Audit Committee Meeting
Thursday, November 9, 2023 at 8:00 a.m.
www.glwater.org

[Join Zoom Meeting]

Meeting ID: **829 9393 4643** Passcode: **488727**

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

Note: Attachment 7B5 has been combined with original binder and PDF was renumbered.

AGENDA

AGENDA ITEM #4A

Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Friday, September 22, 2023	8:00 AM	Zoom Telephonic Meeting

Zoom Telephonic Meeting

Join Zoom Meeting:
https://glwater.zoom.us/j/85677639240?pwd=c0tGaThhY0FGREg4M04zM3hYblhsZz09

Join By Telephone
US Toll-Free:
877 853 5247; or 888 788 0099
Meeting ID: 856 7763 9240
Passcode: 215645

1. Call To Order

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

2. Quorum Call

Present: 2 - Chairperson Brian Baker, and Director Gary Brown

Excused: 1 - Director Jaye Quadrozzi

3. Approval of Agenda

Chairperson Baker requested a Motion to Approve the Agenda.

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

4. Approval of Minutes

A, 2023-335 Minutes of August 25, 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 4A Minutes - August 25, 2023 Audit Committee Meeting

Chairperson Baker requested a Motion to Approve the August 25, 2023 Audit Committee Meeting Minutes.

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

5. Public Comment

There were no public comments.

6. Old Business

A. 2023-341 Annual Financial Audit Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 6A1 FY 2023 Annual Financial Audit Update

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

7. New Business

A. 2023-336 **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 $925,000,000 (Ordinance 2023-05)**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 7A1 Audit Committee Memo- Water Revenue and Refunding Series Ordinance
7A3 Series Ordinance (2023 Water Refunding with Tender)
7A4 Resolution Approving 2023 Water Series Ordinance (Refunding with Tender)

Motion By: Gary Brown
Support By: Brian Baker
Action: Recommended for Approval to the Board of Directors Agenda of September 27, 2023
The motion carried by a unanimous vote.

B. 2023-337 **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 $1,600,000,000 (Ordinance 2023-06)**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 7B1 Audit Committee Memo- Sewer Revenue and Refunding Series Ordinance
7B3 Series Ordinance (2023 Sewer Refunding with Tender)
7B4 Resolution Approving 2023 Sewer Series Ordinance (Refunding with Tender)

Motion By: Gary Brown
Support By: Brian Baker
Action: Recommended for Approval to the Board of Directors Agenda of September 27, 2023
The motion carried by a unanimous vote.

8. Reports

None

A. 2023-342 CFO Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8A1 CFO Report September 2023

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

B. 2023-343 Business Inclusion and Diversity Program

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8B Business Inclusion and Diversity Program Update

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

C. 2023-344 Charges Outreach & Modeling Update

Sponsors: Phyllis Walsh

Attachments: 8C Charges Outreach and Modeling Update - 09.22.2023

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

D. 2023-345 Affordability & Assistance Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8D1 Affordability and Assistance Update

8D2 Attachment 1 - Community Water Legislation Forum Presentation
8D3 Attachment 2 - Water Assistance Funding

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

E. 2023-346 Gifts, Grants & Other Resources Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8E Gifts Grants and Other Resources Report

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

F. 2023-347 Quarterly Construction Work in Progress Report through June 30, 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8F Quarterly CWIP Report FY 2023 Q4

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

G. 2023-348 Shared Services Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8G Shared Services Update

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

9. Communications

A. 2023-349 The Procurement Pipeline for September 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 9A The Procurement Pipeline for September 2023

No Action Taken

10. Look Ahead

A. Next Audit Committee Meeting:

Friday, October 27, 2023 at 8:00 a.m.

11. Other Matters

There were no other matters.

12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

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

There being no further business, the meeting was adjourned at 9:07 a.m.

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Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Steve Hoover, CPA, Financial Reporting Manager

Re: Annual Financial Audit Update

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

Analysis: The GLWA Financial Services area has finalized the FY 2023 trial balance and provided substantially all workpapers required to support the firm's fieldwork. Baker Tilly conducted the majority of their fieldwork October 2, 2023 through October 13, 2023. Limited follow up will continue for some open items. Open items are common as various questions arise during fieldwork and time is needed to provide accurate and appropriate responses. The final audit report is on track to be issued in December 2023 consistent with prior years. A detailed timeline from Baker Tilly is attached.

Proposed Action: Receive and file this report.

Memo

To:	Great Lakes Water Authority Audit Committee
From:	Gwen Zech, Senior Manager (Baker Tilly) Stephanie Silva, Senior Associate (Baker Tilly)
c.c.	Jodi Dobson, Partner (Baker Tilly)
Date:	October 27, 2023
Subject:	Great Lakes Water Authority Audit Status and Annual Comprehensive Financial Report (ACFR)

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

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

AGENDA ITEM #6B

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Kim Garland, CPA, Deputy Chief Financial Officer

Re: General Retirement System (GRS) Component II Annual Pension Report Update

Background: Annually, GLWA staff present a formal report to the GLWA Audit Committee regarding the status of the General Retirement System (GRS) Component II Annual Pension and annual actuarial valuation. The latest report was presented by GLWA staff at the June 26, 2023 Audit Committee meeting. At that time, the annual actuarial report for June 30, 2022 remained in draft status pending litigation related to the Police & Fire Retirement System adoption of an amortization schedule not agreed to by the City of Detroit.

