	$0.00	$(6.86)
MOTOR CITY BREWING WORKS	$59.94	$59.94	$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
NATIONAL CHILI COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
ND INDUSTRIES, INC.	$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 & MEA	$41.34	$41.34	$0.00	$0.00	$0.00
OAKWOOD BAKERY	$0.00	$0.00	$0.00	$0.00	$0.00
OLIVER HATCH CONSTRUCTION	$0.00	$0.00	$0.00	$0.00	$0.00
PARKEDALE PHARMACEUTICALS/PE	$459.02	$459.02	$0.00	$0.00	$0.00
PARKER'S HILLTOP BREWER & SE	$0.00	$0.00	$0.00	$0.00	$0.00
PELLERITO FOODS INC.	$14.68	$14.68	$0.00	$0.00	$0.00
PEPSI COLA, INC.	$39,707.59	$39,707.59	$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

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PERSONAL UNIFORM SERVICE, IN	$(18.19)	$0.00	$0.00	$0.00	$(18.19)
PETRO ENVIRON TECH, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
PINE TREE ACRES, INC.	$51,334.60	$51,334.60	$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	$671.13	$671.13	$0.00	$0.00	$0.00
PREMIER PLATING- STERLING HE	$0.00	$0.00	$0.00	$0.00	$0.00
PRODUCTION SPRING, LLC.	$196.70	$196.70	$0.00	$0.00	$0.00
QUAKER HOUGHTON - PLANT #2	$49.23	$49.23	$0.00	$0.00	$0.00
QUAKER HOUGHTON - PLANT #2	$(558.75)	$0.00	$0.00	$0.00	$(558.75)
QUAKER HOUGHTON - PLANT #2	$1,041.83	$1,041.83	$0.00	$0.00	$0.00
QUALA SERVICES, LLC	$32.92	$32.92	$0.00	$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	$151.38	$151.38	$0.00	$0.00	$0.00
ROCHESTER MILLS PROD BREWERY	$3,455.15	$703.57	$0.00	$0.00	$2,751.58
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.	$145.07	$145.07	$0.00	$0.00	$0.00
SHERWOOD BREWING COMPANY	$29.64	$29.64	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SMITH-WATKINS, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
SPRAYTEK INC.- MADISON HEIGH	$(140.97)	$0.00	$0.00	$0.00	$(140.97)
SPRAYTEK, INC.	$14.52	$0.00	$0.00	$0.00	$14.52
SUPERNATURAL SPIRITS & BREWI	$66.60	$66.60	$0.00	$0.00	$0.00
SWEETHEART BAKERY, INC.	$553.44	$152.70	$82.02	$75.79	$242.93
THE CROWN GROUP-LIVONIA PLAN	$0.00	$0.00	$0.00	$0.00	$0.00
THE DEBURRING COMPANY	$(66.67)	$(66.67)	$0.00	$0.00	$0.00
THERMO FISHER SCIENTIFIC	$(9,902.04)	$0.00	$0.00	$(9,902.04)	$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.	$448.93	$448.93	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$21,524.36	$21,524.36	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$1,726.55	$1,726.55	$0.00	$0.00	$0.00
UNIQUE LINEN SERVICES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
UNITED FISH DISTRIBUTORS	$0.93	$0.93	$0.00	$0.00	$0.00
UNITED LINEN SERVICE, LLC.	$168.26	$168.26	$0.00	$0.00	$0.00
UNITED MEAT & DELI	$0.00	$0.00	$0.00	$0.00	$0.00
URBANREST BREWING COMPANY	$138.68	$69.34	$0.00	$0.00	$69.34
US ECOLOGY MICHIGAN	$496.25	$496.25	$0.00	$0.00	$0.00
US ECOLOGY ROMULUS, INC.	$692.39	$692.39	$0.00	$0.00	$0.00
USHER OIL SERVICES	$295.23	$295.23	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
VALICOR ENVIROMENTAL SERVICE	$663.35	$663.35	$0.00	$0.00	$0.00
VALICOR ENVIRONMENTAL SERVIC	$0.00	$0.00	$0.00	$0.00	$0.00
VAUGHAN INDUSTRIES, INC.	$29.48	$29.48	$0.00	$0.00	$0.00
VERNDALE PRODUCTS	$7,980.81	$7,980.81	$0.00	$0.00	$0.00
VERNDALE PRODUCTS, INC.	$298.68	$298.68	$0.00	$0.00	$0.00
WIGLEY'S MEAT PROCESS	$406.67	$406.67	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$311.95	$311.95	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$148.94	$148.94	$0.00	$0.00	$0.00
WOLVERINE PACKING CO	$2,135.56	$2,135.56	$0.00	$0.00	$0.00
WOLVERINE PACKING CO.	$2,488.23	$2,488.23	$0.00	$0.00	$0.00
WOLVERINE PACKING CO., PLANT	$5,220.12	$5,220.12	$0.00	$0.00	$0.00
WOODWARD AVENUE BREWERS	$144.24	$0.00	$0.00	$0.00	$144.24
X-R-I TESTING	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL POLLUTANT SURCHARGE ACCOUNTS	$439,427.07	$440,471.71	$3,847.94	$(8,187.58)	$3,295.00

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 (12 Months)	1,254,157	5,415,100	47,779	6,717,035
FY 2023 Payments (12 Months)	(126,000)	(5,748,903)	-	(5,874,903)
June 30, 2023 Balance	$ 12,069,607	$ 40,297,243	$ 1,865,863	$ 54,232,714
FY 2024 Billings (2 Months)	222,361	897,400	7,870	1,127,631
FY 2024 Payments (2 Months)	-	(773,797)	-	(773,797)
Balance as of August 31, 2023	**$ 12,291,968**	**$ 40,420,847**	**$ 1,873,733**	**$ 54,586,548**

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 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 October 31, 2023 for procurements budgeted to exceed $1 million.

Table 1: B.I.D. Eligible Procurements as of October 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	79	10	2	91
Total Number of Diversity Plans Submitted	267	21	n/a	288

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	78%	$726.2
Member Partner Service Area	73%	$684.0
Disadvantaged Service Area	41%	$388.1

Table 3: Member Partner Communities

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)	% of Total $ Awarded
City of Detroit	43	$388.1	41.43%
City of Auburn Hills	5	$76.7	8.19%
City of Novi	3	$94.4	10.07%
City of Livonia	3	$59.6	6.36%
City of Taylor	1	$12.6	1.35%
City of Troy	3	$17.0	1.82%
City of Southfield	2	$6.3	0.67%
City of Madison Heights	1	$6.0	0.64%
City of Warren	2	$4.7	0.50%
City of Wixom	1	$1.1	0.12%
City of Farmington Hills	2	$6.5	0.69%
City of Riverview	1	$1.9	0.20%
Harrison Township	1	$1.0	0.11%
Clinton Township	1	$8.1	0.86%
Subtotal	**69**	**$684.0**	**73.02%**
Other Michigan Communities	4	$154.7	16.51%
Out of State	6	$98.0	10.47%
Total	**79**	**$936.7**	**100.00%**

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	43	$388.1

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	37%	$346.8

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 (based on total number of contracts)	9%	70%	39%	6%
Total Contract Amount (in millions)	$18.5	$333.6	$132.7	$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)	% of Total $ Awarded
Eligible Procurements	79	$936.7	100%
Firms that met the certification criteria (non-scored criteria)	33	$346.8	37%
Firms that met the three geographic criteria (scored criteria)	43	$388.1	41%

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.

- Prepared handout materials for the Detroit Water & Sewage Department (DWSD) Vendor Workshop on December 7, 2023 at Focus: HOPE Detroit. Representatives of the B.I.D. Program will staff a resource table during the event.
- 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.

Two tasks have been placed on hold for reasons specified below.

- The request remains open with Bonfire to provide options for tracking and reporting diversity certifications in the vendor database. Currently Bonfire does not have this on the list of planned upgrades.
- Continued evaluation of insurance and bonding requirements for small, minority-owned, and disadvantaged business enterprises. No solution has been identified but we do continue to explore the topic with potential resources.

Proposed Action: Receive and file this report.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 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.

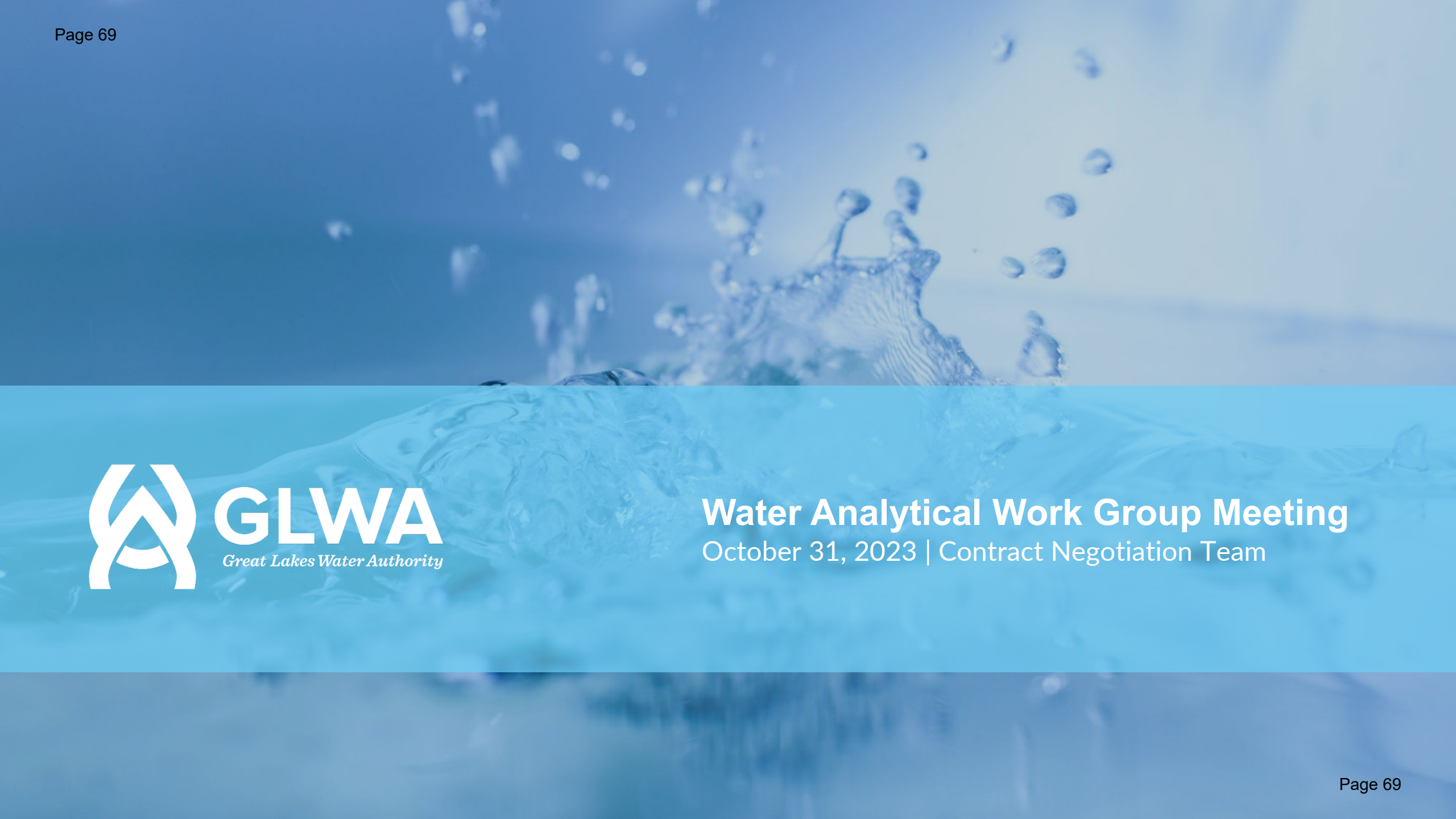
Analysis: This month we present an update on activities related to our team's activities.

