



Audit Committee Meeting
Friday, August 26, 2022 at 8:00 a.m.
www.glwater.org

[Join Zoom Meeting](#)

Meeting ID: **863 5367 8961** Passcode: **862031**

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

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. July 25, 2022 Special Meeting (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
 - A. 2022 Bond Transaction Update (Page 11)
7. NEW BUSINESS
 - A. *Action Item:* WRAP Policy Approval (Page 60)
8. REPORTS
 - A. CFO Report (Page 65)
 - B. Monthly Financial Report for May 2022 (Page 67)
 - C. Business Inclusion and Diversity Update (Page 68)
 - D. Quarterly Investment Report (Page 71)
 - E. Quarterly WRAP Report (Page 104)
9. COMMUNICATIONS
 - A. *The Procurement Pipeline* for August 2022 (Page 123)
10. LOOK AHEAD
 - A. Next Audit Committee Meeting: September 23, 2022 at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT



Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Monday, July 25, 2022

8:00 AM

Zoom Telephonic Meeting

Zoom Telephonic Meeting

Join Zoom Meeting Here:

<https://glwater.zoom.us/j/82645984388?pwd=VUpnNEp0VFhTjdpc29LbFICU3F0UT09>

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Meeting ID: 826 4598 4388

Passcode: 067660

1. Call To Order

Chairperson Baker called the meeting to order at 8:01 a.m.

2. Roll Call

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

3. Approval of Agenda

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to move Item 7.H. (Audit Engagement Letter and Timeline) to Item 7.A.

Chairperson Baker requested a Motion to Approve the Agenda as Amended.

Motion By: Jaye Quadrozzi

Support: Gary Brown

Action: Approved as Amended

The motion carried unanimously.

4. Approval of Minutes

A. [2022-269](#) Minutes of May 27, 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [4A May 27, 2022 Audit Committee Meeting Minutes](#)

Chairperson Baker requested a Motion to Approve the May 27, 2022 Audit Committee Meeting Minutes.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Approved

The motion carried by a unanimous vote.

B. [2022-270](#) Minutes of June 7, 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [4B June 7, 2022 Special Audit Committee Meeting Minutes](#)

Chairperson Baker requested a Motion to Approve the June 7, 2022 Audit Committee Special 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

None

7. New Business

H. [2022-314](#) Audit Engagement Letter and Timeline

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7H1 FY 2022 Annual Financial Audit Update Memo](#)
[7H2 GLWA AUD PS Audit Eng Ltr 2022 07 15](#)
[7H3 FY 2022 Annual Financial Audit Update BT Timeline](#)

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

A. [2022-307](#) Presentation: 10-Year Forecast Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7A1 Audit Committee Memo - 10-Year Financial Forecast Update](#)
[7A2 Series 2022 AC Presentation](#)
[7A3 GLWA Forecast 072022](#)

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

B. [2022-308](#) Presentation: 2022 Bond Transaction Briefing

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7B1 Audit Committee Memo - 2022 Bond Transaction Briefing](#)
[7B2 Series 2022 Audit Committee Presentation \(7-19-2022\) v3](#)

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

C. [2022-309](#) **Expanded Authorization on Debt Policy Provisions for the 2022 Bond Series Transaction**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7C1 Audit Committee Memo - Expanded Authorization on Debt Policy Provisions](#)
[2022-309 7B2 Series 2022 Audit Committee Presentation \(7-19-2022\)](#)
[v3](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Recommended for Approval to the Board of Directors

Agenda of July 29, 2022

The motion carried by a unanimous vote.

D. [2022-310](#) **Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$735,000,000 (Ordinance 2022-06)**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7D1 Audit Committee Memo- Water Revenue and Refunding Series Ordinance](#)
[7D2.1 Water Bond Transaction Crosswalk Attachment 1](#)
[7D3 4876-9174-6339 v5 Series Ordinance \(2022 Water\)](#)
[7D4 4879-6149-2515 v1 Resolution Approving 2022 Water Series Ordinance](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Recommended for Approval to the Board of Directors

Agenda of July 29, 2022

The motion carried by a unanimous vote.

E. [2022-311](#) Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Refunding Bonds in a Principal Amount Not to Exceed \$730,000,000 (Ordinance 2022-07)

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7E1 Audit Committee Memo- Sewer Revenue and Refunding Series Ordinance](#)
[7E2.1 Sewer Bond Transaction Crosswalk Attachment 1](#)
[7E3 4870-1764-3043 v5 Series Ordinance \(2022 Sewer\)](#)
[7E4 4873-7094-7619 v1 Resolution Approving 2022 Sewer Series Ordinance](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Recommended for Approval to the Board of Directors

Agenda of July 29, 2022

The motion carried by a unanimous vote.

F. [2022-312](#) Resolutions Authorizing Publication of Notice of Intent to Issue Water Supply System and Sewage Disposal System Revenue Bonds

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7F1 Notice of Intent to Issue Bonds](#)
[7F3 4877-2310-2757 v1 Resolution Regarding Publication of Notice of Intent to Issue Bonds Water 2022](#)
[7F4 4880-2614-1221 v1 Resolution Regarding Publication of Notice of Intent to Issue Bonds Sewer 2022](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Recommended for Approval to the Board of Directors

Agenda of July 29, 2022

The motion carried by a unanimous vote.

G. [2022-313](#) Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewer Disposal System Revenue Bonds in an Amount Not to Exceed \$21,000,000 (Ordinance 2022-05)

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7G1 AC Memo - Approval of Series Ordinance - Sewer Disposal System Loan 5741-01](#)
[7G3 4856-7566-9284 v2 Series Ordinance \(2022-SRF-3 GLWA Sewer\) 5741-01](#)
[7G4 4873-3622-0452 v2 Resolution Approving 2022-3 SRF Series Ordinance \(Sewer\) 5741-01](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Recommended for Approval to the Board of Directors

Agenda of July 29, 2022

The motion carried by a unanimous vote.

I. [2022-315](#) Economic Outlook Task Force

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7I1 Audit Committee Memo - Economic Outlook Task Force](#)
[7I2 Presentation_GLWA Audit Committee_EOTF](#)
[7I3 02-24-2022 SnP Inflation Could Weigh On US Not-For-Profit Utilities' Credit Ratings \(1\)](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

J. [2022-323](#) Water Residential Assistance Program Funding for DWSD Lifeline Pilot Plan

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7J1 DWSD Lifeline Plan WRAP Impact](#)
[7J3 DWSD's Lifeline Plan](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Recommended for Approval to the Board of Directors

Agenda of July 27, 2022

The motion carried by a unanimous vote.

K. [2022-328](#) Consent Letter Related to 2022 Bond Transaction

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7K1 Consent Letter Related to 2022 Bond Trans Audit Comm Memo](#)
[7K2 GLWA SAS 133 Engagement Letter 7-19-22 draft](#)

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

8. Reports**A.** [2022-327](#) CFO Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8A1 CFO Report June 2022](#)
[8A2 The Distinguished Budget Presentation Award FY 2022 and FY 2023](#)

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

B. [2022-316](#) Monthly Financial Report for March 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8B March 2022 Financial Report_Tagetik](#)

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

C. [2022-317](#) Monthly Financial Report for April 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8C April 2022 Financial Report_Tagetik](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

D. [2022-238](#) Business Inclusion and Diversity Program

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8D Business Inclusion and Diversity Program Year-in-Review](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

E. [2022-318](#) Quarterly Gifts, Grants & Other Resources Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8E Gifts, Grants and Other Resources Report](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

F. [2022-319](#) Quarterly CWIP Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8F Quarterly CWIP Report FY 2022 Q3](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

G. [2022-320](#) Quarterly Debt Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8G Quarterly Debt Report as of 3.31.2022

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

9. Communications**A. [2022-321](#) The Procurement Pipeline for June 2022**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9A The Procurement Pipeline for June 2022](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

B. [2022-322](#) The Procurement Pipeline for July 2022

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9B July 2022 Procurement Pipeline](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and File

The motion carried by a unanimous vote.

10. Look Ahead

Next Audit Committee Meeting: August 26, 2022 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 10:12 a.m.



Financial Services Audit Committee Communication

Date: August 24, 2022

To: Great Lakes Water Authority Audit Committee

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

Re: Update: 2022 Bond Transaction Update

Background: Last month, the GLWA Audit Committee received an update related to the 2022 bond transaction. Focus over the past few weeks has been securing credit ratings as well as finalizing the preliminary official statements (POS) and investor roadshow for the upcoming pricing.

Analysis: Current status of the above activities includes the following.

Rating Agency Meeting Outcomes: Great News! GLWA earned positive ratings actions on the outlook from two of three rating agencies and an affirmation from the third rating agency who previously established the highest credit rating for GLWA in the “AA” category.

Rating Agency	Water	Sewer
Fitch	Affirmed Stable Outlook for A+ Senior / A Second Lien	<i>Revised to Positive Outlook</i> (from Stable) for A+ Senior / A Second Lien
Moody's	<i>Revised to Positive Outlook</i> (from Stable) for A1 Senior / A2 Second Lien	<i>Revised to Positive Outlook</i> (from Stable) for A1 Senior / A2 Second Lien
Standard & Poor's	Affirmed Stable Outlook for AA- Senior / A+ Second Lien	Affirmed Stable Outlook for AA- Senior / A+ Second Lien

All reports are attached with some excerpts below.

- Fitch – Key Ratings Drivers
 - *“Strong Purchaser Credit Quality, Ability to Recover Costs*
 - *The authority has the ability to offset any payment shortfalls from any single customer by shifting the shortfall to the remaining customers via a rate increase.*

- *Rate setting is not subject to external approval, providing sound rate flexibility. Lastly, the authority's largest suburban members contribute to a strong overall PCQ [purchaser credit quality].*
- *Very Low Operating Cost Burden and Life Cycle Ratios*
- *Cost per million gallons (mg) delivered is very low, as the system's operating cost burden finished at just \$2,327 per mg in 2021. The system's lifecycle ratio is equally favorable at 28%. Capex to depreciation has been below average the last few years but is beginning to ramp up."*
- **Moody's Rating Outlook commentary**
 - *"The outlook is positive because the authority has strong management and stable operations and its underlying service area continues improve, particularly in the City of Detroit, as well as across Wayne (A3 positive), Oakland (Aaa stable) and Macomb (Aa1 stable) counties."*
- **Standard & Poor's Credit Highlights**
 - *"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...*
 - *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 ...*
 - *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.*
 - *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."*

Offering Documents Now Available

The preliminary official statement for both the [water](#) and [sewer](#) system, as well as the [investor roadshow](#), are now available online. Individuals are required to register to view.

Proposed Action: Receive and file this report.



RATING ACTION COMMENTARY

Fitch Rates Great Lakes Water Auth's Series 2022 Water System Rev Bonds 'A+'/'A'; Outlook Stable

Mon 22 Aug, 2022 - 5:43 PM ET

Fitch Ratings - Austin - 22 Aug 2022: Fitch Ratings has assigned the following ratings to the obligations issued by the Great Lakes Water Authority, MI (GLWA or the authority):

--Approximately \$121.8 million water supply system revenue senior lien bonds, series 2022A, 'A+';

--Approximately \$83.6 million water supply system revenue second lien bonds, series 2022B, 'A'.

All bonds are scheduled to sell via negotiation the week of Aug. 29, 2022. Proceeds will be used to fund certain water system (the system) capital improvements and pay costs of issuance.

In addition, Fitch has affirmed the following GLWA bonds, including bonds previously issued by the city of Detroit (the city) and the Michigan Finance Authority, MI on behalf of the Detroit Water and Sewerage Department (DWSD) and assumed by GLWA (all pre-refunding):

--\$1.48billion senior lien water supply system revenue bonds at 'A+';

--\$625.0 million second lien water supply system revenue bonds at 'A'.

Fitch has assessed the system's Standalone Credit Profile (SCP) at 'a'.

The Rating Outlook is Stable.

ANALYTICAL CONCLUSION

The 'A+'/'A' bond ratings and the 'a' SCP consider the system's financial profile assessment within the context of very strong revenue defensibility and operating risk profiles. Leverage, measured by Fitch as net

adjusted debt to adjusted funds available for debt service (FADS), finished at approximately 10.0x in fiscal 2021, which was similar to the result last year. Moving forward, projected increases in capital spending could drive leverage incrementally higher, but overall it should remain in line with the current rating.

Fitch's latest calculation of GLWA's historical and projected leverage ratios are lower than its earlier reviews and reflect the recharacterization of certain payments and cash balances, as provided for in its criteria. Historically Fitch has treated lease payments, which are used in part to contribute to DWSD's improvement and extension [I&E] fund, pension obligation payments, and water residential assistance program payments from to DWSD as transfers and operating expenses of GLWA. Further clarification on the dynamics of these payment flows has resulted in the recharacterization of these payments as debt service related to the capitalized lease obligations, which improves FADS.

Additionally, given that a significant portion of DWSD's unrestricted cash originated from these I&E funds, which are held within the trust under the master bond ordinance (MBO), and because these funds can be used to meet debt service if necessary, this balance is now being included as unrestricted cash, lowering net adjusted debt. While both of these recharacterizations improve leverage, these changes alone have no impact on the rating.

The revenue defensibility assessment considers the authority's ability to reallocate any hypothetical shortfalls from a non-performing retail customer to its performing customers via a rate increase, and the overall strength of such customers. While DWSD's credit profile is considered to be just midrange by Fitch, many of the other large customers have much stronger credit profiles, resulting in a strong overall purchaser credit quality (PCQ). The operating risk profile considers the authority's very low 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, the latter of which include the second-lien bonds, state revolving fund loans, and the long-term leases payable under the lease agreement between DWSD, and the absence of an automatic cross-default or acceleration between the liens. Senior lien debt comprises just over 50% of GLWA's total obligations.

CREDIT PROFILE

GLWA provides wholesale water services to a population of approximately 3.8 million, or 38% of the state population. In Jan. 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 regional systems' customers historically served by the city. Separately, security interest in the city's system-related revenues was granted under the MBO, while the water and sewer services agreement (WSSA), assigned the city the right to set and collect rates from its retail customers. The agreements 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 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 is robust and more than sufficient for the perpetual needs of the service area.

KEY RATING DRIVERS

Revenue Defensibility 'aa'

Strong Purchaser Credit Quality, Ability to Recover Costs

The authority has the ability to offset any payment shortfalls from any single customer by shifting the shortfall to the remaining customers via a rate increase. Rate setting is not subject to external approval, providing sound rate flexibility. Lastly, the authority's largest suburban members contribute to a strong overall PCQ.

Operating Risks 'aa'

Very Low Operating Cost Burden and Life Cycle Ratios

Cost per million gallons (mg) delivered is very low, as the system's operating cost burden finished at just \$2,327 per mg in 2021. The system's lifecycle ratio is equally favorable at 28%. Capex to depreciation has been below average the last few years but is beginning to ramp up.

Financial Profile 'a'

Mostly Stable Leverage Ratio, Sound Liquidity Profile

The system's leverage ratio has remained stable over the past five years, averaging about 10.2x over this time. Moving forward, capital spending is projected to increase in part due to inflationary pressures, but overall leverage is expected to remain consistent with the current rating. The authority's coverage of full obligations (COFO) and liquidity profile are also sound and therefore neutral to the financial profile assessment.

Asymmetric Additive Risk Considerations

No asymmetric additive considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to a positive rating action/upgrade on the authority's revenue bonds:

--Sustained improvements in the leverage ratio to less than 10.0x, assuming stability in the current revenue defensibility and operating risks assessments.

Factors that could, individually or collectively, lead to a negative rating action/downgrade on the authority's revenue bonds:

- Sustained worsening in the leverage ratio in excess of 13.0x;
- Downward revisions to the system's overall PCQ;
- Material declines in liquidity that expose bondholders to the timing risk of the true-up;
- Less than sum-sufficient COFO without offsetting liquidity, per Fitch's criteria;
- 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.

Best/Worst Case Rating Scenario

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

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.

Revenue Defensibility

The system's revenue defensibility is very strong, and is assessed at 'aa'. Revenue defensibility is supported by the strength of the various legal agreements between the city and the authority's regional municipal customers, the ability to reallocate costs and the strong weighted-average PCQ of the authority's customers. Favorably, rates are set by the authority's board and are not subject to external approval.

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. Any bad-debt expense from a wholesale customer is 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.

After Detroit, which accounted for around 25% of the system's operating revenues (inclusive of the local system operating revenues) in fiscal 2021, the largest municipal customers include the Southeast Oakland County Water Authority (6%), North Oakland County Water Authority (5%), and Sterling Heights (4%).

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 50% the US

average), while poverty and unemployment rates are elevated. However, economic measures for the regional members overall are generally in line with or better than state and national averages.

Operating Risks

The system's operating risks assessment of 'aa' is supported by a very low operating cost burden, and a very favorable life cycle ratio. The operating cost burden finished fiscal 2022 at \$2,327/mg, which is well below Fitch's 'aa' threshold of \$6,500/mg. Given the 2015 conveyance of the system assets from the city to GLWA, at which time the authority began newly depreciating infrastructure, the authority's life cycle ratio is very favorable at 28% compared to Fitch's 'aa' threshold of 45%.

Capex-to-depreciation has averaged about 46% over the past five years, a level at which Fitch views as adequate given the favorable life cycle ratio. In accordance with the authority's 2023-2027 CIP, capex is expected to be robust over the next five years, which should sustain the favorable life cycle ratio.

The CIP for the consolidated GLWA and DWSD water systems totals around \$1.2 billion. Given recent inflationary pressures, projected spending is increased over prior years, but costs associated with the CIPs appear manageable overall. Funding is estimated to be provided by debt (approximately 67% of the total) and from other funds on hand.

The goal of GLWA's CIP is implementation of its water master plan. The water plan's primary focus has been the decommissioning of one of the water treatment plants (accounting for over 15% of system capacity) in order to "right size" the system, along with other system optimization. Although this will create upfront costs, longer-term operational efficiencies are expected.

Financial Profile

The system's overall financial profile is strong, and is assessed at 'a'. The system's leverage ratio finished 2021 at about 10.0x, which is consistent with recent history. Senior and all-in debt service coverage finished at 2.0x and 1.4x, respectively, in fiscal 2021. Liquidity has remained very robust over the past five years, most recently finishing at 723 days cash (calculated under Fitch's methodology). The system's sound COFO of around 1.4x and cash balances result in a liquidity profile that is considered neutral to the overall financial profile assessment.

Fitch Analytical Stress Test (FAST)

The five-year scenario produced by FAST considers the potential trend of key ratios in a base and stress case. The stress case is designed to impose a capital cost increase of 10% above expected levels and evaluate potential variability in projected key ratios. Base-case assumptions used by Fitch include the authority's latest forecasts and projected capex for the regional and local system (i.e. DWSD). Revenues are projected at around 4% annually and increases in operational expenses are at 3%, with these together leading to sound FADS improvements starting in fiscal 2023.

Although FADS is projected to improve, the aforementioned higher-planned capex results in increasing leverage in FAST, with the base case peaking in year five at approximately 10.8x and the stress case peaking at 11.2x; both of these levels are consistent with the current ratings. Longer-term projections provided in

the authority's CIP show spending should level off at around 2027, and therefore leverage is expected to remain stable to declining.

Asymmetric Additive Risk Considerations

No asymmetric additive risk considerations affected this rating assessment.

Financial Statement Adjustment Disclosure

In its analysis, Fitch adjusted GLWA's 'Statement of Revenues, Expenses and Changes in Net Position' to include information from DWSD's 'Statement of Revenues, Expenses and Changes in Net Position.' The adjustments are made to provide greater comparability of GLWA's financial position in accordance with the flow of funds under the bond ordinances and lease-related agreements.

Sources of Information

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This 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. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

RATING ACTIONS

ENTITY / DEBT ↕	RATING ↕			PRIOR ↕
Great Lakes Water Authority (MI) [Water]				
Great Lakes Water Authority (MI) /Water Revenues (2nd Lien)/1 LT	LT	A Rating Outlook Stable	Affirmed	A Rating Outlook Stable
Great Lakes Water Authority (MI) /Water Revenues/1 LT	LT	A+ Rating Outlook Stable	Affirmed	A+ Rating Outlook Stable

[VIEW ADDITIONAL RATING DETAILS](#)

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Additional information is available on www.fitchratings.com

PARTICIPATION STATUS

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APPLICABLE CRITERIA

[U.S. Water and Sewer Rating Criteria \(pub. 18 Mar 2021\) \(including rating assumption sensitivity\)](#)

[Public Sector, Revenue-Supported Entities Rating Criteria \(pub. 01 Sep 2021\) \(including rating assumption sensitivity\)](#)

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Great Lakes Water Authority (MI)

EU Endorsed, UK Endorsed

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US Public Finance Infrastructure and Project Finance North America United States



RATING ACTION COMMENTARY

Fitch Rates Great Lakes Water Auth's Ser. 2022 Sewage Revs at 'A+'/'A'; Outlook Revised to Positive

Mon 22 Aug, 2022 - 5:27 PM ET

Fitch Ratings - Austin - 22 Aug 2022: Fitch Ratings has assigned the following ratings to the obligations issued by the Great Lakes Water Authority, MI (GLWA or the authority):

--Approximately \$101.5 million sewage disposal system revenue senior lien bonds, series 2022A, 'A+';

--Approximately \$96.4 million sewage disposal system revenue second lien bonds, series 2022B, 'A';

--Approximately \$96.5 million sewage disposal system revenue refunding senior lien bonds, series 2022C, 'A+'.

Proceeds will be used to fund sewer system capital improvements, to refund certain bonds, and pay costs of issuance. All bonds are scheduled to sell via negotiation the week of Aug. 29, 2022.

In addition, Fitch has affirmed the following GLWA bonds, including bonds previously issued by the city of Detroit (the city) and the Michigan Finance Authority on behalf of the Detroit Water and Sewerage Department (DWSD) and assumed by GLWA (all pre-refunding):

--\$1.79 billion senior lien sewage disposal system revenue bonds at 'A+';

--\$736.4 million second lien sewage disposal system revenue bonds at 'A'.

The system's standalone credit profile (SCP) is assessed at 'a'.

The Rating Outlook is revised from Stable to Positive.

ANALYTICAL CONCLUSION

The 'A+'/'A' bond ratings and the SCP consider the system's financial profile assessment within the context of very strong revenue defensibility and operating risk profiles. Leverage, measured by Fitch as net adjusted debt to adjusted funds available for debt service (FADS), finished at approximately 9.5x in fiscal 2021. The Outlook revision to Positive is based on the system's recent decline in leverage, which was above 10.0x prior to fiscal 2019. Although capital spending is expected to rise given recent inflationary pressure, projected increases in FADS could drive leverage consistently below 10.0x over the next five years, supporting a higher rating.

Fitch's latest calculation of GLWA's historical and projected leverage ratios are lower than its earlier reviews and reflect the recharacterization of certain payments and cash balances, as provided for in Fitch's criteria. Historically Fitch has treated lease payments, which are used in part to contribute to DWSD's improvement and extension [I&E] fund, pension obligation payments, and water residential assistance program payments to DWSD as transfers and operating expenses of GLWA. Further clarification on the dynamics of these payment flows has resulted in the recharacterization of these payments as debt service related to the capitalized lease obligations, which improves FADS.

Additionally, given that a significant portion of DWSD's unrestricted cash originated from these I&E funds, which are held within the trust under the master bond ordinance (MBO), and because these funds can be used to meet debt service if necessary, this balance has now been included as unrestricted cash, lowering net adjusted debt. While both of these recharacterizations improve leverage, these changes alone have no impact on the rating.

GLWA's revenue defensibility assessment considers the authority's ability to reallocate any hypothetical shortfalls from a non-performing customer to its performing customers via a rate increase, and the overall strength of such customers. While Fitch considers DWSD's credit profile midrange, many of the other large customers have much stronger credit profiles, resulting in a strong overall purchaser credit quality (PCQ). The operating risks profile considers the authority's very low 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, the latter of which include the second-lien bonds, state revolving fund loans, and the long-term leases payable under the lease agreement between GLWA and DWSD, and the absence of an automatic cross-default or acceleration between the liens. Senior lien debt comprises just over 50% of GLWA's total obligations.

CREDIT PROFILE

GLWA provides wholesale sewer services to a population of approximately 2.8 million, or 28% of the state population. In Jan. 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 regional systems' customers' historically served by the city. Separately, security interest in the city's system-related revenues was granted under the MBO, while the water and sewer services agreement (WSSA), assigned the city the right to set and collect rates from its retail customers. The agreements required GLWA to assume all liabilities of the regional water and sewer systems, including outstanding indebtedness related to the respective systems.

System assets include one wastewater treatment plant that is reportedly one of the largest single-site facilities in the U.S., having a capacity of 1,700 million gallons 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.

KEY RATING DRIVERS

Revenue Defensibility 'aa'

Strong Purchaser Credit Quality, Ability to Recover Costs

The authority has the ability to offset any payment shortfalls from any single customer by shifting the shortfall to the remaining customers via rate increases. Rate setting is not subject to external approval, providing sound rate flexibility. Lastly, the authority's largest suburban members contribute to a strong overall PCQ.

Operating Risks 'aa'

Very Low Operating Cost Burden and Life Cycle Ratios

Cost per million gallons (mg) delivered is very low, as the system's operating cost burden finished at just \$3,170 per mg in 2021. The system's life cycle ratio is equally favorable at 28%. Capex to depreciation has been below average the last few years but is beginning to ramp up.

Financial Profile 'aa'

Improving Leverage Ratio, Sound Liquidity Profile

The system's leverage ratio has improved over the past five years. Moving forward, somewhat higher capital spending is offset by increases in FADS and debt amortization, leading to stable-to-incrementally improved leverage. The authority's coverage of full obligations (COFO) and liquidity profile are also sound and therefore neutral to the financial profile assessment.

Asymmetric Additive Risk Considerations

No asymmetric additive considerations affected this rating determination.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to a positive rating action/upgrade on the authority's revenue bonds:

--Sustained improvements in leverage to below 10.0x, assuming stability in the current revenue defensibility and operating risks assessments.

Factors that could, individually or collectively, lead to a negative rating action/downgrade on the authority's revenue bonds:

- Sustained weakening in the leverage ratio above 13.0x;
- 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;
- Less than sum-sufficient COFO without offsetting liquidity, per Fitch's criteria;
- 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.

Best/Worst Case Rating Scenario

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

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.

Revenue Defensibility

The system's revenue defensibility is very strong, and is assessed at 'aa'. Revenue defensibility is supported by the strength of the various legal agreements between the city and the authority's regional municipal customers, and the strong weighted-average PCQ of these customers. Favorably, rates are set by the authority's board and are not subject to external approval.

The wholesale agreements for the majority of the authority's regional sewer municipal 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 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.

After the city, which accounted for around 50% of the system's operating revenues (inclusive of the local system operating revenues) in fiscal 2021, the largest municipal customers include the Oakland-Macomb

Interceptor Drainage District (12%), Wayne County's Rouge Valley (10%), and Oakland County's George Kuhn Drainage District (8%).

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 50% the US average), while poverty and unemployment rates are elevated. However, economic measures for the regional members overall are generally in line with or better than state and national averages.

Operating Risks

The system's operating risk assessment of 'aa' is supported by a very low operating cost burden, and a very favorable life cycle ratio. The operating cost burden finished fiscal 2022 at \$3,170/mg, which is well below Fitch's 'aa' threshold of \$6,500/mg. Given the recent conveyance of the system assets from the city to GLWA, at which time the authority began depreciating infrastructure, the authority's lifecycle ratio is very favorable at 27%, compared to Fitch's 'aa' threshold of 45%. Capex-to-depreciation has averaged about 43% over the past five years, but in accordance with the authority's 2023-2027 CIP, capex is expected to be robust over the next five years, which should sustain the favorable lifecycle ratio.

The CIP for the consolidated GLWA and DWSD systems totals around \$985 million. 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 60% debt proceeds and 40% other funds on hand.

The goal of GLWA's CIP is implementation of its sewer master plan. The sewer master plan identifies five outcomes, including focusing on, among other things, public health and safety.

Financial Profile

The system's overall financial profile is very strong, and the assessment has been raised to 'aa' from 'a'. The system's leverage ratio finished 2021 at about 9.5x, which is improved over the 10.8x registered in fiscal 2017. Senior and all-in debt service coverage finished at 2.6x and 1.5x, respectively, in fiscal 2021. Liquidity has remained sound over the past five years, most recently finishing at 283 days cash (calculated using Fitch's methodology). The system's sound COFO of around 1.5x and cash balances result in a liquidity profile that is considered neutral to the overall financial profile assessment.

Fitch Analytical Stress Test (FAST)

The five-year scenario produced by FAST considers the potential trend of key ratios in a base and stress case. The stress case is designed to impose a capital cost increase of 10% above expected levels and evaluate potential variability in projected key ratios. Base-case assumptions used by Fitch are informed by the authority's latest forecasts and projected capex for the regional and local system (i.e. DWSD). Revenues and expenses are projected at around 3%-4% annually.

The higher-assumed capex spend rate is offset by the improving FADS and debt amortization in the scenario, leading to leverage that should remain relatively stable or exhibit modest improvement over the next five years, finally finishing at approximately 9.0x in Fitch's base case and 9.2x in the stress case.

Longer-term projections provided in the authority's CIP show even lower spending in years six through 10, further supporting the trend of lower leverage and the Positive Outlook.

Asymmetric Additive Risk Considerations

No asymmetric additive risk considerations affected this rating assessment.

Financial Statement Adjustment Disclosure

In its analysis, Fitch adjusted GLWA's "Statement of Revenues, Expenses and Changes in Net Position" to include information from DWSD's "Statement of Revenues, Expenses and Changes in Net Position." Fitch also adjusted GLWA's balance sheet to include DWSD's unrestricted cash. The adjustments are made to provide greater comparability of GLWA's financial position in accordance with the flow of funds under the bond ordinances and lease-related agreements.

Sources of Information

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This 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. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

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ENTITY / DEBT ⚡	RATING ⚡		PRIOR ⚡	
Great Lakes Water Authority (MI) [Sewer]				
Great Lakes Water Authority (MI) /Sewer Revenues (2nd Lien)/1 LT	LT	A Rating Outlook Positive	Affirmed	A Rating Outlook Stable
Great Lakes Water Authority (MI) /Sewer Revenues/1 LT	LT	A+ Rating Outlook Positive	Affirmed	A+ Rating Outlook Stable

VIEW ADDITIONAL RATING DETAILS

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US Public Finance Infrastructure and Project Finance North America United States

MOODY'S

INVESTORS SERVICE

Rating Action: Moody's assigns A1 senior & A2 second lien to Great Lakes Water Authority, MI's water revenue bonds; revises outlook to positive

19 Aug 2022

New York, August 19, 2022 -- Moody's Investors Service has assigned an A1 to Great Lakes Water Authority, MI's Water Enterprise's \$121.8 million Water Supply System Revenue Senior Lien Bonds, Series 2022A and A2 to \$83.6 million Water Supply System Revenue Second Lien Bonds, Series 2022B. Moody's also affirmed the A1 senior and A2 second lien ratings on the water system's existing bonds. Moody's also revised the authority's outlook to positive from stable. After the current sale, the water system will have about \$1.6 billion of senior lien and \$700 million of second lien revenue bonds outstanding.

RATINGS RATIONALE

The A1 senior lien water rating reflects the authority's strong operating performance that continues to result in solid annual debt service coverage and robust liquidity. The system is very large, serving the bulk of the Detroit metro area and almost a third of the state's population. Outstanding revenue bonds enjoy sound legal protections and the system has independent rate-setting authority. Member communities, however, recently publicly pushed back on a rate increase aimed at paying the bad debt of Highland Park. This is unlikely to instigate future rate disputes and ultimately resulted in the city of Highland Park beginning to make sewer payments again. The system's debt burden is high and a large share of system-wide revenue is generated by retail operations within the City of Detroit (Ba2 positive).

The A2 second lien rating reflects a subordinate claim on pledged net revenue.

RATING OUTLOOK

The outlook is positive because the authority has strong management and stable operations and its underlying service area continues improve, particularly in the City of Detroit, as well as across Wayne (A3 positive), Oakland (Aaa stable) and Macomb (Aa1 stable) counties.

FACTORS THAT COULD LEAD TO AN UPGRADE OF THE RATINGS

- 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 OF THE RATINGS

- Renewed economic stress that pressures revenue trends
- Material reduction to the system's liquidity or debt service coverage ratios
- Material growth in leverage

LEGAL SECURITY

Water revenue bonds are backed by the net revenue of the system. 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 is 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.

USE OF PROCEEDS

Proceeds will fund capital improvements Great Lakes Water Authority's regional water system, including improvements for water treatment and transmission.

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 (Aa1 stable), Oakland (Aaa stable), and Wayne (A3 positive), two appointees of the Mayor of Detroit and one of the Governor of Michigan.

METHODOLOGY

The principal methodology used in these ratings was US Municipal Utility Revenue Debt Methodology published in April 2022 and available at <https://ratings.moodys.com/api/rmc-documents/386721>. Alternatively, please see the Rating Methodologies page on <https://ratings.moodys.com> for a copy of this methodology.

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Rating Action: Moody's assigns A1 senior & A2 second lien to Great Lakes Water Authority, MI's sewer revenue bonds; revises outlook to positive

19 Aug 2022

New York, August 19, 2022 -- Moody's Investors Service has assigned an A1 to Great Lakes Water Authority, MI's Sewer Enterprise's \$101.5 million Sewage Disposal System Revenue Senior Lien Bonds, Series 2022A and \$10.6 million Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2022C and an A2 to its \$96.4 million Sewage Disposal System Revenue Second Lien Bonds, Series 2022B. Moody's also affirmed the A1 senior and A2 second lien ratings on the sewer system's existing bonds. Moody's also revised the authority's outlook to positive from stable. After the current sale, the sewer system will have about \$1.8 billion of senior lien and \$800 million of second lien revenue bonds outstanding.

RATINGS RATIONALE

The A1 senior lien sewer rating reflects the authority's strong operating performance that continues to result in solid annual debt service coverage and robust liquidity. The system is very large, serving the bulk of the Detroit metro area and almost a third of the state's population. Outstanding revenue bonds enjoy sound legal protections and the system has independent rate-setting authority. Member communities, however, recently publicly pushed back on a rate increase aimed at paying the bad debt of Highland Park. This is unlikely to instigate future rate disputes and ultimately resulted in the city of Highland Park beginning to make sewer payments again. The system's debt burden is high and a large share of system-wide revenue is generated by retail operations within the City of Detroit (Ba2 positive).

The A2 second lien rating reflects a subordinate claim on pledged net revenue.

RATING OUTLOOK

The outlook is positive because the authority has strong management and stable operations and its underlying service area continues improve, particularly in the City of Detroit, as well as across Wayne (A3 positive), Oakland (Aaa stable) and Macomb (Aa1 stable) counties.

FACTORS THAT COULD LEAD TO AN UPGRADE OF THE RATINGS

- 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 OF THE RATINGS

- Renewed economic stress that pressures revenue trends
- Material reduction to the system's liquidity or debt service coverage ratios
- Material growth in leverage

LEGAL SECURITY

Sewer revenue bonds are backed by the net revenue of the system. 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 is 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.

USE OF PROCEEDS

Proceeds will fund capital improvements Great Lakes Water Authority's regional sewer system, including for wastewater treatment, interceptor system and pump station improvements and to reduce combined sewer overflows.

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 (Aa1 stable), Oakland (Aaa stable), and Wayne (A3 positive), two appointees of the Mayor of Detroit and one of the Governor of Michigan.

METHODOLOGY

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22 August 2022



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Great Lakes Wtr Auth, MI

Update to credit analysis

Summary

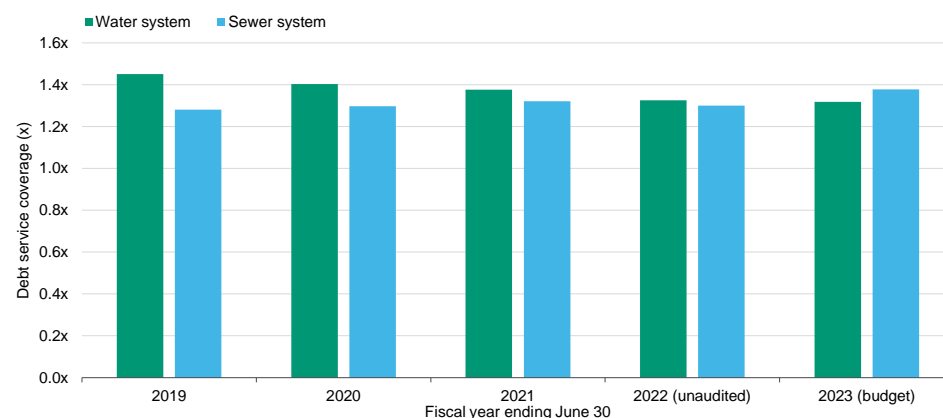
The [Great Lakes Water Authority's](#) (GLWA) [water](#) and [sewer](#) enterprises (both senior liens rated A1 positive; both subordinate liens rated A2 positive) have solid credit profiles, bolstered by very large service areas and a sizable scale of operations. GLWA has effectively balanced its hefty 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](#) (Ba2 positive) makes up a significant portion of their service area.

Building greater resilience to extreme wet-weather events will likely be an ongoing challenge. In the summer of 2021, the Detroit metropolitan statistical area (MSA) had extreme rainfall and flooding, which resulted in property damage and numerous claims for the authority. As with other [Midwestern flooding events](#), federal assistance has been critical in preventing material credit deterioration for impacted issuers. GLWA has not paid any claims to date because an independent investigation found the basement flooding was the result of heavy rain and not a defect in the system.

On August 18, we revised the authority's outlook to positive and affirmed its A1 senior and A2 subordinate lien ratings.

Exhibit 1

Annual debt service coverage has remained relatively adequate for both systems
 Coverage for total senior lien, second lien and junior lien revenue debt service



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, while adequate, trails higher-rated large utilities
- » High leverage will moderate slowly 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 positive because the authority has strong management and stable operations and its underlying service area continues improve, particularly in the City of Detroit, as well as across [Wayne](#) (A1 stable), [Oakland](#) (Aaa stable) and [Macomb](#) (Aa1 stable) counties.

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

Exhibit 2

Great Lakes Water Authority, MI Water Ent.					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	17 years				
System Size --O&M (in \$000s)	\$164,995				
Service Area Wealth: MFI % of US median	96.8%				
Legal Provisions					
Rate Covenant (x)	1.20				
Debt Service Reserve Requirement	DSRF funded at lesser of standard 3-prong test (Aa)				
Management					
Rate Management	Aa				
Regulatory Compliance and Capital Planning	A				
Financial Strength					
	2017	2018	2019	2020	2021
Operating Revenue (\$000)	\$428,044	\$425,245	\$407,231	\$419,479	\$411,583
System Size - O&M (\$000)	\$145,499	\$153,930	\$163,519	\$176,822	\$164,995
Net Revenues (\$000)	\$282,545	\$271,315	\$243,712	\$242,657	\$246,588
Outstanding Revenue Debt (\$000)	\$2,358,137	\$2,310,261	\$2,250,181	\$2,301,253	\$2,263,770
Annual Debt Service (\$000)	\$175,010	\$172,550	\$167,966	\$172,869	\$179,214
Annual Debt Service Coverage (x)	1.6x	1.6x	1.5x	1.4x	1.4x
Cash on Hand	676 days	912 days	937 days	956 days	920 days
Debt to Operating Revenues (x)	5.5x	5.4x	5.5x	5.5x	5.5x

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 Sewer Enterprise					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	19 years				
System Size - O&M (in \$000s)	\$255,908				
Service Area Wealth: MFI % of US median	96.8%				
Legal Provisions					
Rate Covenant (x)	1.20				
Debt Service Reserve Requirement	DSRF funded at lesser of standard 3-prong test (Aa)				
Management					
Rate Management	Aa				
Regulatory Compliance and Capital Planning	A				
Financial Strength					
	2017	2018	2019	2020	2021
Operating Revenue (\$000)	\$557,396	\$561,784	\$550,959	\$562,231	\$559,812
System Size - O&M (\$000)	\$206,540	\$250,551	\$244,468	\$243,438	\$255,908
Net Revenues (\$000)	\$350,856	\$311,233	\$306,491	\$318,793	\$303,904
Net Funded Debt (\$000)	\$3,144,592	\$3,076,993	\$3,093,347	\$3,039,222	\$2,937,898
Annual Debt Service (\$000)	\$234,555	\$232,281	\$239,172	\$245,783	\$230,163
Annual Debt Service Coverage (x)	1.5x	1.3x	1.3x	1.3x	1.3x
Cash on Hand	405 days	460 days	440 days	496 days	512 days
Debt to Operating Revenues (x)	5.6x	5.5x	5.6x	5.4x	5.2x

Figures shown on a GAAP-basis. Revenue and O&M include GLWA wholesale operations and DWSD local retail operations.

Source: Moody's Investors Service

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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 1,698 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, 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: financial metrics likely to remain solid

Both systems will likely continue to maintain adequate annual debt service coverage and ample liquidity because of management's close monitoring of revenue targets and its ability to set rates. The authority has budgeted for 1.3x total debt service coverage for both water and sewer revenue bonds in fiscal 2023. While this coverage level is adequate, it is below other large systems. The authority had initially approved a 3.7% water rate increase and a 2.4% sewer rate increase for fiscal 2023. A portion of the increase was to recover bad debt accrued by the City of Highland Park (unrated), which [has historically had financial challenges](#) and has not been fully paying its water and sewer bill. Many of the authority's member communities publicly pushed back on this portion of the rate increase and sent letters to the governor asking for the state to intervene. Highland Park has now resumed making payments after a state court required the city to continue its sewer payments. The authority and the city are now in mediation and this portion of the specific rate increases were then dropped. The annual revenue impact for GLWA is pretty low: Highland Park's estimated bad debt expense for fiscal 2023 is about \$1.3 million for the water system and \$2.4 million for the sewer. The rate dispute was primarily about equity between member communities and, consequently, is unlikely to instigate future rate disputes.

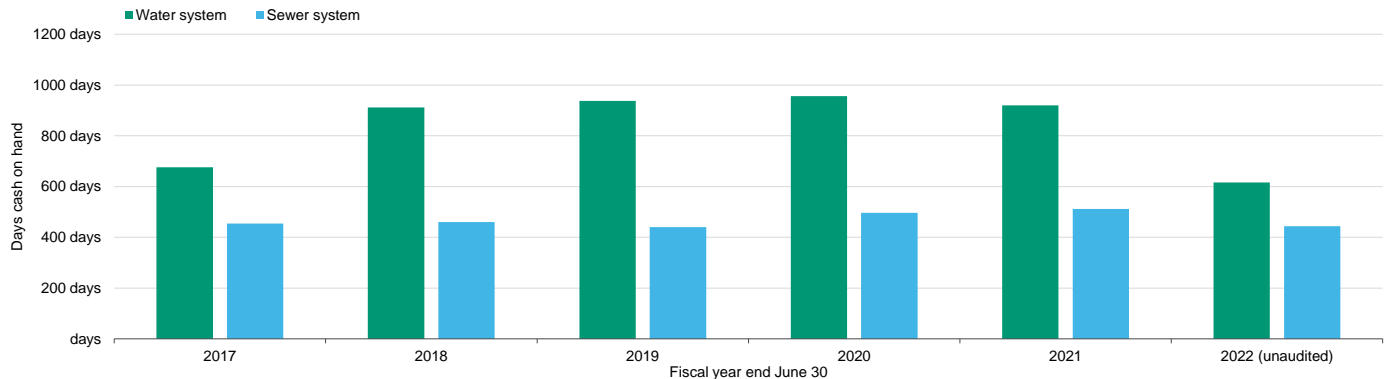
The authority reports roughly 1.3x coverage of total senior lien, second lien and junior lien debt service for fiscal 2022 (see exhibit 1).

The authority limits the annual growth in its water and sewer system revenue requirements to 4% to maintain a more affordable rate structure and it assumes 3% growth in its operating expense forecasts. Most revenue in both systems comes from fixed monthly wholesale charges (roughly 60% in the water system and 100% in the sewer), which enhances revenue reliability and dependability.

Liquidity

Liquidity is strong for both systems and will remain so despite planned spending for capital investments in fiscal 2022, particularly in the water system (Exhibit 4). Unrestricted cash and investments in the water system were roughly \$416 million and about \$359 million in the sewer system at the close of fiscal 2021. The two funds also have significant restricted cash assets held for budget stabilization, debt service and capital.

Exhibit 4

Days cash on hand is strong for both systems, particularly the water enterprise

Source: Moody's Investors Service

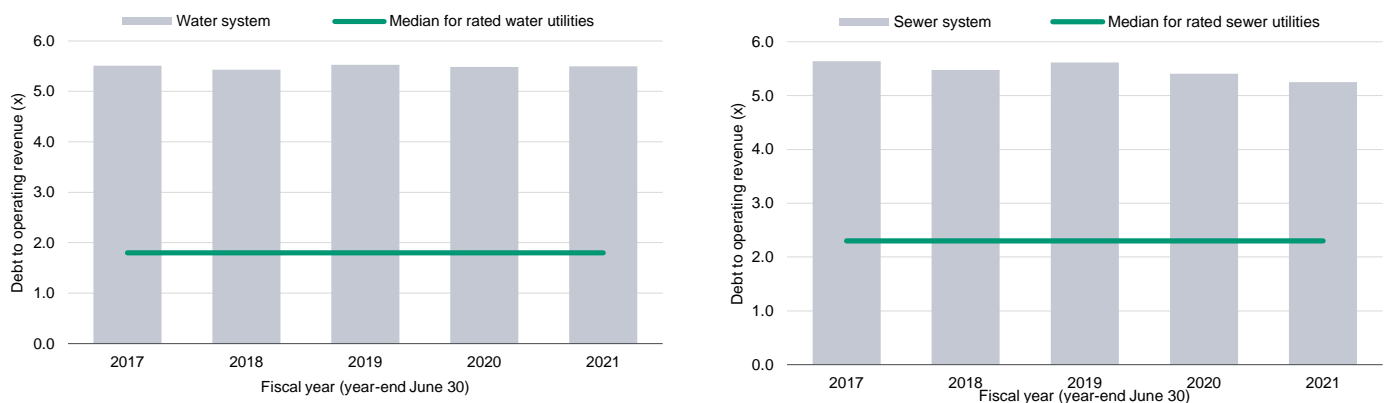
Debt and legal covenants: high debt burden will remain level with sustained revenue growth

Each system has a very high debt burden that will remain elevated because of high capital needs. 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 2023 through 2027 includes about \$966 million of water projects and \$762 million of sewer projects. The water system is currently issuing about \$121.8 million of senior lien bonds and \$83.6 million of second lien bonds. The sewer system is issuing \$101.5 million of new money senior lien bonds as well as \$10.6 million of senior lien refunding bonds and \$96.4 million of second lien bonds.

The systems have a variety of capital needs, including reducing combined sewer overflow (CSO) and enhancing transmission and storage. The system 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. Over the past five years, the authority has materially improved its percentage of water loss and other nonrevenue water down to 10.6% in fiscal 2021 from 19.3% in 2017.

The water and sewer systems' long-term debt leverage across all liens is materially higher than [sector medians](#) (Exhibit 5). GLWA had about \$5.2 billion of combined total revenue debt outstanding at the end of fiscal 2021, about \$2.3 billion for the water system and \$2.9 billion for the sewer.

Exhibit 5

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

Latest medians are for fiscal 2019

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 is 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.

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 LIBOR rate.

The water system held about 44% of total GLWA debt at the end of fiscal 2021, with roughly \$1.5 billion of senior lien bonds, \$653 million of second lien water revenue bonds and \$71 million of junior lien state revolving fund (SRF) loans. The remainder is held by the sewer system, inclusive of \$1.8 billion of senior lien bonds, \$736 million of second lien sewer revenue bonds and \$411 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 will contribute 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. GLWA's allocated contribution was roughly \$31.9 million in fiscal 2021.

Beyond 2023, the 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

Environmental

[Environmental considerations](#) are a material credit consideration for the systems. Climate change and extreme weather may have operational impacts, particularly on the sewer system. Major wet weather events, like those that occurred during the summer of 2021, can overwhelm the system's ability to store and process infiltration, causing detrimental impacts such as sewer backups and discharges because of CSOs.

The water system benefits from access to a vast amount of relatively easily treatable fresh water. The sewer system includes one of the largest single-site wastewater treatment plants in the world and treated water discharged from the plant is often cleaner than the surrounding water in the receiving body. 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

[Social considerations](#) such as population, labor force, income and education are material and can impact each system's underlying economy, customer base, financial and leverage metrics. 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

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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Summary:

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Credit Highlights

Outlook

Related Research

Summary:**Great Lakes Water Authority, Michigan;
Water/Sewer****Credit Profile**

US\$98.615 mil swg disp sys rev sr ln bnds ser 2022A dtd 09/13/2022 due 07/01/2052		
<i>Long Term Rating</i>	AA-/Stable	New
US\$96.48 mil swg disp sys rev 2nd ln bnds ser 2022B dtd 09/13/2022 due 07/01/2052		
<i>Long Term Rating</i>	A+/Stable	New
US\$17.615 mil swg disp sys rev rfdg sr ln bnds ser 2022 C dtd 09/13/2022 due 07/01/2023		
<i>Long Term Rating</i>	AA-/Stable	New
Great Lakes Wtr Auth swg (2nd lien)		
<i>Long Term Rating</i>	A+/Stable	Affirmed

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 2022A, its 'AA-' rating to GLWA's sewage disposal system revenue refunding senior-lien bonds series 2022C, and its 'A+' rating to GLWA's sewage disposal system revenue second-lien bonds series 2022B.
- At the same time, S&P Global Ratings affirmed its 'AA-' and 'A+' ratings on GLWA's existing 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 DWSD retail and the 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 MADS for senior-lien and average annual debt service for second-lien, in all cases no more than 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 (MBO), 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, 2021, the senior-lien DSR totaled \$114.1 million and the second- plus junior-lien DSRs totaled \$48.1 million; DSR investments consist of cash, securities, and sureties.

Credit overview

For a utility of its size, serving about 2.8 million people, we consider the existing financial benchmarks of debt service coverage (DSC) and unrestricted liquidity consistent for the rating category. We would note, however, that 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 effects of this treatment lowers fixed-charge coverage by about five-to-ten basis points compared to MBO junior-lien DSC.

However, 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).

An overall worsening in U.S. economic conditions (see "U.S. Recession—Are We There Yet?": published Aug. 2, 2022, on RatingsDirect), higher inflation, and higher interest rates could weaken GLWA's capital and operating budget, potentially pressuring water rates. Because account delinquencies within the DWSD retail customer class are already high, worsening economic conditions could reduce revenue collections; GLWA management reports that about 45% of DWSD's 334,000 active retail accounts are 60 days or more delinquent, but that figure has been generally 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 they occur, then the MOU between GLWA and DWSD 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.
- 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

We evaluate the environmental, social, and governance (ESG) risks that could influence our credit rating analysis by considering the economic aspects of the service area in which GLWA operates, as this can generate customer demand and affect revenue collections. We consider governance risk a key credit factor, while social and environmental risk are neutral in our analysis.

Minimizing governance risk lies primarily in maintaining collaboration with both suburban wholesale customers and DWSD management while minimizing litigation risks due to disputes with Highland Park. 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.

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 the city of Detroit are party. The "One Water Partnership" between GLWA and its suburban wholesale customers generally facilitates information sharing, capital project coordination, and technical assistance.

Litigation with Highland Park has been ongoing for decades, but the bad debt expense has been recovered in service charges to other customers. However, it is our understanding that the bad debt expense recovered from other customers is used as a short-term stop-gap, GLWA works to recover the revenues, and then reimburses the customers to whom the bad debt expense was allocated. If the Highland Park litigation (or additional, future litigation) is not resolved, we believe that the willingness to support these reallocated bad debt expenses could wane, especially since utilities that support these costs do not receive any direct benefit; it's solely a contractual requirement. In this case, our view of governance risk could become a credit weakness.

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 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 arrange for household water audits to all qualified residents within municipalities that have adopted it (currently including Detroit). DWSD management has a dedicated shut-off program implemented by an outside contractor but it is currently on hold until the end of 2022; it also just launched an additional lifeline program for residents in Detroit that supplements WRAP.

Both programs are 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 GLWA'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 other discharge requirements 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 ESG 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 upward rating potential 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 doing 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 August 22, 2022)

Ratings Detail (As Of August 22, 2022) (cont.)

Great Lakes Wtr Auth swg disp sys rev bnds ser 2000-SRF1 due 10/01/2022		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2000-SRF2 due 10/01/2022		
Long Term Rating	A+/Stable	Affirmed
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-SRF1 due 04/01/2023		
Long Term Rating	A+/Stable	Affirmed
Great Lakes Wtr Auth swg disp sys rev bnds ser 2002-SRF2 due 04/01/2023		
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
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

Ratings Detail (As Of August 22, 2022) (cont.)		
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)		
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) (wrap of insured) (FGIC & AGM) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
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

Ratings Detail (As Of August 22, 2022) (cont.)

Michigan Finance Authority, Michigan

Great Lakes Wtr Auth, Michigan

Michigan Fin Auth (Great Lakes Wtr Auth) swg disposal (AGM)

<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) swg disposal (BAM)

<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) swg (BAM) (SECMKT)

<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) swg (National)

<i>Unenhanced Rating</i>	A+(SPUR)/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR

<i>Long Term Rating</i>	AA-/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR

<i>Long Term Rating</i>	AA-/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR

<i>Long Term Rating</i>	AA-/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR

<i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Affirmed
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Michigan Fin Auth (Great Lakes Wtr Auth) WTRSWR

<i>Long Term Rating</i>	A+/Stable	Affirmed
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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.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Financial Services Audit Committee Communication

Date: August 26, 2022

To: Great Lakes Water Authority Audit Committee

From: Madison Merzlyakov, Affordability & Assistance Manager

Re: WRAP Policy Approval

Background: On March 1, 2016, the Water Residential Assistance Program (WRAP) began providing assistance to households in the GLWA service area. WRAP provides sustainable funding for qualifying low-income residents served by the GLWA's Member Partner Communities. The program is currently funded by GLWA at an amount equal to 0.5 percent of budgeted revenues. The GLWA Board of Directors have approved multiple program changes since inception, and the GLWA team continues to evaluate the program and propose program improvements.

Analysis: GLWA now has an Affordability & Assistance team in place that is dedicated to managing the program. The formal establishment of an Affordability & Assistance team presents an opportunity for the Board of Directors to affirm the mission and vision of the program. By codifying the attached Water Residential Assistance Program Policy, the Affordability & Assistance team will have clear parameters to guide program improvements. A draft policy follows this memo highlighting mission and vision statements which are supported by key program objectives, intended outcomes, funding sources, and oversight controls.

Proposed Action: The GLWA Audit Committee recommends that the Great Lakes Water Authority Board of Directors approve the codification of the Water Residential Program Policy.



Great Lakes Water Authority Water Residential Assistance Program (WRAP) Policy

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Introduction

On March 1, 2016, the Water Residential Assistance Program (WRAP) began providing assistance to households in the GLWA service area. WRAP provides funding for qualifying low-income residents served by the GLWA's Member Partner Communities. The program is currently funded by GLWA at an amount equal to 0.5 percent of budgeted revenues. The GLWA Board of Directors have approved multiple program changes since inception, and the GLWA team continues to evaluate the program and propose program improvements.

Purpose

The purpose of this WRAP policy is to provide the GLWA Affordability & Assistance team with clear parameters to guide future program improvements.

Mission

To reduce water bills by providing water bill assistance and conservation measures to qualifying low-income households within the GLWA service area through local service delivery partners.

Vision

To create a transformative water utility assistance program focusing on the core values of affordability, social responsibility, and self-sustainability.

Program Objectives

1. Assist qualifying low-income households in permanently reducing their water and sewer bills through conservation and minor plumbing repairs.
2. Provide qualifying low-income households with financial assistance through bill and arrearage payments for an established timeframe.
3. Ensure households have access to water in their home.
4. Foster collaboration to advance partnerships for developing and leveraging funding opportunities to deliver and maximize assistance provided.

Program Outcomes

1. Water utility disconnection is avoided.
2. Past due balances (arrearages) are reduced or eliminated.
3. Households are set up for success in making water utility bill payments and in having a healthy home after completion of the program.
4. Overall bill balances are reduced through conservation measures and minor plumbing

repairs.

5. Increased self-sufficiency through on-time bill payment, conservation measures and enrollment in other assistance programs.
6. Utilize program funding equitably across the GLWA service region.

Program Funding

One half of one percent (0.5%) of GLWA's budgeted revenues is allocated to fund WRAP. A funding allocation model for distributing the funds equitably across the GLWA service region is used, with additional specific funds provided by the Detroit Water & Sewerage Department (DWSD) through an additional one half of one percent (0.5%) paid by city of Detroit retail customers.

Request for reallocation of unspent and/or unallocated funding will be a recommendation of the Affordability and Assistance Manager and/or the Chief Financial Officer. All fund reallocation requests are reviewed by the GLWA Audit Committee and approved by the GLWA Board.

Program Oversight

The GLWA Audit Committee will receive Quarterly Reports on the program and funding utilization. Regular presentations will be made to the GLWA Audit Committee and Board of Directors regarding the overall progress of the program. Should changes be needed to the program's objectives, outcomes or funding, the requests will be reviewed by the GLWA Audit Committee and approved by the GLWA Board.



Financial Services Audit Committee Communication

Date: August 26, 2022

To: Great Lakes Water Authority Audit Committee

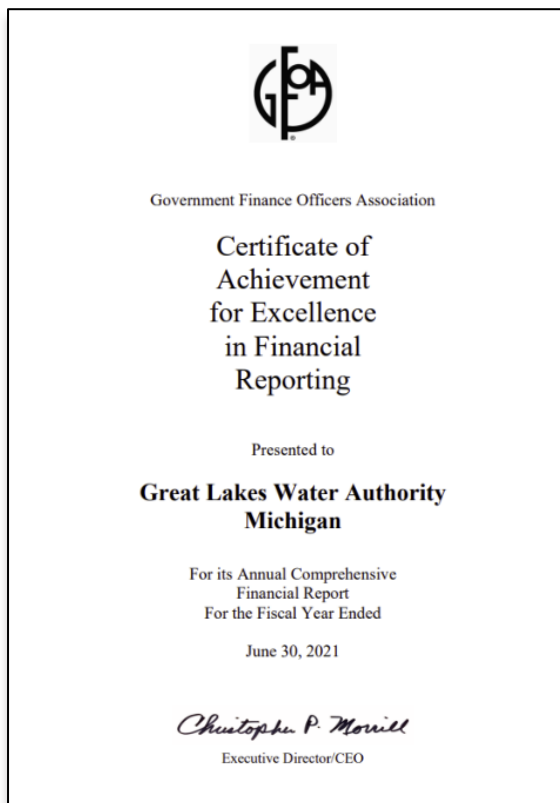
From: Nicolette N. Bateson, CPA, Chief Financial Officer & Treasurer

Re: CFO Update

GLWA Receives Recognition for the Second Month from GFOA

Last month, we were pleased to announce that GLWA had just received notification of the Government Finance Officers Association (GFOA) Distinguished Budget Award for the fourth year in a row.

Days later, GLWA was notified that it earned the ***GFOA Certificate of Achievement for Excellence in Financial Reporting*** for fiscal year 2021.



The GFOA established the Certificate of Achievement for Excellence in Financial Reporting Program (Certificate Program) in 1945 to encourage and assist state and local governments to go beyond the minimum requirements of generally accepted accounting principles to prepare annual comprehensive financial reports that evidence the spirit of transparency and full disclosure and then to recognize individual governments that succeed in achieving that goal. The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting. This is the third year in a row GLWA has been recognized with this award.

Thank you to the entire team within the Financial Services Area and across the organization supporting these successful outcomes!

FEMA Reimbursement Approved!

GLWA applied for reimbursement for COVID-19 safe operation work expenses under the FEMA COVID-19 Disaster Declaration through the Michigan State Police Public Assistance program. FEMA obligated \$1.89 million this past Monday (August 22, 2022) for GLWA bringing the total obligated for GLWA to \$3.36 million for emergency facility disinfection, health screening, testing, and supplies related to the COVID-19 emergency protective measures. GLWA received \$292,000 of those obligated funds in fiscal year 2022 and anticipates receiving a payment for the \$3.07 million balance in fiscal year 2023.

Debt Compliance Review

The GLWA Public Finance team recently determined that state revolving fund loan activity prompts a relatively new requirement for GLWA to file a “notice of incurrence of financial obligations”. The proper notices were filed with EMMA this month as required to ensure that GLWA is fully in compliance.

GLWA

Great Lakes Water Authority



Monthly Financial Report Binder

May 2022

**Presented to the
Great Lakes Water Authority
Audit Committee on August 26, 2022**

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Financial Report
Executive Summary Dashboard
for the Month Ended May 31, 2022

Key Financial Metrics

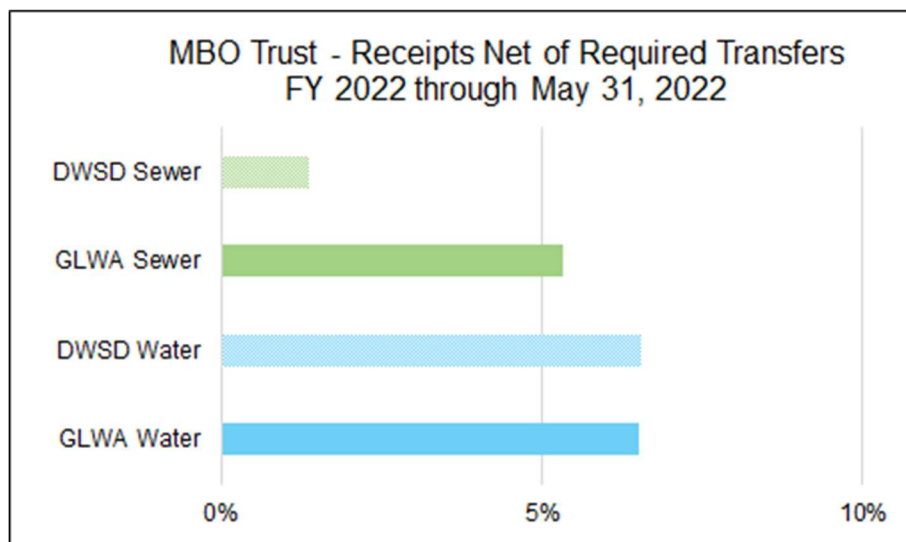
The table below provides key report highlights and flags the financial risk of a budget shortfall by year-end as follows: No Risk (green) - Potential (yellow) - Likely (red)

Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. To address the wholesale water revenue shortfall, a first quarter budget amendment was approved for \$2.4 million. Capital spend is less than the total Capital Improvement Plan (CIP); an amendment is under consideration.

As of May 31, 2022					
Metric	FY 2022 Budget	FY 2022 Amended Budget	FY 2022 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$299.0	\$296.6	\$294.5	-1%	48
Wholesale Water Billed Usage (mcf)	12,215,000	11,995,000	11,755,000	-2%	
Wholesale Sewer Billed Revenue (\$M)	\$248.8	\$248.8	\$248.8	0%	50
Wholesale Water Operations & Maintenance (\$M)	\$131.9	\$131.9	\$117.7	-11%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$166.2	\$175.9	\$172.4	-2%	
Investment Income (\$M)	\$2.8	\$3.5	\$3.3	-5%	37
Water Prorated Capital Spend w/SRA* (\$M)	\$124.0	\$124.0	\$145.0	17%	29
Sewer Prorated Capital Spend w/SRA* (\$M)	\$72.8	\$72.8	\$60.5	-17%	30

*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 surplus of \$6.1 million and DWSD Sewer reports a surplus of \$3.6 million of net receipts over disbursements through May 2022. On August 26, 2021, the DWSD Board of Water Commissioners proactively adopted budget amendments to address potential shortfalls for FY 2022. These budget amendments are reflected in this May 2022 report.

The current DWSD loan receivable balance for fiscal year 2018 is \$702 thousand.

Budget to Actual Analysis (page 3)

- FY 2022 information includes the fourth quarter budget amendments which were approved by the GLWA Board on June 22, 2022.
- The total Revenue Requirements are on target through May 2022.
- The total overall Operations & Maintenance expenses are at 86.4% of budget through May 2022 which is reasonable within the pro-rata benchmark of 91.7%.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for May 2022 is \$79.5 million for the Water fund (25.2% of total revenues) and \$115.3 million for the Sewer fund (26.5 % of total revenues).
- Water Net Position decreased by \$ 2.8 million, and Sewage Disposal Net Position decreased by \$ 0.8 million for the year to date through May 2022.

Capital Improvement Plan Financial Summary (page 28)

- Water systems exceed the 75% Capital Spend Ratio assumption.
- Sewer systems are falling below the 75% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 31)

- For May, transfers of \$13.6 million and \$17.6 million were completed for the GLWA Water and Sewer funds, respectively.
- Also for May, transfers of \$3.9 million and \$7.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 37)

- Total cash & investments are \$427 million in the Water fund and \$499 million in the Sewer fund.
- Total, combined, cumulative, FY 2022 investment income through May is \$3.3 million.

DWSD Retail Revenues, Receivables & Collections (page 42)

- Water usage through May 31, 2022 is at 108.96% and revenues at 100.53% of budget.
- Sewer usage through May 31, 2022 is at 104.30% and revenues at 99.92% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$44.1 million over the prior year.
- Past dues over 180 days make up 68.9% of the total accounts receivable balance. The current bad debt allowance covers 101.1% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 48)

- GLWA accounts receivable past due balance net of Highland Park is 20.85% 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 \$42.0 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$10.8 million for water supply services. Highland Park recently made a payment of \$1.7 million on June 3.

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

The FY 2022 information presented in these sections includes the fourth quarter budget amendments approved by the GLWA Board on June 22, 2022.

Revenue Requirement Budget Basis Analysis

GLWA's annual revenue requirement represents 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 expense are largely reported on an accrual basis. The primary difference between the revenue requirement budget basis to the financial reporting basis is the treatment of debt service, legacy pension obligations, and lease related activities. The Revenue Requirement Basis is foundational to GLWA's daily operations, financial plan, and of most interest to key stakeholders.

Table 1A – Water Revenue Requirement Budget and **Table 1B – Sewer Revenue Requirement Budget** presents a year-over-year budget to actual performance report. The revenue requirement budget is accounted for in the operations and maintenance fund for each system. Since this report is for May 2022, the pro-rata benchmark is 91.7% (11 of 12 months of the fiscal year).

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

1. **Revenues:** For *both* systems, FY 2022 revenues are either at or slightly above target. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the [Flint Water Agreement](#). Through May 31, 2022, these payments total \$6.0 million for FY 2022.

2. **Investment Earnings:** Investment earnings is slightly under the pro-rata benchmark for FY 2022 for the *water* system at 90.7%; while the *sewer* system is below the pro-rata benchmark at 83.4%. 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. The

water system is higher than the pro-rata benchmark, at 111.0%, due to the receipt of a liquid aluminum sulfate settlement for estimated overcharges (\$354,000).

4. **Operations & Maintenance Expense:** Actual expenses¹ for *both* systems have variances from the pro-rata benchmark. The *water* system is below the pro-rata benchmark for FY 2022 at 81.8%. The *sewer* system O&M expenses, at 89.8%, is slightly below the pro-rata benchmark.
5. **Debt Service:** For both systems, debt service is on target with the pro-rata benchmark for FY 2022; the *water* system is at 91.9%; while the *sewer* system is at 91.9%. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. **Operating Reserve Deposit:** GLWA has established a target balance in the O&M Fund of 45 days of operating expense which works in tandem with the I&E Funds to provide liquidity to the utility. Adequate funding is in place to meet this requirement; therefore, it is expected that additional transfers to this reserve will not be required in FY 2022.
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 2021, DWSD management successfully implemented a formal plan to end the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2022, neither the DWSD *water* system nor the DWSD *sewer* system have budgetary shortfalls through May 31, 2022. GLWA and DWSD staff meet regularly to discuss steps to mitigate shortfalls, when they occur, as outlined in the 2018 MOU.
8. **Improvement & Extension (I&E) Fund Transfer Pending:** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the Water System. The variances for both the water and sewer systems are temporary differences relating to yearend journal entries that will be posted to align actual activity with the final, amended budget.
9. **Other Revenue Requirements:** The remaining revenue requirements for *both* systems are funded on a 1/12th basis each month in accordance with the Master Bond Ordinance.
10. **Overall:** Total revenue requirements for *both* systems are in line with the benchmark.

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

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

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

	FY2021 AMENDED BUDGET	FY 2021 ACTIVITY THRU 5/31/2021	Percent Year-to- Date	FY 2022 BOARD ADOPTED BUDGET	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 5/31/2022	Percent Year-to- Date
Water System							
Revenues							
Suburban Wholesale Customer Charges	\$ 317,034	\$ 289,178	91.2%	\$ 321,111	\$ 315,011	\$ 288,977	91.7%
Retail Service Charges	21,926	20,230	92.3%	21,697	21,697	19,889	91.7%
Investment Earnings	3,956	3,991	100.9%	1,047	1,924	1,745	90.7%
Other Revenues	229	267	116.7%	175	684	760	111.0%
Total Revenues	\$ 343,144	\$ 313,666	91.4%	\$ 344,031	\$ 339,316	\$ 311,371	91.8%
Revenue Requirements							
Operations & Maintenance Expense	\$ 134,127	\$ 107,344	80.0%	\$ 143,934	\$ 143,934	\$ 117,690	81.8%
General Retirement System Legacy Pension	6,048	5,544	91.7%	6,048	6,048	5,544	91.7%
Debt Service	137,436	127,603	92.8%	135,481	135,121	124,122	91.9%
General Retirement System Accelerated Pension	6,268	5,746	91.7%	6,268	6,268	5,746	91.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,669	1,530	91.7%	1,706	1,706	1,563	91.7%
Regional System Lease	22,500	20,625	91.7%	22,500	22,500	20,625	91.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending Improvement & Extension Fund Transfer Pending	-	3,183	0.0%	-	-	-	0.0%
	35,095	28,255	80.5%	28,094	23,740	24,763	104.3%
Total Revenue Requirements	\$ 343,144	\$ 299,830	87.4%	\$ 344,031	\$ 339,316	\$ 300,053	88.4%
Net Difference		\$ 13,836				\$ 11,318	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ (882)				\$ 331	
Revenue Requirement Variance		14,719				10,987	
Overall Variance		\$ 13,836				\$ 11,318	

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

	FY 2021 AMENDED BUDGET	FY 2021 ACTIVITY THRU 5/31/2021	Percent Year-to- Date	FY 2022 BOARD ADOPTED BUDGET	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 5/31/2022	Percent Year-to- Date
Sewer System							
Revenues							
Suburban Wholesale Customer Charges	\$ 272,454	\$ 247,830	91.0%	\$ 272,130	\$ 268,130	\$ 249,663	93.1%
Retail Service Charges	187,960	172,745	91.9%	188,662	188,662	172,940	91.7%
Industrial Waste Control Charges	7,685	7,328	95.4%	9,025	8,325	7,600	91.3%
Pollutant Surcharges	6,108	5,609	91.8%	4,189	5,089	4,370	85.9%
Investment Earnings	2,778	2,643	95.1%	1,023	1,876	1,565	83.4%
Other Revenues	2,195	465	21.2%	400	538	441	82.0%
Total Revenues	\$ 479,179	\$ 436,620	91.1%	\$ 475,429	\$ 472,620	\$ 436,579	92.4%
Revenue Requirements							
Operations & Maintenance Expense	\$ 182,296	\$ 149,420	82.0%	\$ 181,300	\$ 191,909	\$ 172,386	89.8%
General Retirement System Legacy Pension	10,824	9,922	91.7%	10,824	10,824	9,922	91.7%
Debt Service	201,780	187,104	92.7%	207,210	204,985	188,293	91.9%
General Retirement System Accelerated Pension	11,621	10,652	91.7%	11,621	11,621	10,652	91.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,415	2,214	91.7%	2,358	2,358	2,162	91.7%
Regional System Lease	27,500	25,208	91.7%	27,500	27,500	25,208	91.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending Improvement & Extension Fund Transfer Pending	-	10,410	0.0%	-	-	-	0.0%
	42,743	38,934	91.1%	34,617	23,424	31,058	132.6%
Total Revenue Requirements	\$ 479,179	\$ 433,865	90.5%	\$ 475,429	\$ 472,620	\$ 439,681	93.0%
Net Difference		\$ 2,755				\$ (3,102)	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ (2,628)				\$ 3,344	
Revenue Requirement Variance		5,383				(6,446)	
Overall Variance		\$ 2,755				\$ (3,102)	

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of May 31, 2022, is 91.7% (eleven months). When comparing FY 2022 to FY 2021 in **Table 2 – Operations & Maintenance Budget – Major Budget Categories**, the overall spending is higher in FY 2022.

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 2021 AMENDED BUDGET	FY 2021 ACTIVITY THRU 5/31/2021	Percent Year-to- Date	FY 2022 BOARD ADOPTED BUDGET	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 5/31/2022	Percent Year-to- Date
Water	\$ 70,820	\$ 61,001	86.1%	\$ 74,813	\$ 76,422	\$ 68,334	89.4%
Sewer	114,975	94,073	81.8%	111,971	120,971	107,702	89.0%
Centralized	100,339	77,052	76.8%	103,846	103,846	84,383	81.3%
Administrative	30,290	24,637	81.3%	34,603	34,603	29,658	85.7%
Employee Benefits	-	-	0.0%	-	-	-	0.0%
Total O&M Budget	\$ 316,424	\$ 256,763	81.1%	\$ 325,234	\$ 335,842	\$ 290,076	86.4%

Totals may be off due to rounding

Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

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

Total: In total, the overall O&M expenses are at 86.4% which is reasonably within the pro-rata benchmark of 91.7%. This positive variance equates to a dollar amount of \$17.8 million. The expense category commentary is provided below for items highlighted on Table 3.

Personnel Costs: The overall category is slightly under the pro-rata benchmark; coming in at 88.6% through May 2022.

Utilities: The overall category is slightly less than the pro-rata benchmark; coming in at 89.3% through May 2022. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is on target with the pro-rata benchmark, coming in at 91.3%. The first three months of GLWA's fiscal year (July, August, and September) are typically peak months for the usage of electricity. June, the last month of GLWA's fiscal year, is typically a peak month as well.
- **Gas** is coming in at 100.4% which is higher than the benchmark of 91.7%. The cost of natural gas per BTU has increased 125% since July 2021. In addition, increased production at the Biosolids Dryer Facility (BDF) and wastewater incineration has led to an increase in natural gas usage. The FY 2022 budget has been adjusted for this increase.
- **Sewage service** is slightly less than the benchmark, coming in at 89.2%. Increased usage is being reported at the WRRF (in part due to bills being received for actual meter readings when in the past the bills had been estimated), the Biosolids Dryer Facility (BDF), and the Southwest Water Plant. The FY 2022 budget has been adjusted for this increase.
- **Water service** is less than the benchmark, coming in at 60.5%. As meters have been repaired or replaced at the WRRF, the billings that previously reported estimated readings have been replaced with actual readings. The actual readings were coming in higher than the estimated billings. The FY 2022 budget has been adjusted for this increase. After the development of the FY 2022 fourth quarter budget amendment, a reversal of a prior year accrual, of \$586,000, for water usage was posted in May 2022. In addition, the actual billings for the fourth quarter water usage are coming in less than what was estimated for this period.

Chemicals: This category is slightly less than the pro-rate benchmark; coming in at 90.1% through May 2022. The FY 2022 budget has been adjusted for the increase in chemical costs.

Supplies & Other: This category is lower than the benchmark; coming in at 79.3% through May 2022. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, variances are not unexpected. The effects of the COVID-19 pandemic continue to impact the FY 2022 activity: Training and travel, while resuming in FY 2022, have not returned to the level of spending as planned; and events such as the Town Hall Meetings and the Annual Open House at Water Works Park did not take place. Supply chain issues continue to cause delays in being able to order supplies such as computer equipment. The start times of the following projects experienced delays (although these projects are now underway): Enterprise Asset Management (EAM), Enterprise Resource Planning (ERP), and the Data Center Modernization projects.

Contractual Services: The category is lower than the pro-rata benchmark; coming in at 87.4% through May 2022. Variances in this category, when they occur, are not unexpected as the usage of contracts varies throughout the year (projects scheduled to begin during the latter half of the year as well as contracts that are on an as needed

basis). Budget amendments 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 88.5% through May 2022. The amount in the Capital Program Allocation account is shown as negative as this is a “contra” account which represents an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget.

Shared Services: This category is lower than the benchmark; coming in at 77.4% through May 2022. The shared services reimbursement is comprised of both labor (tracked via BigTime) and expenses, such as annual fees for software licensing. Staff from both GLWA and DWSD have been working together to evaluate and refine the budget for the shared services agreements. Based on these evaluations, adjustments have been made to both the billings and accounting accruals to reflect the forecasted activity more accurately for FY 2022. Budget amendments have been entered to adjust the shared services budget to this revised FY 2022 forecast. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount.

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

Expense Categories	FY 2021 AMENDED BUDGET	FY 2021 ACTIVITY THRU 5/31/2021	Percent Year-to- Date at 5/31/2021	FY 2021 ACTIVITY THRU 6/30/2021	Percent Year-to- Date at 6/30/2021	FY 2022 AMENDED BUDGET	FY 2022 PRORATED		FY 2022 ACTIVITY THRU 5/31/2022	Percent Year-to- Date 5/31/2022	FY 2022 PRORATED	
							AMENDED BUDGET (11 MONTHS)				BUDGET LESS	
Entity-wide												
Salaries & Wages	\$ 67,306	\$ 59,168	87.9%	\$ 64,910	91.2%	\$ 66,113	\$ 60,604	\$ 58,895	89.1%	\$ 1,709		
Workforce Development	895	756	84.5%	829	91.1%	869	796	752	86.6%	44		
Overtime	7,537	6,746	89.5%	7,365	91.6%	8,126	7,449	7,431	91.4%	18		
Employee Benefits	26,806	23,832	88.9%	25,448	93.7%	25,956	23,793	22,817	87.9%	976		
Transition Services	8,557	7,632	89.2%	8,392	90.9%	10,805	9,904	9,216	85.3%	688		
Employee Benefits Fund	-	-	0.0%	-	0.0%	-	-	-	0.0%	-		
Personnel Costs	111,100	98,134	88.3%	106,945	91.8%	111,869	102,546	99,111	88.6%	3,435		
Electric	41,554	38,006	91.5%	41,982	90.5%	43,950	40,288	40,124	91.3%	163		
Gas	5,924	5,380	90.8%	5,706	94.3%	7,081	6,491	7,112	100.4%	(621)		
Sewage Service	2,297	2,142	93.3%	2,075	103.3%	2,510	2,301	2,238	89.2%	63		
Water Service	2,608	2,298	88.1%	2,987	76.9%	5,841	5,354	3,536	60.5%	1,818		
Utilities	52,383	47,825	91.3%	52,749	90.7%	59,383	54,435	53,011	89.3%	1,424		
Chemicals	14,362	12,182	84.8%	13,982	87.1%	19,842	18,189	17,881	90.1%	308		
Supplies & Other	35,595	25,883	72.7%	31,216	82.9%	35,034	32,115	27,783	79.3%	4,332		
Contractual Services	99,977	79,600	79.6%	92,020	86.5%	111,198	101,932	97,143	87.4%	4,789		
Capital Program Allocation	(3,447)	(2,761)	80.1%	(3,192)	86.5%	(2,684)	(2,461)	(2,375)	88.5%	(86)		
Shared Services	(4,512)	(4,100)	90.9%	(2,567)	159.7%	(3,202)	(2,935)	(2,477)	77.4%	(458)		
Unallocated Reserve	10,966	-	0.0%	-	0.0%	4,402	4,036	-	0.0%	4,036		
Total Expenses	\$ 316,424	\$ 256,763	81.1%	\$ 291,153	88.2%	\$ 335,842	\$ 307,856	\$ 290,076	86.4%	\$ 17,779		

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 2021 comparative amounts shown in the tables below are presented based on final audited figures.

Statement of Net Position – All Funds Combined

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

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

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2021
Assets				
Cash - unrestricted (a)	\$ 154,149	\$ 182,018	\$ 336,167	\$ 354,351
Cash - restricted (a)	24,124	19,325	43,448	162,646
Investments - unrestricted (a)	104,052	106,520	210,572	322,930
Investments - restricted (a)	133,841	196,577	330,417	70,225
Accounts Receivable	86,638	63,591	150,228	165,059
Due from (to) Other Funds (b)	776	(776)	-	-
Other Assets (c)	677,880	424,877	1,102,757	1,098,362
Capital Assets, net of Depreciation	1,237,069	2,124,799	3,361,868	3,546,027
Land	293,897	124,757	418,655	417,512
Construction Work in Process (e)	326,443	205,696	532,140	395,973
Total assets	3,038,869	3,447,384	6,486,253	6,533,085
Deferred Outflows (f)	51,647	127,909	179,556	225,074
Liabilities				
Liabilities - Liabilities-ST	155,825	178,320	334,145	329,279
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	1,698	4,821	6,519	7,500
Cash Held FBO DWSD (d)	16,409	12,239	28,649	6,064
Liabilities - Long-Term (i)	2,947,341	3,415,741	6,363,082	6,529,068
Total liabilities	3,121,273	3,611,121	6,732,394	6,871,911
Deferred Inflows (f)	69,265	77,817	147,082	96,380
Total net position (j)	\$ (100,023)	\$ (113,645)	\$ (213,667)	\$ (210,132)

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, 2021 are also reported at market value. The May 31, 2022 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
- b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
- c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
- d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
- e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
- f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
- g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
- h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
- i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
- j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

Statement of Revenues, Expenses and Changes in Net Position

– All Funds Combined

This statement, shown in Table 2, is presented in summary format. The accrual basis of revenues and operations and maintenance expense vary from the revenue requirement basis presented in the *Budget to Actual Analysis* and the *Wholesale Billings, Receivables & Collections* sections of the May 2022 Financial Report Binder. Prior year ending balances are provided in the June 30, 2021 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 Eleven Months ended May 31, 2022
(\$000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2021
Revenue						
Wholesale customer charges	\$ 294,939	93.6%	\$ 249,663	57.4%	\$ 544,602	\$ 589,992
Local system charges	19,889	6.3%	172,940	39.8%	192,830	209,885
Industrial waste charges		0.0%	7,600	1.7%	7,600	8,005
Pollutant surcharges		0.0%	4,370	1.0%	4,370	6,720
Other revenues	306	0.1%	421	0.1%	727	767
Total Revenues	315,134	100.0%	434,994	100.0%	750,128	815,369
Operating expenses						
Operations and Maintenance	119,416	37.9%	175,616	40.4%	295,032	301,740
Depreciation	112,943	35.8%	143,723	33.0%	256,666	274,044
Amortization of intangible assets	3,269	1.0%	403	0.1%	3,673	3,677
Total operating expenses	235,628	74.8%	319,742	73.5%	555,370	579,460
Operating Income	79,506	25.2%	115,252	26.5%	194,758	235,909
Total Nonoperating (revenue) expense	82,263	26.1%	116,030	26.7%	198,293	224,464
Increase/(Decrease) in Net Position	(2,757)	-0.9%	(778)	-0.2%	(3,535)	11,445
Net Position (deficit), beginning of year	(97,266)		(112,867)		(210,132)	(221,578)
Net position (deficit), end of year	\$ (100,023)		\$ (113,645)		\$ (213,667)	\$ (210,132)
<i>Totals may be off due to rounding</i>						

Water Fund

- ✓ The decrease in Water Fund Net Position is \$2.8 million.
- ✓ Wholesale water customer charges of \$294.9 million account for 93.6% of Water System revenues.
- ✓ Operating expenses of \$235.6 million represent 74.8% of total operating revenue. Depreciation is the largest operating expense at \$112.9 million or 47.9% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals \$79.5 million or 25.2% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$72.0 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Sewage Disposal Fund

- ✓ The decrease in the Sewage Disposal Fund Net Position is \$0.8 million.
- ✓ Wholesale customer charges of \$249.7 million account for 57.4% 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 \$172.9 million account for 39.8% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$319.7 million represent 73.5% of total operating revenue. Depreciation is the largest operating expense at \$143.7 million or 44.9% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals \$115.3 million or 26.5% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$83.9 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 May 2022 Financial Report Binder. Explanatory notes follow this schedule.

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

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	19,874	16.6%	48,990	27.9%	68,864	23.3%
Overtime	4,767	4.0%	2,664	1.5%	7,431	2.5%
Benefits	15,772	13.2%	7,045	4.0%	22,817	7.7%
Total Personnel	<u>\$ 40,413</u>	<u>33.8%</u>	<u>\$ 58,698</u>	<u>33.4%</u>	<u>\$ 99,112</u>	<u>33.6%</u>
Utilities						
Electric	24,324	20.4%	15,801	9.0%	40,125	13.6%
Gas	1,525	1.3%	5,588	3.2%	7,112	2.4%
Sewage	672	0.6%	1,566	0.9%	2,238	0.8%
Water	5	0.0%	3,531	2.0%	3,536	1.2%
Total Utilities	<u>\$ 26,525</u>	<u>22.2%</u>	<u>\$ 26,486</u>	<u>15.1%</u>	<u>\$ 53,011</u>	<u>18.0%</u>
Chemicals	6,811	5.7%	11,070	6.3%	17,881	6.1%
Supplies and other	7,990	6.7%	19,514	11.1%	27,504	9.3%
Contractual services	41,224	34.5%	61,454	35.0%	102,678	34.8%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(1,484)	-1.2%	(891)	-0.5%	(2,375)	-0.8%
Intergovernmental Agreement	(187)	-0.2%	(114)	-0.1%	(301)	-0.1%
Shared services allocation	<u>(1,877)</u>	<u>-1.6%</u>	<u>(600)</u>	<u>-0.3%</u>	<u>(2,477)</u>	<u>-0.8%</u>
Operations and Maintenance Expenses	<u>\$ 119,416</u>	<u>100.0%</u>	<u>\$ 175,616</u>	<u>100.0%</u>	<u>\$ 295,032</u>	<u>100.0%</u>

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (18.0% of total O&M expenses) and chemicals (6.1% of total O&M expenses).
- ✓ Personnel costs (33.6% 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 (34.8%) includes:
 - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$7.0 million);
 - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$15.3 million); and
 - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.
- ✓ The Capital Program Allocation, Intergovernmental Agreement and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offsets to associated costs in other Operations and Maintenance expense categories.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined

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

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

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2021
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	\$ (22,994)	\$ (15,595)	\$ (38,589)	\$ (43,087)
Interest income DWSD Shortfall	-	(143)	(143)	(635)
Investment earnings	(1,763)	(1,581)	(3,344)	(7,040)
Net incr (decr) in fair value of invstmt	1,500	1,006	2,505	5,781
Other nonoperating revenue	(454)	(20)	(474)	476
Interest Expense				
Bonded debt	94,975	99,544	194,519	218,857
Lease obligation	15,616	19,086	34,702	38,332
Other obligations	4,094	1,534	5,628	6,296
Total interest expense	114,685	120,165	234,849	263,485
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	-	-	(5,960)
Amortization, issuance costs, debt	(14,319)	2,067	(12,252)	(12,966)
(Gain) loss on disposal of capital assets	(9)	332	323	365
Loss on impairment of capital assets	-	-	-	-
Water Residential Assistance Program	630	872	1,502	1,517
Legacy pension expense	4,988	8,927	13,915	22,528
Total Nonoperating (Revenue)/Expense	82,263	116,030	198,293	224,464

Totals may be off due to rounding

- ✓ Interest income on contractual obligation relates to the portion of the total GLWA debt obligation attributable to DWSD. This interest income offsets the total debt interest expense paid by GLWA on behalf of both entities monthly.
- ✓ Interest income DWSD shortfall represents interest from a budgetary shortfall loan from fiscal years 2016, 2017 and 2018 and is paid in accordance with the 2018 Memorandum of Understanding (MOU).
- ✓ 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. FY 2020 market value adjustments for Water and Sewer totaled \$4.9 million and \$3.3 million, respectively.