1. The Charges Outreach and Modeling Team, as the Financial Services Area representative to the GLWA contract negotiation team, participated in the Water Analytical Work Group meeting held virtually on October 31, 2023 and presented the GLWA system max day and peak hour data to the group as well as the single coincidental exceedance that occurred on June 2, 2023. The presentation is attached to this update.

2. Water Charges Work Group
    - This group is made up of Member Partners and staff from GLWA and convenes for the purpose of reviewing the water charge methodology and recommends potential changes.
    - The subgroup has been discussing various potential modifications to the water charge methodology. Most recently, the discussion has focused on the concept of a "delivery factor" as a simplification to the existing methodology, as well as reducing the number of cost pools from 9 to 3. They have moved the discussion to the Combined Charges Work Group for consideration.
    - The Water Charges Methodology Review Subgroup has not met since Friday, September 15th.
    - Discussion of the "delivery factor" will occur during the Charges Rollout #2-Units of Service update on November 14, 2023.

3. Combined Water and Wastewater Charges Workgroup
    - The overall Charges Work Group met virtually via Zoom on September 5th and October 16th, 2023. The next meeting date is to-be-determined.
4. FY 2025 Charges Rollout Meetings:
    - ~~Rollout # 1: Thursday, October 19th, 2023~~
    - ~~Rollout # 2: Tuesday, November 14th, 2023~~
    - Rollout # 3: Thursday, January 11th, 2024
    - Member Partner One-on-Ones: January 12-17th, 2024
    - Rollout # 4: Thursday, January 18th, 2024
5. The next One Water Partnership Meeting will be held on December 6, 2023. The location is to-be-determined.

Proposed Action: Receive and file this report.



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Water Analytical Work Group Meeting

October 31, 2023 | Contract Negotiation Team

Agenda

- Present System Max Day and Peak Hour Determination
- Review GLWA Model Contract Exceedance Provisions
- Review Lincoln Park Exceedance

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2023 Max Day and Peak Hour Pumpage

Observation Period:

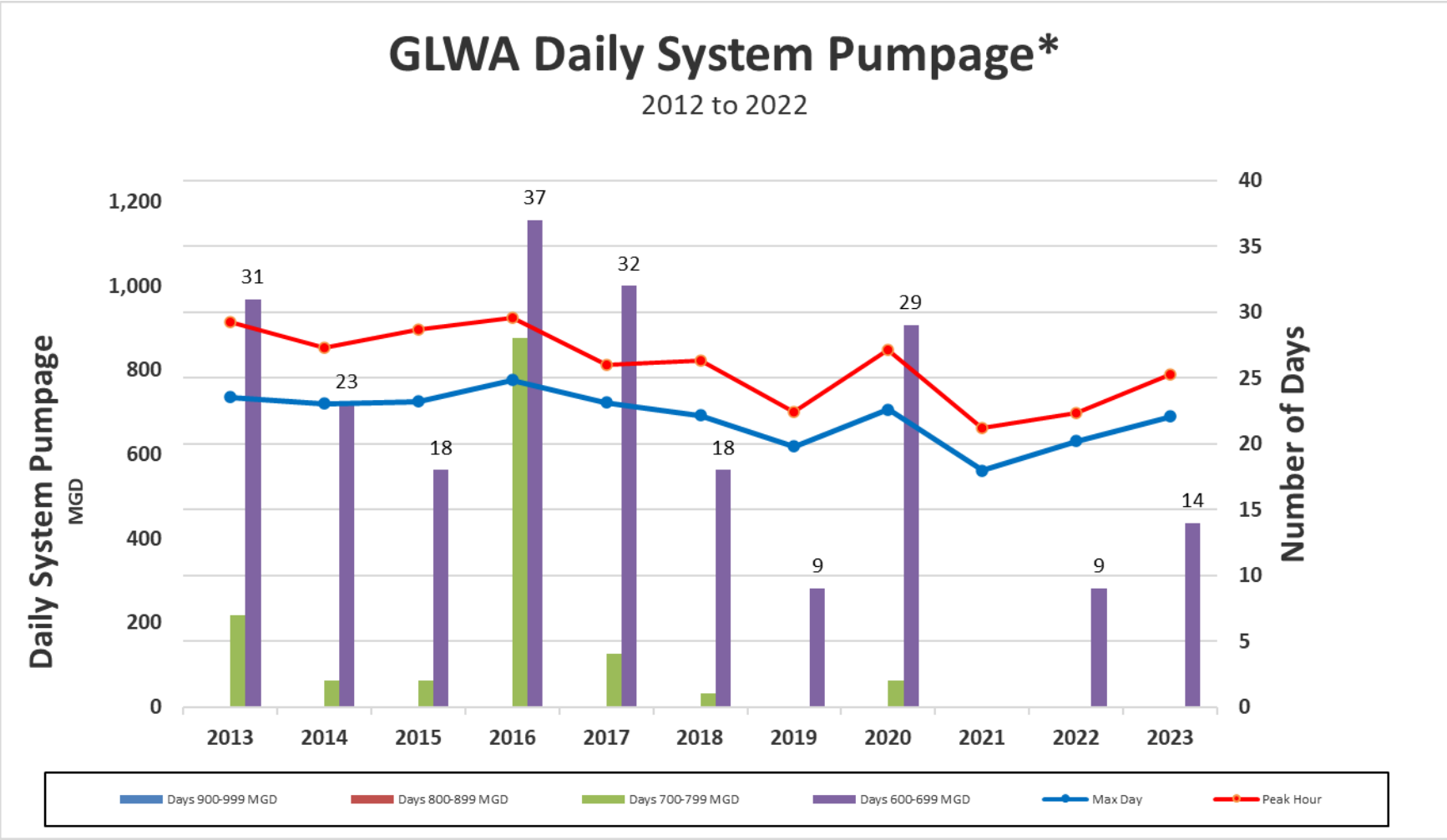
June 1, 2023 to August 31, 2023

- **2023 System Max Day:**
  - June 2, 2023
  - 690 MG (631 MG in 2022)

- **2023 System Peak Hour:**
  - 7:00- 8:00 am EST
  - 789 MGD (697 MGD in 2022)

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Historical Pumpage Comparison 2013 to 2023



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2023 Wholesale Member Partner Exceedances

- **2023 Wholesale Member Partner Contract Exceedances:**
  - One Max Day Exceedance for 2023
    - System Max Day: June 2, 2023
  - One Peak Hour Exceedance for 2023
    - Peak Hour: 7:00AM – 8:00AM

GLWA Great Lakes Water Authority

Contract Exceedance Provisions

- Section 5.03
  - The customer shall not exceed the max flow rate on the max day and during the peak hour.

A. GLWA notifies customers by Oct. 1 of exceedances.
B. If in breach, parties meet before Nov. 1 to review and negotiate remedy.
C. AWG reviews the alleged breach.
    I. AWG meets before Nov. 1 to review, may schedule additional meetings.
    II. AWG makes recommendation of allocation flow rate and/or concurrence with remedy negotiated.
    III. AWG recommendation must be received before Dec. 1st.

GLWA Great Lakes Water Authority

Contract Exceedance Provisions (Cont'd)

- Section 5.04
  - If customer exceeds on max day or peak hour, following options evaluated case by case basis:

A. GLWA may require customer reduce consumption to contract rates.
B. Parties negotiate new contract values.
C. For charge making purposes only, the Board may recalculate customer's rate for the current and/or subsequent Fiscal Years utilizing a revised cost allocation formula as follows:
    I. Board establishes Allocation Flow Rate (AFR) to replace contract values in the charge calculation process.
    II. AFR applied from no earlier than first exceedance date.
    III. AFR at least equal to flow rate demonstrated on max day and may be higher.

GLWA Great Lakes Water Authority

Contract Exceedance Provisions (Cont'd)

IV. If Board receives recommendation on AFR from AWG and recommendation is higher than 2X the amount by which the demonstrated flow rate exceeded the contract value then Board limited to AFR that is at least equal to flow rate demonstrated on max day and no higher than AWG recommendation.

V. If no AWG recommendation or recommendation is less than 2X amount by which demonstrated flow rate exceeded contract values then Board limited to AFR equal to actual demonstrated on max day and no higher than 2X amount by which the demonstrated flow rate exceeded contract values.

VI. AFR applied until contract values renegotiated.

- Section 5.05
  - Parties shall meet and develop a mutually agreeable written corrective action plan by Dec. 31 which shall include a timetable.

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Lincoln Park Exceedance

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Lincoln Park Exceedance

- Contract Max Day – 5.50 MGD
  - ✓ ***2023 observed data shows a demonstrated value over 5.50 MGD (6.24 MGD)***
- Contract Peak Hour – 6.93 MGD
  - ✓ ***2023 observed data shows a demonstrated value over 6.93 MGD (7.13 MGD)***
- GLWA and Lincoln Park met on 10/13/2023
- Exceedances were due to water main break.
- Exceedances resulting from water main breaks are cause for exemption from the consequences of Sec 5.04 (See Sec 5.05B).
- The parties agreed that no consequences should apply, and no corrective action plan was required.