FY 2021 market value adjustments for Water and Sewer totaled \$1.5 million and \$1.0 million, respectively.

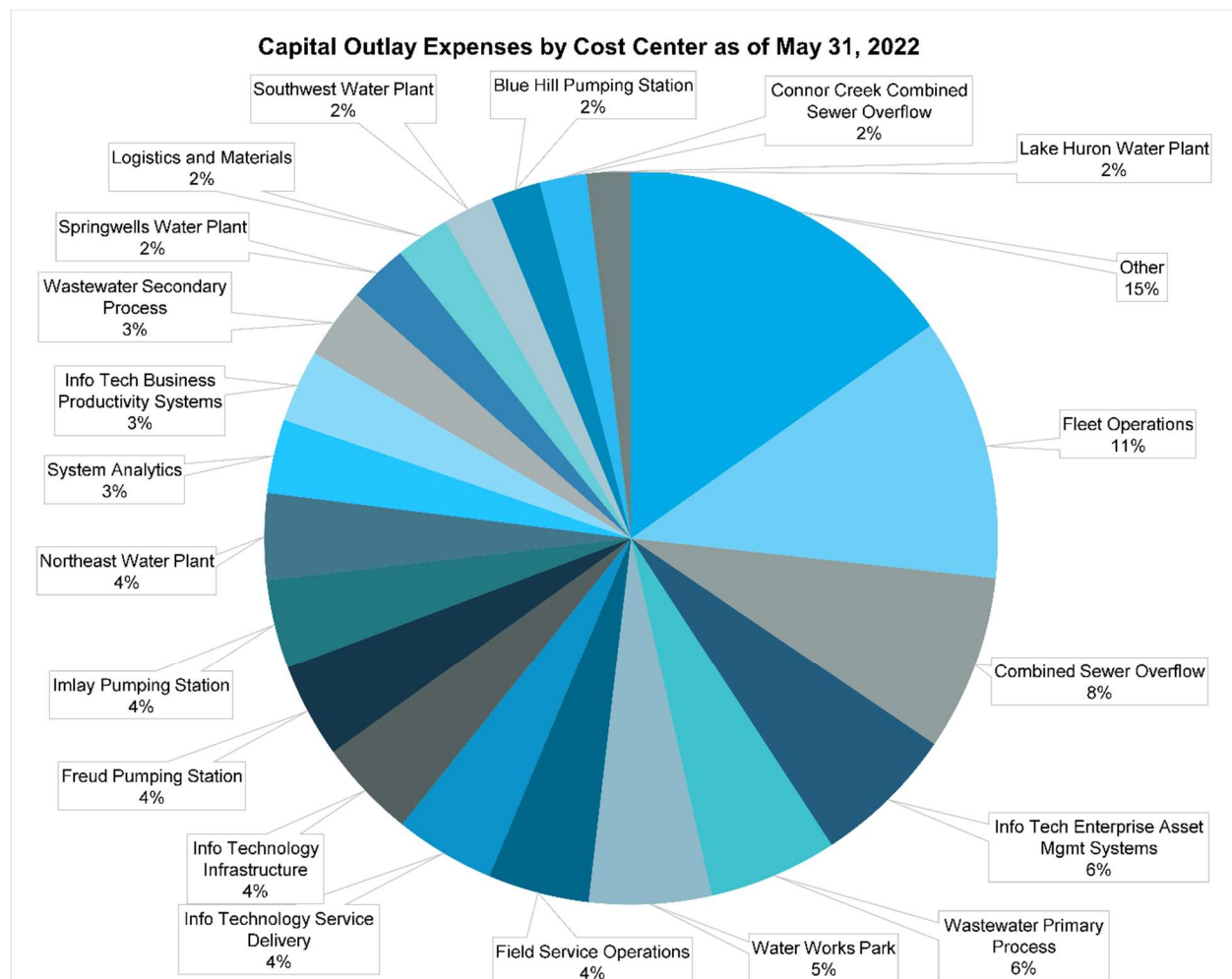
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
 - Bonded debt;
 - Lease obligation for the regional assets from the City of Detroit; and
 - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ The FY 2021 capital contribution in Nonoperating (revenue) expense represents one-half of an \$11.92 million payment made by Oakland Macomb Interceptor Drainage District (OMIDD). The payment was part of an amendment to the OMIDD Wastewater Disposal Services Contract and was split between FY 2020 and FY 2021 based on budgeted revenue requirements for those respective years.

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 May 31, 2022, total capital outlay spend is \$10.1 million. Following this chart is a sample list of projects and purchases from the total spend of \$10.1 million:



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

Water Operations: 14 Mile Water Main Assessment (\$350k); Turbidimeter at Northeast Water Plant (\$216k); high pressure water tank (\$174k); Water Works Park furniture

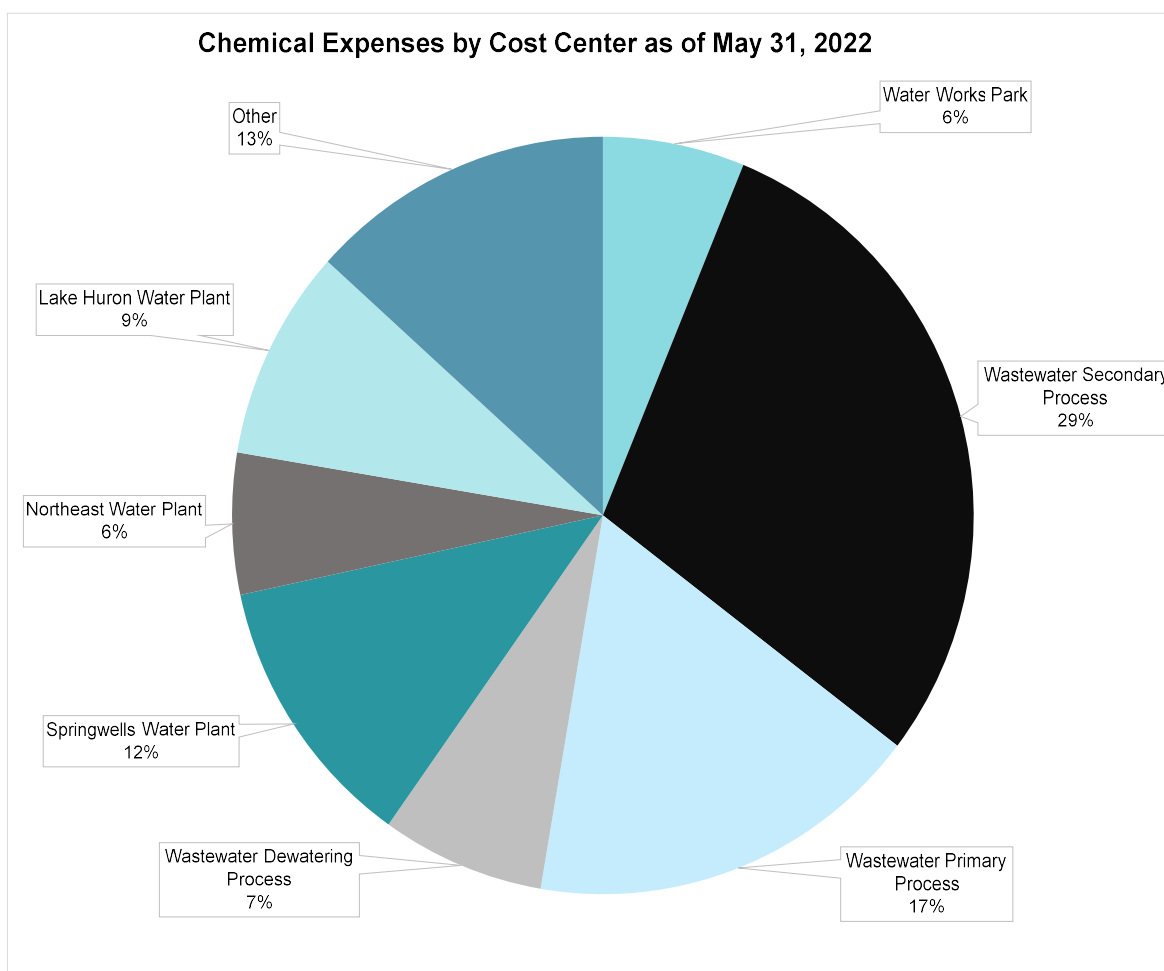
(\$132k); multiple pumping station circuit breakers (\$116k); power inverter (\$85k); Southwest Water Plant furniture (\$75k); Water Works Park capacitor repair (\$63k); buoy system (\$56k); universal power supply (\$49k); excitation motor retrofit (\$42k); vacuum regulator (\$40k); steam generator (\$39k) and water pump (\$39k).

Wastewater Operations: PQM Meters for CSO Facilities (\$787k); wastewater pump (\$347k); pull out assembly refurbishment (\$300k); Freud electric backup service installation (\$245k); flygt pump (\$182k); B-houses (\$167k); Main Lift Pump emergency repair (\$139k); sewer pump (\$81k); effluent channel stop-logs (\$80k); water champ (\$65k); Leib CSO accusonic flow meters (\$60k); Freud meter station (\$57k); multiple pump station circuit breakers (\$54k); rotork repairs (\$50k); 150 gallon day tank (\$40k); electric loader (\$40k); mini loader (\$40k); metering pump (\$33k) and pump service (32k).

Centralized & Administrative Facilities: Trucks and vehicles (\$878k); IT software (\$775k); IT computers and hardware (\$351k); sewer meter support (\$329k); Rialto Security (\$240k); chemical monitoring equipment (\$78k); Water Works Park UPS system (\$76k); EAM advisory services (\$73k) and power meters (\$42k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

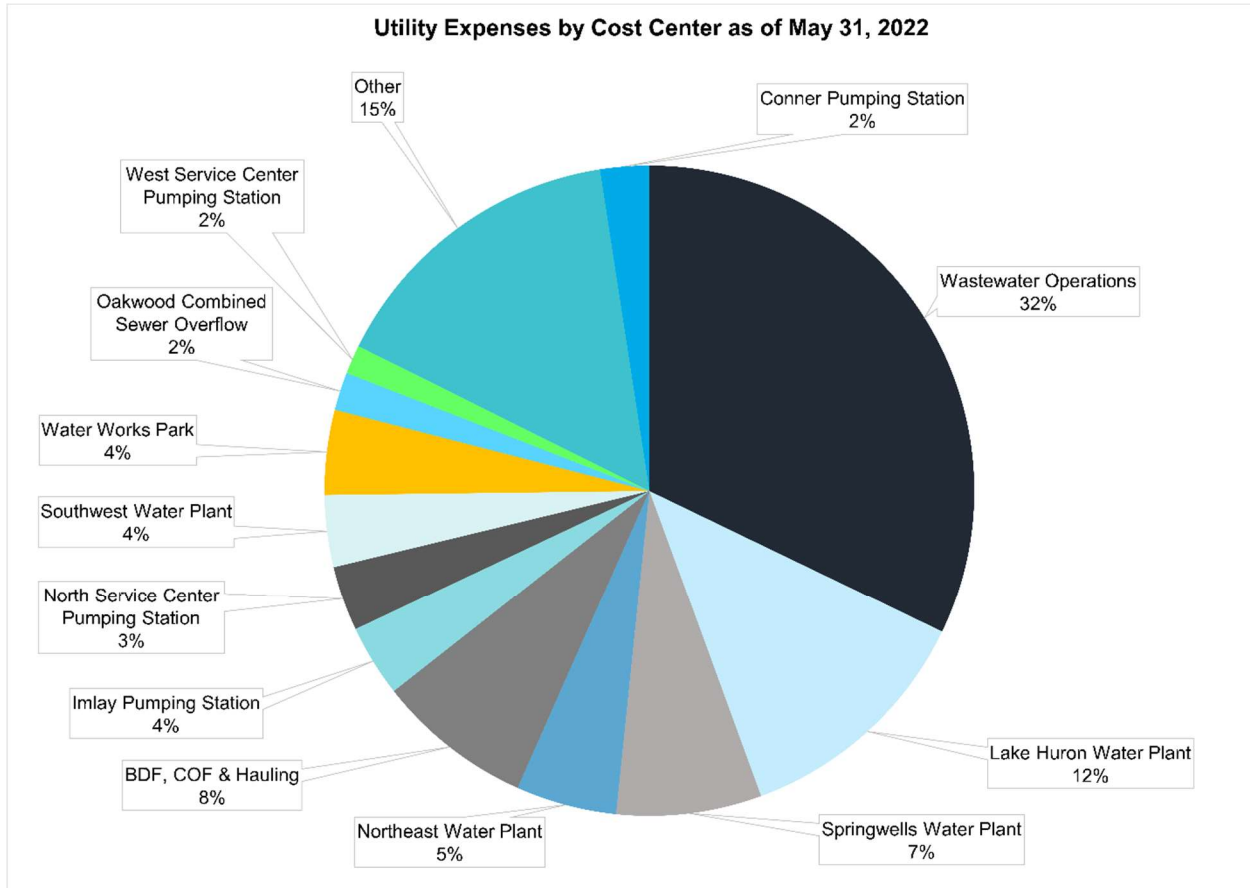
Chemical expenses are \$17.9 million through May 31, 2022. The allocation is shown in the chart below and remains consistent with prior periods.



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

Chart 3 – Utility Expenses – Water and Sewer System Combined

Utility expenses are \$53.0 million through May 31, 2022. The allocation is shown in the chart below and consistent with prior periods.



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



Financial Operations KPI

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

There was a reduction of 2 accounts and addition of 2 accounts since April 2022.

Chart 1 – Bank Reconciliation Completion Status

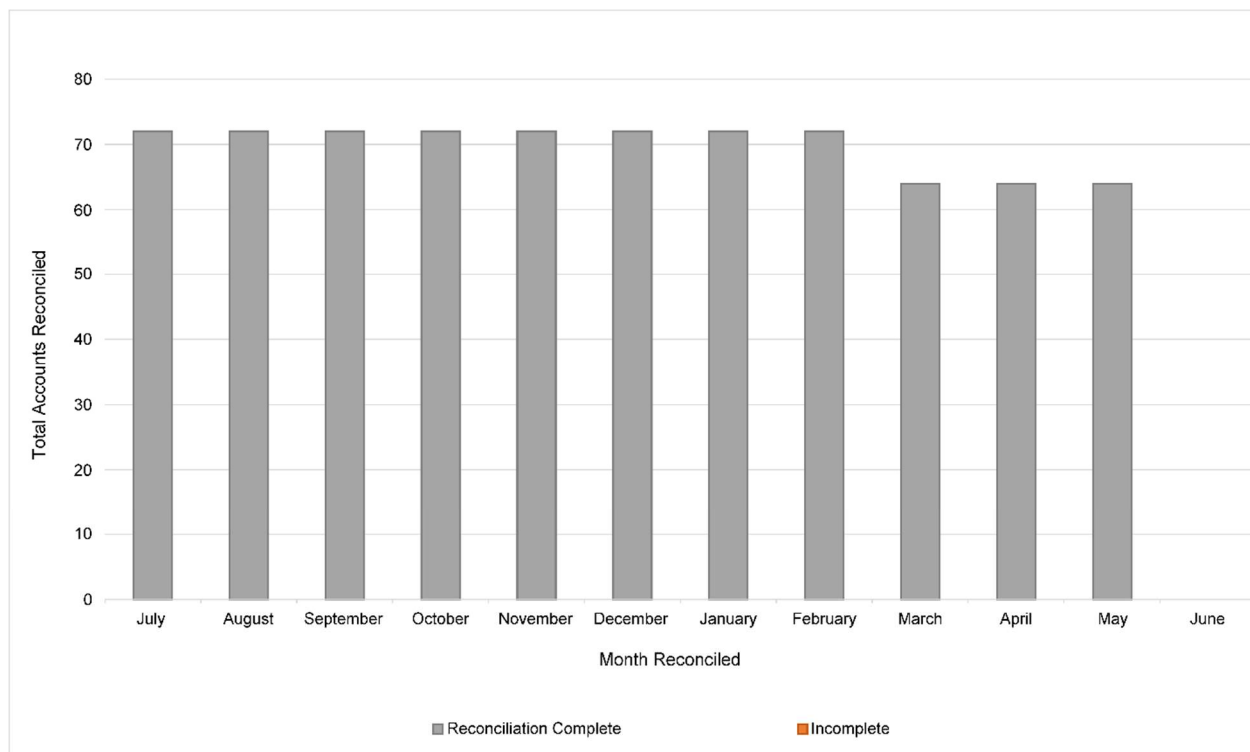


Table 1 – Fiscal Year 2022 GL Cash Account Rollforward

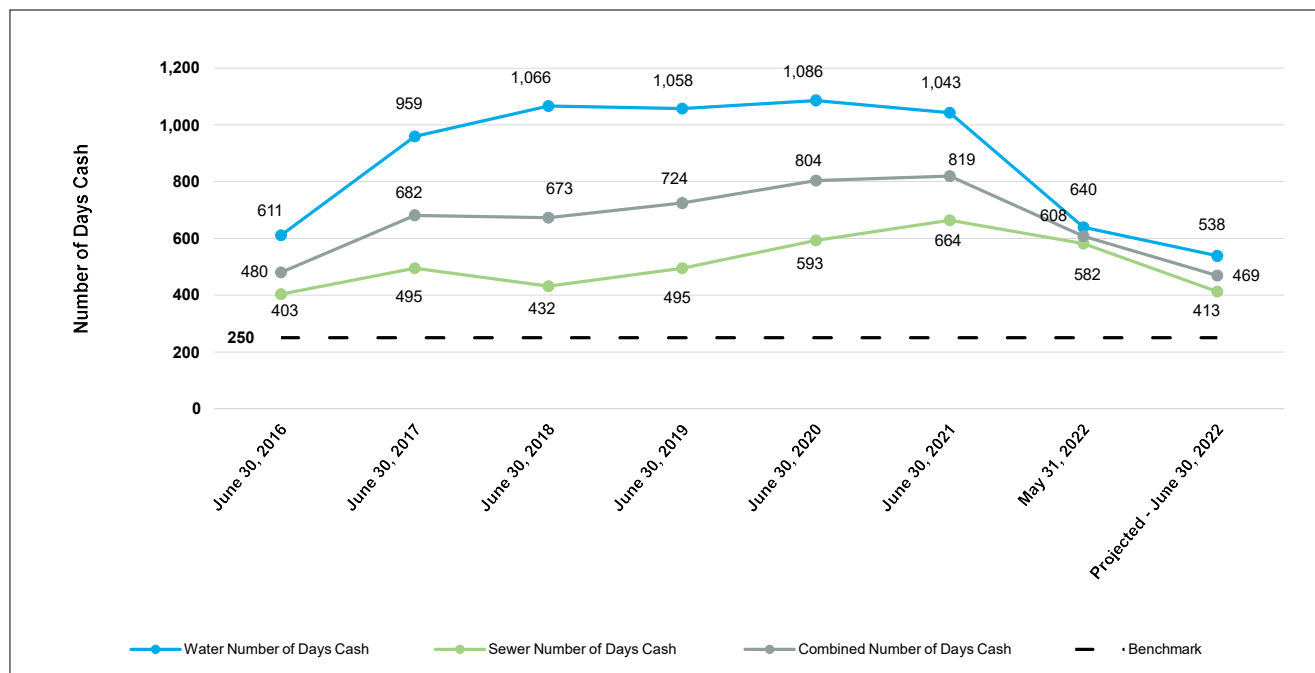
Total GL Cash accounts as of July 1, 2021	72
New GL Cash accounts	2
Inactivated GL Cash accounts	(10)
Total GL Cash accounts as of May 31, 2022	64

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 640 and Sewer at 582 days cash on hand as of May 31, 2022. These balances remain strong for the regional system in large part due to the need to fund CIP projects with I&E funds but drop in the FY 2022 projection as these funds are depleted and GLWA transitions to a planned bond issue. The FY 2022 projection is calculated based on values from the GLWA FY 2022 – 2026 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, 2021	May 31, 2022	Projected June 30, 2022
Water Fund			
Cash and Investments - Unrestricted	\$ 353,308,000	\$ 258,200,000	\$ 217,600,000
Operating Expense			
Operating Expense (a)	\$ 250,476,000	\$ 253,367,000	\$ 276,400,000
Less: Depreciation (a)	(123,272,000)	(114,889,000)	(125,333,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(3,269,000)	(3,567,000)
Net Operating Expense	\$ 123,638,000	\$ 135,209,000	\$ 147,500,000
Operating Expense per Day	\$ 339,000	\$ 404,000	\$ 404,000
Days Cash			
Number of Days Cash	1,043	640	538
Sewage Disposal Fund			
Cash and Investments - Unrestricted	\$ 323,973,000	\$ 288,538,000	\$ 205,000,000
Operating Expense			
Operating Expense (a)	\$ 328,983,000	\$ 300,758,000	\$ 328,100,000
Less: Depreciation (a)	(150,772,000)	(134,567,000)	(146,800,000)
Less: Amortization of Intangible Asset (a)	(110,000)	-	-
Net Operating Expense	\$ 178,101,000	\$ 166,191,000	\$ 181,300,000
Operating Expense per Day	\$ 488,000	\$ 496,000	\$ 497,000
Days Cash			
Number of Days Cash	664	582	413
Combined			
Cash and Investments - Unrestricted	\$ 677,281,000	\$ 546,739,000	\$ 422,600,000
Operating Expense			
Operating Expense (a)	\$ 579,460,000	\$ 554,125,000	\$ 604,500,000
Less: Depreciation (a)	(274,044,000)	(249,456,000)	(272,133,000)
Less: Amortization of Intangible Asset (a)	(3,677,000)	(3,269,000)	(3,567,000)
Net Operating Expense	\$ 301,740,000	\$ 301,400,000	\$ 328,800,000
Operating Expense per Day	\$ 827,000	\$ 900,000	\$ 901,000
Days Cash			
Number of Days Cash	819	608	469
<i>Totals may be off due to rounding</i>			

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



The monthly Budget to Financial Statements Crosswalk includes the following.

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

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

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

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

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

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

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

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

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

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	\$ 11,318	\$ (3,102)	\$ 8,216
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	10,487	18,769	29,256
Prior year pension contribution accounted for in current year (d)	(4,988)	(8,927)	(13,915)
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	52,141	104,344	156,485
Accelerated pension B&C notes obligation portion (g)	179	400	579
Regional System lease (h)	5,009	6,122	11,131
Right to use lease - warehouse (h)		159	159
WRAP (i)	933	1,290	2,223
DWSD short term allocation (j)	-	-	-
Improvement & Extension Fund transfers (j)	24,763	31,058	55,821
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(116,212)	(144,126)	(260,338)
Amortization - debt related (k)	14,319	(2,067)	12,252
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	9	(332)	(323)
Raw water rights obligation (l)	2,503	-	2,503
Investment earnings for construction fund (m)	17	16	33
Interest for Subscription Based Information Tech Arrangements (l)	(10)	(10)	(20)
Interest on DWSD note receivable (n)	-	143	143
Investment earnings unrealized gain/loss (o)	(1,500)	(1,006)	(2,506)
Improvement & extension fund operating expenses (p)	(1,725)	(3,509)	(5,234)
Capital Contribution (q)	-	-	-
	-	-	-
Net Position Increase/(Decrease) per Financial Statements (b)	<u>\$ (2,757)</u>	<u>\$ (778)</u>	<u>\$ (3,535)</u>

Table 2 - Explanatory Notes for Crosswalk

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

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

- (l) The water service contract with Flint includes a license for raw water rights which has been recorded as an asset and liability by the Authority. The contract provides 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 basis the Flint wholesale charges are recorded at 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 the 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.
- (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) For FY 2022, the Water Improvement and Extension fund reflects \$1.7 million, and the Sewer Improvement and Extension fund reflects \$3.6 million in 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. In addition, GLWA enters interlocal agreements with other local governments to coordinate projects and services and reduce overlapping expense. Many of these agreements relate to current capital improvement projects. Where another local government reimburses GLWA for direct expenses associated with a capital improvement project financed using improvement and extension funds, those reimbursements received under the agreement are transferred back to the Improvement and Extension fund.



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

This report presents quarterly and monthly CIP spending against the prorated CIP in total and the CIP adjusted for the SRA. The prorated CIP is calculated by dividing the total fiscal year 2022 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.

Beginning January 1, 2021, GLWA has intentionally depleted Bond funds and has moved to solely using I&E and State Revolving Loans to fund CIP expenditures to lower the cost of debt. It is expected that the I&E funds will be sufficient to fund the capital program through FY 2022. A bond transaction is planned for the first quarter of FY 2023.

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

As of May 2022, the Water system incurred nearly \$145 million of construction costs to date. This is 88% of the fiscal year 2022 CIP through May and 117% of the financial plan which is labeled as the FY 2022 CIP w/SRA in the chart below.

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

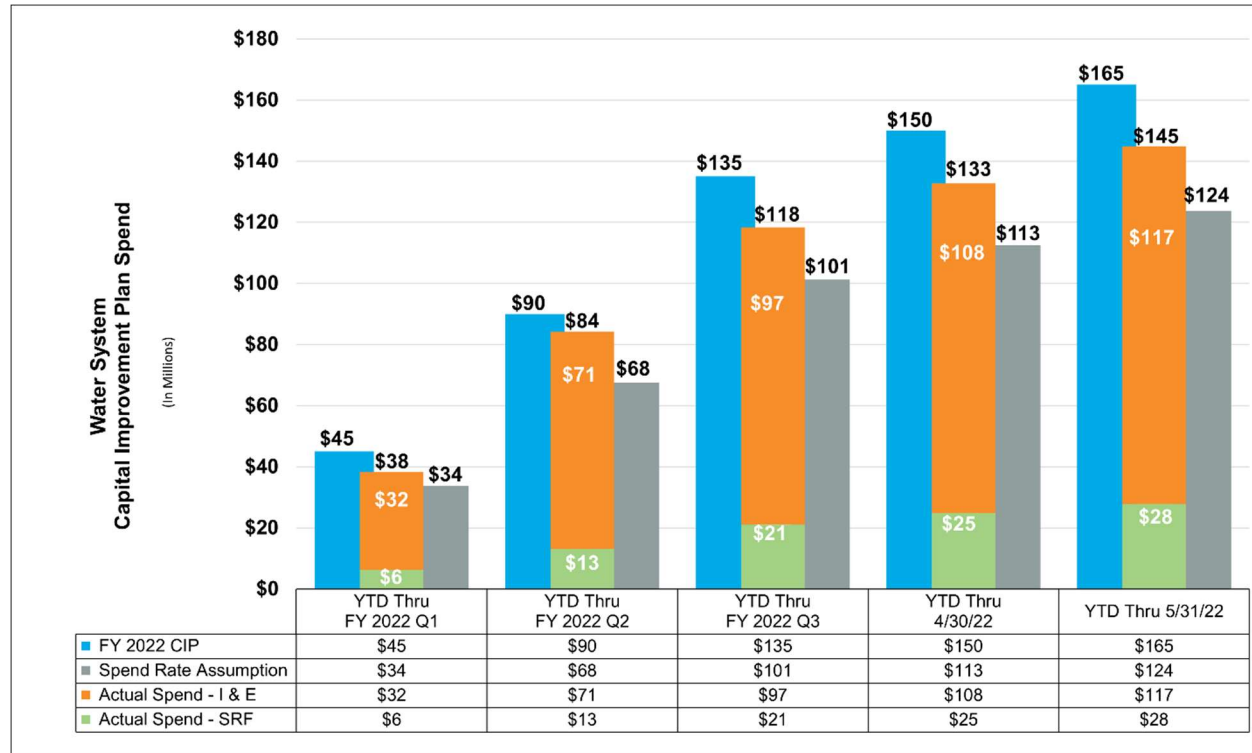
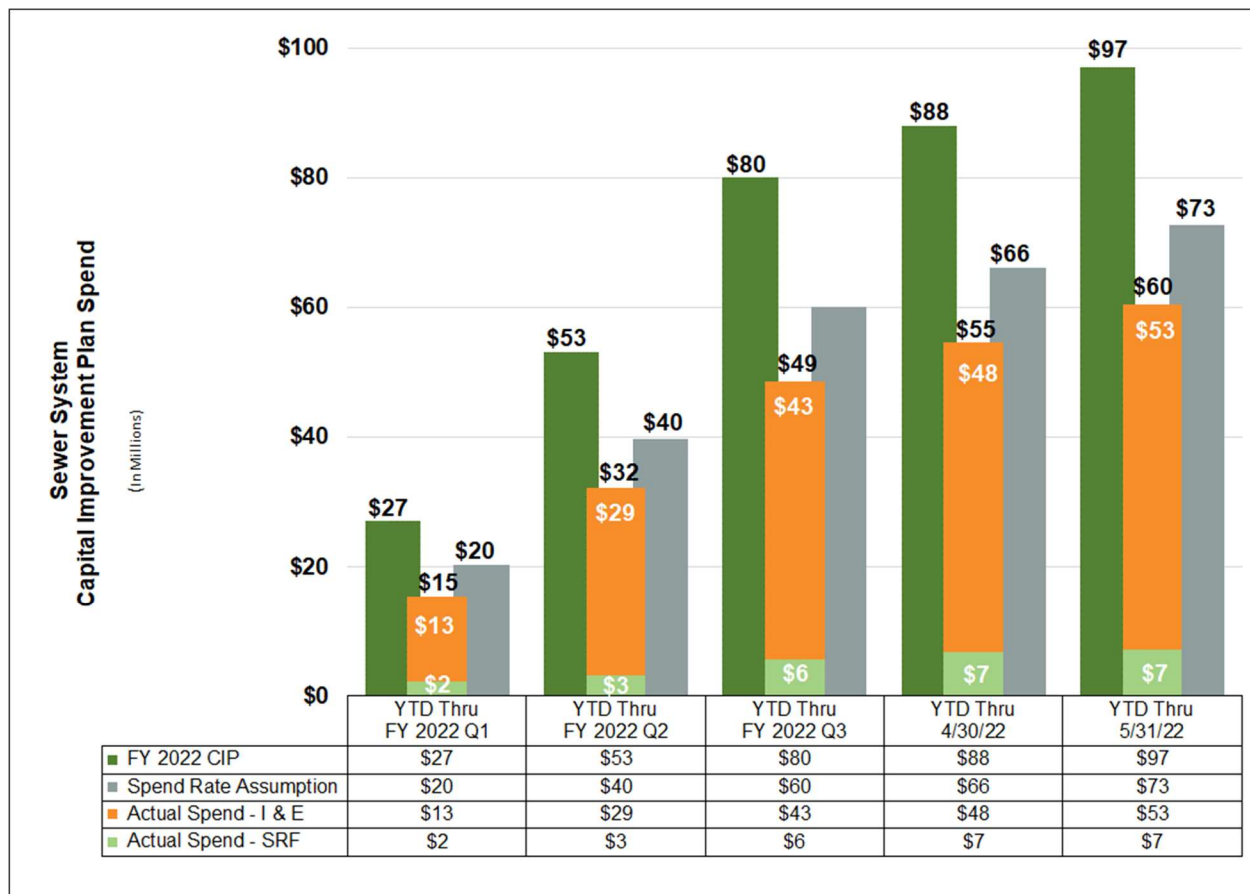


Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date

As of May 2022, the Sewer system incurred over \$60 million of construction costs to date. This is 62% of the fiscal year 2022 CIP through May and 83% of the financial plan which is labeled as the FY 2022 CIP w/SRA in the chart below.

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





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. Transfers to the Extraordinary Repair & Replacement (ER&R) fund are completed annually based on budget and year-end fund status.

Table 1 – GLWA FY 2022 Water MBO Transfers reflects the required transfers for FY 2022 completed through May 1, 2022. MBO transfers for water totaling \$149.5 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2022 Sewer MBO Transfers reflects the required transfers for FY 2022 completed through May 1, 2022. MBO transfers for sewer totaling \$193.1 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2022 to date.

Table 1 – GLWA FY 2022 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 2022							
July 2021	\$ 11,994,483	\$504,000	\$921,308	\$198,050	-	-	\$13,617,841
August 2021	11,994,483	504,000	921,308	198,050	-	-	13,617,841
September 2021	11,994,483	504,000	831,488	198,050	-	-	13,528,021
October 2021	11,994,483	504,000	921,308	198,050	-	-	13,617,841
November 2021	11,994,483	504,000	861,308	198,050	-	-	13,557,841
December 2021	11,994,483	504,000	891,308	198,050	-	-	13,587,841
January 2022	11,994,483	504,000	891,308	198,050	-	-	13,587,841
February 2022	11,994,483	504,000	891,308	198,050	-	-	13,587,841
March 2022	11,994,483	504,000	891,308	198,050	-	-	13,587,841
April 2022	11,994,483	504,000	891,308	198,050	-	-	13,587,841
May 2022	11,994,483	504,000	891,308	198,050	-	-	13,587,841
Total FY 2022	\$ 131,939,313	\$5,544,000	\$9,804,568	\$2,178,550	\$ -	\$ -	\$149,466,431

Table 2 – GLWA FY 2022 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 2022							
July 2021	\$ 15,108,317	\$902,000	\$1,223,950	\$322,392	-	-	\$17,556,659
August 2021	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
September 2021	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
October 2021	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
November 2021	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
December 2021	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
January 2022	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
February 2022	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
March 2022	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
April 2022	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
May 2022	15,108,317	902,000	1,223,950	322,392	-	-	17,556,659
Total FY 2022	\$166,191,487	\$9,922,000	\$13,463,450	\$3,546,312	\$ -	\$ -	\$193,123,249

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 (11 months)	131,939,313	5,544,000	9,804,568	2,178,550	-	-	149,466,431
Life to Date	\$818,963,625	\$41,810,300	\$73,181,743	\$14,764,454	\$2,686,900	\$606,000	\$952,013,022

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 (11 months)	166,191,487	9,922,000	13,463,450	3,546,312	-	-	193,123,249
Life to Date	\$1,189,296,479	\$74,894,800	\$100,266,059	\$21,007,508	\$8,246,100	\$779,600	\$1,394,490,546

MBO Required and Lease Payment Transfers to DWSD

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

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

Table 4 – DWSD FY 2022 Water MBO Transfers reflects the required transfers for FY 2022 completed through May 1, 2022. MBO transfers for Water totaling \$44.0 million have been transferred to accounts held by DWSD. For FY 2022, DWSD originally requested that \$6,690,600 of the lease payment be utilized to offset a portion of debt service. Beginning with the October transfers, DWSD amended budget required an additional portion of the lease payment be directed to offset debt service. Additionally, corrections were made to the MBO transfer calculations which resulted in a change in the amounts transferred to I&E for May and June.

Table 5 – DWSD FY 2022 Sewer MBO Transfers reflects the required transfers for FY 2022 completed through May 1, 2022. MBO transfers for Sewer totaling \$79.2 million have been transferred to accounts held by DWSD. For FY 2022, DWSD has requested that \$5,529,300 of the lease payment be utilized to offset a portion of debt service. Additionally, corrections were made to the MBO transfer calculations which resulted in a change in the amounts transferred to I&E for May and June.

Table 6 – DWSD Water MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2022 to date.

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2022 to date.

Table 4 – DWSD FY 2022 Water MBO Transfers

WATER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Water
FY 2022				
July 2021	\$2,887,383	\$356,000	\$1,317,450	\$4,560,833
August 2021	2,887,383	356,000	1,317,450	4,560,833
September 2021	2,887,383	356,000	1,317,450	4,560,833
October 2021	2,369,650	356,000	479,983	3,205,633
November 2021	2,369,650	356,000	479,983	3,205,633
December 2021	2,369,650	356,000	479,983	3,205,633
January 2022	2,369,650	356,000	479,983	3,205,633
February 2022	2,369,650	356,000	479,983	3,205,633
March 2022	2,369,650	356,000	479,983	3,205,633
April 2022	2,369,650	356,000	479,983	3,205,633
April 2022	-	-	3,999,936	3,999,936
May 2022	2,369,650	356,000	1,131,217	3,856,867
Total FY 2022	\$27,619,349	\$3,916,000	\$12,443,384	\$43,978,733

Table 5 – DWSD FY 2022 Sewer MBO Transfers

SEWER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2022				
July 2021	\$5,769,417	\$238,000	\$2,291,667	\$8,299,084
August 2021	5,769,417	238,000	2,291,667	8,299,084
September 2021	5,769,417	238,000	2,291,667	8,299,084
October 2021	4,888,083	238,000	2,291,667	7,417,750
November 2021	4,888,083	238,000	2,291,667	7,417,750
December 2021	4,888,083	238,000	2,291,667	7,417,750
January 2022	4,888,083	238,000	2,291,667	7,417,750
February 2022	4,888,083	238,000	2,291,667	7,417,750
March 2022	4,888,083	238,000	2,291,667	7,417,750
April 2022	4,888,083	238,000	2,291,667	7,417,750
April 2022	-	-	(4,607,750)	(4,607,750)
May 2022	4,888,083	238,000	1,830,892	6,956,975
Total FY 2022	\$56,412,915	\$2,618,000	\$20,139,812	\$79,170,727

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 (11 months)				
MBO/Lease Requirement	27,619,349	3,916,000	20,625,000	52,160,349
Offset to Debt Service	-	-	(8,181,616)	(8,181,616)
Net MBO Transfer	27,619,349	3,916,000	12,443,384	43,978,733
Life-to-Date				
MBO/Lease Requirement	228,441,653	29,529,100	155,625,000	413,595,753
Offsets	-	-	(28,182,016)	(28,182,016)
Total Water	228,441,653	29,529,100	127,442,984	385,413,737

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 (11 months)				
MBO/Lease Requirement	56,412,915	2,618,000	24,747,562	83,778,477
Offset to Debt Service	-	-	(4,607,750)	-
Total MBO Transfer	56,412,915	2,618,000	20,139,812	79,170,727
Life-to-Date				
MBO/Lease Requirement	367,267,927	19,765,800	189,747,562	576,781,289
Offsets	(7,100,000)	-	(46,470,814)	(48,963,064)
Total Sewer	360,167,927	19,765,800	143,276,748	523,210,475

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



This report includes the following:

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

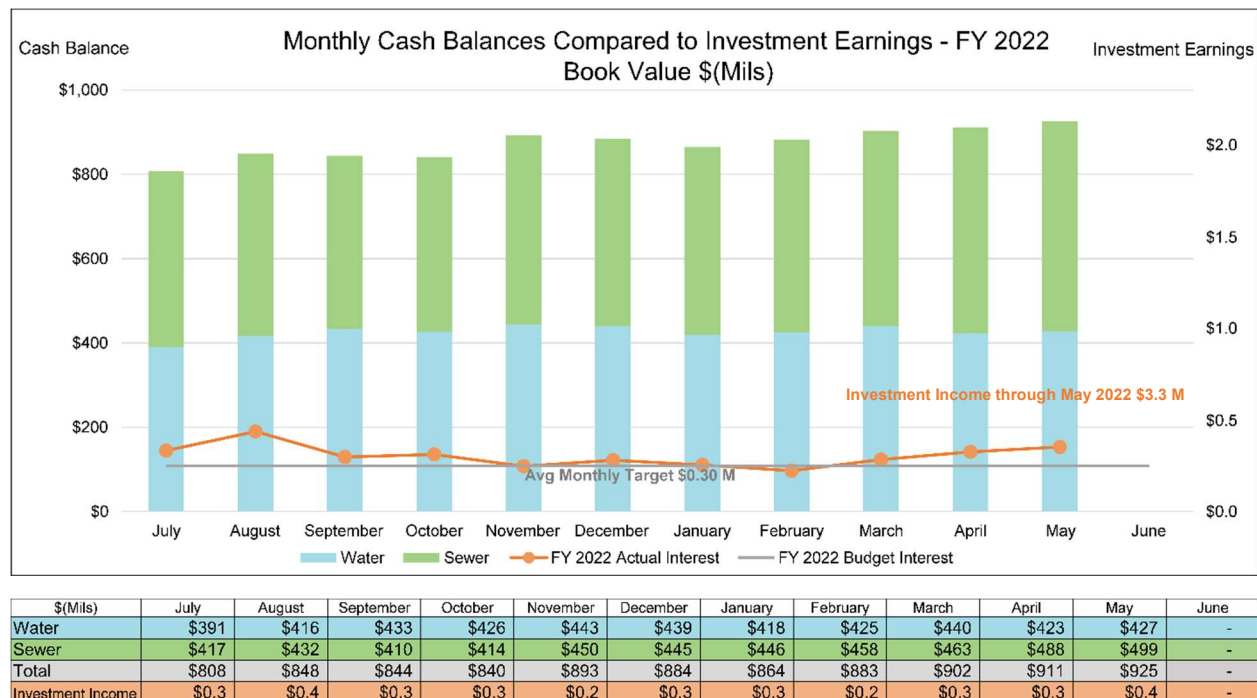
Monthly Cash Balances Compared to Investment Income

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

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of May 2022, GLWA earned investment income of \$0.4 million and the cumulative FY 2022 earnings through May 2022 is \$3.3 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 May 2022



Cash Balance Detail

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

Funds Held Within Trust:

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

Funds Held Outside Trust:

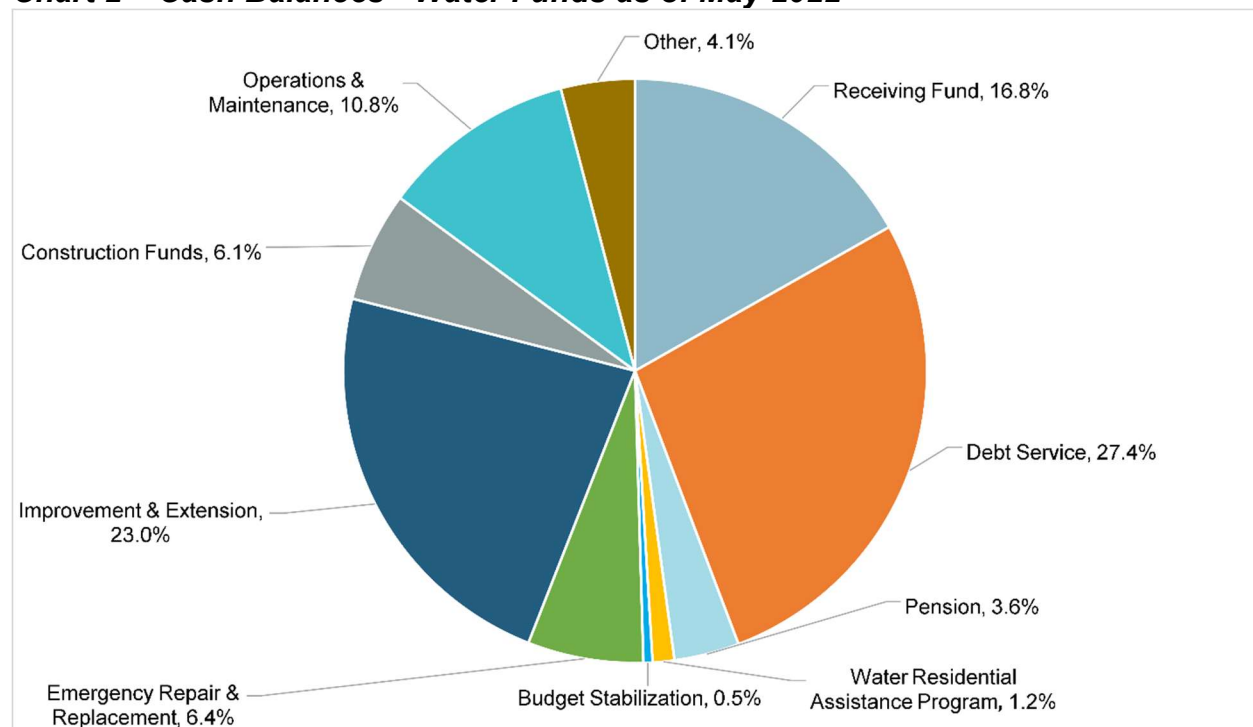
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors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

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

Chart 2 – Cash Balances - Water Funds as of May 2022 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of May 31, 2022 is \$427 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.