GLWA Great Lakes Water Authority

Max Day Contract Exceedance

LINCOLN PARK EXCEEDANCE DATA:

- Max Day Contract Value: 5.30 MGD
- System Max Day Value: 6.24 MGD

Customer	Date	Contract Max Day (MGD)	Customer Max Day Rate (MGD)	Max Day Note	Hour	Contract Peak Hour (MGD)	Customer Hourly Rate (MGD)	Peak Hour Note
Lincoln Park	06/01/23	5.3	8.159	Over Contract Limit	6/01/23 5:00 - 6:00 EST	6.93	7.957	Over Contract Limit
					6/01/23 20:00 - 21:00 EST	6.93	9.484	Over Contract Limit
					6/01/23 21:00 - 22:00 EST	6.93	9.112	Over Contract Limit
					6/01/23 22:00 - 23:00 EST	6.93	8.325	Over Contract Limit
SYSTEM MAX DAY	06/02/23	5.3	6.239	Over Contract Limit	6/02/23 5:00 - 6:00 EST	6.93	8.748	Over Contract Limit
					6/02/23 6:00 - 7:00 EST	6.93	8.489	Over Contract Limit
				SYSTEM PEAK HOUR	6/02/23 7:00 - 8:00 EST	6.93	7.127	Over Contract Limit
					6/02/23 8:00 - 9:00 EST	6.93	7.273	Over Contract Limit
					6/02/23 9:00 - 10:00 EST	6.93	7.193	Over Contract Limit

06/02/23 | 5.3 | 6.239 | Over Contract Limit

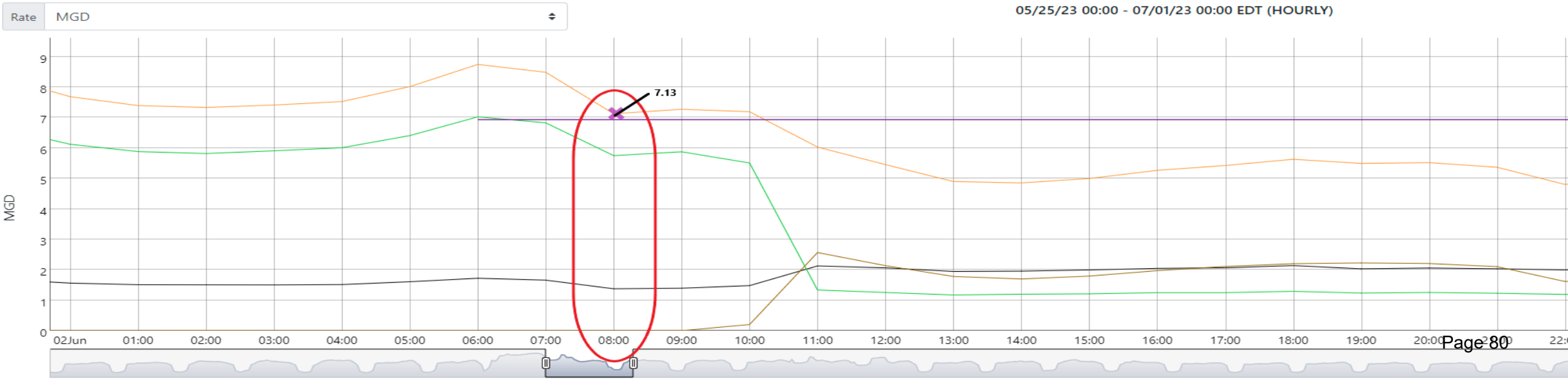


Peak Hour Contract Exceedance

LINCOLN PARK EXCEEDANCE DATA:

- Peak Hour Contract Value: 6.93 MGD
- System Peak Hour Value: 7.13 MGD

Customer	Date	Contract Max Day (MGD)	Customer Max Day Rate (MGD)	Max Day Note	Hour	Contract Peak Hour (MGD)	Customer Hourly Rate (MGD)	Peak Hour Note
Lincoln Park	06/01/23	5.3	8.159	Over Contract Limit	6/01/23 5:00 - 6:00 EST	6.93	7.957	Over Contract Limit
					6/01/23 6:00 - 7:00 EST	6.93	8.177	Over Contract Limit
					6/01/23 7:00 - 8:00 EST	6.93	8.407	Over Contract Limit
					6/01/23 8:00 - 9:00 EST	6.93	9.033	Over Contract Limit
					6/01/23 9:00 - 10:00 EST	6.93	8.686	Over Contract Limit
					6/01/23 11:00 - 12:00 EST	6.93	8.609	Over Contract Limit
					6/01/23 12:00 - 13:00 EST	6.93	8.572	Over Contract Limit
					6/01/23 13:00 - 14:00 EST	6.93	8.661	Over Contract Limit
					6/02/23 7:00 - 8:00 EST	6.93	7.127	Over Contract Limit
					6/02/23 8:00 - 9:00 EST	6.93	7.273	Over Contract Limit
					6/01/23 19:00 - 20:00 EST	6.93	9.53	Over Contract Limit
					6/01/23 20:00 - 21:00 EST	6.93	9.484	Over Contract Limit
					6/01/23 21:00 - 22:00 EST	6.93	9.112	Over Contract Limit
					6/01/23 22:00 - 23:00 EST	6.93	8.325	Over Contract Limit
SYSTEM MAX DAY	06/02/23	5.3	6.239	Over Contract Limit	6/02/23 5:00 - 6:00 EST	6.93	8.748	Over Contract Limit
					6/02/23 6:00 - 7:00 EST	6.93	8.489	Over Contract Limit
				SYSTEM PEAK HOUR	6/02/23 7:00 - 8:00 EST	6.93	7.127	Over Contract Limit
					6/02/23 8:00 - 9:00 EST	6.93	7.273	Over Contract Limit
					6/02/23 9:00 - 10:00 EST	6.93	7.193	Over Contract Limit



GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 2023

To: Great Lakes Water Authority Audit Committee

From: Haran Stanley, Affordability & Assistance Management Professional

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 has been focused on, including WRAP outreach materials, Member Partner engagement, and efforts related to sustainable water assistance funding.

WRAP Outreach

The Affordability & Assistance team continues to work with our WRAP Service Delivery Partners to roll out the new BS&A WRAP tool. This new feature is designed for our Member Partners who utilize the BS&A billing systems. The tool automates the process of applying WRAP payments to the corresponding residential utility account. GLWA launched this project as part of our commitment to streamlining administrative processes to reduce the burden on Member Partners and increase Member Partner engagement. Service delivery partners are reviewing the program with the communities in our service area.

Water Affordability State Legislation

On Thursday, October 26, 2023, the statewide water affordability and shutoff protection bill package developed by the Senator Chang work group was presented to the Michigan House of Representatives, and on Tuesday, October 31, 2023, the bill package was presented to the Michigan Senate. GLWA continues to be engaged in the working group and to serves as a resource to Senator Chang.

Proposed Action: Receive and file this report.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: November 17, 2023

To: Great Lakes Water Authority Audit Committee

From: Nick Simms, Grants Management Professional

Re: Grants, Gifts, and Other Resources Report

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[1] 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[2].
>
> [1] *Other resources as referenced above 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.*
>
> [2] *Participation in any other way in a federal, state local, or intergovernmental government program includes participation in research projects at universities.*

GLWA's Grants, Gifts, and Other Resources Delegation Policy is online at Grants, Gifts, and Other Resources Delegation Policy - GLWA (glwater.org).

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.

This report has been updated to align section titles with the grant lifecycle as found in best practice guidance and in the Workday system currently being implemented at GLWA. The grants lifecycle refers to the process required to secure, administer, and close out grant activity. These steps are broken down in three major phases: pre-award, award, and post award.

The **pre-award** phase includes the process of applying for a grant and the period prior to the signing of the grant agreement between the awarding agency and GLWA.

The **award phase** reflects the period after the agreement is executed with the awarding agency. In this phase, GLWA becomes responsible for meeting the administrative, financial, and programmatic reporting requirements of the award.

The **post award** phase is the final stage of grant activity and includes final reporting requirements, auditing, and closeout. There are final financial and programmatic reports that must be submitted to formally close out the grant as defined in each grant agreement.

The tables in each section of this report now reflect GLWA grant activity in each phase. As a grant moves through this lifecycle, it will be updated in the appropriate section of the report.

Items highlighted in yellow in the attached tables reflect changes from the prior report.

Highlights of this report through October 31, 2023, includes the following.

- ✓ **Environmental Protection Agency (EPA) Workforce Development Grant**– GLWA has an intent to apply in progress for this EPA grant. The main function of the grant is to support the training for workers who protect and treat our nation's drinking water and provide critical wastewater services. Through this Innovative Water Infrastructure Workforce Development Grant program, EPA will help support training and career opportunities in the water sector.
- ✓ **Federal Emergency Management Agency (FEMA) Flood projects –** GLWA continues to work on the projects related to the FEMA Flood activity. As reflected below in the Pre-Award Programs table many of the grant amounts have been updated to the most current amounts for grant reimbursement.

This report presents the Grants, Gifts, and Other Resources across three tables.

Table 1 – Pre-Award Programs reflects open submissions for FY 2023 and FY 2024 to date. The summarized activity provided identifies nine FEMA Flood projects, three new letters of intent to support and collaborate with other entities, two EPA Community Grants, an American Rescue Plan Clean Water Infrastructure grant through the State of Michigan, and the I-94 Modernization Project grant in the

National Environmental Policy Act (NEPA) process to identify any environmental impacts related to the grant activities

Table 2 - ***Awarded*** **Programs** reflects all awarded grants from FY 2021 through FY 2024. Current month summarized activity below includes one State Revolving Fund American Rescue Plan Act Funding program in which there has been no disbursement activity to date, three award receipts related to local nonprofit apprenticeship grants and the Department of Energy grant in which only cost share has been accounted for to date.

Table 3 – ***Post Award Programs*** there is no current activity as of October 31, 2023 for Post Award Programs. Funds related to these programs have been received in full and the programs are in the process of being closed out, including any closeout reporting requirements.