It should be noted existing proceeds from revenue bonds are depleted. This means that all capital projects will now be funded with Improvement & Extension (I&E) funds, except for SRF funded projects. It is expected that the I&E funds supplemented with SRF low-interest loan funding will be sufficient to fund the capital program through FY 2022. A bond transaction is currently planned for the first quarter of FY 2023.

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

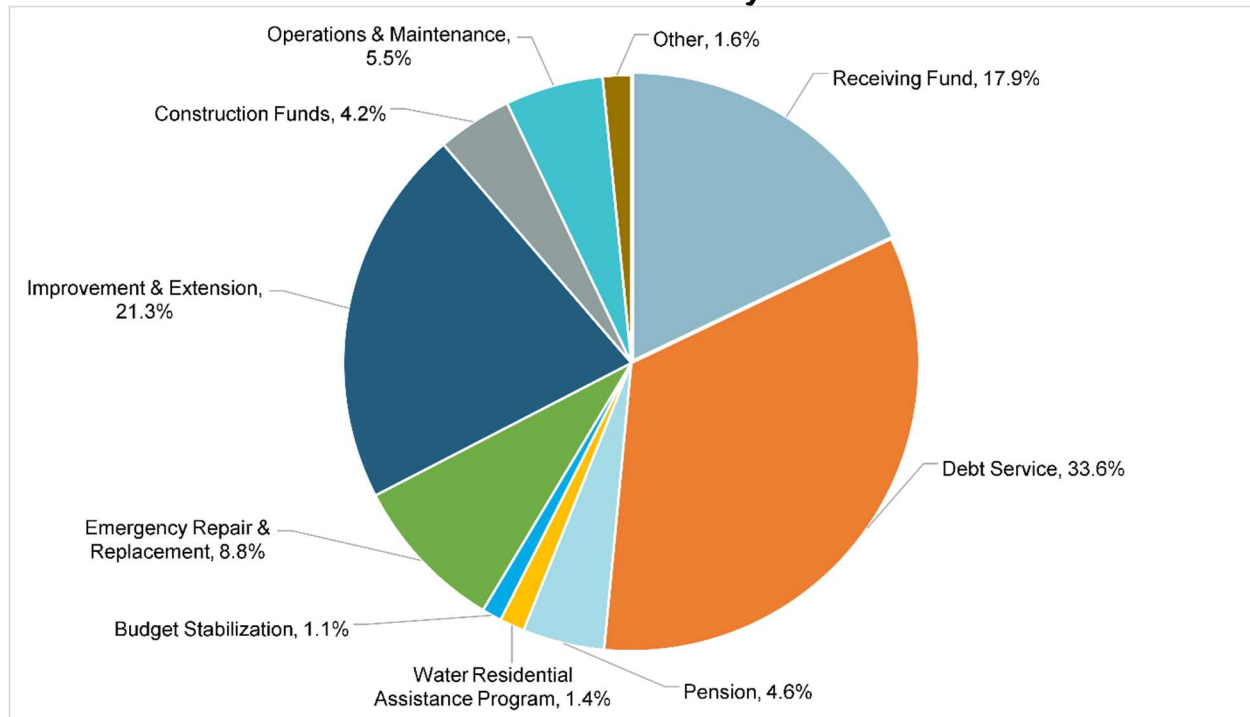


Note: Due to rounding totals may not equal 100%.

Chart 3 – Cash Balances - Sewer Funds as of May 2022 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of May 31, 2022 is \$499 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.

It should be noted existing proceeds from revenue bonds are depleted. This means that all capital projects will now be funded with Improvement & Extension (I&E) funds, except for SRF funded projects. It is expected that the I&E funds supplemented with SRF low-interest loan funding will be sufficient to fund the capital program through FY 2022. A bond transaction is currently planned for the first quarter of FY 2023.

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



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



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

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

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

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

DWSD Retail Water Billings and Collections

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

Table 1 - DWSD Retail Billings shows the FY 2022 water usage and billed revenue which are provided by DWSD staff. As of May 31, 2022, the DWSD usage was at 108.96% of the budget and billed revenue was at 100.53% of budget.

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

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

Table 1 – DWSD Retail Water Billing

RETAIL WATER CUSTOMERS								
Month (1)	FY 2022 - Original Budget		FY 2022 - Actual		FY 2022 - Variance		FY 2021 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	245,000	9,963,800	266,704	10,064,683	21,704	100,883	265,796	9,747,518
August	235,000	9,697,500	264,644	9,994,589	29,644	297,089	250,308	9,378,385
September	210,000	9,032,500	232,348	9,169,300	22,348	136,800	218,840	8,544,457
October	195,000	8,633,500	204,290	8,422,092	9,290	(211,408)	197,362	7,978,833
November	195,000	8,633,500	209,830	8,544,611	14,830	(88,889)	194,648	7,952,436
December	195,000	8,633,500	204,072	8,442,152	9,072	(191,348)	197,125	7,985,955
January	190,000	8,500,500	221,369	8,819,430	31,369	318,930	190,289	7,827,536
February	190,000	8,500,500	204,489	8,438,300	14,489	(62,200)	191,180	7,895,496
March	200,080	8,768,700	233,190	9,221,716	33,110	453,016	205,631	8,242,563
April	210,000	9,032,500	192,495	8,305,331	(17,505)	(727,169)	214,288	8,438,333
May	210,000	9,032,500	245,471	9,530,928	35,471	498,428	214,232	8,519,154
June	240,000	9,830,500					243,301	9,249,694
Total	2,515,080	108,259,500	2,478,902	98,953,132	203,822	524,132	2,583,000	101,760,360
Subtotals ytd	2,275,080	98,429,000	2,478,902	98,953,132	203,822	524,132		
Achievement of Budget			108.96%	100.53%				

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

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 2 – DWSD Retail Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
June	8,917,831	7,821,791	1,096,040	14.01%
July	8,387,705	8,017,490	370,215	4.62%
August	8,588,507	7,135,456	1,453,051	20.36%
September	8,041,683	9,031,966	(990,283)	-10.96%
October	8,512,614	9,079,199	(566,585)	-6.24%
November	7,926,331	10,803,009	(2,876,678)	-26.63%
December	8,121,586	7,409,888	711,698	9.60%
January	6,919,040	7,884,889	(965,849)	-12.25%
February	10,156,126	6,426,553	3,729,573	58.03%
March	11,093,125	8,458,827	2,634,298	31.14%
April	7,431,900	7,536,272	(104,372)	-1.38%
May	7,660,852	7,365,204	295,648	4.01%
Rolling, 12-Month Total	101,757,300	96,970,544		
Rolling, 12-Month Average	8,479,775	8,080,879		

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 2022 sewer billed revenue which are provided by DWSD staff. As of May 31, 2022, the DWSD usage was at 104.30% of the budget and billed revenue was at 99.92% of budget.

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

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

Table 3 - DWSD Retail Sewer Billings

RETAIL SEWER CUSTOMERS								
Month (1)	FY 2022 - Original Budget		FY 2022 - Actual		FY 2022 - Variance		FY 2021 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	233,100	30,779,300	219,791	29,462,804	(13,309)	(1,316,496)	252,929	29,802,377
August	225,700	30,357,000	249,522	31,231,624	23,822	874,624	240,390	29,261,344
September	198,500	28,805,000	215,748	29,401,234	17,248	596,234	206,880	27,232,400
October	186,000	28,091,700	190,483	27,936,280	4,483	(155,420)	188,816	26,230,683
November	186,000	28,091,700	194,135	28,032,939	8,135	(58,761)	184,240	25,933,888
December	186,000	28,091,700	189,283	27,836,982	3,283	(254,718)	187,397	26,628,891
January	178,700	27,675,200	203,526	28,493,782	24,826	818,582	179,115	26,098,738
February	184,600	28,011,800	189,525	27,837,984	4,925	(173,816)	185,696	26,370,674
March	192,030	28,435,800	212,176	29,032,277	20,146	596,477	197,486	27,090,940
April	199,600	28,867,800	179,291	27,196,557	(20,309)	(1,671,243)	203,684	27,447,662
May	200,100	28,896,300	220,082	29,382,758	19,982	486,458	204,107	27,765,537
June	228,500	30,516,800					231,627	29,058,129
Total	2,398,830	346,620,100	2,263,562	315,845,221	93,232	(258,079)	2,462,367	328,921,263
Subtotals ytd	2,170,330	316,103,300	2,263,562	315,845,221		(258,079)		
Achievement of Budget/Goal			104.30%	99.92%				

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

(2) Retail Revenues include Miscellaneous Revenues and Penalties

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
June	32,508,249	22,558,827	9,949,422	44.10%
July	24,185,252	20,652,159	3,533,093	17.11%
August	25,036,198	22,395,220	2,640,978	11.79%
September	22,635,796	26,463,387	(3,827,591)	-14.46%
October	25,119,240	26,683,109	(1,563,869)	-5.86%
November	23,505,249	28,730,139	(5,224,890)	-18.19%
December	24,880,743	22,856,217	2,024,526	8.86%
January	23,020,491	22,057,276	963,215	4.37%
February	24,495,922	22,777,467	1,718,455	7.54%
March	29,410,086	25,002,508	4,407,578	17.63%
April	22,115,076	21,196,170	918,906	4.34%
May	20,952,592	21,888,687	(936,095)	-4.28%
Rolling 12-Month Total	297,864,894	283,261,166		
Rolling, 12-Month Average	24,822,075	23,605,097		

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 May 31, 2022 with comparative totals from June 30, 2021 and June 30, 2020. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

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

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

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

Table 5 – DWSD Retail Accounts Receivable Aging Report – Summary

Summary					
Period Ending	Monthly Sales	Receivables			Days in AR (1)
		Total	Allowance	Net	
June 30, 2020	\$ 33,061,000	\$ 213,846,000	\$ (142,882,000)	\$ 70,964,000	64
June 30, 2021	\$ 36,335,000	\$ 248,055,000	\$ (200,146,000)	\$ 47,909,000	40
May 31, 2022	\$ 35,619,000	\$ 293,645,000	\$ (249,328,000)	\$ 44,317,000	37
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	Balance
Residential	211,166	\$ 745.36	\$ 13,426,000	\$ 9,065,000	\$ 26,611,000	\$ 108,294,000	\$ 157,396,000
			8.5%	5.8%	16.9%	68.8%	100.0%
Commercial	21,048	1,411.24	7,374,000	2,571,000	6,846,000	12,912,000	29,704,000
			24.8%	8.7%	23.0%	43.5%	100.0%
Industrial	3,486	4,352.59	4,404,000	1,236,000	2,487,000	7,046,000	15,173,000
			29.0%	8.1%	16.4%	46.4%	100.0%
Tax Exempt	3,845	811.35	561,000	212,000	542,000	1,805,000	3,120,000
			18.0%	6.8%	17.4%	57.9%	100.0%
Government	51,365	414.55	2,436,000	1,120,000	2,265,000	15,472,000	21,293,000
			11.4%	5.3%	10.6%	72.7%	100.0%
Drainage	43,371	741.35	2,948,000	1,469,000	4,968,000	22,768,000	32,153,000
			9.2%	4.6%	15.5%	70.8%	100.0%
Subtotal - Active Accounts	334,281	\$ 774.31	\$ 31,149,000	\$ 15,672,000	\$ 43,720,000	\$ 168,297,000	\$ 258,838,000
			12.0%	6.1%	16.9%	65.0%	100.0%
Inactive Accounts	313,970	110.86	89,000	110,000	638,000	33,970,000	34,807,000
			0.3%	0.3%	1.8%	97.6%	100.0%
Total	648,251	\$ 452.98	\$ 31,238,000	\$ 15,782,000	\$ 44,358,000	\$ 202,267,000	\$ 293,645,000
% of Total A/R			10.6%	5.4%	15.1%	68.9%	100.0%
Water Fund	242,069	225.82	\$ 6,804,000	\$ 3,273,000	\$ 7,372,000	\$ 37,215,000	\$ 54,663,000
Sewer Fund	281,568	848.75	\$ 24,434,000	\$ 12,509,000	\$ 36,986,000	\$ 165,053,000	\$ 238,982,000
Total May 31, 2022 (a)	648,251	452.98	\$ 31,238,000	\$ 15,782,000	\$ 44,358,000	\$ 202,267,000	\$ 293,645,000
Water Fund- Allowance							\$ (45,988,000)
Sewer Fund- Allowance							\$ (203,341,000)
Total Bad Debt Allowance							\$ (249,328,000)
Comparative - May 2021 (b)	631,743	394.98	\$ 31,121,000	\$ 15,037,000	\$ 37,207,000	\$ 166,159,000	\$ 249,524,000
Difference (a) - (b)	16,508	58.00	\$ 117,000	\$ 745,000	\$ 7,151,000	\$ 36,108,000	\$ 44,122,000



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	<u>87</u>

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 2022 water billed usage and revenues. As of May 31, 2022, the billed usage was at 96.23% of the original plan and billed revenue at 98.52% of the original plan. Billings and usage from the City of Flint are included as they were assumed in the FY 2022 Budget.

This table also reflects the positive impact of approved FY 2022 budget amendments and known billing adjustments on the original plan.

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 slightly above prior year for the twelve-month period ending May 31, 2022.

Table 1 – FY 2022 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
Month (1)	FY 2022 Charges (3)		FY 2022 - Actual		FY 2022 - Variance		FY 2021 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	1,677,100	33,302,700	1,342,686	29,642,785	(334,414)	(3,659,915)	1,862,791	33,583,619
August	1,509,200	31,598,500	1,417,142	30,604,230	(92,058)	(994,270)	1,622,324	31,230,027
September	1,316,400	29,141,000	1,298,750	29,065,588	(17,650)	(75,412)	1,313,440	27,836,560
October	1,034,000	26,280,800	1,006,217	26,123,483	(27,783)	(157,317)	1,070,660	25,454,840
November	896,800	25,001,500	905,525	25,117,181	8,725	115,681	956,542	24,390,303
December	972,100	25,612,000	958,879	25,542,432	(13,221)	(69,568)	981,770	24,600,202
January	972,000	25,650,600	979,803	25,791,405	7,803	140,805	969,483	25,235,130
February	884,400	24,852,700	875,553	24,800,493	(8,847)	(52,207)	920,467	24,794,259
March	979,500	25,678,200	963,825	25,592,186	(15,675)	(86,014)	1,001,073	25,450,418
April	914,000	25,117,700	912,124	25,139,078	(1,876)	21,378	954,308	25,140,003
May	1,059,200	26,721,900	1,094,002	27,116,529	34,802	394,629	1,181,186	27,569,969
June	1,374,300	30,029,900					1,424,230	30,066,884
Total	13,589,000	328,987,500	11,754,506	294,535,389	(460,194)	(4,422,211)	14,258,274	325,352,214
Subtotals ytd	12,214,700	298,957,600	11,754,506	294,535,389	(460,194)	(4,422,211)		
Achievement of Original Plan			96.23%	98.52%				
1st Quarter Budget Amendments	(220,000)	(2,400,000)			220,000	2,400,000		
Billing Adjustments			21,488	129,440	21,488	129,440		
Revised Subtotal	11,994,700	296,557,600	11,775,994	294,664,829	(218,706)	(1,892,771)		
Achievement of Amended Plan			98.18%	99.36%				

(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 2022 water supply system charge schedule.

Table 2 - Wholesale Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
June	25,403,968	27,098,783	(1,694,815)	-6.25%
July	23,709,847	25,080,575	(1,370,728)	-5.47%
August	31,668,492	26,241,018	5,427,474	20.68%
September	23,849,618	26,078,015	(2,228,397)	-8.55%
October	29,212,277	29,292,690	(80,413)	-0.27%
November	25,265,770	32,218,822	(6,953,052)	-21.58%
December	25,302,369	29,609,061	(4,306,692)	-14.55%
January	31,280,599	20,716,948	10,563,651	50.99%
February	24,919,847	25,694,176	(774,329)	-3.01%
March	22,123,572	20,854,506	1,269,066	6.09%
April	21,726,941	23,545,123	(1,818,182)	-7.72%
May	27,717,969	24,878,479	2,839,490	11.41%
Rolling 12-Month Total	312,181,269	311,308,196		
Rolling, 12-Month Average	26,015,106	25,942,350		

Wholesale Sewer Billings and Collections

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

Service Arrangement Type

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

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

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

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

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

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

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

Table 3 – FY 2022 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
Month (1)	FY 2022 Charges		FY 2022 - Actual		FY 2022 - Variance		FY 2021 - Actuals	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
August	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
September	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
October	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
November	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
December	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,323,183
January	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
February	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
March	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
April	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
May	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
June	N/A	22,615,000	N/A	22,615,000	N/A	-	N/A	22,633,025
Total		271,380,000		248,765,000		-		269,737,248
Subtotals ytd		248,765,000		248,765,000		-		
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
June	28,523,650	28,598,467	(74,817)	-0.26%
July	21,842,125	22,297,737	(455,612)	-2.04%
August	22,191,725	25,354,280	(3,162,555)	-12.47%
September	26,706,558	19,593,613	7,112,945	36.30%
October	22,176,058	16,853,983	5,322,075	31.58%
November	16,534,758	18,966,208	(2,431,450)	-12.82%
December	21,765,958	25,232,649	(3,466,691)	-13.74%
January	26,436,258	25,968,849	467,409	1.80%
February	23,937,258	16,872,900	7,064,358	41.87%
March	24,713,158	22,368,124	2,345,034	10.48%
April	19,937,558	28,128,933	(8,191,375)	-29.12%
May	10,226,700	15,972,800	(5,746,100)	-35.97%
Rolling 12-Month Total	264,991,764	266,208,543		
Rolling, 12-Month Average	22,082,647	22,184,045		

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 May 31, 2022, Highland Park had a delinquent balance of \$54.6 million, including \$42.0 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$10.8 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 2022 through May 31, 2022. Please note the numbers below reflect the month the billing was sent and not the month the service was provided. A life-to-date summary is provided as an appendix to this monthly financial report.

Table 5 - City of Highland Park Billings and Collections

	Water	Sewer	IWC	Total
June 30, 2021 Balance	9,719,190	37,030,575	1,769,763	48,519,528
July 2021 Billing	102,730	478,900	3,972	585,602
July 2021 Payments	-	-	-	-
July 31, 2021 Balance	9,821,920	37,509,475	1,773,735	49,105,130
August 2021 Billing	109,067	446,400	4,067	559,534
August 2021 Payments	-	-	-	-
August 31, 2021 Balance	9,930,987	37,955,875	1,777,802	49,664,664
September 2021 Billing	110,440	446,400	4,062	560,902
September 2021 Payments	-	-	-	-
September 30, 2021 Balance	10,041,427	38,402,275	1,781,864	50,225,566
October 2021 Billing	109,853	446,400	4,053	560,306
October 2021 Payments	-	-	-	-
October 31, 2021 Balance	10,151,280	38,848,675	1,785,917	50,785,872
November 2021 Billing	103,417	446,400	4,069	553,886
November 2021 Payments	-	-	-	-
November 30, 2021 Balance	10,254,697	39,295,075	1,789,986	51,339,758
December 2021 Billing	100,908	446,400	4,075	551,383
December 2021 Payments	-	-	-	-
December 31, 2021 Balance	10,355,605	39,741,475	1,794,061	51,891,141
January 2022 Billing	96,633	446,400	4,002	547,035
January 2022 Payments	-	-	-	-
January 31, 2022 Balance	10,452,238	40,187,875	1,798,063	52,438,176
February 2022 Billing	97,203	446,400	4,002	547,605
February 2022 Payments	-	-	-	-
February 28, 2022 Balance	10,549,441	40,634,275	1,802,065	52,985,781
March 2022 Billing	96,540	446,400	4,000	546,940
March 2022 Payments	-	-	-	-
March 31, 2022 Balance	10,645,981	41,080,675	1,806,065	53,532,721
April 2022 Billing	98,395	446,400	4,009	548,804
April 2022 Payments	-	-	-	-
April 30, 2022 Balance	10,744,376	41,527,075	1,810,074	54,081,525
May 2022 Billing	96,254	446,400	4,009	546,663
May 2022 Payments	-	-	-	-
May 31, 2022 Balance	10,840,630	41,973,475	1,814,083	54,628,188

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 May 31, 2022.

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park is the same summary *without* the past due balances for the City of Highland Park. One member partner contract dispute accounts for \$5.68 million of the current water past due balance. The remaining water past due accounts were paid in early May.

The sewer past due is related to one member partner payment that was made in June.

Pollutant surcharge past dues generally consist of smaller account holders that GLWA staff continue to communicate with. The pollutant surcharge balance over 105 days is related to an uncollectible account due to bankruptcy.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 53,907,502.30	\$ 34,377,639.50	\$ 4,003,632.05	\$ 938,897.12	\$ 14,587,333.63
Sewer	\$ 69,024,646.35	\$ 21,591,975.51	\$ 6,351,995.68	\$ 446,400.00	\$ 40,634,275.16
IWC	\$ 2,361,184.30	\$ 548,597.75	\$ 10,521.42	\$ 4,001.97	\$ 1,798,063.16
Pollutant Surcharge	\$ 451,644.36	\$ 417,192.10	\$ 1,597.88	\$ 2,744.42	\$ 30,109.96
Total	\$ 125,744,977.31	\$ 56,935,404.86	\$ 10,367,747.03	\$ 1,392,043.51	\$ 57,049,781.91
	100.00%	45.28%	8.25%	1.11%	45.37%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 43,066,872.16	\$ 34,182,989.96	\$ 3,907,091.99	\$ 841,694.07	\$ 4,135,096.14
Sewer	\$ 27,051,171.19	\$ 21,145,575.51	\$ 5,905,595.68	\$ -	\$ -
IWC	\$ 547,100.87	\$ 540,579.65	\$ 6,521.22	\$ -	\$ -
Pollutant Surcharge	\$ 451,644.36	\$ 417,192.10	\$ 1,597.88	\$ 2,744.42	\$ 30,109.96
Total	\$ 71,116,788.58	\$ 56,286,337.22	\$ 9,820,806.77	\$ 844,438.49	\$ 4,165,206.10
	100.00%	79.15%	13.81%	1.19%	5.86%

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 2022 reflects eleven months of activity to date.

Water fund receipts exceeded required disbursements by 7% through May 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 13% since July 1, 2017.

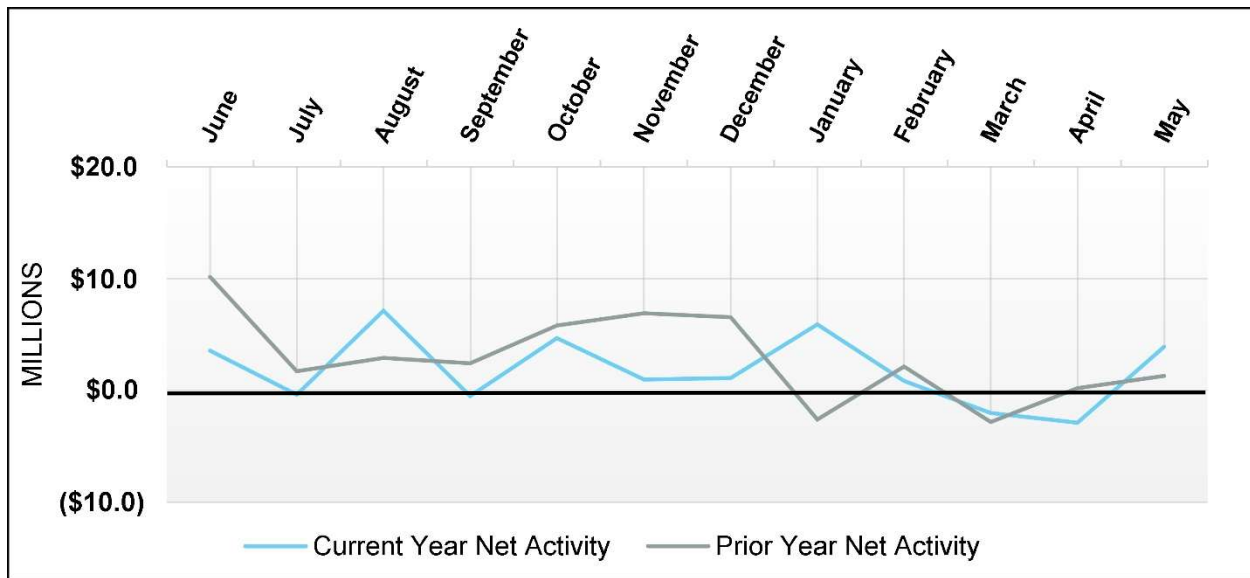
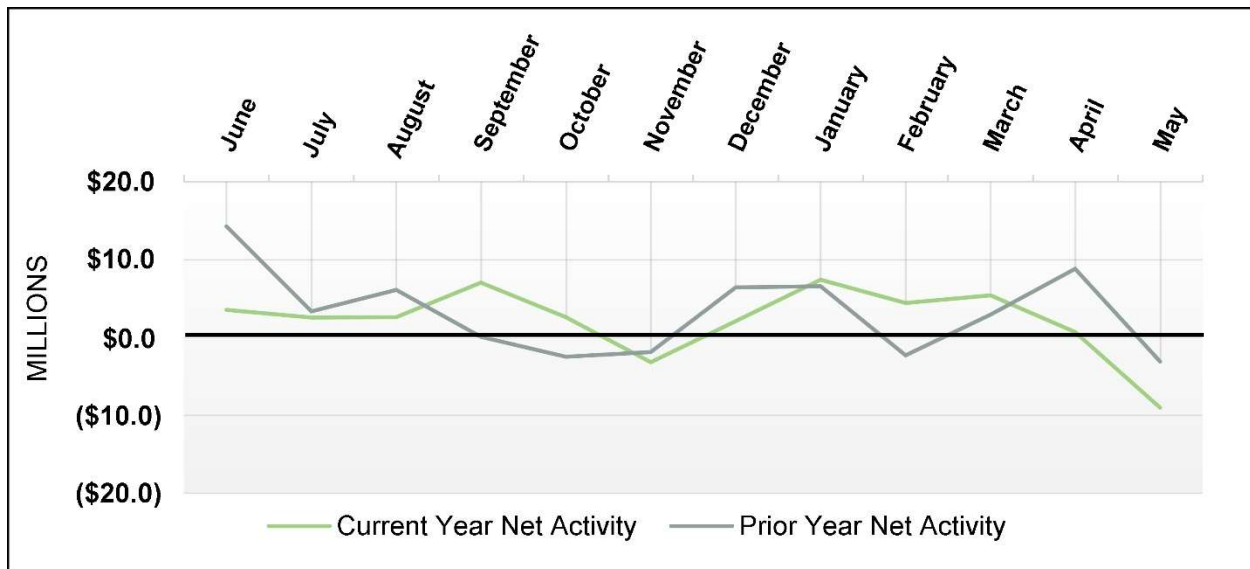
Sewer fund receipts exceeded required disbursements by 6% through May 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 6% since July 1, 2017.

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 2018	FY 2019	FY 2020	FY 2021	FY 2022 Thru May 31
Water					
1 Receipts	\$ 338,452,001	\$ 336,594,234	\$ 332,606,196	\$ 336,642,021	\$ 309,686,422
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	338,452,001	336,594,234	332,606,196	336,642,021	309,686,422
4 Disbursements	(297,064,810)	(289,230,481)	(296,190,425)	(308,713,407)	(289,539,510)
5 Receipts Net of Required	41,387,191	47,363,753	36,415,771	27,928,614	20,146,912
6 I&E Transfer	(25,739,700)	(47,695,000)	(25,719,751)	(31,991,687)	(24,542,262)
7 Net Receipts	\$ 15,647,491	\$ (331,247)	\$ 10,696,020	\$ (4,063,073)	\$ (4,395,350)
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	114%	116%	112%	109%	107%
Sewer					
9 Receipts	\$ 476,269,761	\$ 467,743,744	\$ 490,461,356	\$ 472,871,853	\$ 425,026,666
10 MOU Adjustments	-	-	-	-	-
11 Adjusted Receipts	476,269,761	467,743,744	490,461,356	472,871,853	425,026,666
12 Disbursements	(458,903,335)	(453,406,636)	(445,604,952)	(436,600,883)	(402,428,433)
13 Receipts Net of Required	17,366,426	14,337,108	44,856,404	36,270,970	22,598,233
14 I&E Transfer	(22,698,100)	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)
15 DWSD Shortfall Advance	(24,113,034)	-	-	-	-
16 Shortfall Repayment (principal)	-	9,367,355	17,542,669	18,206,431	7,595,018
17 Net Receipts	\$ (29,444,708)	\$ 1,156,763	\$ 43,302,873	\$ 13,972,674	\$ (7,458,537)
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	104%	103%	110%	108%	106%
Combined					
19 Receipts	\$ 814,721,762	\$ 804,337,978	\$ 823,067,552	\$ 809,513,874	\$ 734,713,088
20 MOU Adjustments	-	-	-	-	-
21 Adjusted Receipts	814,721,762	804,337,978	823,067,552	809,513,874	734,713,088
22 Disbursements	(755,968,145)	(742,637,117)	(741,795,377)	(745,314,290)	(691,967,943)
23 Receipts Net of Required	58,753,617	61,700,861	81,272,175	64,199,584	42,745,145
24 I&E Transfer	(48,437,800)	(70,242,700)	(44,815,951)	(72,496,414)	(62,194,050)
25 Shortfall Advance	(24,113,034)	-	-	-	-
26 Shortfall Repayment	-	9,367,355	17,542,669	18,206,431	7,595,018
27 Net Receipts	\$ (13,797,217)	\$ 825,516	\$ 53,998,893	\$ 9,909,601	\$ (11,853,887)
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	108%	108%	111%	109%	106%

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 2022 reflects eleven months of activity to date.

Water fund receipts exceeded required disbursements by 7% through May 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2017.

Sewer fund receipts exceeded required disbursements by 1% through May 31, 2022 consistent with the four-year historical average ratio of required receipts falling short of disbursements by 2% since July 1, 2017.

Table 3 – FY 2018 DWSD Loan Receivable - Sewer provides an activity summary of the loan receivable established under the terms of the April 2018 MOU addressing the cash shortfall from FY 2018.

Table 4 – FY 2018 DWSD Loan Receivable Payments - Sewer provides an activity summary of loan receivable payments to date on the FY 2018 Sewer Loan Receivable including the interest on the loan. This payment is transferred directly to GLWA Sewer Improvement & Extension fund monthly.

The Reconciliation Committee monitors this balance and repayment progress as part of its quarterly meetings.

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.

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

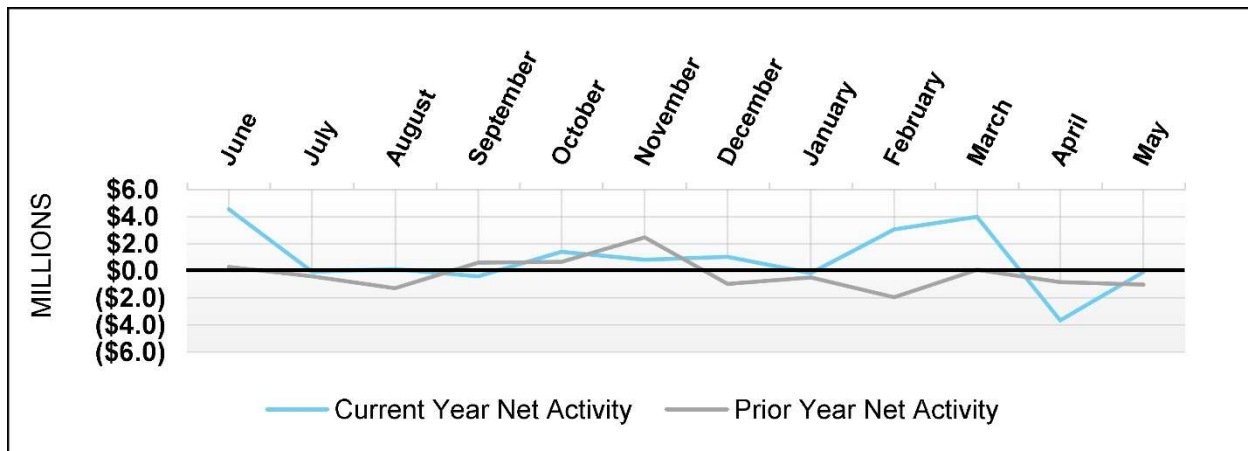
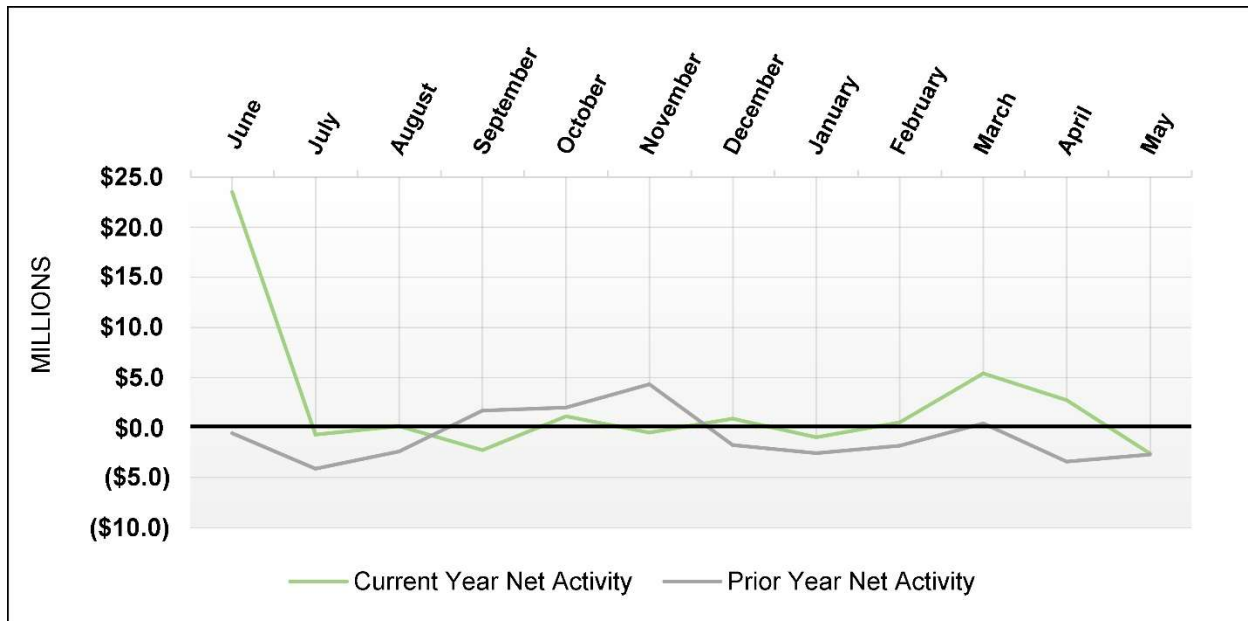
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 Thru May 31
Water					
1 Receipts	\$ 101,233,147	\$ 99,868,219	\$ 96,885,723	\$ 102,067,423	\$ 92,839,762
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	101,233,147	99,868,219	96,885,723	102,067,423	92,839,762
4 Disbursements	(93,049,457)	(97,694,600)	(97,823,097)	(100,707,200)	(86,750,396)
5 Receipts Net of Required	8,183,690	2,173,619	(937,374)	1,360,223	6,089,366
6 I&E Transfer	-	(8,407,080)	-	-	-
7 Net Receipts	\$ 8,183,690	\$ (6,233,461)	\$ (937,374)	\$ 1,360,223	\$ 6,089,366
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	109%	102%	99%	101%	107%
Sewer					
9 Receipts	\$ 242,104,791	\$ 265,339,797	\$ 264,689,559	\$ 308,210,767	\$ 265,357,344
10 MOU Adjustments	-	6,527,200	-	-	-
11 Adjusted Receipts	242,104,791	271,866,997	264,689,559	308,210,767	265,357,344
12 Disbursements	(266,217,825)	(271,018,306)	(275,507,374)	(295,100,771)	(261,708,187)
13 Receipts Net of Required	(24,113,034)	848,691	(10,817,815)	13,109,996	3,649,157
14 I&E Transfer	-	-	-	-	-
15 Shortfall Advance from GLWA	24,113,034	-	-	-	-
16 Net Receipts	\$ -	\$ 848,691	\$ (10,817,815)	\$ 13,109,996	\$ 3,649,157
17 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	91%	100%	96%	104%	101%
Combined					
18 Receipts	\$ 343,337,938	\$ 365,208,016	\$ 361,575,282	\$ 410,278,190	\$ 358,197,106
19 MOU Adjustments	-	6,527,200	-	-	-
20 Adjusted Receipts	343,337,938	371,735,216	361,575,282	410,278,190	358,197,106
21 Disbursements	(359,267,282)	(368,712,906)	(373,330,471)	(395,807,971)	(348,458,583)
22 Receipts Net of Required	(15,929,344)	3,022,310	(11,755,189)	14,470,219	9,738,523
23 I&E Transfer	-	(8,407,080)	-	-	-
24 Shortfall Advance from GLWA	24,113,034	-	-	-	-
25 Net Receipts	\$ 8,183,690	\$ (5,384,770)	\$ (11,755,189)	\$ 14,470,219	\$ 9,738,523
26 <i>Ratio of Receipts to Required Disbursements (Line 20/Line 21)</i>	96%	101%	97%	104%	103%

Table 3 – FY 2018 DWSD Loan Receivable – Sewer

Date	Transaction	Amount	Balance
06-30-19	Record Loan Receivable		24,113,034
07-15-19	Payment for July 2019	638,978	23,474,056
08-08-19	Payment for August 2019	640,686	22,833,370
09-06-19	Payment for September 2019	642,400	22,190,970
10-02-19	Payment for October 2019	644,118	21,546,852
11-04-19	Payment for November 2019	645,840	20,901,012
12-03-19	Payment for December 2019	647,567	20,253,445
01-06-20	Payment for January 2020	649,299	19,604,146
02-04-20	Payment for February 2020	651,035	18,953,111
03-03-20	Payment for March 2020	652,776	18,300,335
04-15-20	Payment for April 2020	654,522	17,645,813
05-06-20	Payment for May 2020	656,272	16,989,541
06-02-20	Payment for June 2020	658,027	16,331,514
07-07-20	Payment for July 2020	659,787	15,671,727
08-04-20	Payment for August 2020	661,551	15,010,176
09-02-20	Payment for September 2020	663,320	14,346,855
10-05-20	Payment for October 2020	665,094	13,681,761
11-03-20	Payment for November 2020	666,873	13,014,888
12-03-20	Payment for December 2020	668,656	12,346,232
01-05-21	Payment for January 2021	670,444	11,675,788
02-02-21	Payment for February 2021	672,237	11,003,551
03-03-21	Payment for March 2021	674,035	10,329,517
04-05-21	Payment for April 2021	675,837	9,653,679
05-04-21	Payment for May 2021	677,644	8,976,035
06-03-21	Payment for June 2021	679,457	8,296,578
07-02-21	Payment for July 2021	681,274	7,615,305
08-03-21	Payment for August 2021	683,095	6,932,209
09-03-21	Payment for September 2021	684,922	6,247,287
10-05-21	Payment for October 2021	686,754	5,560,534
11-03-21	Payment for November 2021	688,590	4,871,944
12-06-21	Payment for December 2021	690,432	4,181,512
01-05-22	Payment for January 2022	692,278	3,489,234
02-04-22	Payment for February 2022	694,129	2,795,105
03-03-22	Payment for March 2022	695,985	2,099,119
04-03-22	Payment for April 2022	697,847	1,401,273
05-03-22	Payment for May 2022	699,713	701,560
		23,411,474	701,560

Table 4 – FY 2018 DWSD Loan Receivable Payments – Sewer

Date	Transaction	Principal	Interest	Total Paid
07-15-19	Payment for July 2019	638,978	64,482	703,460
08-08-19	Payment for August 2019	640,686	62,774	703,460
09-06-19	Payment for September 2019	642,400	61,060	703,460
10-02-19	Payment for October 2019	644,118	59,342	703,460
11-04-19	Payment for November 2019	645,840	57,620	703,460
12-03-19	Payment for December 2019	647,567	55,893	703,460
01-06-20	Payment for January 2020	649,299	54,161	703,460
02-04-20	Payment for February 2020	651,035	52,425	703,460
03-03-20	Payment for March 2020	652,776	50,684	703,460
04-15-20	Payment for April 2020	654,522	48,938	703,460
05-06-20	Payment for May 2020	656,272	47,188	703,460
06-02-20	Payment for June 2020	658,027	45,433	703,460
07-07-20	Payment for July 2020	659,787	43,673	703,460
08-04-20	Payment for August 2020	661,551	41,909	703,460
09-02-20	Payment for September 2020	663,320	40,140	703,460
10-05-20	Payment for October 2020	665,094	38,366	703,460
11-03-20	Payment for November 2020	666,873	36,587	703,460
12-03-20	Payment for December 2020	668,656	34,804	703,460
01-05-21	Payment for January 2021	670,444	33,016	703,460
02-02-21	Payment for February 2021	672,237	31,223	703,460
03-03-21	Payment for March 2021	674,035	29,425	703,460
04-05-21	Payment for April 2021	675,837	27,623	703,460
05-04-21	Payment for May 2021	677,644	25,816	703,460
06-03-21	Payment for June 2021	679,457	24,003	703,460
07-02-21	Payment for July 2021	681,274	22,186	703,460
08-03-21	Payment for August 2021	683,095	20,365	703,460
09-03-21	Payment for September 2021	684,922	18,538	703,460
10-05-21	Payment for October 2021	686,754	16,706	703,460
11-03-21	Payment for November 2021	688,590	14,870	703,460
12-06-21	Payment for December 2021	690,432	13,028	703,460
01-05-22	Payment for January 2022	692,278	11,182	703,460
02-04-22	Payment for February 2022	694,129	9,331	703,460
03-03-22	Payment for March 2022	695,985	7,475	703,460
04-04-22	Payment for April 2022	697,847	5,613	703,460
05-03-22	Payment for May 2022	699,713	3,747	703,460
		23,411,474	1,209,627	23,214,180

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 5 – Combined Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2022 reflects eleven months of activity to date.

Water fund net receipts exceeded required disbursements by 7% through May 31, 2022 consistent with the four-year historical average ratio of required receipts exceeding disbursements by 10% since July 1, 2017.

Sewer fund receipts exceeded required disbursements by 4% through May 31, 2022 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2017.

Table 5 – Combined Net Cash Flows from Trust Receipts & Disbursements

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022 Thru May 31
Water					
1 Receipts	\$ 439,685,148	\$ 436,462,453	\$ 429,491,919	\$ 438,709,444	\$ 402,526,184
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	439,685,148	436,462,453	429,491,919	438,709,444	402,526,184
4 Disbursements	(390,114,267)	(386,925,081)	(394,013,522)	(409,420,607)	(376,289,906)
5 Receipts Net of Required	49,570,881	49,537,372	35,478,397	29,288,837	26,236,278
6 I&E Transfer	(25,739,700)	(56,102,080)	(25,719,751)	(31,991,687)	(24,542,262)
7 Net Receipts	\$ 23,831,181	\$ (6,564,708)	\$ 9,758,646	\$ (2,702,850)	\$ 1,694,016
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	113%	113%	109%	107%	107%
Sewer					
9 Receipts	\$ 718,374,552	\$ 733,083,541	\$ 755,150,915	\$ 781,082,620	\$ 690,384,010
10 MOU Adjustments	-	6,527,200	-	-	-
11 Adjusted Receipts	718,374,552	739,610,741	755,150,915	781,082,620	690,384,010
12 Disbursements	(725,121,160)	(724,424,942)	(721,112,326)	(731,701,654)	(664,136,620)
13 Receipts Net of Required	(6,746,608)	15,185,799	34,038,589	49,380,966	26,247,390
14 I&E Transfer	(22,698,100)	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)
15 Shortfall Advance	-	-	-	-	-
16 Shortfall Repayment (principal)	-	9,367,355	17,542,669	18,206,431	7,595,018
17 Net Receipts	\$ (29,444,708)	\$ (7,361,901)	\$ 32,485,058	\$ 27,082,670	\$ (3,809,380)
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	99%	102%	105%	107%	104%
Combined					
19 Receipts	\$1,158,059,700	\$1,169,545,994	\$1,184,642,834	\$1,219,792,064	\$ 1,092,910,194
20 MOU Adjustments	-	6,527,200	-	-	-
21 Adjusted Receipts	1,158,059,700	1,176,073,194	1,184,642,834	1,219,792,064	1,092,910,194
22 Disbursements	(1,115,235,427)	(1,111,350,023)	(1,115,125,848)	(1,141,122,261)	(1,040,426,526)
23 Receipts Net of Required	42,824,273	64,723,171	69,516,986	78,669,803	52,483,668
24 I&E Transfer	(48,437,800)	(78,649,780)	(44,815,951)	(72,496,414)	(62,194,050)
25 Shortfall Advance	-	-	-	-	-
26 Shortfall Repayment	-	9,367,355	17,542,669	18,206,431	7,595,018
27 Net Receipts	\$ (5,613,527)	\$ (4,559,254)	\$ 42,243,704	\$ 24,379,820	\$ (2,115,364)
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	104%	106%	106%	107%	105%

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$190,478.80	\$190,478.80	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$19,939.06	\$19,939.06	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$69,159.06	\$69,159.06	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$26,825.83	\$26,825.83	\$0.00	\$0.00	\$0.00
BERLIN TOWNSHIP	\$122,003.34	\$122,003.34	\$0.00	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$296,085.67	\$296,085.67	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$25,909.86	\$25,909.86	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$25,608.98	\$25,608.98	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$836,475.78	\$836,475.78	\$0.00	\$0.00	\$0.00
CENTER LINE	\$80,914.73	\$80,914.73	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$351,915.45	\$351,915.45	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$601,719.01	\$601,719.01	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$832,977.92	\$561,687.12	\$271,290.80	\$0.00	\$0.00
DEARBORN	\$7,440,025.13	\$1,761,146.07	\$703,273.66	\$840,509.26	\$4,135,096.14
DEARBORN HEIGHTS	\$638,179.78	\$638,179.78	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$135,042.27	\$135,042.27	\$0.00	\$0.00	\$0.00
ECORSE	\$113,875.33	\$113,875.33	\$0.00	\$0.00	\$0.00
FARMINGTON	\$82,855.46	\$82,855.46	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$2,110,105.59	\$1,415,840.55	\$694,265.04	\$0.00	\$0.00
FERNDAL	\$181,377.18	\$181,377.18	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$214,139.99	\$214,139.99	\$0.00	\$0.00	\$0.00
FLINT	\$237,792.10	\$237,792.10	\$0.00	\$0.00	\$0.00
FRASER	\$99,135.32	\$99,135.32	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$134,903.45	\$134,903.45	\$0.00	\$0.00	\$0.00
GENESEE COUNTY DRAIN COMM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$27,882.80	\$27,882.80	\$0.00	\$0.00	\$0.00
GREATER LAPEER CUA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$181,351.60	\$181,351.60	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$104,929.46	\$104,929.46	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$47,000.52	\$47,000.52	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$100,174.77	\$100,174.77	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$66,909.05	\$66,909.05	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$87,956.93	\$87,956.93	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$136,163.76	\$136,163.76	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$68,079.16	\$68,079.16	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$10,840,630.14	\$194,649.54	\$96,540.06	\$97,203.05	\$10,452,237.49
HURON TOWNSHIP	\$130,168.52	\$130,168.52	\$0.00	\$0.00	\$0.00
IMLAY CITY	\$242,466.67	\$242,466.67	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP	\$2,003.74	\$2,003.74	\$0.00	\$0.00	\$0.00
INKSTER	\$110,470.77	\$110,470.77	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$74,545.78	\$49,523.92	\$25,021.86	\$0.00	\$0.00
LAPEER	\$131,012.65	\$131,012.65	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$78,342.69	\$52,251.65	\$24,906.23	\$1,184.81	\$0.00
LINCOLN PARK	\$614,616.39	\$410,111.61	\$204,504.78	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIVONIA	\$907,863.57	\$907,863.57	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$1,008,971.54	\$1,008,971.54	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$158,896.27	\$158,896.27	\$0.00	\$0.00	\$0.00
MAYFIELD TOWNSHIP	\$3,429.97	\$3,429.97	\$0.00	\$0.00	\$0.00
MELVINDALE	\$57,404.10	\$57,404.10	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$95,735.84	\$64,378.69	\$31,357.15	\$0.00	\$0.00
NOCWA	\$3,453,838.88	\$3,453,838.88	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$62,178.00	\$62,178.00	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$419,220.03	\$419,220.03	\$0.00	\$0.00	\$0.00
NOVI	\$1,452,635.78	\$1,452,635.78	\$0.00	\$0.00	\$0.00
OAK PARK	\$116,404.06	\$116,404.06	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$13,650.39	\$13,650.39	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$174,270.83	\$174,270.83	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$709,892.22	\$694,392.22	\$15,500.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$256,336.60	\$256,336.60	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$117,710.20	\$117,710.20	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$148,085.24	\$148,085.24	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$48,205.66	\$48,105.66	\$100.00	\$0.00	\$0.00
ROMEO	\$21,730.55	\$21,730.55	\$0.00	\$0.00	\$0.00
ROMULUS	\$334,173.91	\$334,173.91	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$451,056.55	\$451,056.55	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$49,102.65	\$32,625.32	\$16,477.33	\$0.00	\$0.00
SHELBY TOWNSHIP	\$1,090,746.29	\$1,090,746.29	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SOCWA	\$3,733,405.92	\$1,878,328.57	\$1,855,077.35	\$0.00	\$0.00
SOUTH ROCKWOOD	\$9,729.67	\$9,729.67	\$0.00	\$0.00	\$0.00
SOUTHGATE	\$193,749.92	\$193,749.92	\$0.00	\$0.00	\$0.00
ST. CLAIR CNTY-GREENWOOD ENE	\$68,192.17	\$68,192.17	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$271,235.11	\$271,235.11	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$1,253,300.18	\$1,253,300.18	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$69,856.48	\$69,856.48	\$0.00	\$0.00	\$0.00
SYLVAN LAKE	\$20,607.84	\$20,607.84	\$0.00	\$0.00	\$0.00
TAYLOR	\$396,856.17	\$396,856.17	\$0.00	\$0.00	\$0.00
TRENTON	\$279,124.75	\$279,124.75	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$1,060,325.16	\$1,060,325.16	\$0.00	\$0.00	\$0.00
UTICA	\$93,726.84	\$93,726.84	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$577,640.26	\$577,640.26	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$194,504.36	\$129,186.57	\$65,317.79	\$0.00	\$0.00
WARREN	\$1,765,547.70	\$1,765,547.70	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$178,566.94	\$178,566.94	\$0.00	\$0.00	\$0.00
WAYNE	\$279,063.37	\$279,063.37	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$1,730,111.20	\$1,730,111.20	\$0.00	\$0.00	\$0.00
WESTLAND	\$538,010.29	\$538,010.29	\$0.00	\$0.00	\$0.00
WIXOM	\$201,920.61	\$201,920.61	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$141,387.28	\$141,387.28	\$0.00	\$0.00	\$0.00
YCUA	\$1,786,950.46	\$1,786,950.46	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	\$53,907,502.30	\$34,377,639.50	\$4,003,632.05	\$938,897.12	\$14,587,333.63

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CENTER LINE	\$85,799.50	\$85,799.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$1,671,500.00	\$1,671,500.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$2,980,500.00	\$2,980,500.00	\$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	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$41,973,475.16	\$446,400.00	\$446,400.00	\$446,400.00	\$40,634,275.16
MELVINDALE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,819,000.00	\$3,819,000.00	\$0.00	\$0.00	\$0.00
OMID	\$11,797,871.69	\$5,892,276.01	\$5,905,595.68	\$0.00	\$0.00
REDFORD TOWNSHIP	\$22,200.00	\$22,200.00	\$0.00	\$0.00	\$0.00
ROUGE VALLEY	\$4,605,600.00	\$4,605,600.00	\$0.00	\$0.00	\$0.00
SOUTH MACOMB SANITATION DIST	\$2,064,400.00	\$2,064,400.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY-AREA #3	\$4,300.00	\$4,300.00	\$0.00	\$0.00	\$0.00
TOTAL SEWER ACCOUNTS	\$69,024,646.35	\$21,591,975.51	\$6,351,995.68	\$446,400.00	\$40,634,275.16

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$1,605.39	\$1,605.39	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O)	\$11,487.30	\$11,487.30	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O) ADMIN	\$1,988.51	\$1,988.51	\$0.00	\$0.00	\$0.00
AUBURN HILLS (E-F)	\$392.94	\$392.94	\$0.00	\$0.00	\$0.00
BERKLEY	\$3,147.06	\$3,147.06	\$0.00	\$0.00	\$0.00
BEVERLY HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BINGHAM FARMS	\$1,076.16	\$1,076.16	\$0.00	\$0.00	\$0.00
BIRMINGHAM (E-F)	\$4,855.11	\$4,855.11	\$0.00	\$0.00	\$0.00
BIRMINGHAM (SEOC)	\$11,328.00	\$11,328.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$1,653.18	\$1,653.18	\$0.00	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$254.88	\$169.92	\$84.96	\$0.00	\$0.00
CENTER LINE	\$7,334.88	\$7,334.88	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$12,581.16	\$12,581.16	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$200.01	\$200.01	\$0.00	\$0.00	\$0.00
CITY OF FERNDALE	\$8,867.70	\$8,867.70	\$0.00	\$0.00	\$0.00
CITY OF ROCHESTER	\$3,708.15	\$3,708.15	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLAWSON	\$3,122.28	\$3,122.28	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN	\$73,812.54	\$73,812.54	\$0.00	\$0.00	\$0.00
DEARBORN HEIGHTS	\$9,591.63	\$9,591.63	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$106.20	\$106.20	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EASTPOINTE	\$6,426.87	\$6,426.87	\$0.00	\$0.00	\$0.00
FARMINGTON	\$4,019.67	\$4,019.67	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$24,725.13	\$24,725.13	\$0.00	\$0.00	\$0.00
FRASER	\$14,814.90	\$9,876.60	\$4,938.30	\$0.00	\$0.00
GARDEN CITY	\$6,101.19	\$6,101.19	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$2,079.75	\$2,079.75	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,177.05	\$1,177.05	\$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	\$4,155.96	\$4,155.96	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,893.90	\$1,893.90	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$178.77	\$178.77	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$3,265.65	\$3,265.65	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,814,083.43	\$8,018.10	\$4,000.20	\$4,001.97	\$1,798,063.16
HUNTINGTON WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$1,283.00	\$1,283.00	\$0.00	\$0.00	\$0.00
INKSTER	\$5,536.56	\$5,536.56	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$702.69	\$702.69	\$0.00	\$0.00	\$0.00
LAKE ORION	\$800.04	\$800.04	\$0.00	\$0.00	\$0.00
LATHRUP	\$1,400.07	\$1,400.07	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$323.91	\$323.91	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIVONIA	\$40,279.89	\$40,279.89	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$205.32	\$205.32	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,501.06	\$3,501.06	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$612.42	\$612.42	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$1,773.54	\$1,773.54	\$0.00	\$0.00	\$0.00
NOVI	\$17,731.86	\$17,731.86	\$0.00	\$0.00	\$0.00
OAK PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
OAKLAND TOWNSHIP	\$449.58	\$449.58	\$0.00	\$0.00	\$0.00
ORCHARD LAKE VILLAGE	\$377.01	\$377.01	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O)	\$4,281.63	\$4,281.63	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$486.88	\$486.88	\$0.00	\$0.00	\$0.00
OXFORD TOWNSHIP	\$3,154.14	\$2,134.62	\$1,019.52	\$0.00	\$0.00
OXFORD VILLAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PLEASANT RIDGE	\$272.58	\$272.58	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$3,883.38	\$3,883.38	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$136.29	\$136.29	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$12,643.11	\$12,643.11	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$18,431.01	\$18,431.01	\$0.00	\$0.00	\$0.00
ROMULUS	\$778.80	\$778.80	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$14,710.47	\$14,710.47	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$13,733.43	\$13,733.43	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$957.57	\$957.57	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$14,875.08	\$14,875.08	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$55,961.18	\$55,961.18	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$7,126.56	\$6,648.12	\$478.44	\$0.00	\$0.00
ST. CLAIR SHORES	\$11,841.30	\$11,841.30	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$31,875.93	\$31,875.93	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UTICA	\$3,035.55	\$3,035.55	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$2,039.04	\$2,039.04	\$0.00	\$0.00	\$0.00
VILLAGE OF FRANKLIN	\$65.49	\$65.49	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$1,640.79	\$1,640.79	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADM)	\$3,163.51	\$3,163.51	\$0.00	\$0.00	\$0.00
WAYNE	\$4,996.71	\$4,996.71	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (E-F)	\$12,733.47	\$12,733.47	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP. (C-O) P	\$486.78	\$486.78	\$0.00	\$0.00	\$0.00
WESTLAND	\$22,861.32	\$22,861.32	\$0.00	\$0.00	\$0.00
TOTAL IWC ACCOUNTS	\$2,361,184.30	\$548,597.75	\$10,521.42	\$4,001.97	\$1,798,063.16

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	\$1,318.62	\$1,318.62	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$1,533.18	\$1,533.18	\$0.00	\$0.00	\$0.00
AACTRON	\$53.88	\$53.88	\$0.00	\$0.00	\$0.00
ACADEMY PACKING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$101.08	\$69.81	\$31.27	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$99.75	\$99.75	\$0.00	\$0.00	\$0.00
ADVANCE ENGINEERING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$636.66	\$636.66	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
APPLIED TECHNOLOGY INDUSTRIE	\$966.39	\$966.39	\$0.00	\$0.00	\$0.00
ATWATER IN THE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUTOMOTIVE FINISH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AXLE BREWING COMPANY, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. NEKTAR MEADERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$83.52	\$83.52	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$525.37	\$525.37	\$0.00	\$0.00	\$0.00
BARTZ BAKERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BASTONE BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	\$1,096.89	\$43.76	\$0.00	\$0.00	\$1,053.13
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	\$48,046.35	\$48,046.35	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$53.06	\$53.06	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$5,571.91	\$5,571.91	\$0.00	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROWN IRON BREWHOUSE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CADILLAC STRAITS BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CANTON BREW WORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL REPRODUCTIONS	\$5.48	\$5.48	\$0.00	\$0.00	\$0.00
CF BURGER CREAMERY	\$12,521.30	\$12,521.30	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$2,044.88	\$21.60	\$10.23	\$10.23	\$2,002.82
CINTAS CORP. - MACOMB TWP.	\$23,271.79	\$23,271.79	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$10,613.86	\$10,613.86	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$6,665.33	\$6,665.33	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$3.12	\$3.12	\$0.00	\$0.00	\$0.00
CLASSIC CONTAINER CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COUNTRY FRESH DAIRY CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CROSS CHEMICAL COMPANY, INC.	\$199.82	\$199.82	\$0.00	\$0.00	\$0.00
DARLING INGREDIENTS, INC.	\$5,050.10	\$5,050.10	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$ (11.58)	\$0.00	\$0.00	\$0.00	\$ (11.58)
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	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$24.31	\$17.68	\$6.63	\$0.00	\$0.00
DETRONIC INDUSTRIES, INC.	\$121.91	\$121.91	\$0.00	\$0.00	\$0.00
DIFCO LABORATORIES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DIVERSIFIED CHEM TECH. INC.	\$97.68	\$97.68	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$1,586.86	\$1,586.86	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$31.74	\$31.74	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$2,701.83	\$2,701.83	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$1,174.50	\$1,174.50	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$6,682.37	\$6,682.37	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$18.11	\$18.11	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLF	\$1,667.23	\$1,667.23	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$153.73	\$153.73	\$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.	\$21,351.31	\$21,351.31	\$0.00	\$0.00	\$0.00
FITZGERALD FINISHING LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FIVES CINETIC CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$17.63	\$17.63	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$392.89	\$392.89	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$3,396.38	\$3,396.38	\$0.00	\$0.00	\$0.00
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$ (38.34)	\$0.00	\$0.00	\$0.00	\$ (38.34)
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
HACIENDA MEXICAN FOODS	\$2,539.01	\$1,143.90	\$565.80	\$629.35	\$199.96
HENKEL CORPORATION	\$72.00	\$72.00	\$0.00	\$0.00	\$0.00
HOME STYLE FOOD INC.	\$1,233.36	\$1,233.36	\$0.00	\$0.00	\$0.00
HOMEGROWN BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$ (1.65)	\$0.00	\$0.00	\$0.00	\$ (1.65)
HOUGHTON INTERNATIONAL INC.	\$323.47	\$32.18	\$10.73	\$38.03	\$242.53
HOUGHTON INTERNATIONAL INC.	\$ (3,398.36)	\$0.00	\$0.00	\$0.00	\$ (3,398.36)
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	\$769.19	\$769.19	\$0.00	\$0.00	\$0.00
INTRASTATE DISTRIBUTORS	\$607.31	\$607.31	\$0.00	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$1,642.40	\$1,642.40	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
JAMEX BREWING CO.	\$68.54	\$22.41	\$0.00	\$0.00	\$46.13
KAR NUT PRODUCTS	\$800.03	\$800.03	\$0.00	\$0.00	\$0.00
KOWALSKI SAUSAGES, CO.	\$452.21	\$452.21	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$998.35	\$998.35	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$75.86	\$75.86	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$2,419.28	\$2,419.28	\$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

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIQUID ENVIRONMENTAL SOLUTIC	\$4,240.96	\$1,876.48	\$920.88	\$806.54	\$637.06
MACDERMID, INC.	\$1,276.85	\$1,276.85	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$445.39	\$445.39	\$0.00	\$0.00	\$0.00
MCNICHOLS POLISHING & ANODIZ	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELLO MEATS INC, - KUBISCH S	\$44.22	\$44.22	\$0.00	\$0.00	\$0.00
METROPOLITAN BAKERY	\$402.42	\$402.42	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN DAIRY	\$120,379.82	\$120,379.82	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN SOY PRODUCTS CO.	\$303.40	\$303.40	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$757.80	\$757.80	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$26.65	\$26.65	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$1,898.83	\$1,898.83	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$ (1.16)	\$0.00	\$0.00	\$0.00	\$ (1.16)
MOTOR CITY BREWING WORKS	\$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
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NEAPCO DRIVELINES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTH CENTER BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHERN LAKES SEAFOOD & MEZ	\$22.10	\$22.10	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
OAKWOOD BAKERY	\$39.88	\$39.88	\$0.00	\$0.00	\$0.00
OLIVER HATCH CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SE	\$109.20	\$45.67	\$0.00	\$0.00	\$63.53
PELLERITO FOODS INC.	\$2.02	\$2.02	\$0.00	\$0.00	\$0.00
PEPSI COLA, INC.	\$29,914.74	\$29,914.74	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERSONAL UNIFORM SERVICE, IN	\$55.81	\$55.81	\$0.00	\$0.00	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$21,409.08	\$21,409.08	\$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	\$3,382.35	\$1,425.42	\$0.00	\$1,956.93	\$0.00
PRODUCTION SPRING, LLC.	\$308.83	\$308.83	\$0.00	\$0.00	\$0.00
QUALA SERVICES, LLC	\$120.58	\$120.58	\$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	\$3.53	\$3.53	\$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	\$137.82	\$137.82	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS PROD BREWERY	\$1,765.08	\$1,083.20	\$0.00	\$0.00	\$681.88
ROYAL OAK BREWERY	\$ (128.00)	\$0.00	\$0.00	\$0.00	\$ (128.00)

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
RTT	\$27,772.36	\$0.00	\$0.00	\$0.00	\$27,772.36
SEAFARE FOODS, INC.	\$34.85	\$34.85	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$33.44	\$33.44	\$0.00	\$0.00	\$0.00
SMITH-WATKINS, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SPRAYTEK, INC.	\$14.52	\$0.00	\$0.00	\$0.00	\$14.52
SUPERNATURAL SPIRITS & BREW	\$51.40	\$51.40	\$0.00	\$0.00	\$0.00
SWEETHEART BAKERY, INC.	\$315.07	\$101.60	\$52.34	\$49.26	\$111.87
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
THERMO FISHER SCIENTIFIC	\$ (745.92)	\$0.00	\$0.00	\$ (745.92)	\$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.	\$564.12	\$564.12	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$49,510.63	\$49,510.63	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$2,676.79	\$2,676.79	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$0.87	\$0.87	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$178.29	\$178.29	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$601.68	\$601.68	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE

Balances as of 05/31/22

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
US ECOLOGY ROMULUS, INC.	\$1,605.02	\$1,605.02	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$1,186.88	\$1,186.88	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$518.75	\$518.75	\$0.00	\$0.00	\$0.00
VAUGHAN INDUSTRIES, INC.	\$15.55	\$15.55	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$5,789.23	\$5,789.23	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$396.65	\$396.65	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$43.71	\$43.71	\$0.00	\$0.00	\$0.00
WIGLEY'S MEAT PROCESS	\$400.20	\$400.20	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$921.98	\$921.98	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$145.93	\$145.93	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO	\$1,387.00	\$1,387.00	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$2,012.00	\$2,012.00	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$144.24	\$0.00	\$0.00	\$0.00	\$144.24
TOTAL POLLUTANT SURCHARGE	\$451,644.36	\$417,192.10	\$1,597.88	\$2,744.42	\$30,109.96

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 (11 Months)	1,121,440	4,942,900	44,320	6,108,660
FY 2022 Payments (11 Months)	-	-	-	-
				-
Balance as of May 31, 2022	\$ 10,840,630	\$ 41,973,475	\$ 1,814,083	\$ 54,628,188



Financial Services Audit Committee Communication

Date: August 26, 2022

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 July 31, 2022 for procurements budgeted to exceed \$1 million.

Table 1: B.I.D. Eligible Procurements as of July 31, 2022

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	36	12	4	52
Total Number of Diversity Plans Submitted	103	42	n/a	145

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	88%	\$208.1
Member Partner Service Area	83%	\$167.0
Disadvantaged Service Area	55%	\$105.6

Table 3: Non-Scored Criteria - Disadvantaged, Minority-owned, Women-owned, and Small Businesses

Table 3 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	67%	\$136.9

Table 4: Overall Contracts Awarded

Table 4 provides a breakdown of overall dollars awarded under the B.I.D. Program thus far, distinguishing between firms that met all four B.I.D. Program scoring criteria (including scored and non-scored criteria) and firms that met all three criteria (scored criteria only).

	Total Contract Count	Total Contract Amount (in millions)
Eligible Procurements	36	\$356.3
Firms that met four criteria	24	\$136.9
Firms that met three criteria	12	\$219.4

Other activities completed this month to expand awareness of the B.I.D. Program and to foster the development of effective diversity plans included the following.

- Vendor registration and reporting capabilities to track vendor Diversity Certifications (SBE, DBE, MBE, and WBE) added to Bonfire. See below for example.

Additional Information			
These fields are presented to the vendor during registration. They can be updated at any time by the vendor or an internal user.			
Company Address	Telephone Number	Date of Organization (or incorporation)	State of Incorporation
735 Randolph	313-964-9493	2016	Michigan
Business License Number OR EIN	D&B DUNS Number	Type of Company	Alternate Email
123456	123456	Limited Liability Corporation	---
Minority Business Enterprise (MBE)	Disadvantaged Business Enterprise (DBE)	Women-Owned Business Enterprise (WBE)	Small Business Enterprise (SBE)
---	---	---	---

- Contract language for B.I.D. Program requirements added to contract templates.
- Continued attendance of the B.I.D. Program Liaison at all Pre-Bid and Pre-Proposal solicitation meetings to overview the B.I.D. Program requirements and answer any questions from vendors/contractors.

Additionally, the following tasks remain at the top of our priority list.

- Continued evaluation of the insurance and bonding requirements for small, minority-owned, and disadvantaged business enterprises.
- Identifying meaningful reporting and performances measures.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: August 26, 2022

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Quarterly Investment Report (Unaudited)

Background: As stated in section 14 of the Great Lakes Water Authority (GLWA) Investment Policy, quarterly reporting shall be presented to provide a clear picture of the status of the current GLWA investment portfolio. The attached report, prepared and presented by PFM Asset Management LLC, summarizes portfolio information through June 30, 2022 (unaudited).

Analysis: The Quarterly Investment Report complies with the requirements of Public Act 20 of 1948, as amended and the GLWA Investment Policy. GLWA is investing its funds in a diversified portfolio which includes bank deposits, money market funds, a local government investment pool (LGIP), U.S. Treasuries, Federal Agencies, and commercial paper. All securities in the portfolio comply with the GLWA investment policy. Key metrics are provided below with additional commentary in the attached report.

- Yield at Cost:
 - As of June 30, 2022: 0.90%
 - As of March 31, 2022: 0.38%
- Yield at Market:
 - As of June 30, 2022: 1.66%
 - As of March 31, 2022: 0.77%
- Portfolio Allocation in Cash/Money Market/LGIP Securities:
 - As of June 30, 2022: 58%
 - As of March 31, 2022: 44%

The Treasury group continues to work with PFM Asset Management LLC to identify strategies to maximize investment returns while meeting the GLWA standards for safety and liquidity.

Proposed Action: Receive and file this report.

Great Lakes Water Authority

Investment Performance Report – June 2022



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Executive Summary

PORTFOLIO RECAP

- **Safety** – The aggregate portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The total credit profile of the portfolio is strong with over 96% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by S&P.
- **Liquidity** – Great Lakes Water Authority (“GLWA”) has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet cash requirements. As of 6/30/2022, approximately 58% of the funds were held in cash and money market accounts maturing overnight. The percentage is slightly higher than last quarter due to cash needed for July 1st debt payments.
- **Return** – The overall yield at market increased to 1.66% as of June 30, 2022, versus 0.77% as of March 31, 2022. The higher yield is reflective of the rise in interest rates that the market is currently experiencing. GLWA earned \$3.8 million (unaudited) in investment income for fiscal year 2022 on a book value basis. We expect the investment income for GLWA for FY 2023 to be approximately \$15.2 million.

AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 6/30/22)	Yield @ Market (as of 6/30/22)
Deposit Account	Comerica	\$4,145,870	\$4,145,870	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$22,023,994	\$22,023,994	0.01%	0.01%
Deposit Account – Flint Security Deposit	Chase	\$3,815,493	\$3,815,493	0.26%	0.26%
Deposit Account	Chase	\$12,880,116	\$12,880,116	0.30%	0.30%
Trust Money Market Fund	U.S. Bank	\$309,115,106	\$309,115,106	1.26%	1.26%
Money Market Fund	JP Morgan	\$36,002,377	\$36,002,377	0.44%	0.44%
Local Government Investment Pool	GovMIC	\$74,939,172	\$74,939,172	1.11%	1.11%
Managed Funds	PFMAM	\$336,321,408	\$329,654,505	0.67%	2.50%
<u>JUNE 2022 TOTALS:</u>		<u>\$799,243,536</u>	<u>\$792,576,633</u>	<u>0.90%</u>	<u>1.66%</u>
<u>PREVIOUS QUARTER TOTALS:</u>		<u>\$902,380,433</u>	<u>\$896,858,207</u>	<u>0.38%</u>	<u>0.77%</u>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA. In addition to the above, there also exists surety bonds in the amount of \$323,059,258 as of 6/30/2022.

Investment Strategy

OVERALL STRATEGY

- All investment activity is conducted subject to GLWA's investment policy and state statutes while meeting the primary objectives of safety and liquidity. The portfolio is managed to a disciplined investment plan to provide improved safety and diversification while putting every dollar to work.
- GLWA, working with its investment advisor PFM Asset Management ("PFMAM"), has continued to invest its funds in a mixture of short and intermediate-term individual investment securities to ensure adequate liquidity to cover upcoming debt, pension payments, and operational requirements.
- PFMAM will continue to actively manage long-term portfolios with full discretion and align short-term balances with expected liabilities and identify strategies to maximize future investment income in the current interest rate environment, subject to GLWA's investment policy and state statutes.

PORTFOLIO PERFORMANCE – CURRENT PERIOD*

- The overall portfolio's original yield at cost went from 0.38% as of 3/31/2022 to 0.90% as of 6/30/2022; the higher yield is a result of reinvesting the proceeds of lower-yielding securities that have matured in a higher interest rate environment.
- The total portfolio had a market yield of 1.66% at the end of June. Yield at market represents what the market would provide in return if the portfolio was purchased on June 30, 2022 (versus purchased in prior months / years).
 - This 1.66% yield at market as of 6/30/2022 is higher than in the prior quarter as the increase in short and intermediate-term yields during the quarter resulted in a shift in the yield at market of the portfolio higher.

PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned almost \$3.8 million (unaudited) in investment income for fiscal year 2022 on a book value basis.
- The current period earnings were in line with budgeted expectations. Nevertheless, there is still a lot of uncertainty surrounding the interest rate environment for the 2023 fiscal year.
- The FY 2023 total interest earnings projection forecast is estimated to be approximately \$15.2 million.

** Yield at cost is based on the original cost of the individual investments from the purchase date to maturity. On the other hand, yield at market is calculated on a specific day (in this case, June 30, 2022) and assumes that all the securities in the portfolio are purchased given the market price/yield on that particular day. If one is to generally hold their investments to the stated maturity date, then the yield at cost would be the better number to use to gauge how the portfolio is performing.*

Summary Market Overview and Outlook

ECONOMIC HIGHLIGHTS UPDATE

- Jobs remain aplenty, inflation is set to improve, credit spreads narrowed, and stocks have posted an impressive rebound as the Federal Reserve (“Fed”) continues to align policy for a soft landing.
- The Consumer Price Index (“CPI”) declined from a cycle high of 9.1% to a better-than-expected 8.5% year-over-year through July. Gasoline prices, used car prices, and transportation services prices all declined in July. Gasoline prices, perhaps the most visible indicator of inflation, have fallen for 60 straight days since mid-June, going from a national average of \$5.02 to \$3.98 by mid-August. Despite favorable headlines, food, shelter, and medical care prices continue to rise.
- The U.S. added 528,000 new jobs in July, more than double the expectations, while the unemployment rate improved to a 50-year low of 3.5%. Job growth was widespread, led by gains in leisure and hospitality, professional services, and healthcare. Total non-farm employment has now finally returned to pre-pandemic levels.
- U.S. GDP declined at an annual real rate of -0.9% in the second quarter, marking the second consecutive quarter of contraction. Although two quarters of negative growth meets one technical sign of a recession, the official definition according to the National Bureau of Economic Research is “a significant decline in economic activity that is spread across the economy and that lasts more than a few months.” Economists do not believe the U.S. is currently in a recession with a 3.5% unemployment rate.
- The housing market has continued to cool, with new and existing home sales building permits, housing starts, pending sales, and mortgage applications all declining.

ECONOMIC IMPACT ON PORTFOLIO

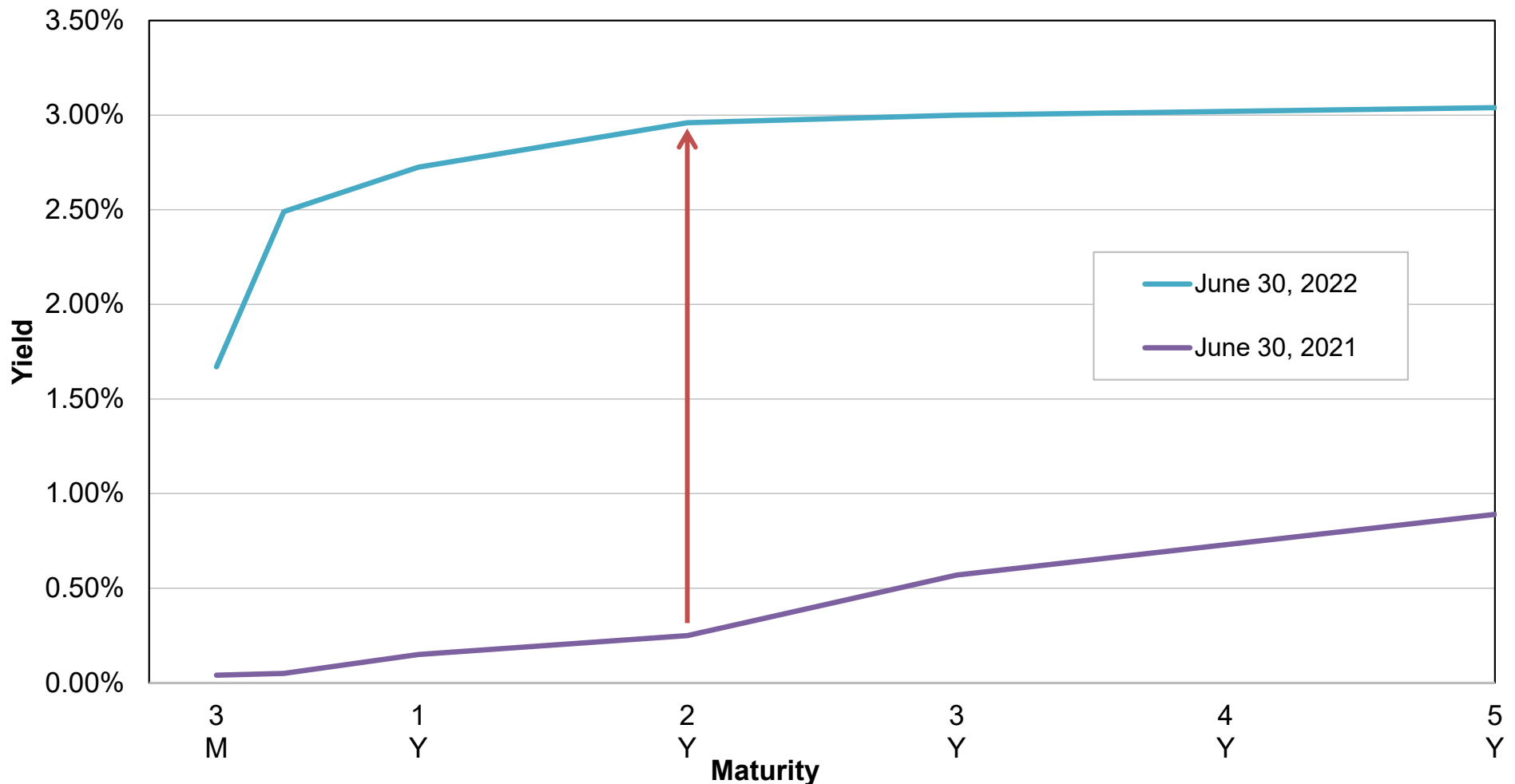
- As expected, the Fed boosted the overnight Federal Funds rate by 75 basis points for the second straight time at its July 27th meeting, bringing short-term rates to a new target range of 2.25% to 2.50%. After holding rates near zero for two years, the Fed is now raising rates and tightening monetary policy to slow demand and, hopefully, moderate inflation pressures. Market expectations are for short-term rates to end the calendar year of 2022 around 3.50%, so more hikes are expected.
- The U.S. Treasury yield curve has flattened as short-end yields increased on the Fed rate hike while yields on maturities greater than two years declined on expectations the Fed could pause in 2023. That view may be too optimistic, as several Fed governors have expressed the need to continue tightening. By the end of July, the inversion between 2 and 10-year U.S. Treasury yields reached the most since 2000.
- Portfolio Impact: With expectations for more Fed rate hikes, PFMAM has maintained a slightly defensive duration bias relative to benchmarks. However, with the end perhaps in sight by early 2023, PFMAM plans to use any significant backup in yields to reduce duration underweight and move closer to benchmarks. Federal Agency “bullet” maturities continue to offer little value. Short-term commercial paper investments continue to offer excellent yields and spread opportunities.

Summary Market Overview and Outlook

Treasury Yields Continue Their Upward Surge

- It should be noted that as a result of the Federal Reserve's interest rate hikes, the markets have seen a dramatic increase in short and intermediate-term fixed-income yields over the past year.