GLWA Great Lakes Water Authority

Financial Services
Audit Committee Communication

Table 1 – Pre-Award Programs reflects open submissions for FY 2023 and FY 2024 to date. The Programs listed under this section do not have a grant agreement between the awarding agency and GLWA at this time, but the grant has been applied to or earmarked. The summarized activity provided identifies nine FEMA Flood projects, three new letters of intent to support and collaborate with other entities, two EPA Community Grants, an American Rescue Plan Clean Water Infrastructure grant through the State of Michigan, and the I-94 Modernization Project grant in the National Environmental Policy Act (NEPA) process to identify any environmental impacts related to the grant activities.

Table 1 – Pre-Award Programs

Reference Number	Request Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-002	7/1/2022	FY2022 Environmental Protection Agency Community Grant – Detroit River Interceptor	Federal Grant (Reimbursement Basis)	$2,000,000 (20% Cost Share)	Federal Audit Requirements	Earmark
2023-003	7/1/2023	FY2023 Environmental Protection Agency Community Grant – PFAS Compounds remediations project	Federal Grant (Reimbursement Basis)	$3,452,972 (20% Cost Share)	Federal Audit Requirements	Earmark
2023-012	4/4/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660110 – **Obligated $319,911** Fairview PS	Federal pass-through State (Reimbursement Basis)	**$319,911**	Federal Audit Requirements	Funds are obligated but have not been received

Reference Number	Request Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-009	4/4/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660133 – **Obligated $80,129** Puritan Fenkell CSO	Federal pass-through State (Reimbursement Basis)	**$80,129**	Federal Audit Requirements	Funds are obligated but have not been received
2023-010	4/11/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660118 – **Obligated $180,000** WRRF	Federal pass-through State (Reimbursement Basis)	**$180,000**	Federal Audit Requirements	Funds are obligated but have not been received
2023-011	8/30/2022	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 668672– **Obligated $43,031** System Wide Emergency Protective Measures	Federal pass-through State (Reimbursement Basis)	**$43,031**	Federal Audit Requirements	Funds are obligated but have not been received
2023-018		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 673958 Detroit River Interceptor	Federal pass-through State (Reimbursement Basis)	$529,731	Federal Audit Requirements	Grant Amount is Estimated
2023-013		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 714729 Outfalls	Federal pass-through State (Reimbursement Basis)	$1,332,235	Federal Audit Requirements	Grant Amount is Estimated

Reference Number	Request Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-022		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660745 Conner Creek Sewer System	Federal Grant (Reimbursement Basis)	$8,888,277	Federal Audit Requirements	Grant Amount is Estimated
2023-014		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 664811 East Side Sewers	Federal pass-through State (Reimbursement Basis)	$3,566,407	Federal Audit Requirements	Grant Amount is Estimated
2023-015		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 670521 CAT-Z – Allocation of Management Costs	Federal pass-through State (Reimbursement Basis)	$50,000	Federal Audit Requirements	Grant Amount is Estimated
2024-001	8/30/2023	NFWF Coastal Resilience Challenge	Letter of Intent by University of Michigan	Unknown at this time	Unknown at this time	Grant Amount is Estimated
2024-002	8/30/2023	NOAA Climate Resilience Regional Challenge	Letter of Intent by University of Michigan	Min $25,000,000	Unknown at this time	Grant Amount is Estimated
2024-003	**10/30/2023**	**Workforce Development Opportunity Grant**	**Letter of Intent to Apply by GLWA**	**$1,500,000 - $6,800,00**	**Federal Audit Requirements**	**Grant Amount is Estimated and dependent on number of applicants EPA receives**
2023-017		American Rescue Plan PA-53 Clean Water Infrastructure Improvements	Federal pass-through State (Reimbursement Basis)	$25,000,000	Federal Audit Requirements	Supplemental Budget Appropriation

Reference Number	Request Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-023	8/30/2023	I-94 Modernization Project	MDOT Federal pass-through State (Reimbursement Basis)	$34,400,000	Federal Audit Requirements	NEPA Review with the State of Michigan

Table 2 Awarded Programs reflects all awarded grants from FY 2021 through FY 2024. These Projects have been awarded by the agency listed and an agreement is in place. Each grant is in process including compliance checks for all required administrative, financial, and programmatic requirements. Current month summarized activity below includes one State Revolving Fund American Rescue Plan Act Funding program in which there has been no disbursement activity to date, three award receipts related to local nonprofit apprenticeship grants and the Department of Energy grant in which only cost share has been accounted for to date.

Table 2 – Awarded Programs

Reference Number	Request Date	Program Description	Type of Activity	Grant Amount	Compliance and/or Performance Requirements	Status
2022-004	2/23/2022	Water Technician Registered Apprenticeship Program- $2,225 per apprentice, 25 apprentices	Macomb Community College Tuition (Nonprofit)	$55,625	None	Ongoing No activity as of date for FY 2024
2021-012	9/21/2021	Michigan Industrial Cluster Approach (MICA 3.0) Apprenticeship Program - $1,000 per apprentice, 45 apprentices	Focus Hope (Nonprofit)	$45,000	None	Ongoing No activity as of date for FY 2024
2024-003	7/7/2023	Detroit Employment Solutions Corporation (DESC) Apprentices $5,000 per apprentice; 9 apprentices	Detroit At Work (Nonprofit)	$45,000	None	$25,000 received in the month of August

2023-005	4/1/2023	Department Of Energy – Hydrothermal Liquification Project	Federal Grant (Reimbursement Basis)	$1,000,000	Federal Audit Requirements	Awarded Ongoing
2023-019	3/3/2021	American Rescue Plan – State Revolving Fund (ARP) Funded Project 7532-02 96 Inch Water Transmission Main Relocation Phase 2 EGLE	Federal pass-through State (Reimbursement Basis)	$16,057,500	Federal Audit Requirements	No disbursement requests submitted to date

Table 3 **–** ***Post Award Programs*** there is no current activity as of October 31, 2023, for Post Award Programs. Funds related to these programs have been received in full and the programs are in the process of being closed out, including any closeout reporting requirements.

Proposed Action: Receive and file this report.

The Semiannual Debt Report includes the following:

1. Key Takeaways
2. Look Ahead – Five Year Capital Financing Plan
3. Existing Debt
4. Debt Service Coverage
5. Refinancing

Pursuant to leases that became effective on January 1, 2016, the Great Lakes Water Authority (GLWA) assumed possession and control of the regional assets of both the water supply and sewage disposal systems owned by the City of Detroit (City), which were previously operated by the Detroit Water and Sewerage Department (DWSD). GLWA assumed certain liabilities including State Revolving Fund loans and 100% of the revenue bond debt issued by DWSD prior to January 1, 2016.

The bonds are repaid by the revenues of the water and sewage disposal systems including the DWSD retail system (local system) revenues which are the exclusive property of GLWA in accordance with Section 5.7 of each lease agreement. The DWSD is GLWA's agent for purposes of billing and collection of the retail system revenues for both the water and sewer system, as set forth in a water and sewer services agreement between the City and GLWA. All revenue receipts are deposited into a trust and administered in compliance with the Master Bond Ordinance, applicable to each system (referred to herein collectively as the "MBO").

The leases also provide that GLWA will finance local system improvements of DWSD. GLWA is the obligor of 100% of the debt payable which is recorded in GLWA's books. An "obligation receivable" is recorded by GLWA which represents the amount related to the DWSD local system improvements. Accordingly, DWSD records a corresponding "obligation payable" for a like amount.

GLWA maintains detailed records of all debt issuances and how the responsibility for payment of debt is allocated between the regional system and local system, as well as between the water and sewer systems. GLWA and DWSD regularly reconcile interrelated accounts between the entities.

The lease agreements, water and sewer services agreement, and MBO noted above are available on GLWA's website at www.glwater.org. The above explanation is a synopsis of key points and is not intended to fully represent the agreements or any sub-sections thereof.

Key Takeaways

- ✓ The purpose of this report is to provide a resource for stakeholders and to support management decisions as capital financing needs evolve.
- ✓ GLWA continues to enhance transparency by including the Debt Summary Report in the Audit Committee Binder semiannually.
- ✓ GLWA has nineteen active State Revolving Fund (SRF) loans, eleven for water and eight for sewer. On behalf of DWSD, GLWA is administering four projects for water and two for sewer.
- ✓ GLWA seeks to issue revenue bond and sell revenue refunding bond for water and sewer by the end of calendar year 2023 dependent upon market conditions.
- ✓ Other key items of interest include the following balances as of September 30, 2023.

As of September 30, 2023 ($ Millions)		
	Water	Sewer
FY 2025 Approved SRF Projects - **Table 5**	$34.1	$270.9
DWSD Obligation Receivable - **Table 6**	$547.4	$358.7
GLWA Outstanding Debt - **Table 8**	$2,460.8	$2,844.8

Look Ahead - Five Year Capital Financing Plan

The following tables summarize the projected Capital Improvement Program (CIP) funding to be provided by proceeds received from the issuance of new revenue bonds and draws on committed SRF loans. *The financing plan is dynamic and changes with the pace of capital spending and alignment with refunding opportunities.*

GLWA closed on revenue bond transactions in September 2022 to support capital needs in accordance with the approved capital improvement plan. These transactions provided $417 million in additional funding with $207 million supporting the water system and $210 million supporting the sewer system.

Looking ahead, GLWA is working on revenue bond transactions for both the water supply system and sewage disposal system. These transactions are expected to be completed in 2023 but are ultimately dependent on market conditions. GLWA has received prior authorization to issue water supply system bonds in a principal amount not to exceed $925,000,000, and sewage disposal system bonds in a principal amount not to exceed $1,600,000,000. Within these authorized amounts, the majority is expected to be issued to refinance existing obligations of GLWA and provide debt service savings. A portion of the authorized amounts are expected to be issued to provide additional capital, in accordance with the approved capital improvement plan. Ultimately, the size of the transactions will be based on market conditions at the time of sale.

Table 1 - GLWA Projected Financing FY 2024 – FY 2028 provides a breakdown of projected financing based on the FY 2024 and FY 2025 Biennial Budget adopted by the GLWA Board of Directors and the related Five-Year Financial Plan.

Projected Funding Needs for Regional System					
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water					
Revenue Bonds	$ -	$ 353,000,000	$ -	$ 318,000,000	$ -
SRF loan draws	$ 97,102,000	$ 44,230,000	$ 20,000,000	$ 4,000,000	$ -
Total projected funding Water	$ 97,102,000	$ 397,230,000	$ 20,000,000	$ 322,000,000	$ -
Sewer					
Revenue Bonds	$ -	$ 298,000,000	$ -	$ 327,000,000	$ -
SRF loan draws	$ 47,253,000	$ 31,104,000	$ 15,004,000	$ -	$ -
Total projected funding Sewer	$ 47,253,000	$ 329,104,000	$ 15,004,000	$ 327,000,000	$ -

Table 2 - DWSD Projected Financing FY 2024 – FY 2028 provides a breakdown of projected financing based on the current, local system CIP presented to the DWSD Capital Improvement Plan Committee at its April 5, 2023 meeting. It is important to note the amounts represented in revenue bonds reflect the funding needs by year and not a revenue bond transaction for each year. GLWA and DWSD coordinate the timing for additional revenue bonds to ensure efficiency in the debt management process.

Projected Funding Needs for Local System					
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water					
Revenue Bonds	$ 9,460,000	$ 21,000,000	$ 22,000,000	$ 19,500,000	$ 12,000,000
SRF loan draws	$ 26,500,000	$ 49,770,000	$ 14,720,000	$ 5,000,000	$ -
Total projected funding Water	$ 35,960,000	$ 70,770,000	$ 36,720,000	$ 24,500,000	$ 12,000,000
Sewer					
Revenue Bonds	$ 6,219,000	$ 25,500,000	$ 39,000,000	$ 17,000,000	$ 7,000,000
SRF loans draws	$ 3,195,000	$ 4,146,000	$ 1,204,000	$ -	$ -
Total projected funding Sewer	$ 9,414,000	$ 29,646,000	$ 40,204,000	$ 17,000,000	$ 7,000,000

Existing Debt

Current Debt Ratings: Bond ratings are a key measure of an organization's financial strength. Ratings are established by independent agencies that conduct detailed reviews of an organization's operational and financial performance to assist those seeking to invest in an organization through the purchase of bonds. GLWA actively monitors its debt ratings and continually seeks to make operational and financial improvements to improve its bond ratings. Achieving higher ratings will allow GLWA to finance its capital needs at lower interest rates.

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

Table 3 – Debt Ratings by System provides a summary of the debt ratings.

Current Debt Ratings

	S&P Global Ratings	Moody's Investors Service	Fitch Ratings
Water Supply System Revenue Bonds			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Positive	Stable
Sewage Disposal System Revenue Bonds			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Positive	Postive

Debt Allocation: GLWA has nearly $2.5 billion in water system debt and nearly $2.8 billion in sewer system debt for a combined total of over $5.3 billion. Debt within each system is prioritized according to its security interest, or lien category, with senior lien debt having the highest security interest, followed by second lien and finally junior lien.

Chart 1 - Debt Type by Lien – Water provides a breakdown of the total water system debt for both the regional and local systems by lien type.

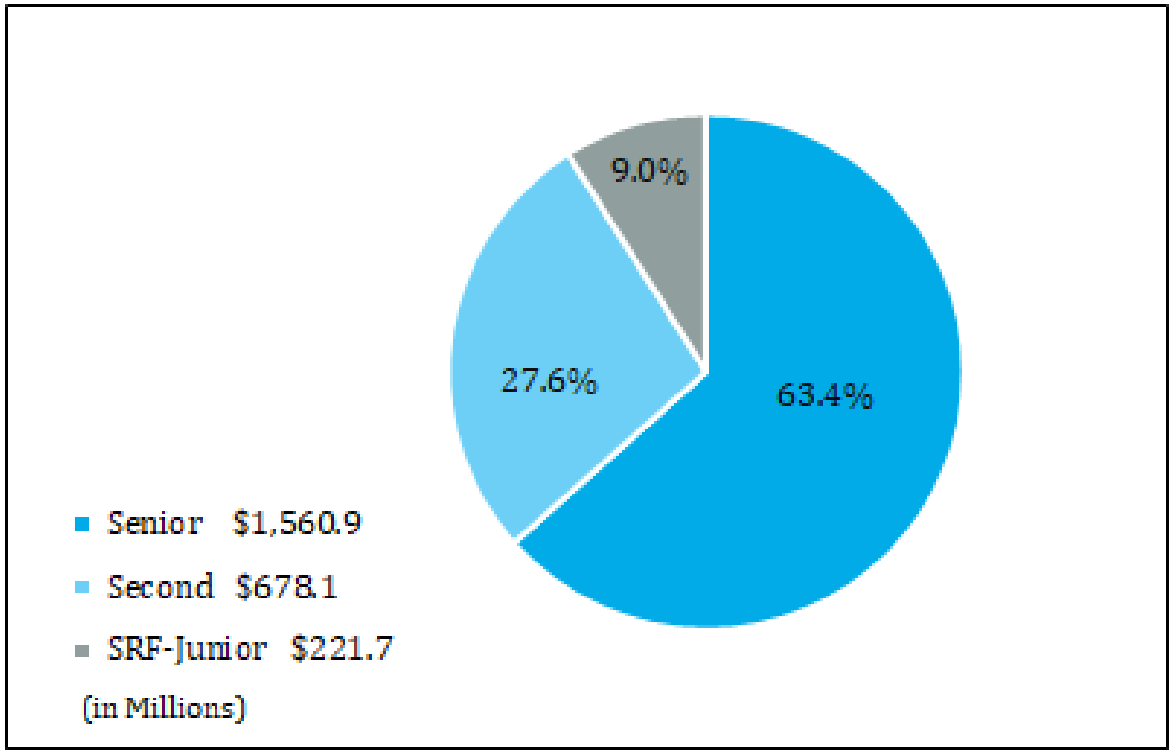


Chart 2 - Debt Type by Lien – Sewer provides a breakdown of the total sewer system debt for both the regional and local systems by lien type.

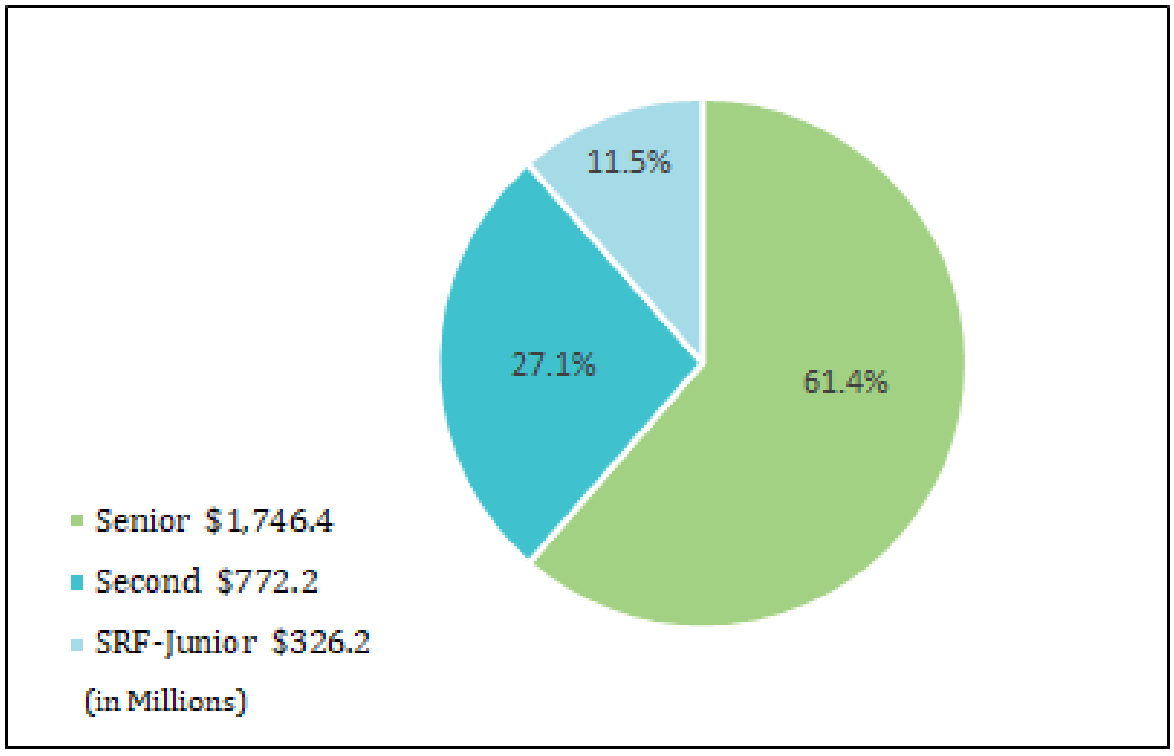


Chart 3 – Annual Debt Service Payments by Lien – Water provides the annual debt service installment requirements for each fiscal year.