U.S. Treasury Yield Curve



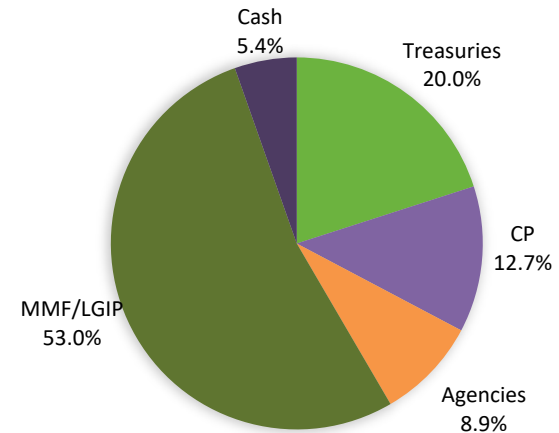
Portfolio Snapshot

Overall Portfolio Composition Summary

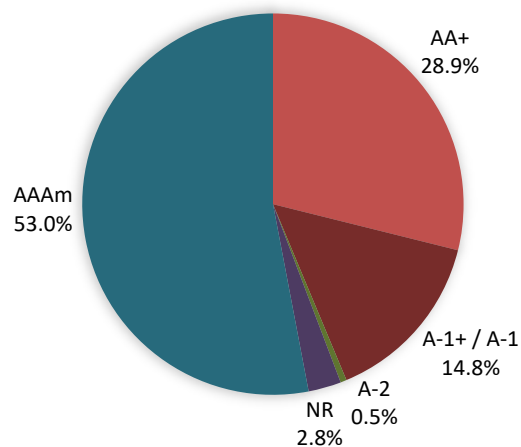
PORTFOLIO STATISTICS

Invested Amount	\$792.577 Million
Duration	0.36 Years
Yield at Cost	0.90%
Yield at Market	1.66%

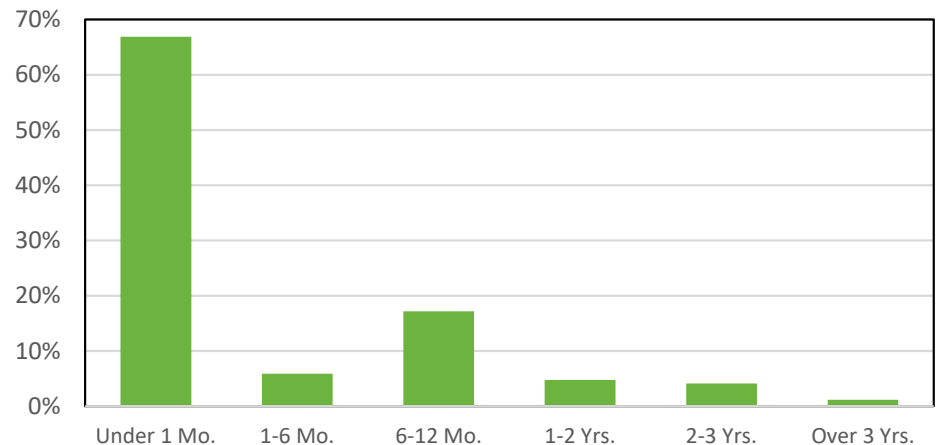
SECTOR ALLOCATION



CREDIT QUALITY



MATURITY DISTRIBUTION

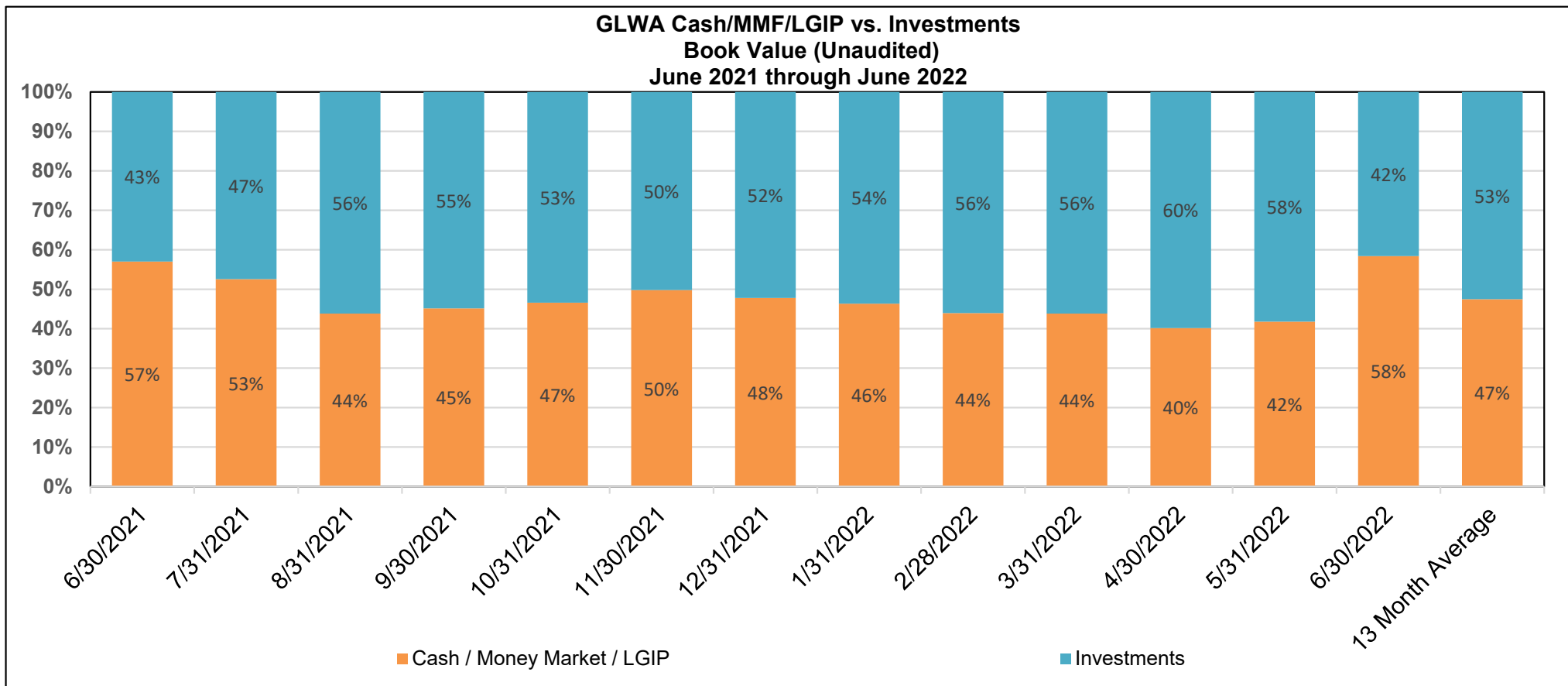


In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

Portfolio Snapshot

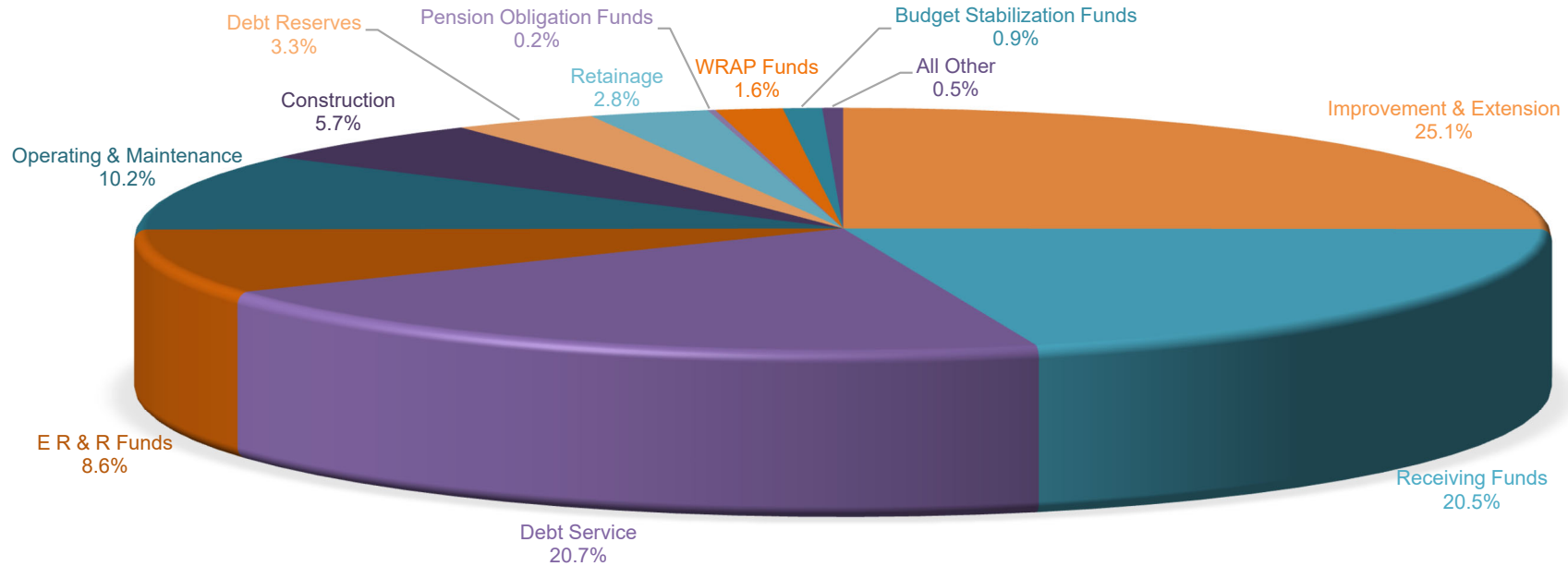
Portfolio Mix – Cash / Money Market vs. Investments

- GLWA's liquidity requirements fluctuate each month based on operational requirements, capital funding, and debt payments. Based on a review of historical activity and refinement of cash flow projections, GLWA has continually tried to balance the allocation of the portfolio's holdings to cash & money market accounts versus the allocation to investments for the portfolio holdings.
- The chart below compares the monthly allocation of the portfolio holdings to the 13-month average. The allocation between cash and investments will vary each month based on liquidity requirements. For June of 2022, 58% of the overall portfolio was invested in cash, LGIP, and/or overnight money market fund accounts with the majority of the liquidity needed for July 1st debt payments.



Portfolio Snapshot

Investments – By Account Purpose

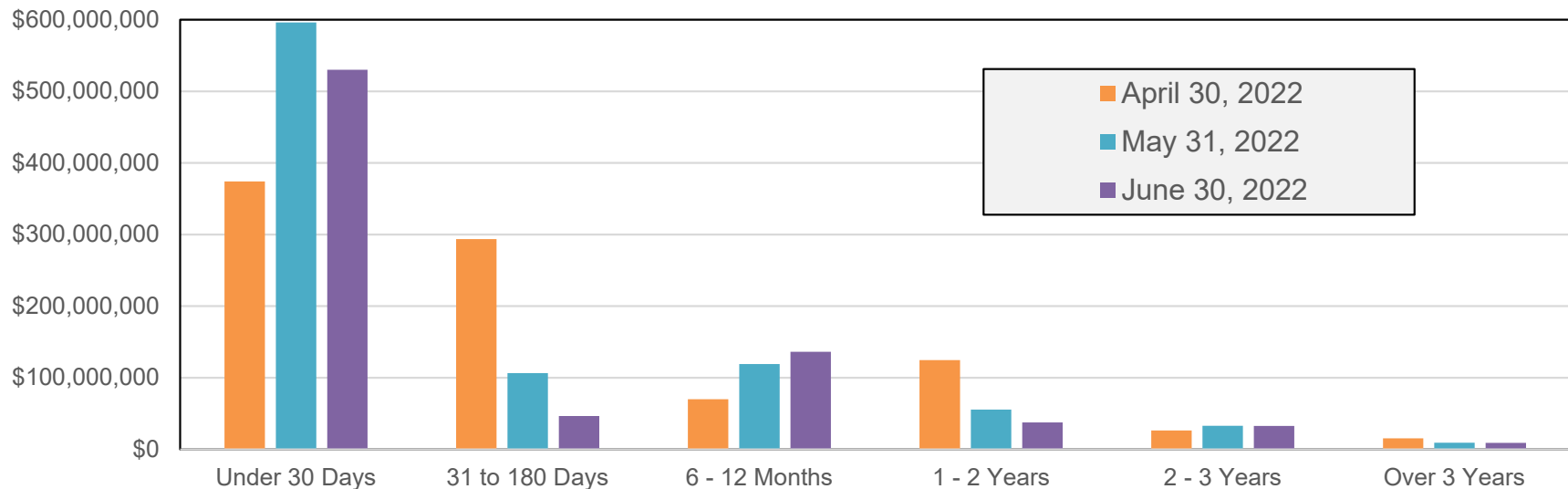


Account Purpose	Value Market	Allocation %	Cost Yield at	Market Yield at	Duration
Improvement & Extension	\$ 198,792,577	25.1%	1.03%	2.27%	0.490 Years
Debt Service	\$ 164,119,171	20.7%	0.99%	1.60%	0.052 Years
Receiving Funds (includes lockbox account)	\$ 162,279,900	20.5%	1.09%	1.09%	0.003 Years
Operating & Maintenance	\$ 80,712,821	10.2%	1.03%	1.03%	0.003 Years
Extraordinary Repair & Replacement Funds	\$ 68,105,932	8.6%	0.46%	2.96%	1.936 Years
Construction	\$ 45,331,425	5.7%	0.40%	0.40%	0.003 Years
Debt Reserves	\$ 26,467,406	3.3%	0.37%	2.79%	1.289 Years
Retainage	\$ 22,023,994	2.8%	0.01%	0.01%	0.003 Years
WRAP Funds	\$ 12,318,422	1.6%	1.34%	1.93%	0.156 Years
Budget Stabilization Funds	\$ 7,170,082	0.9%	0.44%	2.88%	1.788 Years
Flint Security Deposit Account	\$ 3,815,493	0.5%	0.26%	0.26%	0.003 Years
Pension Obligation Funds	\$ 1,439,409	0.2%	1.20%	1.20%	0.003 Years
Total	\$ 792,576,633	100.0%	0.90%	1.66%	0.363 Years

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

Portfolio Snapshot Investments – By Maturity

Maturity Distribution	April 30, 2022		%	May 31, 2022		%	June 30, 2022		%
Under 30 Days	\$	374,225,238	41.4%	\$	596,219,979	64.8%	\$	530,166,930	66.9%
31 to 180 Days		293,558,397	32.4%		106,654,715	11.6%		46,564,443	5.9%
6 - 12 Months		70,154,326	7.8%		119,201,433	13.0%		136,306,241	17.2%
1 - 2 Years		124,791,037	13.8%		55,587,414	6.0%		37,606,163	4.7%
2 - 3 Years		26,441,966	2.9%		32,988,258	3.6%		32,744,475	4.1%
Over 3 Years		15,538,331	1.7%		9,257,715	1.0%		9,188,381	1.2%
Totals	\$	904,709,294	100.0%	\$	919,909,515	100.0%	\$	792,576,633	100.0%



In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

Portfolio Snapshot

Investment Accounts – Yield at Cost & Market

	As of June 30, 2022		As of March 31, 2022	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.01%	0.01%	0.01%	0.01%
First Indenpedence	0.01%	0.01%	0.01%	0.01%
Flint Deposit Account	0.26%	0.26%	0.01%	0.01%
JP Morgan Chase	0.30%	0.30%	0.05%	0.05%
Sub-Total Bank Deposits	0.12%	0.12%	0.02%	0.02%
Money Market Funds / LGIPs				
GovMIC	1.11%	1.11%	0.18%	0.18%
U.S. Bank - First American MMF	1.26%	1.26%	0.02%	0.02%
JP Morgan Securities - Blackrock MMF	0.44%	0.44%	0.02%	0.02%
Sub-Total MMF / LGIPs	1.16%	1.16%	0.02%	0.02%
Investment Portfolios				
Sewage SR Debt Serv 5403	0.76%	1.69%	0.48%	0.87%
Sewage SR Res 5400	0.29%	2.94%	0.29%	2.11%
Sew SRF Debt Serv 5410	1.12%	2.03%	0.84%	1.22%
Sewage ER & R	0.46%	2.96%	0.46%	2.24%
Sewer Improvement & Extension	0.91%	2.75%	1.07%	1.57%
Sewer Pension Obligation	0.00%	0.00%	0.33%	0.77%
Sewer Wrap Fund	1.26%	2.14%	0.41%	0.87%
Sewer Budget Stabilization Fund	0.44%	2.89%	0.44%	2.15%
Sewer O&M Pension Sub Account	0.00%	0.00%	0.34%	0.78%
Water SR Debt Ser 5503	0.58%	1.66%	0.47%	0.84%
Water SR Reserve 5500	0.27%	2.94%	0.27%	2.10%
Water SRF Debt Serv 5575	0.94%	1.97%	0.66%	1.15%
Water ER & R	0.45%	2.96%	0.46%	2.25%
Water Improvement & Extension	0.51%	2.78%	0.99%	1.50%
Water Pension Obligation	0.00%	0.00%	0.33%	0.77%
Water Wrap Fund	1.58%	2.13%	0.43%	0.74%
Water Budget Stabilization Fund	0.43%	2.87%	0.44%	2.12%
Water O&M Pension Sub Account	0.00%	0.00%	0.35%	0.79%
Sub-Total Investment Portfolios	0.67%	2.50%	0.66%	1.36%
Grand Total	0.90%	1.66%	0.38%	0.77%

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. The funds in the Flint Security Deposit account are held on behalf of the City of Flint and the earnings do not belong to GLWA. YTM @ Cost is the expected return, based on the original cost, the annual interest receipts, maturity value and the time period from purchase date to maturity, stated as a percentage, on an annualized basis. YTM @ Market is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Portfolio Snapshot

Peer Analysis Comparison

- The comparison agencies included in the list below were selected based on type and/or other non-performance-based criteria to show a broad range of water entities/utilities; this peer group list does not represent an endorsement of any of the public agencies or their services.
- The overall yield of GLWA's aggregate portfolio compares somewhat favorably to those of other short-term market indices (i.e., the S&P LGIP index and the 3-month U.S. Treasury index), despite the volatility of short-term interest rates and the limited ability in managing assets to a longer-term strategy.
- GLWA does have some limitations and unique constraints related to its ordinance and covenants that restricts the potential for a longer duration portfolio when compared to other similar water agencies.

As of June 30, 2022

	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$792,576,633	1.66%	0.36 Years	131 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		0.18%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		1.51%	0.15 Years	55 Days
BoA / ML 6-Month Treasury Index		2.07%	0.40 Years	146 Days
BoA / ML 1-Year Treasury Index		2.89%	0.90 Years	329 Days
BoA / ML 1-3 Year Treasury Index		2.95%	1.78 Years	650 Days
BoA / ML 1-5 Year Treasury Index		2.98%	2.52 Years	920 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$475,095,912	2.60%	0.83 Years	325 Days
DuPage Water Commission, IL	\$174,953,763	2.98%	2.14 Years	1,008 Days
Fairfax County Water Authority, VA	\$183,001,506	2.89%	1.72 Years	654 Days
Metro Wastewater Reclamation District, CO	\$277,754,516	2.86%	1.70 Years	674 Days
Metropolitan Water District of Southern California, CA	\$1,139,345,447	2.44%	0.70 Years	323 Days
Philadelphia Water Department, PA	\$190,167,883	2.81%	0.87 Years	320 Days
San Bernardino Valley Municipal Water District, CA	\$354,213,308	3.06%	1.65 Years	629 Days
Tohopekaliga Water Authority, FL	\$195,133,884	3.01%	1.74 Years	833 Days
Truckee Meadows Water Authority, NV	\$98,143,033	3.43%	1.91 Years	730 Days

The BoA / ML indexes are unmanaged indexes tracking on-the-run Treasuries. These indexes are produced and maintained by Bank of America / Merrill Lynch & Co. Yield to maturity is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Portfolio Snapshot

Monthly Investment Income

(Book Value in 000's)

FY 2022 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period (in thousands)	Realized Gain / Loss (in thousands)	Investment Income (in thousands)
July 2021	\$332.7	\$0.0	\$332.7
August 2021	\$327.7	\$108.7	\$436.4
September 2021	\$297.6	\$0.0	\$297.6
October 2021	\$311.4	\$0.0	\$311.4
November 2021	\$247.2	\$0.0	\$247.2
December 2021	\$280.1	\$0.0	\$280.1
January 2022	\$253.9	\$0.0	\$253.9
February 2022	\$222.6	\$0.0	\$222.6
March 2022	\$283.3	\$0.0	\$283.3
April 2022	\$325.4	\$0.0	\$325.4
May 2022	\$407.9	(\$55.8)*	\$352.1
June 2022	\$442.6	\$0.0	\$442.6
<u>FY 2022</u>	<u>\$3,732.3</u>	<u>\$52.9</u>	<u>\$3,785.2</u>

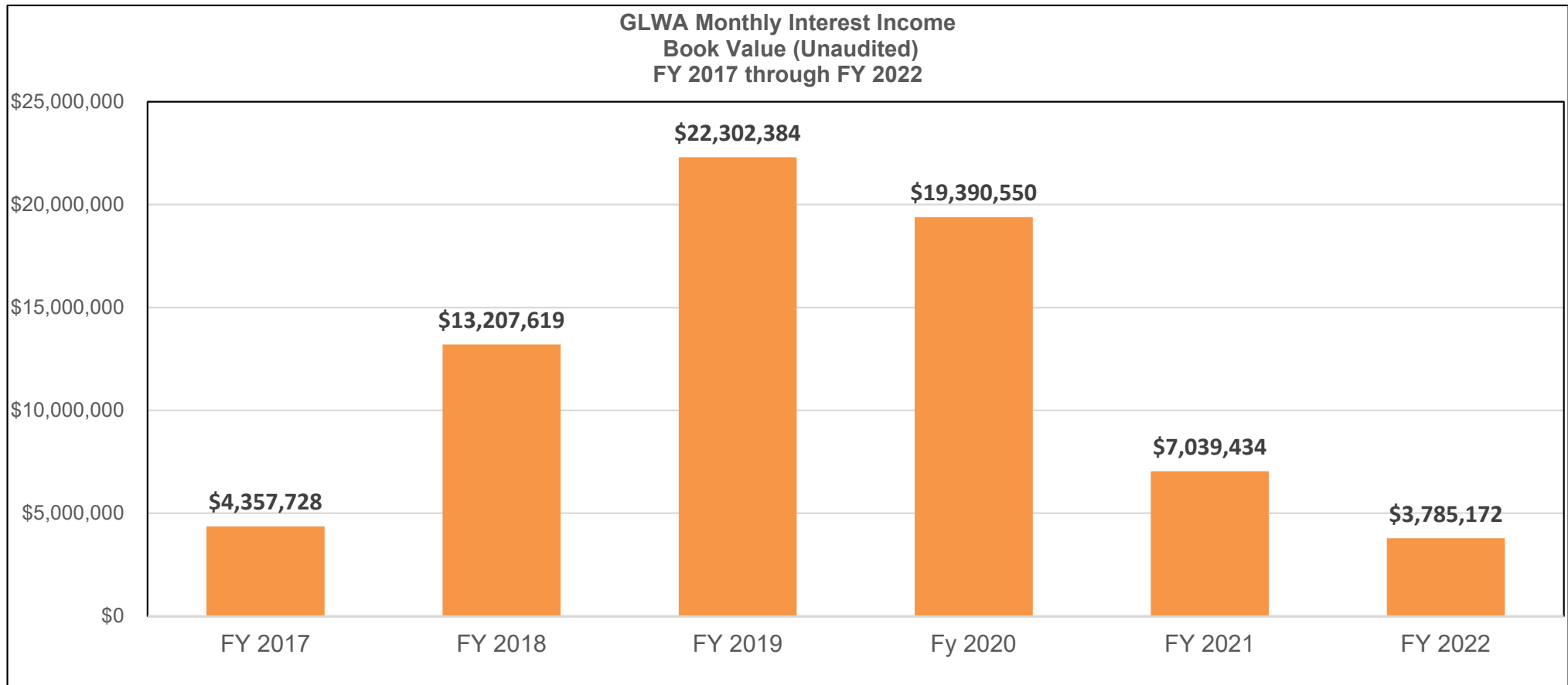
* The realized loss in May 2022 was due to the sale of investments to meet capital spending requirements.

These figures are based upon actual interest earned and posted to the Authority's various accounts via book value and does not include any earnings credit rate tied to the Authority's bank deposits.

Portfolio Snapshot

Year-Over-Year Investment Income

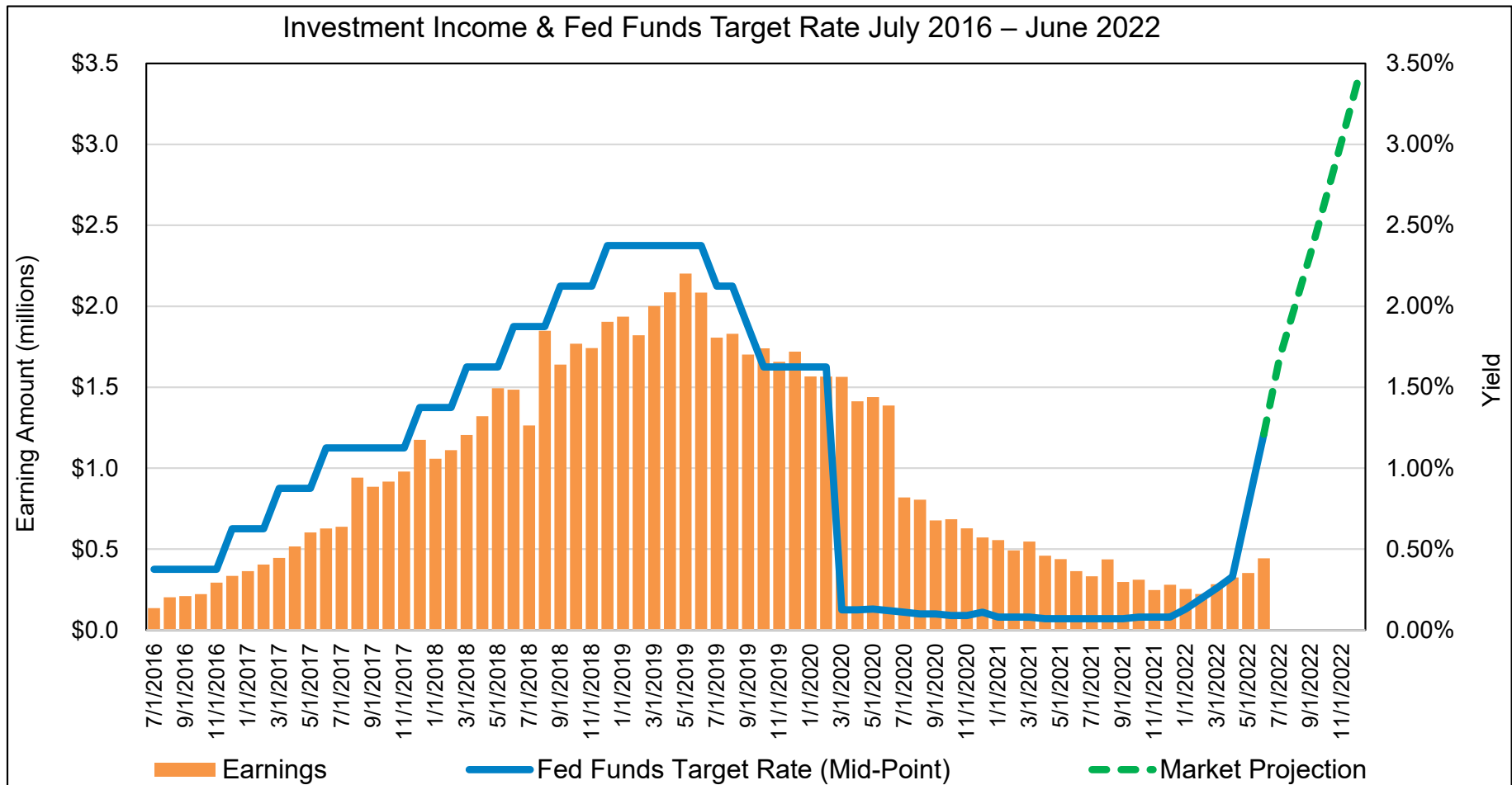
- GLWA earned \$3,785,172 in investment income for fiscal year 2022 on a book value basis compared to \$7,039,434 for fiscal year 2021.
- The budgeted total investment income for fiscal year 2023 is projected to be higher than the interest earnings received in FY 2022 based on the market's anticipation of a continued increase in the Fed Funds target rate over the next few months.



Portfolio Snapshot

Monthly Investment Income Compared to Fed Funds Rate

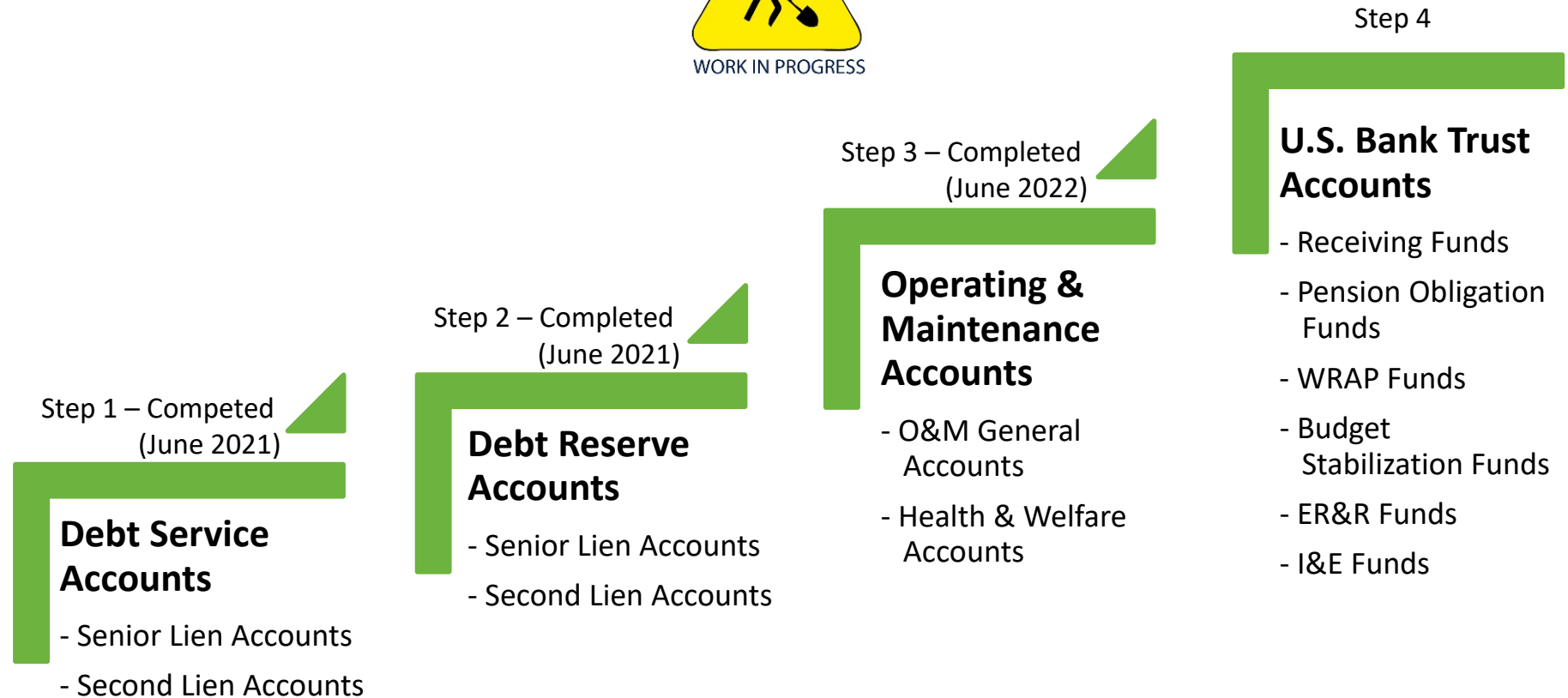
- At least 50% of the GLWA portfolio is designated for obligations that are 12 months or less. As a result of the short-term duration of GLWA's portfolio, it is heavily impacted by changes in the Fed Funds target rate; the chart below illustrates that GLWA's investment income has consistently followed the trend of the Fed Funds rate.
- According to effective Fed Funds futures, the market is pricing in over 200 basis points more in rate hikes in calendar year 2022; based on the historical trend, this will translate into higher interest earnings for GLWA in fiscal year 2023 and beyond.



Pooling of Cash / Investment Accounts

- PFMAM & GLWA are working toward reducing the number of bank accounts by pooling. Benefits of pooling accounts include the ability to take advantage of economies of scale when purchasing securities and reducing unnecessary liquidity. The steps to be taken for the recommended pooling strategy is shown below. Water and Sewer accounts will not be pooled.

Putting Money To Work Safely – Investment Progression



Non-pooled accounts include the lockbox accounts, payroll accounts, accounts payable, P-Card accounts, construction bond accounts, retainage accounts, and the Flint Security Deposit account.

Appendix I: Portfolio Holdings

Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<u>Short-Term Bank Deposits / MMF / LGIP</u>									
COMERICA BANK		\$ 4,145,870	7/1/2022	6/30/2022	0.01%	\$ 4,145,870	1	\$ -	\$ 4,145,870
FIRST INDEPENDENCE BANK		22,023,994	7/1/2022	6/30/2022	0.01%	22,023,994	1	-	22,023,994
FLINT DEPOSIT ACCOUNT		3,815,493	7/1/2022	6/30/2022	0.26%	3,815,493	1	-	3,815,493
JP MORGAN CHASE		12,880,116	7/1/2022	6/30/2022	0.30%	12,880,116	1	-	12,880,116
GovMIC		74,939,172	7/1/2022	6/30/2022	1.11%	74,939,172	1	-	74,939,172
U.S. BANK - FIRST AMERICAN MMF		309,115,106	7/1/2022	6/30/2022	1.26%	309,115,106	1	-	309,115,106
JP MORGAN SECURITIES - BLACKROCK MMF		36,002,377	7/1/2022	6/30/2022	0.44%	36,002,377	1	-	36,002,377

In addition to the totals listed above, there also exists surety bonds in the amount of \$323,059,258 as of June 30, 2022.

Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Goldman Sachs 0 7/1/2022	38150UG13	\$ 4,915,000	7/1/2022	3/11/2022	1.21%	\$ 4,896,651	1	\$ -	\$ 4,915,000
MUFG Bank LTD NY 0 7/1/2022	62479MG15	2,540,000	7/1/2022	4/6/2022	0.92%	2,534,418	1	-	2,540,000
Natixis Bank NY 0 7/1/2022	63873KG19	4,285,000	7/1/2022	2/4/2022	0.46%	4,276,951	1	-	4,285,000
Nordea Bank ABP 0 7/1/2022	65558KG16	14,415,000	7/1/2022	1/11/2022	0.35%	14,391,035	1	-	14,415,000
CitiGroup Global Markets 0 9/19/2022	17327BJK2	1,005,000	9/19/2022	3/11/2022	1.46%	997,228	81	-	999,905
Credit Suisse NY 0 9/19/2022	2254EBJK8	507,000	9/19/2022	4/6/2022	1.50%	503,517	81	-	504,430
MUFG Bank LTD NY 0 9/19/2022	62479MJK0	500,000	9/19/2022	6/7/2022	1.79%	497,429	81	-	497,465
Royal Bank of Canada 0 9/19/2022	78015DJK7	500,000	9/19/2022	1/11/2022	0.43%	498,501	81	-	497,465
Collat CP Co 0 10/3/2022	19424JK39	1,100,000	10/3/2022	6/7/2022	1.89%	1,093,222	95	-	1,092,729
Collat CP Co 0 9/1/2022	19424JJ15	1,100,000	9/1/2022	5/4/2022	1.70%	1,093,803	63	-	1,095,677
LMA Americas LLC 0 8/5/2022	53944RH50	1,100,000	8/5/2022	4/5/2022	1.16%	1,095,713	36	-	1,097,866
BNZ International Funding 0 7/1/2022	0556X1G14	1,659,000	7/1/2022	5/9/2022	1.10%	1,656,313	1	-	1,659,000
Goldman Sachs 0 7/1/2022	38150UG13	15,085,000	7/1/2022	3/11/2022	1.21%	15,028,683	1	-	15,085,000
MUFG Bank LTD NY 0 7/1/2022	62479MG15	3,365,000	7/1/2022	4/6/2022	0.92%	3,357,604	1	-	3,365,000
Natixis Bank NY 0 7/1/2022	63873KG19	5,080,000	7/1/2022	2/4/2022	0.46%	5,070,458	1	-	5,080,000
Nordea Bank ABP 0 7/1/2022	65558KG16	14,900,000	7/1/2022	1/11/2022	0.35%	14,875,229	1	-	14,900,000
CitiGroup Global Markets 0 9/19/2022	17327BJK2	9,060,000	9/19/2022	3/11/2022	1.46%	8,989,936	81	-	9,014,066
Credit Suisse NY 0 9/19/2022	2254EBJK8	4,563,000	9/19/2022	4/6/2022	1.50%	4,531,650	81	-	4,539,866
MUFG Bank LTD NY 0 9/19/2022	62479MJK0	4,515,000	9/19/2022	6/7/2022	1.79%	4,491,783	81	-	4,492,109
Royal Bank of Canada 0 9/19/2022	78015DJK7	4,505,000	9/19/2022	1/11/2022	0.43%	4,491,494	81	-	4,482,160
Collat CP Co 0 11/30/2022	19424JLW4	1,050,000	11/30/2022	6/7/2022	2.30%	1,038,347	153	-	1,037,012
MUFG Bank LTD NY 0 10/4/2022	62479MK44	1,025,000	10/4/2022	4/4/2022	1.49%	1,017,279	96	-	1,018,153
National Australia Bank 0 11/1/2022	63254FL13	1,050,000	11/1/2022	5/4/2022	2.02%	1,039,442	124	-	1,040,172
Natixis Bank NY 0 8/1/2022	63873KH18	1,025,000	8/1/2022	12/7/2021	0.35%	1,022,638	32	-	1,023,237
Natixis Bank NY 0 9/1/2022	63873KJ16	1,025,000	9/1/2022	3/4/2022	1.05%	1,019,640	63	-	1,020,972
Svenska Handel Sbanken 0 7/1/2022	86960KG14	1,025,000	7/1/2022	12/7/2021	0.30%	1,023,240	1	-	1,025,000

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Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Federal Agencies									
FHLMC 0.375 5/5/2023	3137EAER6	\$ 6,000,000	5/5/2023	6/5/2020	0.38%	\$ 6,000,060	309	\$ 3,438	\$ 5,872,380
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	326	2,639	9,772,300
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	375	1,476	1,216,863
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	309	8,393	14,338,395
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	326	6,597	24,430,750
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	375	1,948	1,606,259
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	326	63	234,535
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	326	897	3,322,582
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	326	177	654,744
FHLMC 0.25 6/26/2023	3137EAS4	3,150,000	6/26/2023	7/2/2020	0.29%	3,146,189	361	88	3,065,832
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	326	1,517	5,619,073

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Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 0 8/15/2023	912833LM0	\$ 10,500,000	8/15/2023	2/7/2020	1.41%	\$ 9,992,745	411	\$ -	\$ 10,188,990
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	258	14,538	9,844,500
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	199	103,177	14,906,250
T-Note 0 8/15/2023	912833LM0	5,400,000	8/15/2023	2/7/2020	1.41%	5,139,126	411	-	5,240,052
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	258	29,076	19,689,000
T-Note 0.125 1/15/2024	91282CBE0	260,000	1/15/2024	1/25/2021	0.18%	259,563	564	149	248,880
T-Note 0.125 10/31/2022	91282CAR2	200,000	10/31/2022	5/27/2021	0.10%	200,063	123	41	198,682
T-Note 0.25 3/15/2024	91282CBR1	125,000	3/15/2024	3/15/2021	0.33%	124,712	624	91	119,351
T-Note 0.375 12/31/2025	91282CBC4	250,000	12/31/2025	1/25/2021	0.43%	249,287	1,280	-	227,843
T-Note 0.375 4/30/2025	912828ZL7	125,000	4/30/2025	3/11/2021	0.61%	123,789	1,035	78	116,011
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	258	363	246,113
T-Note 1.375 1/31/2025	912828Z52	280,000	1/31/2025	12/6/2021	0.94%	283,773	946	1,595	268,548
T-Note 1.5 10/31/2024	912828YM6	130,000	10/31/2024	5/27/2021	0.42%	134,773	854	323	125,597
T-Note 1.625 10/31/2023	912828T91	130,000	10/31/2023	5/27/2021	0.20%	134,489	488	350	127,751
T-Note 1.75 12/31/2024	912828YY0	1,100,000	12/31/2024	8/30/2021	0.49%	1,145,719	915	-	1,066,054
T-Note 2.625 6/30/2023	9128284U1	3,250,000	6/30/2023	8/30/2021	0.19%	3,394,727	365	-	3,241,355
T-Note 1.5 9/15/2022	912828YF1	1,560,000	9/15/2022	12/14/2021	0.22%	1,574,930	77	6,804	1,559,454
T-Note 1.5 9/15/2022	912828YF1	90,000	9/15/2022	5/5/2022	1.25%	90,081	77	393	89,969
T-Note 1.5 9/15/2022	912828YF1	408,000	9/15/2022	5/5/2022	1.23%	408,398	77	1,779	407,857
T-Note 0.125 1/15/2024	91282CBE0	3,420,000	1/15/2024	1/25/2021	0.18%	3,414,255	564	1,960	3,273,727
T-Note 0.375 12/31/2025	91282CBC4	3,400,000	12/31/2025	1/25/2021	0.43%	3,390,305	1,280	-	3,098,658
T-Note 0.375 4/30/2025	912828ZL7	2,400,000	4/30/2025	8/24/2021	0.59%	2,381,531	1,035	1,492	2,227,416
T-Note 0.375 7/15/2024	91282CCL3	1,345,000	7/15/2024	8/23/2021	0.42%	1,343,266	746	2,313	1,275,759

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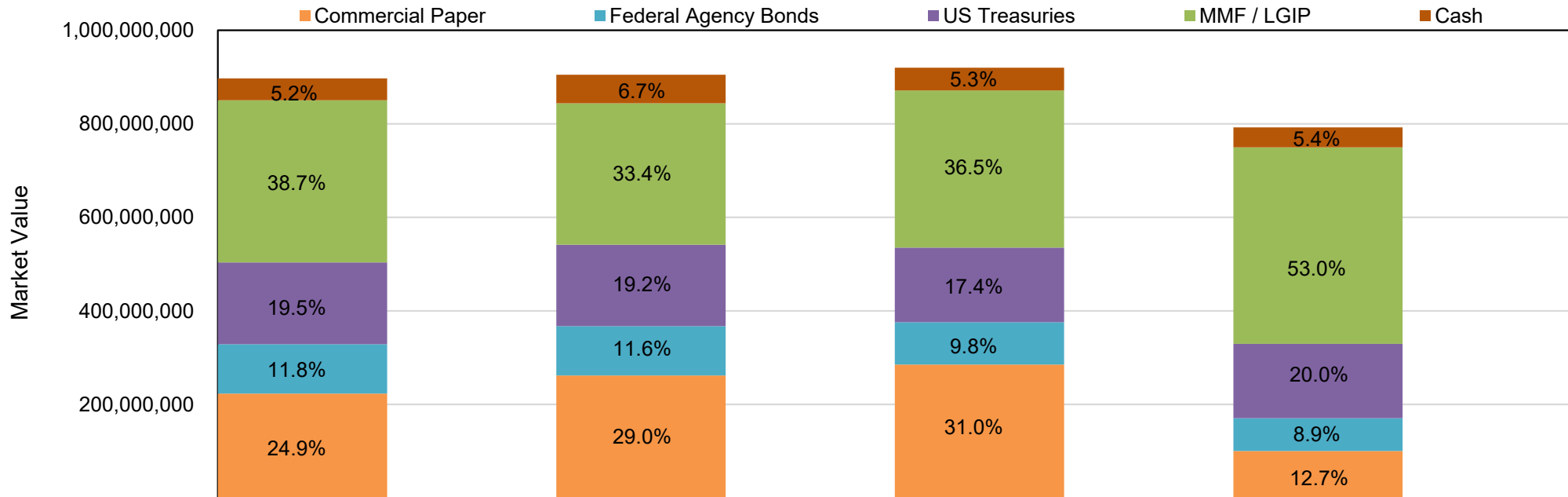
Portfolio Holdings As of June 30, 2022

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	258	4,957	3,356,975
T-Note 1.375 1/31/2025	912828Z52	3,346,000	1/31/2025	12/7/2021	0.95%	3,390,570	946	19,064	3,209,149
T-Note 1.5 10/31/2024	912828YM6	3,300,000	10/31/2024	5/28/2021	0.42%	3,421,301	854	8,205	3,188,229
T-Note 1.625 10/31/2023	912828T91	3,300,000	10/31/2023	5/28/2021	0.20%	3,414,082	488	8,889	3,242,910
T-Note 0.125 1/15/2024	91282CBE0	695,000	1/15/2024	1/25/2021	0.18%	693,833	564	398	665,275
T-Note 0.125 10/31/2022	91282CAR2	425,000	10/31/2022	5/27/2021	0.10%	425,133	123	88	422,199
T-Note 0.25 3/15/2024	91282CBR1	340,000	3/15/2024	3/15/2021	0.33%	339,216	624	247	324,635
T-Note 0.375 12/31/2025	91282CBC4	685,000	12/31/2025	1/25/2021	0.43%	683,047	1,280	-	624,288
T-Note 0.375 4/30/2025	912828ZL7	350,000	4/30/2025	3/11/2021	0.61%	346,609	1,035	218	324,832
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	258	1,000	677,302
T-Note 1.375 1/31/2025	912828Z52	740,000	1/31/2025	12/6/2021	0.94%	749,973	946	4,216	709,734
T-Note 1.5 10/31/2024	912828YM6	450,000	10/31/2024	5/27/2021	0.42%	466,523	854	1,119	434,759
T-Note 1.625 10/31/2023	912828T91	425,000	10/31/2023	5/27/2021	0.20%	439,676	488	1,145	417,648
T-Note 1.75 12/31/2024	912828YY0	5,550,000	12/31/2024	8/30/2021	0.49%	5,780,672	915	-	5,378,727
T-Note 2.625 6/30/2023	9128284U1	11,350,000	6/30/2023	8/30/2021	0.19%	11,855,430	365	-	11,319,809
T-Note 1.5 9/15/2022	912828YF1	5,950,000	9/15/2022	12/14/2021	0.22%	6,006,943	77	25,950	5,947,918
T-Note 1.5 9/15/2022	912828YF1	4,479,000	9/15/2022	5/5/2022	1.23%	4,483,374	77	19,535	4,477,432
T-Note 0.125 1/15/2024	91282CBE0	5,790,000	1/15/2024	1/25/2021	0.18%	5,780,275	564	3,319	5,542,362
T-Note 0.375 12/31/2025	91282CBC4	5,750,000	12/31/2025	1/25/2021	0.43%	5,733,604	1,280	-	5,240,378
T-Note 0.375 4/30/2025	912828ZL7	3,965,000	4/30/2025	8/24/2021	0.59%	3,934,488	1,035	2,465	3,679,877
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	258	8,381	5,675,354
T-Note 1.375 1/31/2025	912828Z52	5,664,000	1/31/2025	12/7/2021	0.95%	5,739,446	946	32,271	5,432,342
T-Note 1.5 10/31/2024	912828YM6	5,500,000	10/31/2024	5/28/2021	0.42%	5,702,168	854	13,675	5,313,715
T-Note 1.625 10/31/2023	912828T91	5,500,000	10/31/2023	5/28/2021	0.20%	5,690,137	488	14,815	5,404,850