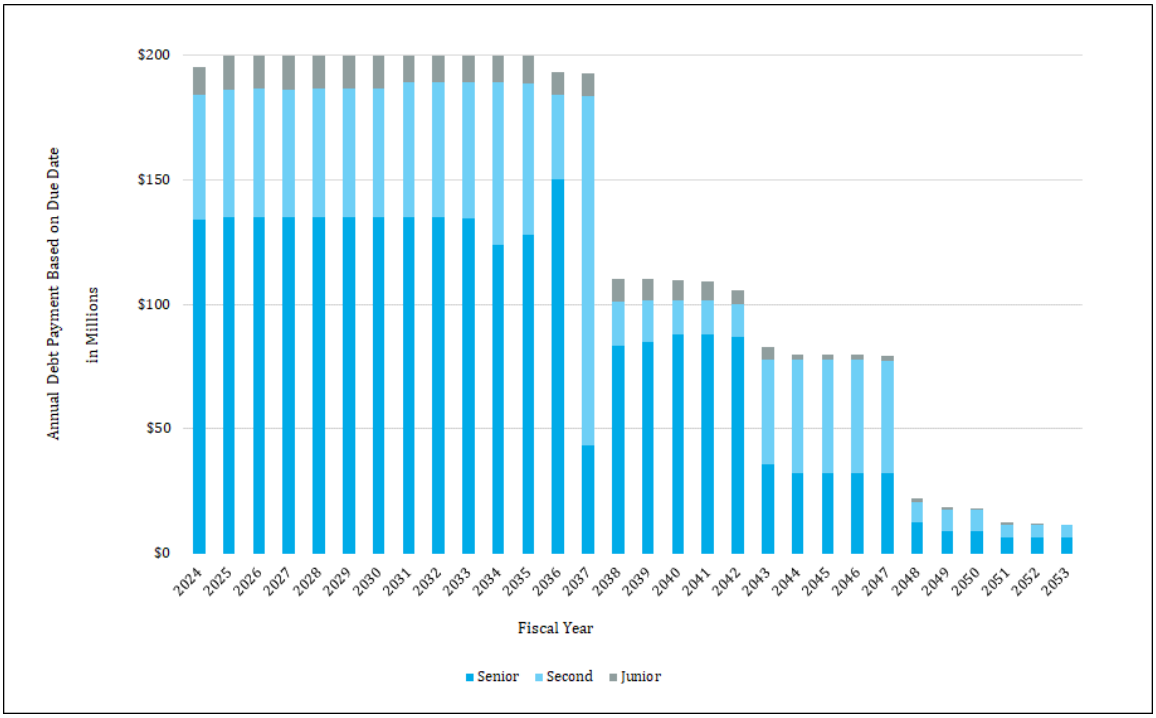
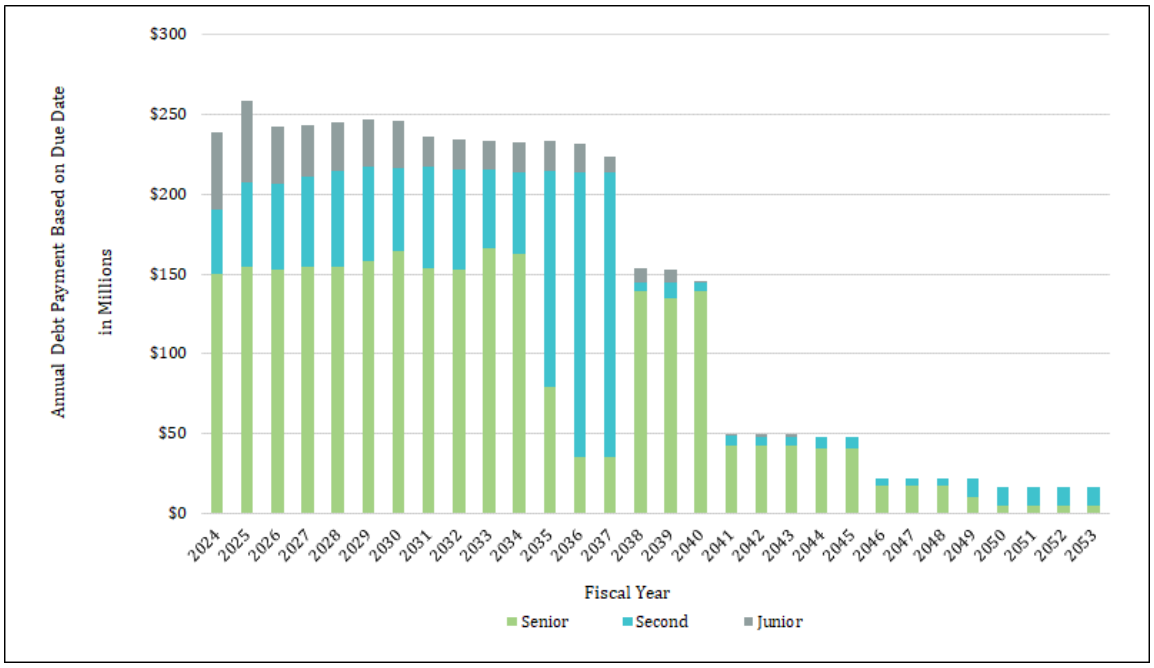


Chart 4 – Annual Debt Service Payments by Lien – Sewer provides the annual debt service installment requirements for each fiscal year.



Note: *The figures in these charts reflect the debt service installment requirements for each fiscal year, which are required by the MBO to be set aside monthly in advance of actual payment dates. This information will differ from the Annual Comprehensive Financial Report which reflects when the actual payments are made to the bond paying agent.*

State of Michigan's State Revolving Fund (SRF) Programs: GLWA participates in the State's Clean Water Revolving Fund (CWSRF) to finance qualified sewage disposal system projects and the State's Drinking Water Revolving Fund (DWSRF) to finance qualified water supply system projects. For the purposes of this report, both water and sewer projects financed through these programs will be referred to as either water or sewer SRF loans.

These loan programs have interest rates that are well below open market interest rates (current estimate between 3.5% and 4.0%) and are repaid over 20-30 years. For the state's FY 2024, the DWSRF and CWSRF program rates are 2.5% for 20-year loans and 2.75% for 30-year loans. Overburdened applicant's rates are 2.0% and significantly overburdened applicant's rates are 1.0% for 20- and 30-year loans.

Funds are disbursed as construction payments are made. Interest on each loan is based on the amount of funds drawn and not the full loan amount. GLWA must submit project plans to the Michigan Department of Environment, Great Lakes, and Energy ("EGLE", and formerly known as the Michigan Department of Environmental Quality or MDEQ) for each project by the annual submission date (June 1 for DWSRF and May 1 for CWSRF) to be considered for the State's funding pool for the following fiscal year.

State Revolving Fund Loans: GLWA's strategy is to maximize its use of SRF loans to finance qualified capital projects. GLWA currently has $221.7 million in outstanding water SRF loans and $326.2 million in outstanding sewer SRF loans.

Table 4 - Active SRF Project Summary provides information regarding each loan currently being drawn down including the loan award date which is also referred to as the Order of Approval date by the State of Michigan.

State Loan #	CIP Reference	Description	Order of Approval	Project Total ($ Millions)
SRF Water - DWSD Projects				
7460-01	WS-710 & 711	Water Main Replacement	7/15/2020	$22.6
7483-01	WS-715 & 718	Water Main Replacement	9/9/2020	$13.4
7484-01	WS-713	Water Main Replacement - Jefferson Chalmers	8/6/2021	$12.8
7548-01	WS-721	Lead Service Line Water Main Replacement	4/8/2022	$10.0
SRF Water - GLWA Projects				
7445-01	122003	Northeast Transmission Phase 1	8/9/2019	$30.0
7445-02	122003	Northeast Transmission Main - Phase 2a	8/7/2020	$9.0
7445-04	122003	Northeast Transmission Main - Phase 3a	5/28/2021	$11.9
7461-01	122013	14 Mile Transmission Main Loop - Phase 1	8/7/2020	$9.0
7461-02	122013	14 Mile Transmission Main Loop - Phase 2	8/6/2021	$104.7
7532-01	122004	96-inch Water Transmissioon Main Relocation Project - Phase 1	8/29/2022	$34.1
7532-02	122004	96-inch Water Transmissioon Main Relocation Project - Phase 2	6/26/2023	$64.2
			Total Water	**$321.7**
SRF Sewer - DWSD Projects				
5688-01	DWS-916	Sewer Main Rehab/Rplcmt - Project A	9/9/2020	$4.0
5706-01	DWS-917 & 918	Sewer Main Replacements - Project B	9/9/2021	$9.2
SRF Sewer - GLWA Projects				
5655-02	222002	Detroit River Interceptor Segment 2	3/27/2020	$28.4
5655-03	222002	Detroit River Interceptor Segment 3	5/16/2020	$34.2
5673-01	211008	PS-1 Ferric Chloride System Rehabilitation	2/26/2021	$12.9
5741-01	260701	In-System Storage Device & Dam & Valve Remote Evaluation & Rehabilitation	8/29/2022	$19.0
5742-01	260204	Connor Creek Sewer System Rehabilitation	8/8/2022	$50.2
5836-01	211006	Pump Station #1 Rehabilitation	5/15/2023	$96.0
			Total Sewer	**$254.0**

Chart 5 - Open State Revolving Fund Loans summarizes all current SRF loans held by GLWA (including financings on behalf of DWSD) that are active (reference Table 4 above for project descriptions). It summarizes the original award amount remaining and the amount drawn down as of September 30, 2023 for each loan. On September 30, 2023, the amount of SRF loans authorized and unissued is $159.5 million for the Water fund and $216.3 million for the Sewage Disposal Fund.

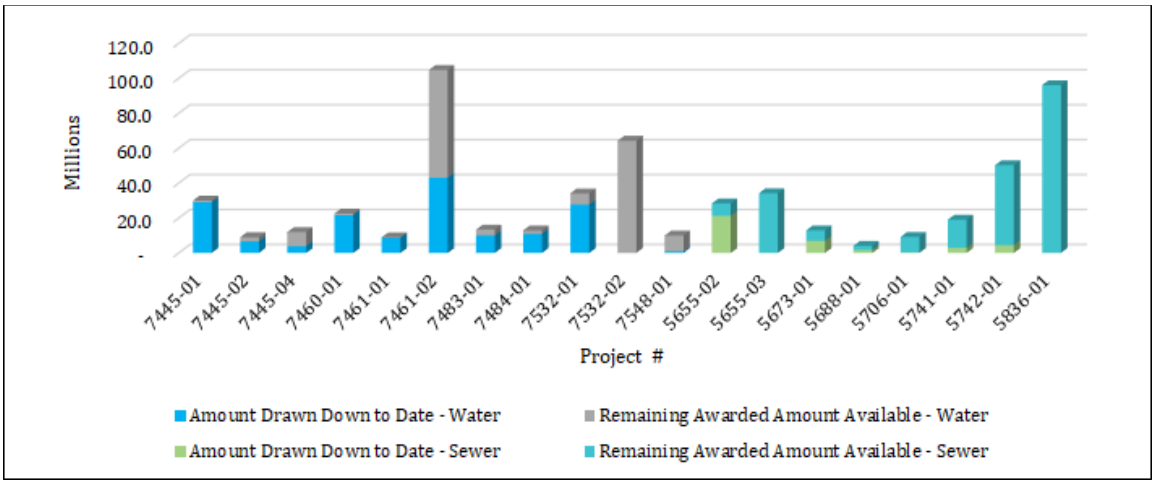


Table 5 - Project Plan Approved by EGLE identifies projects approved by the EGLE but for which final applications had not yet been submitted for funding as of September 30, 2023.

Project Owner	CIP Number	Description	Estimated Loan Amount	Anticipated Funding Date
Water SRF				
DWSD	WS-725	Water Main Replacement/Rehabilitation in the Midtown, Cultural Center, Medical Center, and Barton-McFarland Neighborhoods of Detroit	$ 16,550,000	TBD
DWSD	WS-738	Water Main Replacement/Rehabilitation in the Dexter – Linwood and Davison neighborhoods of Detroit	$ 17,510,000	TBD
Total Water SRF			**$ 34,060,000**	
Sewer SRF				
DWSD		CSO West Chicago South	$ 19,100,000	TBD
GLWA	232002	Freud Pump Station	$ 86,800,000	TBD
GLWA	212008	WRRF Aeration Improvements 1 and 2	$ 90,000,000	TBD
GLWA	222001	Oakwood District Intercommunity Relief Sewer Modification	$ 75,000,000	TBD
Total Sewer SRF			**$ 270,900,000**	

DWSD Obligation Receivable: GLWA holds an obligation receivable from DWSD as an asset to account for the amount due for financing local system capital projects. DWSD carries a like amount of this as an obligation payable on its statement of net assets.

There are three components to the calculation of the DWSD obligation receivable. These are:

a) an agreed upon amount for pre-January 1, 2016 (i.e. "pre-bifurcation") debt as documented in a 2018 Memorandum of Understanding ($455 million for water system and $370 million for sewer per agreed-upon amortization schedules),
b) new revenue bonds issued after January 1, 2016 to specifically fund the DWSD local system capital improvement projects which are payable based on the allocable share of the actual bonds debt service schedule, and
c) SRF loans issued after January 1, 2016 for specific DWSD capital projects which are payable based on the allocable share of the actual loan payment schedule.

All retail customer revenues are deposited into a trust to fund these financial obligations in accordance with the MBO flow of funds.

Chart 6 - DWSD Obligation Receivable by Type summarizes the total DWSD obligation receivable balance for both Water and Sewer as of September 30, 2023 by pre-bifurcation, revenue bond and SRF component.

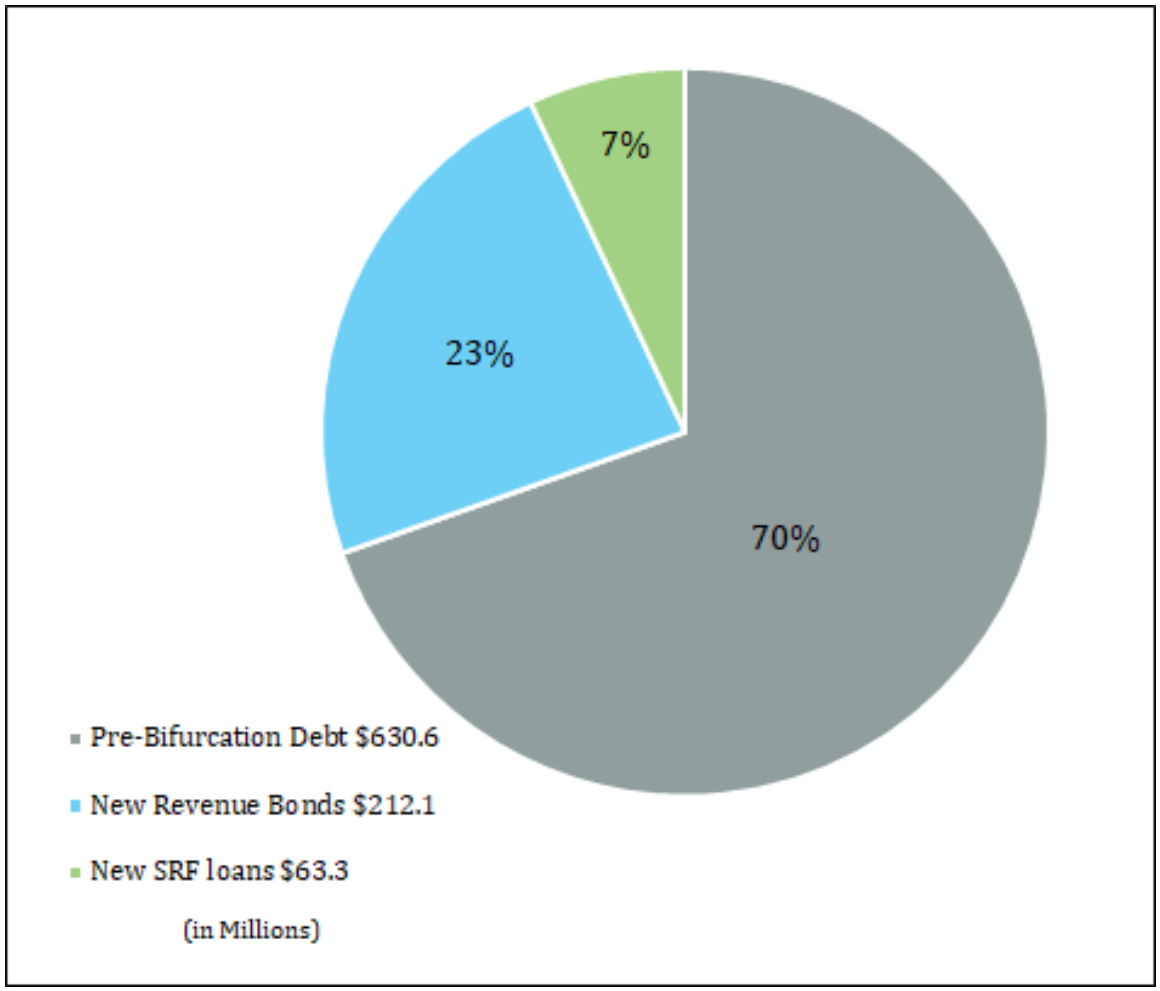


Chart 7 – Obligation Receivable Compared to Total Debt - Water provides context by comparing the Water System Obligation Receivable to the Total Water Debt (excludes unamortized premiums).

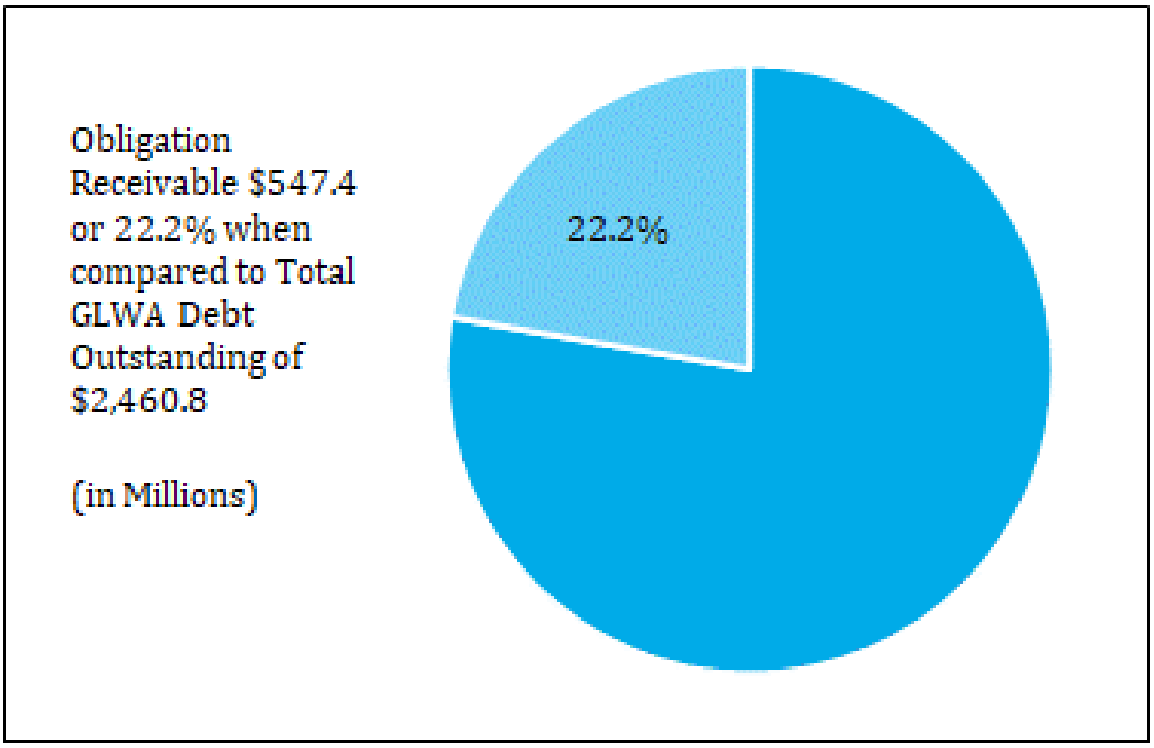


Chart 8 – Obligation Receivable Compared to Total Debt - Sewer provides context by comparing the Sewer System Obligation Receivable to the Total Sewer Debt (excludes unamortized premiums).

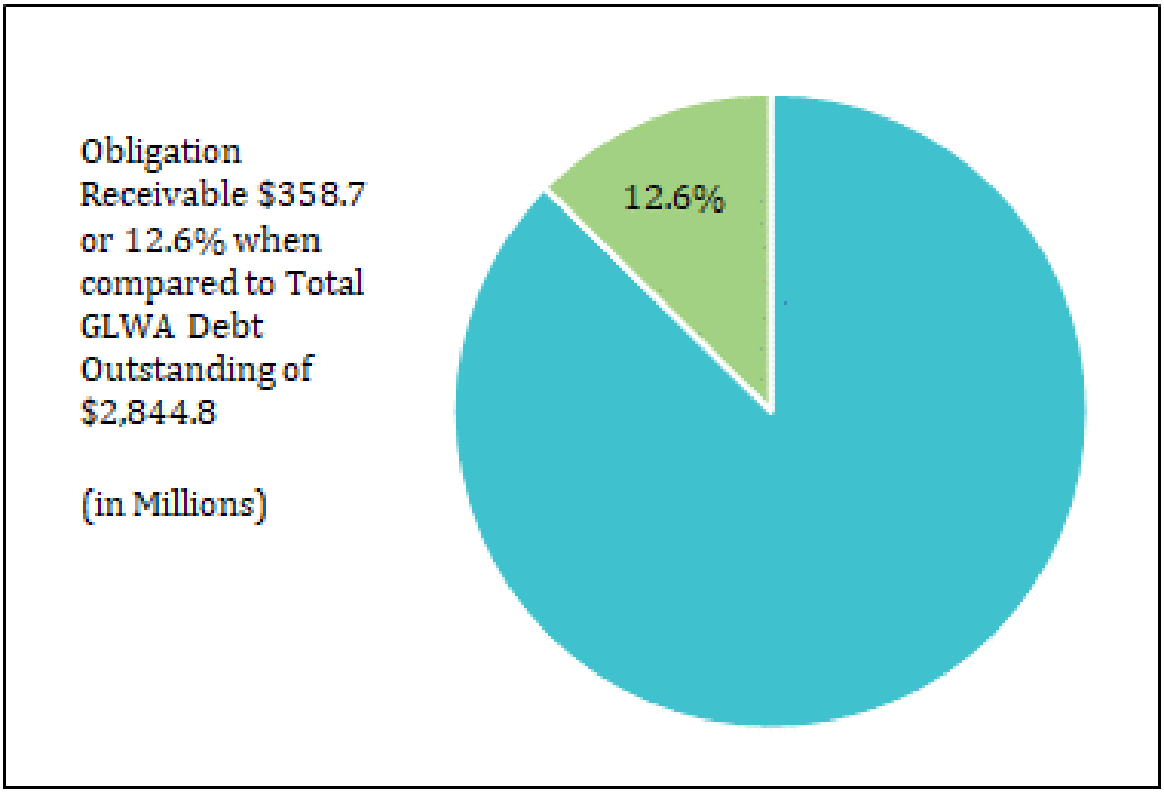


Table 6 - DWSD Obligation Receivable provides obligation receivable detail including fiscal year 2024 beginning balances by debt type and loan issue (for revenue bonds and SRF loans), year-to-date activity and ending balances as of September 30, 2023. Total DWSD debt totals $932 million. This differs slightly from the total in Chart 6 due to the inclusion of unamortized premiums.