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Portfolio Snapshot

Investments – By Security Type

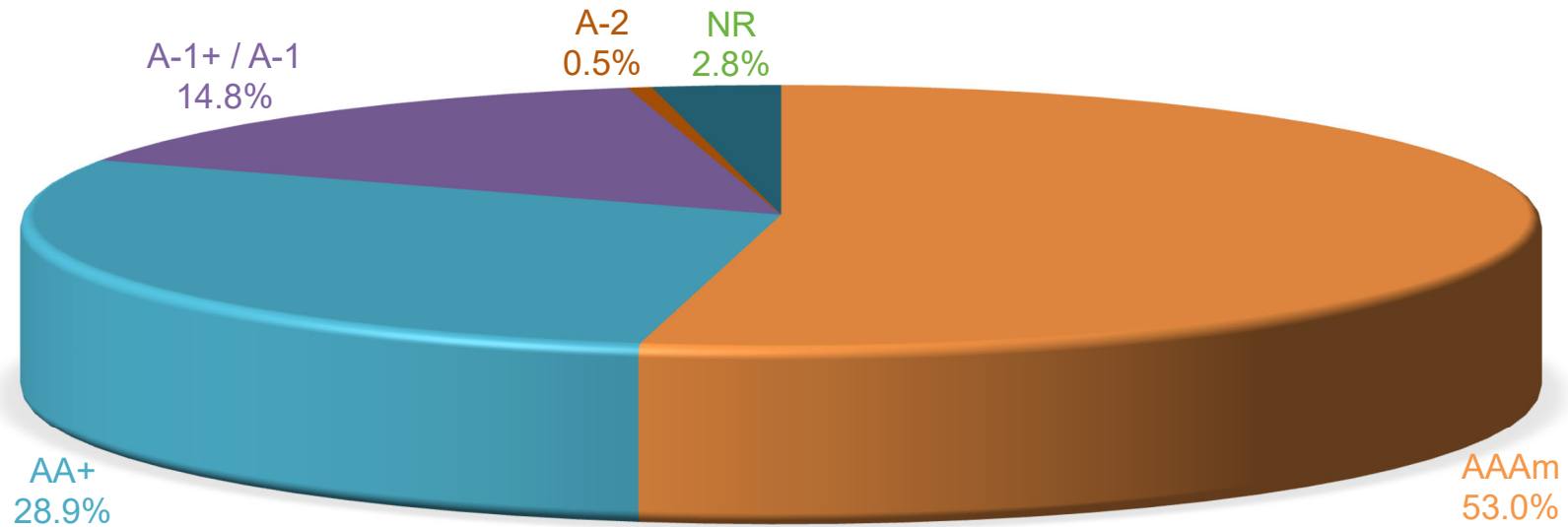


Security Type	March		April		May		June	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	223,323,067	24.9%	261,982,829	29.0%	285,316,015	31.0%	100,728,265	12.7%
Federal Agencies	105,605,764	11.8%	105,385,799	11.6%	90,487,228	9.8%	70,183,237	8.9%
U.S. Treasuries	174,841,002	19.5%	174,101,666	19.2%	159,666,992	17.4%	158,764,067	20.0%
MMF / LGIP	346,814,603	38.7%	302,440,124	33.4%	335,569,586	36.5%	420,056,654	53.0%
Cash	46,273,771	5.2%	60,798,877	6.7%	48,869,694	5.3%	42,844,410	5.4%
Total	896,858,207	100.0%	904,709,294	100.0%	919,909,515	100.0%	792,576,633	100.0%

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Portfolio Snapshot

Investments – By Credit Quality



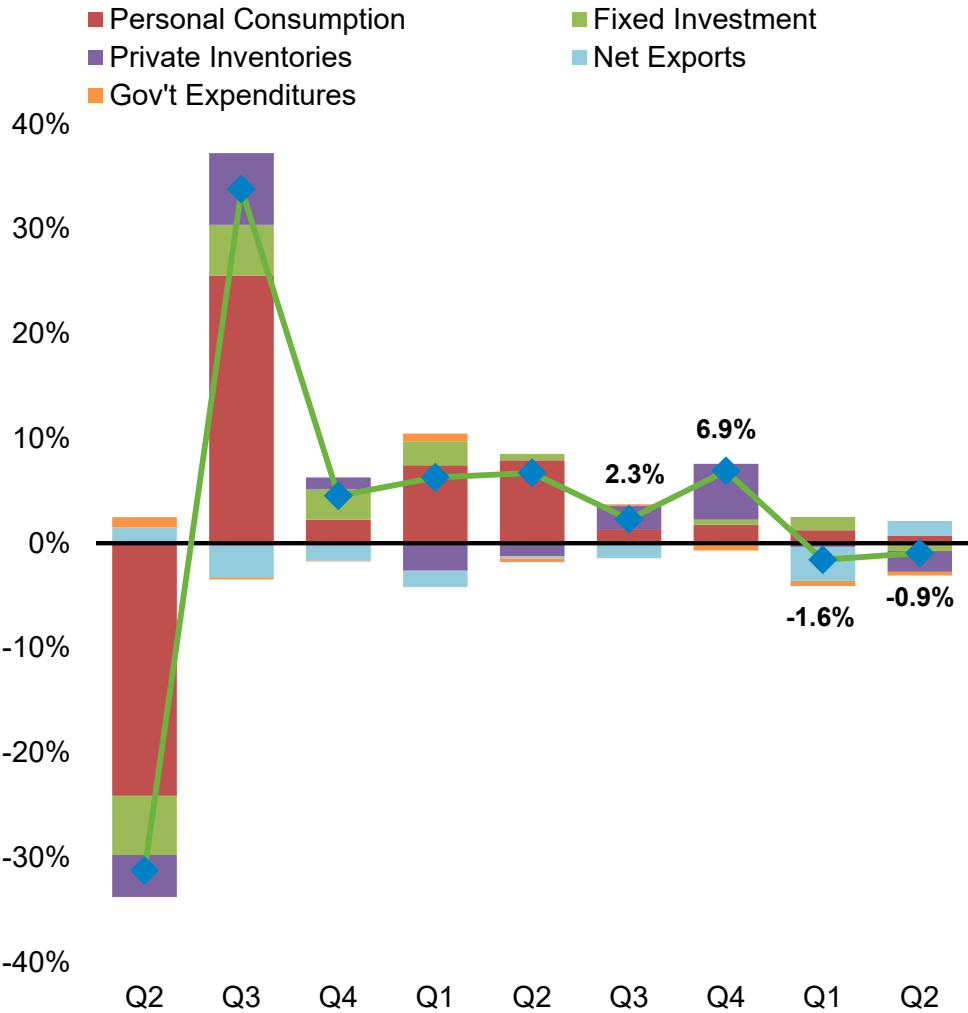
Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	420,056,654	53.0%
AA+	228,932,224	28.9%
A-1 + / A-1	117,417,891	14.8%
A-2	4,145,870	0.5%
NR	22,023,994	2.8%
Totals	792,576,633	100.0%

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Appendix II: Economic Update

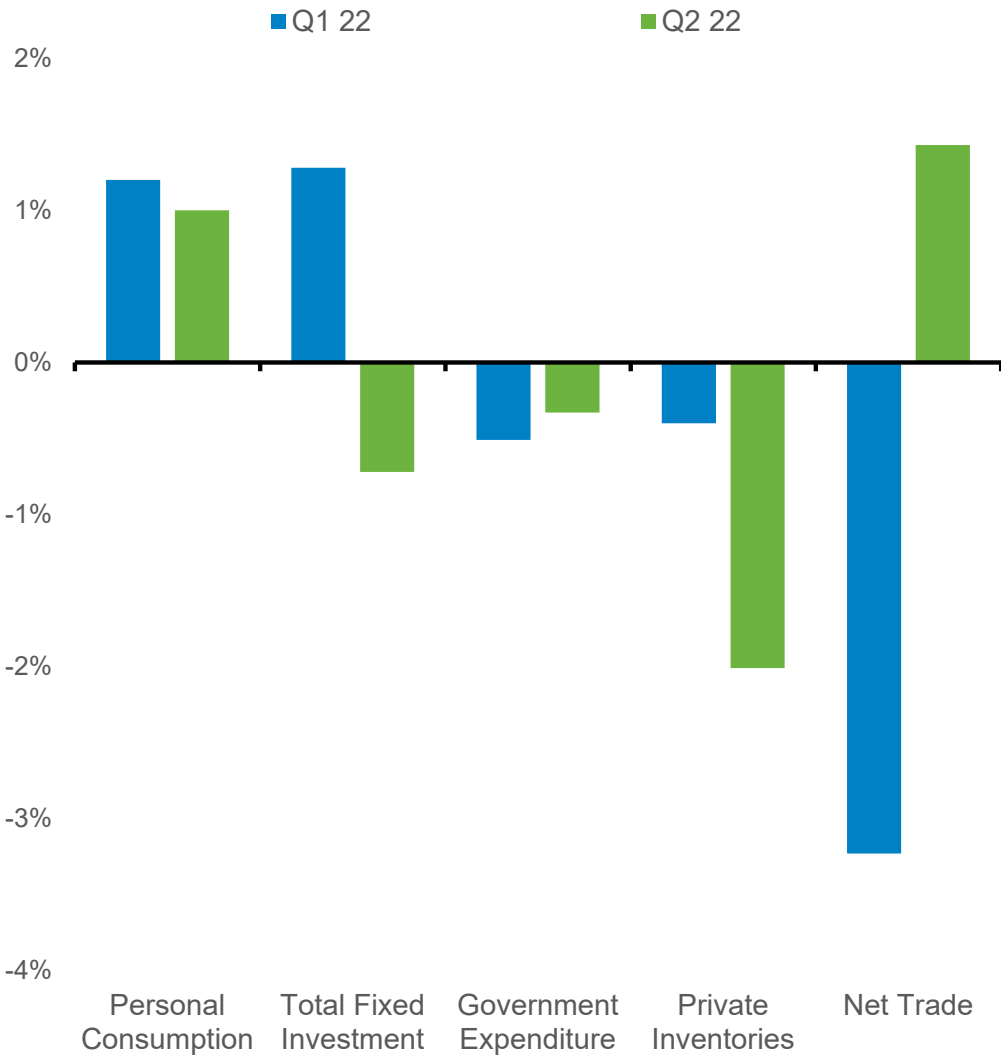
GDP Annualized Quarter-over-Quarter

**U.S. Real GDP
Contributors and Detractors**



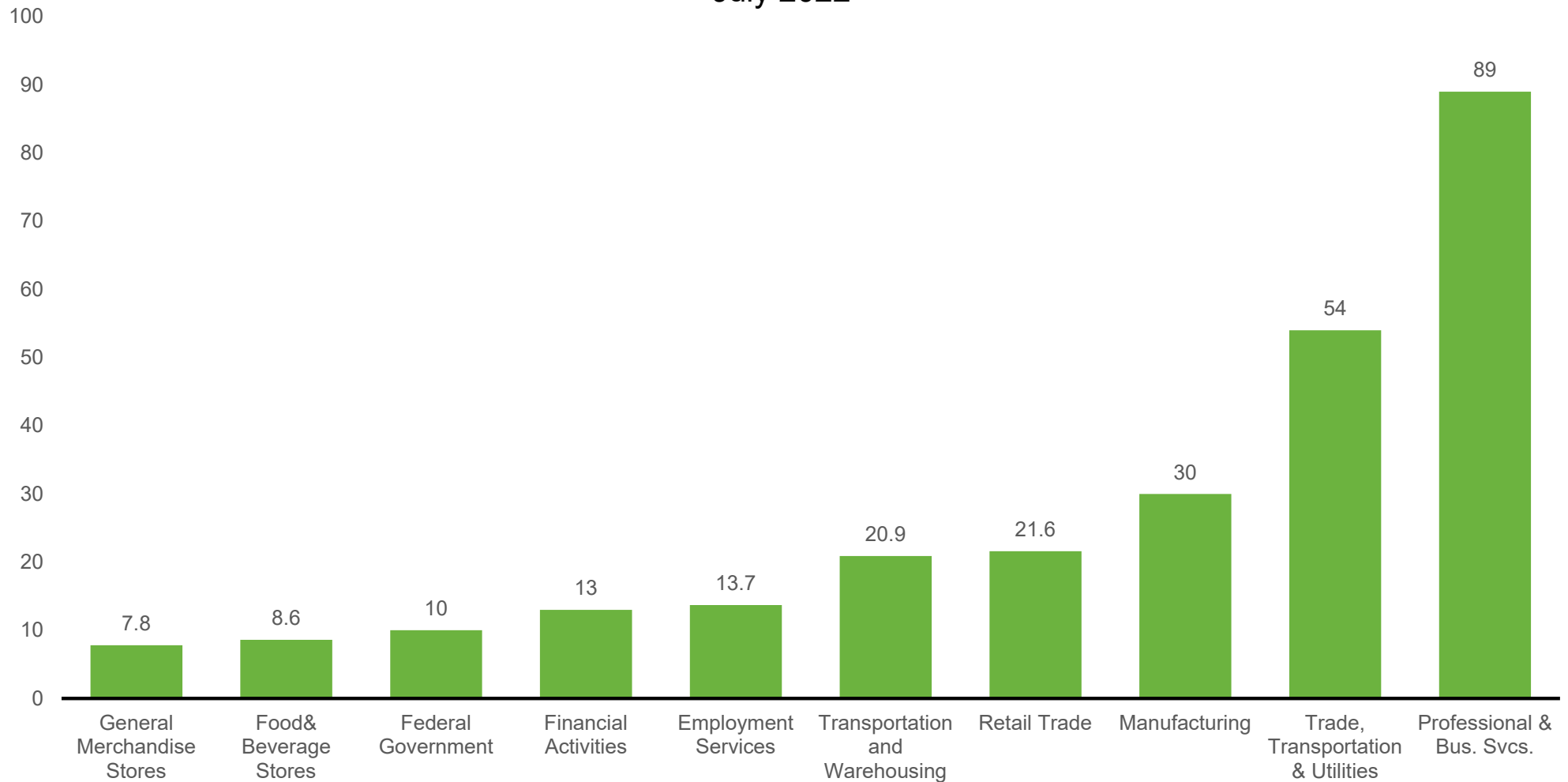
Source: Bloomberg, as of Q2 2022.

GDP Contributors



Employment Report

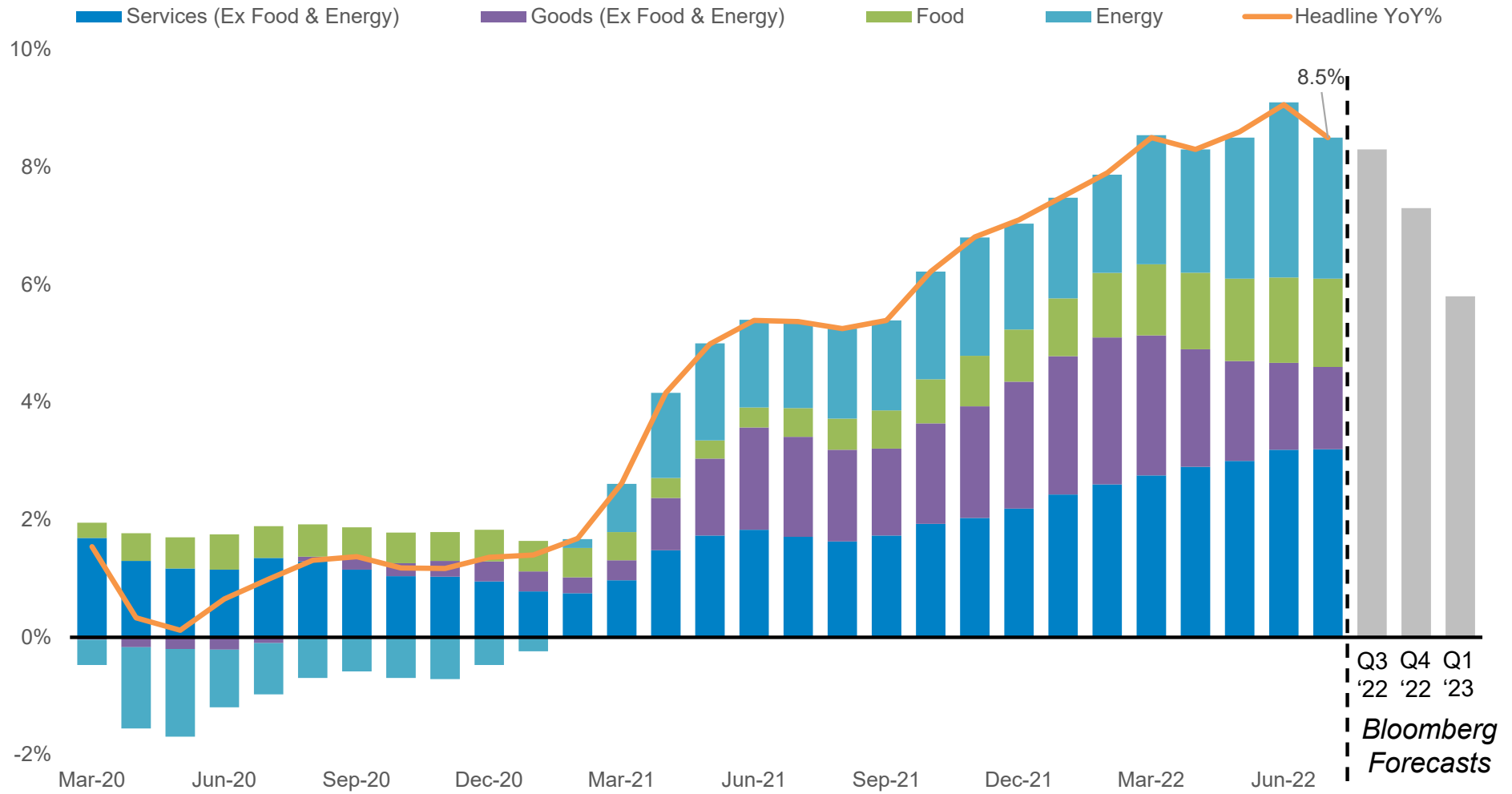
Change in Nonfarm Payrolls July 2022



Source: Bloomberg, as of June 2022. Data is seasonally adjusted.

U.S. Inflation Decelerates in July, Driven by Lower Energy Prices

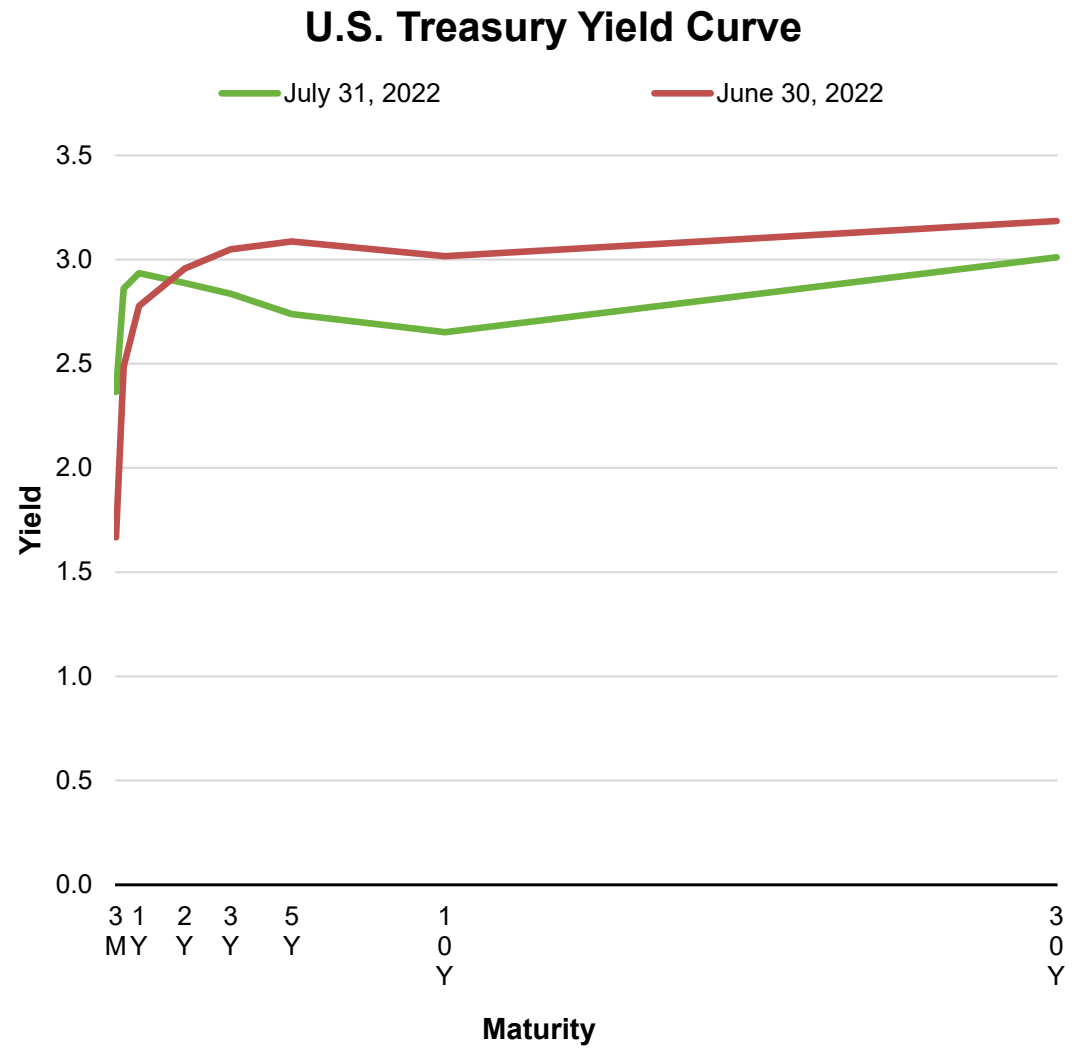
Consumer Prices (CPI)
 Top-Line Contributions and Year over Year Reading



Source: Bloomberg, as of June 2022.

Treasury Curve Inverted Further Amid Recession Angst

	06/30/2022	07/31/2022	Change
3 month	1.67%	2.36%	0.69%
6 month	2.49%	2.86%	0.37%
1 year	2.78%	2.94%	0.16%
2 year	2.96%	2.89%	-0.07%
3 year	3.05%	2.84%	-0.21%
5 year	3.09%	2.74%	-0.35%
10 year	3.02%	2.65%	-0.37%
30 year	3.19%	3.01%	-0.18%



Source: Bloomberg, as of 06/30/2022 and 07/31/2022, as indicated.

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The U.S. economy is characterized by:
 - High inflation
 - A strong labor market
 - Depressed consumer confidence
 - Growing potential for economic recession
- The Federal Reserve is tightening monetary policy
 - More aggressive rate hikes to battle persistent inflation
 - Short-term Fed Funds rate projected to reach 3.25% to 3.75% by year-end
 - Start of balance sheet reduction; pace to double beginning in September
- Asset prices have fallen sharply in 2022 as a result of:
 - The impact of higher rates on bond prices and equity valuations
 - Wider credit spreads
 - High commodity prices, rising labor costs, and the continuing conflict in Ukraine
 - High levels of volatility and uncertainty
- The first half of 2022 was one of the most difficult investment environments in the past 40 years due to the pace of interest rate increases and the resulting simultaneous weakness in both bond and stock market returns
 - As the market enters the second half of the calendar year, many of the first half's significant headwinds are still in place: high inflation, tighter Federal Reserve monetary policy, rising rates, wider credit spreads, slowing growth, and lingering geopolitical turmoil

Fixed Income

Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The Federal Open Market Committee (“FOMC”) raised the Federal Funds rate by 75 basis points in June – the biggest increase since 1994 – to a new target range of 1.50% – 1.75%
 - In their latest iteration of economic projections, the Federal Reserve (“Fed”) increased its expectations for inflation in 2022, lowered its forecast for real gross domestic product (“GDP”) and increased its projection for the year-end Fed Funds rate from 1.5% to 3.4%
 - The Fed arguably remains behind the curve when it comes to taming inflation
 - Also, the FOMC will continue reducing its holding of Treasury securities, Agency debt, and Agency mortgage-backed securities, as described in the plan issued in May
- U.S. Treasury yields rose sharply during the quarter
 - The U.S. Treasury yield curve shifted higher as the market digested the anticipated trajectory of more aggressive Fed rate hikes
 - Yields on benchmark 2 and 10-year Treasury notes finished the quarter at 2.96% and 3.02%, respectively
- Inflation has remained elevated, reflecting higher energy prices, supply chain disruptions lingering from the pandemic, and continuing strong consumer demand
 - However, outside of oil, many commodities have returned to price levels prior to the Russian invasion of Ukraine
 - The U.S. dollar index (DXY) surged by 2.9%, reaching the highest level in two decades
- The market expects a likely path of continued aggressive Fed rate hikes
 - Short-term credit markets for commercial paper and bank CDs offer excellent yields, attractive spreads over Treasuries, and some protection from the unrelenting Fed rate increases
 - Also, short-term investments are a reasonably attractive investment choice in today’s rate environment

Disclosure

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Financial Report
Quarterly WRAP Report
for the Period Ended June 30, 2022

The Quarterly WRAP Report includes the following:

1. Key Takeaways
2. Background
3. Approved Program Changes
4. Current Year Budget and Allocations
5. Reallocation Activity
6. FY 2022 Program Year Objectives
7. Looking Ahead

Key Takeaways

- Program performance overall has increased compared to FY 2021. Table 1 below provides a snapshot of key performance indicators.
- The Affordability & Assistance team has drafted a proposed approach called the “WRAP Income Based Plan” or “WRAP IBP” following the GLWA Board of Director’s approval of a scale of assistance approach. Details of this approach were shared with the Board via email, as well as with our Member Partners and stakeholders. They are now posted at <http://www.glwater.org/assistance> and can be found in Appendix A.
- Program administration for the City of Flint moved to Wayne Metropolitan Community Action Agency (Wayne Metro) in June 2022 to allow for more consistent support and assistance to Flint residents. Wayne Metro is working closely with the City of Flint to provide onsite assistance. In June 2022, 72 residents were enrolled. Due to this transition, comparative data is not readily available.
- Program administration for Oakland County transitioned to Wayne Metro in June 2022 temporarily as efforts to on-board a new service delivery partner for Oakland County are made.
- Reallocations approved by the Board of Directors in June 2022 address the need for funds in the cities of Detroit and Flint.

Table 1 - FY 2022 WRAP Performance as Compared to FY 2021

	Households Enrolled	Funds Committed	Average Assistance Per Household	Funds Spent on Minor Plumbing Repairs
Overall	29% increase 1,816 Households	45% increase \$1.89m	12% increase \$82	155% increase \$696.5k
Macomb, Lapeer & St. Clair	56% increase 226 Households	351% increase \$355.8k	190% increase \$473	10,000% increase \$69.6k
Wayne, Washtenaw & Monroe	25% increase 1,335 Households	32% increase \$1.22m	6% increase \$41	127% increase \$555.1k
Oakland	71% increase 251 households	67% increase \$164.6k	2% decrease (\$17)	34% increase \$4.3k

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee August 26, 2022

Background

The Water Residential Assistance Program (“WRAP”) is a sustainable funding source that provides assistance to qualifying low-income residents served by the Great Lakes Water Authority’s (“GLWA”) member partners. The program is funded by GLWA at an amount equal to 0.5 percent of budgeted revenues for the Regional System and not less than 0.5 percent, but not greater than 1.0 percent of budgeted revenues for the DWSD Local System. The budgeted WRAP funding for FY 2022 is \$6.2 million combined for water and sewer services.

The approved guidelines include funding for a) payment assistance and b) arrearage assistance and, c) conservation measures and minor plumbing repairs. To participate in WRAP, an applicant must have household gross incomes at or below 200% of the federal poverty income thresholds. WRAP participants are also encouraged to participate in both financial coaching and water conservation workshops as well as other support services. The program is administered through local service delivery partners such as Wayne Metropolitan Community Action Agency (Wayne Metro) and Macomb Community Action (MCA).

The WRAP began assisting residents in the GLWA service area on March 1, 2016. Since inception through June 30, 2022, WRAP has committed over \$29.5 million in assistance to qualified participants.

The detailed performance metrics of WRAP in FY 2022 as prepared by Public Sector Consultants, follows in Appendix B.

Approved Program Changes

As a first-of-its-kind assistance program in the state of Michigan, changes to WRAP may be required as the program matures. Following is a summary of program changes made to WRAP since 2016, as approved by the GLWA Board of Directors.

November 30, 2016:

Allow member communities to opt into program features that best meet the needs of their community. This is captured in the three options below:

Option 1

- Assistance up to \$300 per year in the form of \$25 monthly bill credits. (Applicable if client continues to pay all current monthly/quarterly charges).
- Up to \$700 in arrearage assistance to be paid 50% (up to \$350) after six months in the program, and 50% (up to \$350) after one year. Enrollees are eligible for a second-year arrearage assistance totaling \$700.
- One-time home water audit for households above 120% of average usage.
- Home repairs up to \$1,000 per household to fix minor plumbing issues leading to high usage (finding and fixing leaks, upgrading water using fixtures) and/or minor lead replacement assistance.

Option 2

- Assistance up to \$300 per year in the form of \$25 monthly bill credits. (Applicable if client continues to pay all current monthly/quarterly charges).
- One-time home water audit for households above 120% of average usage.
- Home repairs up to \$1,000 per household to fix minor plumbing issues leading to high usage (finding and fixing leaks, upgrading water using fixtures) and/or minor lead replacement assistance.

Option 3

- One-time home water audit for households above 120% of average usage.
- Home repairs up to \$1,000 per household to fix minor plumbing issues leading to high usage (finding and fixing leaks, upgrading water using fixtures) and/or minor lead replacement assistance.

August 22, 2018:

- Removal of the 120% usage requirement for the lead fixture replacement for in-home faucets that pre-date the lead-free plumbing code change.

January 23, 2019:

- Extend the 2-year time limitation to provide monthly bill assistance to senior citizens and disabled citizens.

March 11, 2020:

- Increase eligibility for residential customers from 150% to 200% or less of federal poverty level;
- Increase conservation and plumbing repairs spending per household from \$1,000 to an average of \$1,500 and a cap of \$2,000 per customer for eligible residential customers; and
- Allow eligible residential customers that are renters to take advantage of conservation and plumbing repairs to reduce their water consumption, upon landlord executing an agreement not to raise rents for one year.

October 28, 2020:

- Temporary change to 1) allow program participants who are unable to make monthly payments on time to remain in WRAP if they demonstrate a significant loss of income or inability to make a timely payment due to COVID-19; and 2) participants will still be eligible to receive monthly bill credits and arrears payments if applicable, until December 31, 2020..

April 28, 2021:

- Enabled the use of categorical eligibility to determine if a household can receive WRAP funds.
- Increased the WRAP arrearages payment cap to \$1,200 per household, per year, for a total of \$2,400 per household if they complete two years of the program.
- Updated the program reporting to include additional data on number of applicants

deemed not eligible for WRAP, timeframe from application submission to program enrollment, number of participants making on-time bill payments, amount of arrearages paid per household, number of water audits completed, average cost of repairs per household, water consumption per household, number of program referrals, and additional forms of assistance provided via supplemental funding.

September 22, 2021:

- Created the ability for community action agencies to use special allowances for an additional \$1,000 in certain plumbing repair circumstances.
- Expanded eligibility to conservation and minor plumbing repair services to any household within a GLWA member partner community, regardless of whether the community participates in WRAP
- Removed the high-water user eligibility requirement for conservation and minor plumbing repair service.

June 22, 2022:

- Removed the opt-in/opt-out and service level options for GLWA Member Communities, thereby allowing all eligible households in the GLWA service region to take advantage of the program.
- Authorized a WRAP “Sliding Scale Assistance Approach” that is based on relative average residential bill by community and household income to determine the level of payment assistance. The scale is established administratively with reporting to the Audit Committee to adapt to changing bill amounts by community.

July 27, 2022:

- Approved the use of WRAP Funds for the Detroit Water & Sewerage Department Lifeline Plan with quarterly reporting of the plan’s progress to the GLWA Audit Committee.

Current Year Budget and Allocations

Consistent with the previous fiscal years funding allocation for WRAP, the FY 2022 budgeted allocation is based on the proportionality of the revenues derived from each county and the city of Detroit, based on the approved FY 2022 water and sewer service charges and budget.

Table 2 - FY 2022 WRAP Budget and Allocations - This table shows the allocation of the budgeted WRAP funds, which is reflective of the approved FY 2022 budget of \$6.2 million. The city of Detroit is shown separately from the remaining Wayne County allocation. The city of Detroit is currently allocated 26% of total wholesale WRAP funding and contributes additional, local WRAP funding which increases the overall program impact.

Table 2 - FY 2022 WRAP Budget and Allocations

Community	Budgeted Direct Assistance	Budgeted Conservation Assistance	Budgeted Administration Cost Cap - 12%	Total Budgeted Revenue	Revenue Allocation
WAYNE METRO					
CITY OF DETROIT					
Wholesale Funding	\$756,264	\$189,066	\$116,839	\$1,062,169	26.14%
Local Funding	1,553,228	388,307	239,965	2,181,500	
TOTAL DETROIT	\$2,309,492	\$577,373	\$356,804	\$3,243,669	26.14%
WAYNE COUNTY	731,249	182,812	112,974	1,027,034	25.27%
GENESSE COUNTY	16,660	4,165	2,574	23,399	0.58%
WASHTENAW COUNTY	39,392	9,848	6,086	55,326	1.36%
MONROE COUNTY	6,350	1,587	981	8,918	0.22%
TOTAL WAYNE METRO	3,103,142	775,786	479,418	4,358,346	53.57%
OAKLAND LIVINSTON HUMAN SERVICE AGENCY					
OAKLAND COUNTY	806,739	201,685	124,637	1,133,060	27.88%
MACOMB COMMUNITY ACTION AGENCY					
MACOMB COUNTY	519,461	129,865	80,254	729,580	17.95%
LAPEER COUNTY	12,487	3,122	1,929	17,538	0.43%
ST. CLAIR COUNTY	4,825	1,206	745	6,777	0.17%
TOTAL MACOMB COMMUNITY ACTION AGENCY	536,773	134,193	82,928	753,895	18.55%
GRAND TOTAL	\$4,446,654	\$1,111,663	\$686,983	\$6,245,300	100.00%

(1) Based on allocation of assistance funds of 80% Direct Bill Asst. and 20% Conservation Asst.

(2) Based on FY 2022 Budgeted WRAP Funding of:

Wholesale Funding	\$4,063,800
Detroit Local Funding	2,181,500
Total WRAP Funding	\$6,245,300

Reallocation Activity

After the completion of each fiscal year, a GLWA staff makes a recommendation to the GLWA Board of Directors for the reallocation of uncommitted or unspent assistance and conservation funds to those member communities that have fully committed their annual budgeted funds due to the increased need within their community.

The Board authorized reallocation of uncommitted FY 2016 to FY 2021 WRAP funds to the City of Detroit and the City of Flint is captured in Table 3 below. To date, \$7.2 million has been reallocated to Detroit and \$2.9 million to the City of Flint from the other counties within GLWA.

Table 3 – Total WRAP Reallocation of Uncommitted and Unspent Funds

Reallocated Funds	Detroit	Flint	Total
FY 2016	\$ 1,664,833	\$ 117,485	\$ 1,782,318
FY 2017	\$ 786,981	\$ 425,635	\$ 1,212,616
FY 2018	\$ 794,400	\$ 427,755	\$ 1,222,155
FY 2019	\$ 1,182,593	\$ 471,562	\$ 1,654,155
FY 2020 & FY 2021	\$ 2,815,194	\$ 1,515,874	\$ 4,331,068
Total Reallocation	\$ 7,244,001	\$ 2,958,311	\$ 10,202,312

FY 2022 Program Year Objectives

GLWA, PSC, the CAAs and participating communities have been working together to improve WRAP program effectiveness. The table below details the objectives that were identified for the FY 2022 program year, as well as their status update.

1. Provide flexibility for the community action agencies to administer the program
 - Clarifications has been provided to CAAs to allow for instances of non-traditional income, or no documented income.
 - GLWA has a plan in place for improvements taking effect in FY2023, to allow for additional flexibility.
2. Codify decentralized program delivery model
 - Separate contracts for WRAP administration have been executed with Wayne Metro and Macomb Community Action.
 - Additional service delivery partners are actively being explored.
3. Recruit nonparticipating member communities
 - GLWA has a plan in place taking effect in FY2023 that will allow for all eligible households in the GLWA service area to participate in WRAP.
4. Make WRAP more accessible for residents
 - GLWA has a plan in place taking effect in FY2023 that will improve program accessibility.
5. Improve performance reporting, financial monitoring, cost of service, and program effectiveness
 - GLWA has a plan in place taking effect in FY2023 that will address these needed improvements.
6. Simplify monthly bill payment process
 - GLWA has a plan in place taking effect in FY2023 that will address the bill payment process.
7. Enhance conservation and water repair services
 - Program changes made in September 2021 enabled a higher cap on funds available for conservation and minor plumbing repairs, as well as who was eligible for the services.
 - An emphasis on creating a healthy home, rather than just reducing water consumption has been made.

8. Leverage other forms of assistance:

- Other forms of assistance are being leveraged alongside WRAP. The current program that is being significantly leveraged is LIHWAP. Service delivery partners are enrolling clients in LIHWAP, paying down arrears, and then enrolling them in WRAP through categorical eligibility.
- GLWA continues to explore ways to align WRAP with other assistance programs and relies on our service delivery partners to provide wraparound service to clients upon intake.

Looking Ahead

On June 22, 2022, the Board of Directors approved improvements WRAP. These improvements will make it easier for households to enroll in the program, provide assistance in line with an individual household's income, and reduce administrative burden on communities. The Affordability & Assistance Team is working with service delivery partners and member partners to solicit feedback on the proposed approach and anticipate the changes taking effect this Fall. August 23, 2022 marks the launch of a Member Partner WRAP Advisory Panel with the first meeting taking place on that date. The group will tackle topics such as billing practices, building awareness of WRAP, program support and administration, as well as the effectiveness of WRAP.

GLWA has engaged Plante Moran to help streamline specific WRAP processes that may create a burden at the member partner level.

The Affordability & Assistance Team, alongside Public Sector Consultants will be updating the format and performance metrics of the WRAP Quarterly Report in FY 2023. This change will create key performance indicators to better measure success of the program throughout the year.