(In Thousands)

Debt Type	July 1, 2023 Beg Balance	Increase	Decrease	SRF Debt Forgiveness	September 30, 2023 End Balance
DWSD Water					
Pre-Bifurcation Debt	$ 352,783	$ -	$ (4,162)		$ 348,621
Revenue Bond - 2016A	17,725	-	-	-	17,725
Revenue Bond - 2016B	33,015	-	-	-	33,015
Revenue Bond - 2020A	42,445	-	-	-	42,445
Revenue Bond - 2020B	43,135	-	-	-	43,135
SRF 7412-01	4,591	-	-	-	4,591
SRF 7413-01	2,969	-	-	-	2,969
SRF 7414-01	5,193	-	-	-	5,193
SRF 7447-01	7,448	3,087	-	-	10,535
SRF 7460-01	19,515	-	-	-	19,515
SRF 7483-01	8,833	1,124	-	-	9,957
SRF 7484-01	9,678	-	-	-	9,678
SRF 7548-01	-	2,733	-	(2,733)	-
Total DWSD Obligation	547,329	6,944	(4,162)	(2,733)	547,379
Unamortized Premiums	18,100	-	(197)		17,902
Subtotal: Water	***565,429***	***6,944***	***(4,359)***	***(2,733)***	***565,281***
DWSD Sewer					
Pre-Bifurcation Debt	285,471	-	(3,478)	-	281,993
Revenue Bond - 2018A	75,815	-	-	-	75,815
SRF 5688-01	843	-	-	-	843
SRF 5706-01	-	-	-	-	-
Total DWSD Obligation	362,129	-	(3,478)	-	358,651
Unamortized Premiums	8,161	-	(105)	-	8,056
Subtotal: Sewer	***370,290***	-	***(3,583)***	-	***366,707***
Total DWSD Debt	**$ 935,719**	**$ 6,944**	**$ (7,942)**	**$ (2,733)**	**$ 931,988**

Table 7 – Loan Forgiveness provides a summary of loan principal forgiven on DWSD SRF loans closed after January 1, 2016. EGLE grants principal loan forgiveness on qualified planning costs for disadvantaged communities. Through September 30, 2023, $26.4 million or 23% of approved, DWSD SRF loans have been forgiven as a disadvantaged community.

State Loan #	Approved Amount	Loan Forgiveness
DWSD Water SRF		
SRF 7412-01	10,605,000	1,000,000
SRF 7413-01	5,180,000	1,000,000
SRF 7414-01	8,675,000	2,000,000
SRF 7447-01	16,500,000	4,711,944
SRF 7460-01	22,570,000	2,031,300
SRF 7483-01	13,355,000	1,201,950
SRF 7484-01	12,845,000	1,316,050
SRF 7548-01	10,000,000	10,000,000
Subtotal: Water	***99,730,000***	***23,261,244***
DWSD Sewer SRF		
SRF 5688-01	4,040,000	808,000
SRF 5706-01	9,175,000	2,293,750
Subtotal: Sewer	***13,215,000***	***3,101,750***
Total DWSD Debt	**$ 112,945,000**	**$ 26,362,994**

Annual Change in Outstanding Debt: It is the goal of GLWA to ensure the long-term sustainability of the water and sewer systems. One of the best ways to accomplish this is by reducing the debt service payments on existing bonds as well as reducing the amounts of future bond issues by using revenue financed capital.

Table 8 - Long-Term Debt Summary provides a detail of GLWA's fiscal year 2024 beginning balances by debt type and loan issues, year-to-date activity, and ending balances as of September 30, 2023. GLWA debt includes financing for both the regional and local share.

Debt Type	June 30, 2023 Beg Balance	Increase	Decrease	Refunding	Debt Forgiveness	September 30, 2023 End Balance
			Water Fund			
Revenue Bonds	$ 2,279,260	$ -	$ (40,250)	$ -	$ -	$ 2,239,010
State Revolving Loans	207,357	19,932	(2,810)	-	(2,733)	221,746
Total Installment Debt	2,486,617	19,932	(43,060)	-	(2,733)	2,460,756
Unamortized Premiums / Discounts	167,921	-	(3,774)	-	-	164,147
Subtotal: Water	***2,654,538***	***19,932***	***(46,834)***	-	***(2,733)***	***2,624,903***
			Sewer Fund			
Revenue Bonds	2,561,135	-	(42,565)	-	-	2,518,570
State Revolving Loans	349,919	5,891	(29,595)	-	-	326,216
Total Installment Debt	2,911,054	5,891	(72,160)	-	-	2,844,786
Unamortized Premiums / Discounts	75,627	-	(1,117)	-	-	74,510
Subtotal: Sewer	***2,986,681***	***5,891***	***(73,277)***	-	-	***2,919,295***
Total Combined, Long Term Debt	**$ 5,641,219**	**$ 25,823**	**$ (120,111)**	**$ -**	**$ (2,733)**	**$ 5,544,198**

Debt Service Coverage

GLWA is committed to ensuring the long-term sustainability of the water and sewer systems and has pledged specific revenue streams to secure the repayment of the revenue bonds and SRF loans associated with them. The MBO establishes minimum debt coverage levels at 1.20 for senior lien bonds, 1.10 for second lien bonds and 1.00 for any junior lien bonds, other than second lien bonds. Debt service coverage ratios are inclusive of all debt held on behalf of both GLWA and DWSD.

GLWA computes the debt service coverage ratio using two different methodologies. The Rate Covenant Method uses the cash basis in computing pledged revenue and the GAAP Method uses the accrual basis in computing pledged revenue. Pledged revenue is divided by the debt service requirements of each lien on a set aside basis to compute the debt service coverage ratio. The set aside basis is defined as the cash available to make the debt service payments on the due dates. The following table details the components of the pledged revenue for each methodology.

Components of Pledged Revenue	Pledged Revenue Calculation	Rate Covenant Basis	GAAP Basis
Revenues	Addition	Cash basis	Accrual basis
GLWA O&M expenses	Subtraction	Cash basis	Accrual basis
GLWA O&M pension	Subtraction	Cash basis	Cash basis
DWSD O&M expenses & O&M pension	Subtraction	Cash transfers to DWSD	Cash transfers to DWSD

Table 9: Debt Service Coverage Ratios - Water provides a summary of the MBO required minimum, historical, and budgeted debt service coverage ratios for the Water fund.

Debt Service Coverage Water System	MBO Required Minimum	Actual 2020	Actual 2021	Actual 2022	Adopted Budget 2023	Adopted Budget 2024	Adopted Budget 2025
Rate Covenant Basis							
Senior Lien Bonds	1.20	1.94	1.99	1.88	1.80	1.95	1.80
Senior and second lien bonds	1.10	1.39	1.40	1.37	1.33	1.42	1.34
All bonds, including SRF junior lien	1.00	1.37	1.38	1.33	1.27	1.30	1.23
GAAP Basis							
Senior Lien Bonds		1.98	1.95	2.00			
Senior and second lien bonds		1.42	1.38	1.45			
All bonds, including SRF junior lien		1.40	1.35	1.41			

Table 10: Debt Service Coverage Ratios - Sewer provides a summary of the MBO required minimum, historical, and budgeted debt service coverage ratios for the Sewer fund.

Debt Service Coverage Sewage Disposal System	MBO Required Minimum	Actual 2020	Actual 2021	Actual 2022	Adopted Budget 2023	Adopted Budget 2024	Adopted Budget 2025
Rate Covenant Basis							
Senior Lien Bonds	1.20	2.15	2.92	2.35	2.17	2.13	2.08
Senior and second lien bonds	1.10	1.64	1.97	1.68	1.74	1.59	1.57
All bonds, including SRF junior lien	1.00	1.29	1.51	1.30	1.37	1.27	1.30
GAAP Basis							
Senior Lien Bonds		2.15	2.50	2.64			
Senior and second lien bonds		1.64	1.68	1.89			
All bonds, including SRF junior lien		1.29	1.29	1.46			

Refinancing

To reduce the annual water and sewer debt service payments, GLWA monitors its outstanding water and sewer debt portfolios to determine if it can refund existing bond issues with new, lower interest rate bonds. At least once per year, GLWA's registered municipal advisor, PFM Financial Advisors, LLC (PFM) prepares an analysis of GLWA's bond refunding opportunities based on the current municipal interest rate environment and the existing debt service on GLWA's callable bonds.

On September 13, 2022, $12.49 million of sewage disposal system refunding bonds were issued. The net present value savings from the refunding transaction for the sewage disposal fund was $211,718. The 2012 sewage disposal system revenue bonds of $17.985 million were called on September 16, 2022 as part of this transaction.

Table 11: History of Debt Service Savings Achieved since 2014 through the leadership of the Authority's management team, the financing team has been able to achieve over $1 billion of debt service savings for the Systems since the tender and refunding transaction in 2014.

Savings by Issuance	
Series 2014	$ 245,500,000
Series 2015	38,300,000
Series 2016	309,100,000
Series 2018	84,900,000
Series 2020	324,100,000
Series 2022	1,960,000
	$ 1,003,860,000

The next available refunding opportunity will be for bonds with a call date of July 1, 2024, for both the water fund and sewage disposal fund. Approximately $434.2 million in water bonds and $436.5 million in sewer bonds will be callable at that time. GLWA continues to work with its registered municipal advisor to monitor the potential for refunding these bonds.

GLWA does not have any defeased debt as of September 30, 2023.