GLWA - WRAP Program Summary Report (FY 2022) - All Jurisdictions							
	Total FY 2022	Total FY 2021	Total FY 2020				
Budgeted Program Funding	\$6,245,300	\$6,888,500	\$4,868,100				
Total Funds Allocated - Direct Assistance	\$4,446,654	\$4,428,320	\$3,528,422				
Total Funds Allocated - Conservation Assistance	\$1,111,663	\$1,107,080	\$882,105				
NEW Total Funds Allocated- Administrative Costs	\$686,983						
Allocation Percentage	100.0%	100.0%	100.0%				
	FY 2022 - Q1 July - September 2021	FY 2022 - Q2 October - December 2021	FY 2022 - Q3 January -March 2022	FY 2022 - Q4 April - June 2022	FY 2022 YTD	FY 2021 Total	FY 2020 Total
Bill Payment Assistance							
Number of households enrolled	1,401	3,084	1,664	1,912	8,061	6,245	5,627
Year 1	817	2,137	1,112	1,251	5,317	4,169	2,965
Year 2	477	794	350	460	2,081	1,580	1,903
WRAPFinity	107	153	131	201	592	496	759
Amount (\$) of total assistance provided (Committed)	\$ 1,226,896.09	\$ 2,208,016.44	\$ 1,314,362.82	\$ 1,351,708.47	\$ 6,100,983.82	\$ 4,213,964.12	\$ 3,521,396.66
Amount (\$) of total assistance remaining (Uncommitted)	\$ 3,219,757.91	\$ 1,011,741.47	\$ (302,621.35)	\$ (1,654,329.82)	\$ (1,654,329.82)	\$ 214,355.88	\$ 7,025.34
Amount (\$) of average assistance awarded per household	\$ 875.73	\$ 715.96	\$ 789.88	\$ 706.96	\$ 756.85	\$ 674.77	\$ 625.80
Arrearage Assistance							
Number of shut-offs avoided	1	74	98	53	226	864	2,210
Number of households enrolled with an arrearage balance	1,209	1,526	1,212	1,080	5,027	5,483	4,546
Percentage of enrolled households	86%	49%	73%	56%	62%	88%	81%
Average arrearage balance per household	\$ 1,049.64	\$ 1,090.88	\$ 1,021.35	\$ 1,364.98	\$ 1,110.51	\$ 1,187.49	\$ 1,004.64
Amount of arrearages paid (awarded) per household	\$ 746.43	\$ 515.29	\$ 703.07	\$ 746.45	\$ 637.76	\$ 501.51	\$ 478.81
Conservation and Plumbing Repairs Assistance							
Number of households enrolled in Conservation	438	310	437	550	1,735	2,257	1,445
Number of water audits completed	438	286	377	517	1,618	1,206	567
Amount (\$) of conservation assistance provided*	\$ 171,200.00	\$ 114,400.00	\$ 168,000.00	\$ 206,800.00	\$ 660,400.00	N/A	N/A
Amount (\$) of plumbing repairs assistance provided*	\$ 217,360.00	\$ 152,429.85	\$ 391,833.96	\$ 385,069.41	\$ 1,146,693.22	\$ 450,159.28	\$ 157,568.25
*Data for FY 22 has been disaggregated between conservation and plumbing repairs							



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GLWA - WRAP Program Summary Report (FY 2022) - Wayne Metro							
	Total FY 2022	Total FY 2021	Total FY 2020				
Budgeted Program Funding	\$4,358,346	\$4,148,306	\$2,990,311				
Total Funds Allocated - Direct Assistance	\$3,103,142	\$2,991,124	\$2,137,540				
Total Funds Allocated - Conservation Assistance	\$775,786	\$747,781	\$534,384				
Total Funds Allocated- Administrative Costs	\$479,418						
Allocation Percentage	69.8%	60.2%	61.4%				
	FY 2022 - Q1 July - September 2021	FY 2022 - Q2 October - December 2021	FY 2022 - Q3 January - March 2022	FY 2022 - Q4 April - June 2022	FY 2022 YTD	FY 2021 Total	FY 2020 Total
Bill Payment Assistance							
Number of households enrolled	1,051	2,696	1,386	1,512	6,645	5,310	4,680
Year 1	669	1,839	944	958	4,410	3,686	2,570
Year 2	292	717	317	374	1,700	1,235	1,437
WRAPFinity	90	140	125	180	535	389	673
Amount (\$) of total assistance provided (Committed)	\$ 917,242.34	\$ 1,918,330.89	\$ 1,095,679.40	\$ 1,062,433.10	\$ 4,993,685.73	\$ 3,771,259.23	\$ 2,922,264.91
Amount (\$) of total assistance remaining (Uncommitted)	\$ 2,185,899.66	\$ 267,568.77	\$ (828,110.63)	\$ (1,890,543.73)	\$ (1,890,543.73)	\$ (780,135.23)	\$ (784,724.91)
Amount (\$) of average assistance awarded per household	\$ 872.73	\$ 711.55	\$ 790.53	\$ 702.67	\$ 751.50	\$ 710.22	\$ 624.42
Arrearage Assistance							
Number of shut-offs avoided	N/A	12	5	8	25	822	2,160
Number of households enrolled with an arrearage balance	1,038	1,308	1,040	879	4,265	4,906	3,980
Percentage of enrolled households	99%	49%	75%	58%	64%	92%	85%
Average arrearage balance per household (reported for newly enrolled households)	\$ 1,077.97	\$ 1,121.56	\$ 1,082.66	\$ 1,486.34	\$ 1,176.26	\$ 1,241.94	\$ 1,025.39
Amount of arrearages paid per household	\$ 730.51	\$ 507.07	\$ 717.17	\$ 803.49	\$ 635.55	\$ 508.43	\$ 478.76
Conservation and Plumbing Repairs Assistance							
Number households enrolled in Conservation	385	256	336	477	1454	2037	1,280
Number of water audits completed	385	256	336	477	1,454	1,163	488
Amount (\$) of conservation assistance provided*	\$ 154,000.00	\$ 102,400.00	\$ 134,400.00	\$ 190,800.00	\$ 581,600.00	N/A	N/A
Amount (\$) of plumbing repairs assistance provided*	\$ 207,076.00	\$ 120,688.37	\$ 341,604.00	\$ 322,775.50	\$ 992,143.87	\$ 437,022.28	\$ 138,487.25
*Data for FY 22 has been disaggregated between conservation and plumbing repairs							

GLWA - WRAP Program Summary Report (FY 2022) - Macomb County Community Action

	Total FY 2022	Total FY 2021	Total FY 2020				
Budgeted Program Funding	\$753,894	\$766,064	\$740,103				
Total Funds Allocated - Direct Assistance	\$536,773	\$567,491	\$548,215				
Total Funds Allocated - Conservation Assistance	\$134,193	\$141,873	\$137,053				
Total Funds Allocated- Administrative Costs	\$82,928						
Allocation Percentage	12.1%	11.1%	15.2%				
	FY 2022 - Q1 July - September 2021	FY 2022 - Q2 October - December 2021	FY 2022 - Q3 January - March 2022	FY 2022 - Q4 April - June 2022	FY 2022 YTD	FY 2021 Total	FY 2020 Total
Bill Payment Assistance							
Number of households enrolled	121	144	207	161	633	407	270
Year 1	62	103	168	130	463	258	100
Year 2	52	38	33	30	153	74	71
WRAPFinity	7	3	6	1	17	75	57
Amount (\$) of total assistance provided (Committed)	\$ 71,635.94	\$ 108,416.80	\$ 163,612.77	\$ 113,458.36	\$ 457,123.87	\$ 101,329.36	\$ 99,981.04
Amount (\$) of total assistance remaining (Uncommitted)	\$ 465,137.06	\$ 356,720.26	\$ 193,107.49	\$ 79,649.13	\$ 79,649.13	\$ 466,161.64	\$ 448,233.96
Amount (\$) of average assistance awarded per household	\$ 592.03	\$ 752.89	\$ 790.40	\$ 704.71	\$ 722.15	\$ 248.97	\$ 370.30
Arrearage Assistance							
Number of shut-offs avoided	1	62	93	45	201	41	50
Number of households enrolled with an arrearage balance	63	98	122	79	362	199	93
Percentage of enrolled households	52%	68%	59%	49%	57%	49%	34%
Average arrearage balance per household (reported for newly enrolled households)	\$ 541.84	\$ 592.65	\$ 619.43	\$ 675.86	\$ 603.15	\$ 393.90	\$ 475.38
Amount of arrearages paid per household	\$ 552.12	\$ 579.57	\$ 621.57	\$ 623.17	\$ 601.34	\$ 151.55	\$ 321.59
Conservation and Plumbing Repairs Assistance							
Number of households enrolled in Conservation	10	34	45	70	159	106	38
Number of water audits completed	10	10	28	37	85	5	11
Amount (\$) of conservation assistance provided*	N/A	\$ 4,000.00	\$ 11,200.00	\$ 14,800.00	\$ 30,000.00	N/A	N/A
Amount (\$) of plumbing repairs assistance provided*	\$ 5,618.00	\$ 10,480.48	\$ 22,264.96	\$ 31,957.66	\$ 70,321.10	\$ 697.00	\$ 2,909.00

*Data for FY 22 has been disaggregated between conservation and plumbing repairs

GLWA - WRAP Program Summary Report (FY 2022) - Oakland Livingston Human Services Agency

	Total FY 2022	Total FY 2021	Total FY 2020				
Budgeted Program Funding	\$1,133,061	\$1,149,643	\$1,114,023				
Total Funds Allocated - Direct Assistance	\$806,739	\$851,554	\$825,138				
Total Funds Allocated - Conservation Assistance	\$201,685	\$212,889	\$206,285				
Total Funds Allocated- Administrative Costs	\$124,637						
Allocation Percentage	18.1%	16.7%	22.9%				
	FY 2022 - Q1 July - September 2021	FY 2022 - Q2 October - December 2021	FY 2022 - Q3 January - March 2022	FY 2022 - Q4 April - June 2022	FY 2022 YTD	FY 2021 Total	FY 2020 Total
Bill Payment Assistance							
Number of households enrolled	129	167	71	239	606	355	353
Year 1	86	123	N/A	163	372	223	224
Year 2	34	36	N/A	56	126	100	105
WRAPFinity	9	8	N/A	20	37	32	24
Amount (\$) of total assistance provided (Committed)	\$ 117,523.98	\$ 63,301.66	\$ 55,070.65	\$ 175,817.01	\$ 411,713.30	\$ 247,099.36	\$ 247,113.54
Amount (\$) of total assistance remaining (Uncommitted)	\$ 689,215.02	\$ 625,913.36	\$ 570,842.71	\$ 395,025.70	\$ 395,025.70	\$ 604,454.91	\$ 578,024.69
Amount (\$) of average assistance awarded per household	\$ 911.04	\$ 379.05	\$ 775.64	\$ 735.64	\$ 679.39	\$ 696.05	\$ 700.04
Arrearage Assistance							
Number of shut-offs avoided	N/A	N/A	N/A	N/A	N/A	1	0
Number of households enrolled with an arrearage balance	108	69	50	122	349	313	306
Percentage of enrolled households	84%	41%	70%	51%	58%	88%	87%
Average arrearage balance per household (reported for newly enrolled households)	\$ 1,073.56	\$ 770.64	\$ 726.83	\$ 936.83	\$ 916.20	\$ 951.50	\$ 874.00
Amount of arrearages paid per household	\$ 804.33	\$ 233.41	N/A	\$ 579.10	\$ 553.73	\$ 578.37	\$ 495.87
Conservation and Plumbing Repairs Assistance							
Number of households enrolled in Conservation	0	2	13	3	18	102	124
Number of water audits completed	0	2	13	3	18	38	11
Amount (\$) of conservation assistance provided*	0	\$ 800.00	\$ 5,200.00	\$ 1,200.00	\$ 7,200.00	N/A	N/A
Amount (\$) of plumbing repairs assistance provided*	0	\$ -	\$ 7,042.00	\$ 9,665.75	\$ 16,707.75	\$ 12,440.00	\$ 3,632.00

*Data for FY 22 has been disaggregated between conservation and plumbing repairs

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GLWA - WRAP Program Summary Report (FY 2022) - City of Flint							
	Total FY 2022	Total FY 2021	Total FY 2020				
Budgeted Program Funding	\$23,399	\$24,488	\$23,663				
Total Funds Allocated - Direct Assistance	\$16,660	\$18,150	\$17,528				
Total Funds Allocated - Conservation Assistance	\$4,165	\$4,538	\$4,382				
Allocation Percentage	0.4%	0.4%	0.5%				
	FY 2022 - Q1 July - September 2021	FY 2022 - Q2 October - December 2021	FY 2022 - Q3 January - March 2022	FY 2022 - Q4 April - June 2022	FY 2022 YTD	FY 2021 Total	FY 2020 Total
Bill Payment Assistance							
Number of households enrolled	100	77	0	91	268	173	324
Year 1	0	72	0	N/A	72	2	49
Year 2	99	3	0	N/A	102	171	275
WRAPFinity	1	2	0	N/A	3	0	0
Amount (\$) of total assistance provided (Committed)	\$ 110,501.24	\$ 117,967.09	0	\$ 125,813.98	\$ 354,282.31	\$ 94,275.17	\$ 252,037.17
Amount (\$) of total assistance remaining (Uncommitted)	\$ (93,841.24)	\$ (211,808.33)	\$ (211,808.33)	N/A	\$ (337,622.31)	\$ (76,124.98)	\$ (234,508.99)
Amount (\$) of average assistance awarded per household	\$ 1,105.01	\$ 1,532.04	N/A	N/A	\$ 1,321.95	\$ 544.94	\$ 777.89
Arrearage Assistance							
Number of shut-offs avoided	0	N/A	N/A	N/A	0	0	0
Number of households enrolled with an arrearage balance	45	51	N/A	N/A	96	65	167
Percentage of enrolled households	45%	66%	N/A	N/A	36%	38%	52%
Average arrearage balance per household (reported for newly enrolled households)	\$ 1,609.41	\$ 1,694.56	N/A	N/A	\$ 1,654.65	\$ 1,196.31	\$ 1,044.24
Amount of arrearages paid per household	\$ 955.72	\$ 1,015.09	N/A	N/A	\$ 981.52	\$ 472.22	\$ 513.81
Conservation and Plumbing Repairs Assistance							
Number of households enrolled in Conservation	43	18	43	N/A	61	12	3
Number of water audits completed	43	18	43	N/A	61	-	57
Amount (\$) of conservation assistance provided*	\$ 17,200	\$ 7,200	17,200	N/A	\$ 24,400.00	N/A	N/A
Amount (\$) of plumbing repairs assistance provided*	\$ 4,666	\$ 21,261	20,923	\$ 20,670.50	\$ 67,520.50	\$ -	\$ 12,540.00
*Data for FY 22 has been disaggregated between conservation and plumbing repairs							



Proposed Program Improvements for Public Comment Water Residential Assistance Program (WRAP) Income Based Plan

*July 28, 2022 – Version 1
Comments should be sent to WRAP@glwater.org*

Background: In June 2022, the Great Lakes Water Authority (GLWA) Board of Directors approved improvements to the Water Residential Assistance Program (WRAP). One of the new features allows for a sliding scale of assistance approach that encompasses the residential bill by community and household income to determine the level of bill payment assistance. The purpose of this memo is to outline how the new feature will work across GLWA's 110+ eligible communities. It should be noted that this improvement is being rolled out at the same time as the Detroit Water & Sewerage Department (DWSD) is rolling out the new Lifeline Plan for City of Detroit residents with flat monthly payments of \$18, \$43, and \$56 depending on household income. The Lifeline Plan is partially funded by the WRAP at a level of 1% of DWSD revenues (0.5% from GLWA revenues and 0.5% from DWSD revenues). To differentiate from the DWSD Lifeline Plan, the new GLWA program for the service area outside the City of Detroit has been named the WRAP Income Based Plan (WRAP IBP), the WRAP IBP is funded by 0.5% of GLWA revenues.

WRAP IBP Bill Credit Recommendation: The GLWA Affordability & Assistance Team engaged Raftelis to understand the level of residential bills across the communities that are served by GLWA. A summary of that information is attached. Of the 111 communities where data was obtained, the monthly bills for 4,500 gallons of water varied greatly, ranging from \$31 to \$138 per month. Based on that data, the average for GLWA's service area is \$75/month with DWSD at \$83 in that analysis. After reviewing this information, we are recommending an approach that offers bill credits based on the annual household water bill as a percentage of household income, with the WRAP IBP target assistance being at 3% to align with the available funding. *The WRAP IBP assistance amount is unique to each household's needs based on their annual income and annual water bill.* Given the wide range of needs, it is also recommended that any household that meets categorical eligibility is also eligible for a monthly bill credit no less than \$25 per month.

Implementation Approach: Upon enrollment, the WRAP IBP eligible household will provide past bill information, as well as their household income. Their annual water bill amount and household income will be used to calculate what percentage their current water bill is of their household income. Once this percentage is determined, the amount of WRAP funding assistance needed to reduce their water bill to meet the 3% goal will be calculated and their bill credit amounts will be determined. The household will then be responsible for paying the remainder of the bill each month. Attached are some illustrations of how this program would be implemented.

This approach allows for quick determination of bill payment assistance by case worker / enrollment staff. It cannot be emphasized enough that the ease of enrollment is critical to the success of the program.

Other Considerations & Next Steps:

1. A Member Partner WRAP Advisory Panel, as well as a WRAP Stakeholder Panel, will provide ongoing input and feedback regarding the WRAP IBP.
2. Both the DWSD Lifeline Plan and WRAP IBP are major changes in providing water assistance payments to residents in our service area. Arrearage assistance, conservation efforts, and home plumbing repairs will continue to be key benefits of both programs funded by a combination of WRAP and other federal and state sources to the extent those sources remain available.
3. WRAP funding is not a solution to long-term systemic payment assistance needs. Reliance on WRAP for long-term assistance is not a sustainable option. The GLWA Affordability & Assistance Team will continue the dialog with regional, state, and other partners for long-term funding for affordability and assistance programs.
4. Member Partner communities bill based on a wide range of schedules such as monthly, bi-monthly, and quarterly. Efficiency of a monthly payments, along with client education related to budgeting for monthly payments, will need to be evaluated as implementation begins.
5. Development of “rapid assistance” parameters to maintain service and address short-term and/or emergency changes in household income.

Implementation Date: Final check-ins with community action agency partners on business process and a soft rollout launch will occur over the next 30 to 60 days. A regional community outreach will begin in September. Recalculation of existing client benefit payments will also begin during this time.

ATTACHMENTS

ATTACHMENT A - Calculation of the Water Residential Assistance Program Income Based Plan (WRAP IBP) Benefit

ATTACHMENT B - Example Enrollment Form for WRAP IBP Assistance Determination

ATTACHMENT C - Summary of Residential Bills Communities Based on 4,500 Gallons per Month

ATTACHMENT A

**Calculation of the Water Residential Assistance Program
Income Based Plan (WRAP IBP) Benefit**

Benefit Calculation	Example A	Example B	Example C
Household Income (A):	\$35,000	\$20,000	\$10,000
Annual Actual Water Bill (B):	\$1,410	\$1,000	\$1,400
Average Actual Monthly Bill (B/12):	\$117	\$83	\$117
Annual Actual Water Bill as a percentage of Household Income (B/A):	4%	5%	14%
Target Annual Water Bill (3% of household income) (A x 3% = C):	\$1,050	\$600	\$300
Total Annual Bill Payment Commitment from WRAP Income Based Plan (B-C = D):	\$360	\$400	\$1,100
Monthly Bill Payment Credit Paid by GLWA WRAP IBP Partner to Community (D/12):	\$30	\$33	\$92
Estimated household monthly responsibility (difference between annual actual bill less WRAP IBP), approximately ((A * 3%) /12)	\$88	\$50	\$25

ATTACHMENT B

Example Enrollment Form for WRAP IBP Assistance Determination

Water Residential Assistance Program - Income Based Plan Assistance Determination Form

Client Name:	John Smith
Household Income:	\$ 20,000
Categorically Eligible?	Yes

Enter up to 12 months of billing info

1	\$	75
2	\$	75
3	\$	80
4	\$	80
5	\$	85
6	\$	90
7	\$	90
8	\$	95
9	\$	90
10	\$	80
11	\$	80
12	\$	80

Annual Water Bill: \$ 1,000

Average Monthly Bill: \$ 83Current Water Bill as a percentage of Household
Income 5%Target Annual Water Bill (3% of Household
Income) \$ 600

Total Annual WRAP IBP Funding Assistance:	\$ 400
WRAP IBP Monthly Bill Credits (no less than \$25 per month):	\$ 33
Estimated Monthly Client Payment Budget:	\$ 50

Data Entry Field
Calculated Field

ATTACHMENT C

Summary of Residential Bills Communities Based on 4,500 Gallons per Month

Community ID	Water Rates				Sewer Rates				Total Charges	
	Water Fixed Charge	Water Volume Charge	Water Monthly Bill	Water Annual Bill	Sewer Fixed Charge	Sewer Volume Charge	Sewer Monthly Bill	Sewer Annual Bill	Total Monthly	Total Annual
1	\$ 20.93	\$ 37.62	\$ 58.55	\$ 702.54	\$ 20.93	\$ 58.14	\$ 79.07	\$ 948.78	\$ 137.61	\$ 1,651.32
2	\$ 18.51	\$ 34.25	\$ 52.76	\$ 633.07	\$ 20.91	\$ 57.85	\$ 78.76	\$ 945.13	\$ 131.52	\$ 1,578.20
3	\$ 20.63	\$ 42.84	\$ 63.47	\$ 761.58	\$ 45.80	\$ 20.85	\$ 66.65	\$ 799.80	\$ 130.12	\$ 1,561.38
4	\$ 28.69	\$ 31.50	\$ 60.19	\$ 722.28	\$ 28.69	\$ 31.50	\$ 60.19	\$ 722.28	\$ 120.38	\$ 1,444.56
5	\$ 20.00	\$ 22.47	\$ 42.47	\$ 509.64	\$ 40.00	\$ 26.15	\$ 66.15	\$ 793.78	\$ 108.62	\$ 1,303.42
6	\$ 10.00	\$ 43.92	\$ 53.92	\$ 647.04	\$ 10.00	\$ 42.00	\$ 52.00	\$ 624.00	\$ 105.92	\$ 1,271.04
7	\$ 23.27	\$ 26.04	\$ 49.31	\$ 591.72	\$ 31.26	\$ 24.00	\$ 55.26	\$ 663.06	\$ 104.57	\$ 1,254.78
8	\$ 17.14	\$ 24.69	\$ 41.82	\$ 501.87	\$ 23.83	\$ 37.48	\$ 61.31	\$ 735.73	\$ 103.13	\$ 1,237.60
9	\$ 26.70	\$ 18.45	\$ 45.15	\$ 541.76	\$ 32.98	\$ 24.51	\$ 57.49	\$ 689.83	\$ 102.63	\$ 1,231.60
10	\$ 9.95	\$ 29.04	\$ 38.99	\$ 467.87	\$ 12.42	\$ 49.78	\$ 62.20	\$ 746.38	\$ 101.19	\$ 1,214.26
11	\$ -	\$ 29.10	\$ 29.10	\$ 349.20	\$ -	\$ 71.40	\$ 71.40	\$ 856.80	\$ 100.50	\$ 1,206.00
12	\$ 11.78	\$ 34.86	\$ 46.64	\$ 559.68	\$ 12.87	\$ 40.26	\$ 53.13	\$ 637.56	\$ 99.77	\$ 1,197.24
13	\$ 33.61	\$ -	\$ 33.61	\$ 403.32	\$ 61.31	\$ -	\$ 61.31	\$ 735.72	\$ 94.92	\$ 1,139.04
14	\$ 17.88	\$ -	\$ 17.88	\$ 214.60	\$ 76.58	\$ -	\$ 76.58	\$ 918.96	\$ 94.46	\$ 1,133.56
15	\$ 1.21	\$ 36.09	\$ 37.29	\$ 447.53	\$ 1.21	\$ 54.31	\$ 55.52	\$ 666.20	\$ 92.81	\$ 1,113.74
16	\$ -	\$ 36.89	\$ 36.89	\$ 442.73	\$ -	\$ 55.61	\$ 55.61	\$ 667.32	\$ 92.50	\$ 1,110.05
17	\$ 12.59	\$ 20.34	\$ 32.93	\$ 395.16	\$ 30.53	\$ 28.68	\$ 59.21	\$ 710.52	\$ 92.14	\$ 1,105.68
18	\$ 4.59	\$ 52.42	\$ 57.01	\$ 684.12	\$ 15.88	\$ 19.03	\$ 34.91	\$ 418.89	\$ 91.92	\$ 1,103.01
19	\$ 6.92	\$ 29.35	\$ 36.27	\$ 435.28	\$ 12.91	\$ 41.74	\$ 54.65	\$ 655.82	\$ 90.92	\$ 1,091.10
20	\$ 2.00	\$ 35.73	\$ 37.73	\$ 452.72	\$ 2.00	\$ 50.67	\$ 52.67	\$ 632.08	\$ 90.40	\$ 1,084.80
21	\$ 1.59	\$ 27.06	\$ 28.65	\$ 343.80	\$ 32.53	\$ 29.16	\$ 61.69	\$ 740.28	\$ 90.34	\$ 1,084.08
22	\$ 11.58	\$ 35.01	\$ 46.59	\$ 559.07	\$ 8.16	\$ 34.78	\$ 42.94	\$ 515.33	\$ 89.53	\$ 1,074.40
23	\$ 30.67	\$ 22.80	\$ 53.47	\$ 641.64	\$ 35.98	\$ -	\$ 35.98	\$ 431.76	\$ 89.45	\$ 1,073.40
24	\$ 31.02	\$ 5.89	\$ 36.91	\$ 442.89	\$ 45.15	\$ 7.34	\$ 52.49	\$ 629.85	\$ 89.40	\$ 1,072.74
25	\$ 14.42	\$ 19.12	\$ 33.54	\$ 402.42	\$ 35.92	\$ 19.12	\$ 55.04	\$ 660.42	\$ 88.57	\$ 1,062.85
26	\$ 14.50	\$ 23.40	\$ 37.90	\$ 454.80	\$ 14.50	\$ 35.82	\$ 50.32	\$ 603.84	\$ 88.22	\$ 1,058.64
27	\$ 3.96	\$ 26.70	\$ 30.66	\$ 367.94	\$ 28.02	\$ 26.70	\$ 54.72	\$ 656.62	\$ 85.38	\$ 1,024.56
28	\$ 2.59	\$ 46.45	\$ 49.04	\$ 588.47	\$ 2.59	\$ 33.71	\$ 36.29	\$ 435.51	\$ 85.33	\$ 1,023.98
29	\$ 2.83	\$ 39.75	\$ 42.58	\$ 511.00	\$ 2.83	\$ 39.75	\$ 42.58	\$ 511.00	\$ 85.17	\$ 1,022.00
30	\$ 7.32	\$ 26.25	\$ 33.57	\$ 402.78	\$ 34.34	\$ 17.12	\$ 51.46	\$ 617.52	\$ 85.03	\$ 1,020.30
31	\$ 19.80	\$ 19.29	\$ 39.09	\$ 469.08	\$ 22.84	\$ 23.04	\$ 45.88	\$ 550.56	\$ 84.97	\$ 1,019.64
32	\$ 13.23	\$ 31.50	\$ 44.73	\$ 536.72	\$ 19.11	\$ 20.88	\$ 39.99	\$ 479.88	\$ 84.72	\$ 1,016.60
33	\$ 32.20	\$ 8.89	\$ 41.09	\$ 493.12	\$ -	\$ 42.64	\$ 42.64	\$ 511.67	\$ 83.73	\$ 1,004.79
34	\$ 16.32	\$ 21.12	\$ 37.44	\$ 449.28	\$ 17.80	\$ 28.26	\$ 46.06	\$ 552.72	\$ 83.50	\$ 1,002.00
35	\$ 1.67	\$ 23.79	\$ 25.45	\$ 305.46	\$ 19.50	\$ 38.46	\$ 57.96	\$ 695.58	\$ 83.42	\$ 1,001.03
36	\$ 7.86	\$ 15.96	\$ 23.82	\$ 285.84	\$ 25.32	\$ 34.24	\$ 59.56	\$ 714.67	\$ 83.38	\$ 1,000.51
37	\$ 15.00	\$ 13.28	\$ 28.28	\$ 339.35	\$ 15.00	\$ 39.33	\$ 54.33	\$ 651.99	\$ 82.61	\$ 991.34
38	\$ 17.97	\$ 29.31	\$ 47.28	\$ 567.34	\$ 12.45	\$ 22.85	\$ 35.30	\$ 423.55	\$ 82.57	\$ 990.89
39	\$ 2.25	\$ 36.48	\$ 38.73	\$ 464.76	\$ -	\$ 43.80	\$ 43.80	\$ 525.60	\$ 82.53	\$ 990.36
40	\$ 4.90	\$ 17.59	\$ 22.50	\$ 269.94	\$ 10.07	\$ 49.63	\$ 59.70	\$ 716.35	\$ 82.19	\$ 986.30
41	\$ 7.00	\$ 23.52	\$ 30.52	\$ 366.24	\$ 7.00	\$ 44.22	\$ 51.22	\$ 614.64	\$ 81.74	\$ 980.88
42	\$ -	\$ 33.00	\$ 33.00	\$ 396.00	\$ -	\$ 47.34	\$ 47.34	\$ 568.08	\$ 80.34	\$ 964.08
43	\$ 15.00	\$ 31.89	\$ 46.89	\$ 562.68	\$ 9.15	\$ 23.96	\$ 33.11	\$ 397.37	\$ 80.00	\$ 960.05
44	\$ 28.88	\$ -	\$ 28.88	\$ 346.60	\$ 28.95	\$ 21.48	\$ 50.43	\$ 605.20	\$ 79.32	\$ 951.80
45	\$ 2.67	\$ 24.46	\$ 27.13	\$ 325.54	\$ 11.67	\$ 39.27	\$ 50.94	\$ 611.27	\$ 78.07	\$ 936.81
46	\$ 2.67	\$ 24.46	\$ 27.13	\$ 325.54	\$ 11.67	\$ 39.27	\$ 50.94	\$ 611.27	\$ 78.07	\$ 936.81
47	\$ 11.73	\$ 19.17	\$ 30.90	\$ 370.74	\$ 11.73	\$ 34.59	\$ 46.32	\$ 555.78	\$ 77.21	\$ 926.52
48	\$ 1.00	\$ 20.10	\$ 21.10	\$ 253.20	\$ 1.00	\$ 54.90	\$ 55.90	\$ 670.80	\$ 77.00	\$ 924.00
49	\$ -	\$ 36.24	\$ 36.24	\$ 434.88	\$ -	\$ 40.32	\$ 40.32	\$ 483.84	\$ 76.56	\$ 918.72
50	\$ 3.11	\$ 36.04	\$ 39.15	\$ 469.81	\$ 14.47	\$ 21.81	\$ 36.28	\$ 435.40	\$ 75.43	\$ 905.21
51	\$ 9.67	\$ 27.36	\$ 37.03	\$ 444.32	\$ -	\$ 38.40	\$ 38.40	\$ 460.80	\$ 75.43	\$ 905.12
52	\$ 1.39	\$ 34.86	\$ 36.25	\$ 435.00	\$ 1.39	\$ 37.20	\$ 38.59	\$ 463.08	\$ 74.84	\$ 898.08
53	\$ -	\$ 33.92	\$ 33.92	\$ 407.02	\$ -	\$ 40.51	\$ 40.51	\$ 486.14	\$ 74.43	\$ 893.16
54	\$ 0.92	\$ 40.48	\$ 41.40	\$ 496.81	\$ -	\$ 32.76	\$ 32.76	\$ 393.18	\$ 74.17	\$ 889.99

Summary of Residential Bills Communities Based on 4,500 Gallons per Month

Community ID	Water Rates				Sewer Rates				Total Charges	
	Water Fixed Charge	Water Volume Charge	Water Monthly Bill	Water Annual Bill	Sewer Fixed Charge	Sewer Volume Charge	Sewer Monthly Bill	Sewer Annual Bill	Total Monthly	Total Annual
55	\$ -	\$ 28.64	\$ 28.64	\$ 343.63	\$ -	\$ 44.34	\$ 44.34	\$ 532.13	\$ 72.98	\$ 875.76
56	\$ 7.89	\$ 19.98	\$ 27.87	\$ 334.44	\$ 5.79	\$ 38.94	\$ 44.73	\$ 536.76	\$ 72.60	\$ 871.20
57	\$ 27.08	\$ 3.68	\$ 30.75	\$ 369.02	\$ 32.74	\$ 8.78	\$ 41.52	\$ 498.26	\$ 72.27	\$ 867.28
58	\$ 10.00	\$ 34.32	\$ 44.32	\$ 531.84	\$ 8.80	\$ 18.84	\$ 27.64	\$ 331.62	\$ 71.96	\$ 863.46
59	\$ 17.38	\$ 21.42	\$ 38.80	\$ 465.63	\$ 17.38	\$ 15.60	\$ 32.98	\$ 395.79	\$ 71.79	\$ 861.42
60	\$ 27.38	\$ 10.05	\$ 37.43	\$ 449.19	\$ 33.81	\$ -	\$ 33.81	\$ 405.75	\$ 71.25	\$ 854.94
61	\$ 18.00	\$ 23.76	\$ 41.76	\$ 501.12	\$ 9.83	\$ 19.62	\$ 29.45	\$ 353.44	\$ 71.21	\$ 854.56
62	\$ 16.45	\$ 17.77	\$ 34.22	\$ 410.68	\$ 29.00	\$ 7.85	\$ 36.85	\$ 442.25	\$ 71.08	\$ 852.94
63	\$ 6.92	\$ 27.51	\$ 34.43	\$ 413.20	\$ 6.92	\$ 29.62	\$ 36.54	\$ 438.51	\$ 70.98	\$ 851.71
64	\$ 31.41	\$ 2.67	\$ 34.08	\$ 408.92	\$ 36.67	\$ -	\$ 36.67	\$ 440.00	\$ 70.74	\$ 848.92
65	\$ 16.56	\$ -	\$ 16.56	\$ 198.68	\$ 35.93	\$ 17.52	\$ 53.45	\$ 641.37	\$ 70.00	\$ 840.05
66	\$ 17.24	\$ 1.83	\$ 19.07	\$ 228.82	\$ 30.89	\$ 19.18	\$ 50.07	\$ 600.83	\$ 69.14	\$ 829.65
67	\$ 11.25	\$ 19.84	\$ 31.09	\$ 373.06	\$ 11.25	\$ 26.26	\$ 37.51	\$ 450.08	\$ 68.59	\$ 823.14
68	\$ -	\$ 33.94	\$ 33.94	\$ 407.23	\$ 5.07	\$ 29.16	\$ 34.23	\$ 410.76	\$ 68.17	\$ 817.99
69	\$ 6.91	\$ 32.34	\$ 39.25	\$ 471.00	\$ 2.15	\$ 25.02	\$ 27.17	\$ 326.08	\$ 66.42	\$ 797.08
70	\$ 6.85	\$ 23.89	\$ 30.74	\$ 368.94	\$ 7.91	\$ 27.59	\$ 35.50	\$ 426.03	\$ 66.25	\$ 794.97
71	\$ 2.50	\$ 25.72	\$ 28.22	\$ 338.59	\$ 1.65	\$ 36.16	\$ 37.81	\$ 453.74	\$ 66.03	\$ 792.34
72	\$ 9.69	\$ 39.06	\$ 48.75	\$ 585.00	\$ 17.08	\$ -	\$ 17.08	\$ 204.96	\$ 65.83	\$ 789.96
73	\$ -	\$ 22.21	\$ 22.21	\$ 266.53	\$ 10.00	\$ 33.55	\$ 43.55	\$ 522.64	\$ 65.76	\$ 789.17
74	\$ -	\$ 22.21	\$ 22.21	\$ 266.53	\$ 10.00	\$ 33.55	\$ 43.55	\$ 522.64	\$ 65.76	\$ 789.17
75	\$ 0.92	\$ 33.90	\$ 34.82	\$ 417.80	\$ 0.92	\$ 30.00	\$ 30.92	\$ 371.00	\$ 65.73	\$ 788.80
76	\$ 5.38	\$ 17.64	\$ 23.02	\$ 276.24	\$ 5.55	\$ 36.31	\$ 41.85	\$ 502.23	\$ 64.87	\$ 778.47
77	\$ 18.67	\$ 15.39	\$ 34.06	\$ 408.74	\$ 10.00	\$ 19.43	\$ 29.43	\$ 353.21	\$ 63.50	\$ 761.95
78	\$ 7.46	\$ 26.70	\$ 34.16	\$ 409.92	\$ -	\$ 29.28	\$ 29.28	\$ 351.36	\$ 63.44	\$ 761.28
79	\$ 1.93	\$ 25.63	\$ 27.55	\$ 330.66	\$ 1.93	\$ 33.08	\$ 35.01	\$ 420.07	\$ 62.56	\$ 750.73
80	\$ 10.71	\$ 27.84	\$ 38.55	\$ 462.64	\$ 23.20	\$ -	\$ 23.20	\$ 278.44	\$ 61.76	\$ 741.08
81	\$ 5.33	\$ 26.40	\$ 31.73	\$ 380.80	\$ 4.67	\$ 25.08	\$ 29.75	\$ 356.96	\$ 61.48	\$ 737.76
82	\$ -	\$ 34.34	\$ 34.34	\$ 412.06	\$ -	\$ 27.00	\$ 27.00	\$ 324.00	\$ 61.34	\$ 736.06
83	\$ 8.48	\$ 15.00	\$ 23.48	\$ 281.76	\$ 16.60	\$ 20.82	\$ 37.42	\$ 449.04	\$ 60.90	\$ 730.80
84	\$ 6.81	\$ 6.83	\$ 13.63	\$ 163.60	\$ 23.66	\$ 23.40	\$ 47.06	\$ 564.72	\$ 60.69	\$ 728.32
85	\$ 7.00	\$ 12.90	\$ 19.90	\$ 238.80	\$ 6.00	\$ 34.56	\$ 40.56	\$ 486.72	\$ 60.46	\$ 725.52
86	\$ 2.27	\$ 25.03	\$ 27.30	\$ 327.56	\$ 5.82	\$ 26.14	\$ 31.96	\$ 383.54	\$ 59.26	\$ 711.11
87	\$ 7.77	\$ 18.72	\$ 26.49	\$ 317.88	\$ 5.03	\$ 27.47	\$ 32.50	\$ 389.98	\$ 58.99	\$ 707.86
88	\$ -	\$ 27.74	\$ 27.74	\$ 332.85	\$ -	\$ 29.53	\$ 29.53	\$ 354.40	\$ 57.27	\$ 687.25
89	\$ 5.33	\$ 12.00	\$ 17.33	\$ 208.00	\$ 39.14	\$ -	\$ 39.14	\$ 469.68	\$ 56.47	\$ 677.68
90	\$ -	\$ 27.84	\$ 27.84	\$ 334.08	\$ -	\$ 28.62	\$ 28.62	\$ 343.44	\$ 56.46	\$ 677.52
91	\$ 11.63	\$ 16.38	\$ 28.01	\$ 336.06	\$ 11.63	\$ 16.74	\$ 28.37	\$ 340.38	\$ 56.37	\$ 676.44
92	\$ 6.13	\$ 27.10	\$ 33.23	\$ 398.75	\$ 6.13	\$ 15.63	\$ 21.75	\$ 261.03	\$ 54.98	\$ 659.78
93	\$ 4.93	\$ 29.40	\$ 34.33	\$ 411.94	\$ 2.27	\$ 18.27	\$ 20.54	\$ 246.45	\$ 54.87	\$ 658.39
94	\$ -	\$ 30.92	\$ 30.92	\$ 371.09	\$ -	\$ 23.25	\$ 23.25	\$ 278.99	\$ 54.17	\$ 650.09
95	\$ 8.05	\$ 20.88	\$ 28.93	\$ 347.10	\$ 8.40	\$ 16.56	\$ 24.96	\$ 299.52	\$ 53.89	\$ 646.62
96	\$ 15.36	\$ 16.42	\$ 31.78	\$ 381.38	\$ 2.45	\$ 19.31	\$ 21.76	\$ 261.10	\$ 53.54	\$ 642.48
97	\$ 5.33	\$ 12.00	\$ 17.33	\$ 208.00	\$ 36.00	\$ -	\$ 36.00	\$ 432.00	\$ 53.33	\$ 640.00
98	\$ 1.54	\$ 21.60	\$ 23.14	\$ 277.62	\$ 1.54	\$ 28.50	\$ 30.04	\$ 360.42	\$ 53.17	\$ 638.04
99	\$ 23.26	\$ 2.91	\$ 26.17	\$ 314.06	\$ 23.60	\$ 2.95	\$ 26.55	\$ 318.60	\$ 52.72	\$ 632.66
100	\$ 14.16	\$ 7.08	\$ 21.24	\$ 254.88	\$ 31.29	\$ -	\$ 31.29	\$ 375.48	\$ 52.53	\$ 630.36
101	\$ -	\$ 41.52	\$ 41.52	\$ 498.20	\$ -	\$ 10.10	\$ 10.10	\$ 121.18	\$ 51.62	\$ 619.39
102	\$ 5.08	\$ 19.52	\$ 24.61	\$ 295.29	\$ 6.50	\$ 18.85	\$ 25.35	\$ 304.21	\$ 49.96	\$ 599.50
103	\$ 0.84	\$ 24.13	\$ 24.97	\$ 299.59	\$ 2.03	\$ 22.69	\$ 24.72	\$ 296.66	\$ 49.69	\$ 596.26
104	\$ -	\$ 26.12	\$ 26.12	\$ 313.46	\$ -	\$ 21.50	\$ 21.50	\$ 257.99	\$ 47.62	\$ 571.45
105	\$ -	\$ 19.62	\$ 19.62	\$ 235.44	\$ 4.20	\$ 22.14	\$ 26.34	\$ 316.08	\$ 45.96	\$ 551.52
106	\$ -	\$ 25.50	\$ 25.50	\$ 306.00	\$ -	\$ 18.00	\$ 18.00	\$ 216.00	\$ 43.50	\$ 522.00
107	\$ 2.07	\$ 21.24	\$ 23.31	\$ 279.66	\$ 3.25	\$ 15.84	\$ 19.09	\$ 229.08	\$ 42.40	\$ 508.74
108	\$ -	\$ -	\$ -	\$ -	\$ 41.67	\$ -	\$ 41.67	\$ 500.00	\$ 41.67	\$ 500.00

Summary of Residential Bills Communities Based on 4,500 Gallons per Month

Community ID	Water Rates				Sewer Rates				Total Charges	
	Water Fixed Charge	Water Volume Charge	Water Monthly Bill	Water Annual Bill	Sewer Fixed Charge	Sewer Volume Charge	Sewer Monthly Bill	Sewer Annual Bill	Total Monthly	Total Annual
109	\$ 15.25	\$ 9.75	\$ 25.00	\$ 300.02	\$ 15.00	\$ -	\$ 15.00	\$ 180.00	\$ 40.00	\$ 480.02
110	\$ -	\$ 32.40	\$ 32.40	\$ 388.80	\$ -	\$ -	\$ -	\$ -	\$ 32.40	\$ 388.80
111	\$ -	\$ 13.10	\$ 13.10	\$ 157.25	\$ -	\$ 17.96	\$ 17.96	\$ 215.50	\$ 31.06	\$ 372.74



Welcome to the August edition of *The Procurement Pipeline*, a monthly newsletter designed to provide updates on doing business with the Great Lakes Water Authority (GLWA).

New! Business Inclusion and Diversity (B.I.D.) Program Year-in-Review Report Now Available

In November 2020 the GLWA Board of Directors approved the Business Inclusion and Diversity (B.I.D.) Program which was launched in February 2021. The goal is to maximize opportunities for small, minority-owned, and disadvantaged businesses within GLWA's service area. The B.I.D. Program inaugural Year-in-Review Report provides a comprehensive review for the first full year of the B.I.D. Program. It is now available on the [GLWA Vendor Webpage](#). To view the full Report please [click here](#). Highlights include:

- As of June 30, 2022, GLWA has awarded 34 contracts totaling \$340 million under the B.I.D. Program requirements;
- GLWA has reviewed 145 Vendor Diversity Plans that documented efforts to maximize the participation of small, minority-owned, and disadvantaged business enterprises in GLWA's procurement process;
- Of the 34 awarded B.I.D. procurements, 88% of vendors had a business presence in the state of Michigan, 82% in GLWA's service area, and 52% in a disadvantaged municipality within GLWA's service area; and
- Of the 34 awarded B.I.D. Procurements, 65% of vendors held diversity certifications as Disadvantaged Business Enterprise (DBE), Small Business Enterprise (SBE), Woman-Owned Business Enterprise (WBE), or Minority-Owned Business Enterprise (MBE), totaling over \$121.0 million.

GLWA continues to refine B.I.D. Program business processes, conduct internal team member training, develop communication materials, and attend outreach events to support and educate the Vendor Community about the B.I.D. requirements.

Coronavirus Update #167 Part 2: Masks Now Required at ALL GLWA Facilities

On August 1, 2022, GLWA issued [Coronavirus Update #167 Part 2](#) to the Vendor Community, indicating that counties where staffed GLWA facilities or project worksites were "RED" on the Centers for Disease Control and Prevention (CDC) [Community Levels](#) list. As stated previously in [Coronavirus Update #159](#), this means that ***face masks will be required for all GLWA Vendors providing onsite services at GLWA facilities or project worksites, regardless of their location, until further notice.*** Any questions regarding GLWA's COVID-19 Safety Protocols, should be directed to [Michael Lasley](#) and [Megan Savage](#).

Virtual Vendor Introduction Meetings

If you are interested in learning more about doing business with GLWA, contact us at GLWAVendorOutreach@glwater.org to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to a GLWA solicitation, as well as the requirements for GLWA's Business Inclusion and Diversity (B.I.D.) Program.

Keeping up with GLWA

Our Chief Executive Officer (CEO) Monthly Report provides a wealth of information and news about important initiatives within GLWA's service territory that impact GLWA, its member partners, and the public. To read the July 2022 Monthly Report, please [click here](#).

What's Coming Down the Pipe?

Current Solicitations: Register in GLWA's [Bonfire Procurement Portal](#) for new solicitations and contract award information.

Upcoming Procurements: Next Three to Nine Months—See newsletter page 2.

Visit GLWA online!

To see the GLWA Vendor homepage, please visit www.glwater.org or contact us via email at procurement@glwater.org.

Upcoming Solicitations August 2022

Category	CIP #	Description/Project Title	Budget Estimate
Water System (next four to nine months)			
Construction	170802	Reservoir Rehabilitation Construction Services Phase II at Waterworks Park, Northeast, and Booster Stations	\$35,972,000
Construction	114002C	Springwells WTP Low and High Lift Pumping Station Improvements	\$133,000,000
Wastewater Systems (next four to nine months)			
Construction	260802	WRRF Roofing Improvements	\$4,300,000
Construction	232002	Freud Pump Station Improvements	\$75,000,000
Design	270001	Pilot Netting Facility	\$1,500,000
Design-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Water System (next three months)			
Construction	114017	Springwells WTP 1958 Flocculator Replacements	\$22,000,000
Materials & Equipment	114002E-G	Springwells WTP Pumping Unit Procurement Package (Contract E thru G)	\$57,000,000
Materials & Equipment	114002H-J	Springwells WTP Process Valve Procurement Package (Contract H thru J)	\$14,000,000
Wastewater (next three months)			
Construction	260903	WRRF Front Entrance Rehabilitation	\$3,300,000
Construction	O&M	Plumbing Shop Rehabilitation	\$1,500,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Engineering Services	260210	Rehabilitation of GLWA Sewers; Ashland Relief, Linwood, Lonyo, Second Avenue, and Shiawassee	\$6,900,000
Construction	211006	Pump Station #1 Screenings Building HVAC Improvements	\$1,200,000
Design-Build	212008	Aeration Decks 1 & 2 RFP (invite to RFQ selected teams only)	\$74,000,000
Construction	O&M	Incinerator #11 Rehabilitation	\$3,000,000
Construction	260206	Rehabilitation of Joy Road & Brush/Bates Sewers	\$16,000,000
Design-Build	273001	Hubble Southfield Facility Improvements	\$8,554,480

Vendors should continue to monitor [Bonfire](#) for solicitation updates.

Acronyms		
WRRF: Water Resource Recovery Facility	CSO: Combined Sewer Overflow	WTP: Water Treatment Plant