Analysis: The same week that report was presented to the Audit Committee the U.S. Bankruptcy Court granted the motion filed by the City of Detroit requiring the Police & Fire Retirement System to honor the original, 30-year amortization period. Just last week, at the October 18 GRS Board of Directors meeting the GRS Board was presented with and approved the final June 30, 2022 actuarial report and a funding policy confirming use of the 30-year level dollar amortization upheld by the U.S. Bankruptcy Court. Based on resolution of that matter, the final actuarial report, reflecting an October 6, 2023 issuance date is attached to this memo for your reference.

Key changes to the final actuarial report were to:

(1) Remove the references to alternatives of a 20-year amortization and 30-year level dollar amortization for the Actuarially Determined Employer Contribution (ADEC) originally found on page 4 as well as commentary related to those alternatives on page 5.

(2) Provide updated commentary on page 5 regarding the approved 30-year level principal amortization valuation results.

(3) Update Section G – Funding Policy to reflect the newly adopted funding policy confirming the 30-year level principal amortization process for ADEC.

Key takeaways from the final report are both good news.

1. **Excellent Funding Status at June 30, 2022:** Consistent with the draft report, the final actuarial report, calculated as of June 30, 2022, sets forth a UAAL for the DWSD

Pension Obligation of approximately $84 million in total reflecting an 87.3% funded ratio as referenced on page 2.

2. **No Contributions for FY 2024 (other than admin fee):** Revised in this report is commentary, on page 5 noting that, "the DWSD and Library groups are projected to be more than 100% funded on June 30, 2023. Starting in FY 2024 the only contributions for divisions that are more than 100% funded is for administrative expenses (in accordance with the Funding Policy included in the appendix). For divisions that are projected to be over 100% funded on June 30, 2023, the funded ratio is projected to continue growing."

GRS Staff has advised the GRS Board that the next actuarial report, dated June 30, 2023, is expected to be submitted for review in accordance with its standard schedule. That standard schedule would allow for presentation at the GRS Board's December 2023 meeting with anticipated approval soon thereafter.

Proposed Action: Receive and file this report.

The General Retirement System of the City of Detroit

Annual Actuarial Valuation of Component II (Legacy)

June 30, 2022

800.521.0498 | P: 248.799.9000 | www.grsconsulting.com

October 6, 2023

Board of Trustees
The General Retirement System of the City of Detroit

Re: The General Retirement System of the City of Detroit Actuarial Valuation of Component II as of June 30, 2022

Dear Board Members:

This report provides key results from the **Annual Actuarial Valuation** of the annuity and pension liabilities of the General Retirement System of the City of Detroit – Component II benefits. The date of the valuation was **June 30, 2022.**

In very general terms, Component II provides benefits for service rendered prior to July 1, 2014. The results provided herein relate solely to the Component II benefits. Benefits provided under Component I are the subject of a separate report.

The purpose of the valuation is to measure the funding progress and to calculate the fiscal year 2024 Actuarially Determined Employer Contribution (ADEC) of Component II. Fiscal year 2024 is the first year (post-bankruptcy) the employer will be required to make actuarially determined employer contributions in accordance with the plan document. **The ADEC in this report is calculated using the Board adopted Funding Policy at the July 2023 Board meeting, including the use of a 30-year Level Principal Amortization.** Users of this report should be aware that contributing these amounts does not guarantee benefit security.

The results of the valuation are not applicable for other purposes. In particular, the information provided in this report is not suitable for financial reporting in connection with GASB Statement No. 67. Such information is provided in a separate report. Information regarding potential benefit restoration as allowed for in the POA will also be provided in a separate report, at the Board's request.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

One Towne Square | Suite 800 | Southfield, Michigan 48076-3723

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This valuation was based upon records maintained and furnished by the Retirement System staff concerning active members, retirees and beneficiaries, and financial accounts as of the valuation date. Data was checked for year-to-year consistency, but was not audited by the actuary. We are not responsible for the completeness or accuracy of the data. Certain necessary data was not available in time to be considered in this report and, therefore, it was necessary for us to use approximations. Please see related discussion in the Comments section as well as the Data section of this report.

The assumptions used in the valuations concerning future experience are summarized in Section D of this report. Other than the prescribed assumed rate of return, this report reflects the actuarial assumptions as adopted by the Board and the Investment Committee based on the July 1, 2015 to June 30, 2020 experience study. The assumed rate of investment return was set to 6.75% in the POA and is, therefore, a "prescribed assumption set by another party" as discussed in Actuarial Standard of Practice No. 4. We have reviewed this assumption based on the System's asset allocation and have determined it does not significantly conflict with what, in our professional judgement, would be reasonable for purposes of the measurement being taken. In our judgement, all of the other actuarial assumptions used for the valuation are also reasonable for purposes of the measurement being taken.

This report has been prepared by actuaries who have substantial experience valuing public sector retirement systems. To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board.

Jamal Adora, Judith A. Kermans and James R. Sparks are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The actuaries signing the report are independent of the plan sponsor.

Board of Trustees
The General Retirement System of the City of Detroit
October 6, 2023
Page 3

This report does not evaluate the plan sponsor's ability or willingness to make contributions to the Retirement System. Given the funded level of this plan, plan sponsor contributions are critical if further benefit reductions are to be avoided. Please note that the employer contributions set forth in the POA have (as contemplated by the POA at its outset) defunded the Plan since Bankruptcy and are expected to continue to defund the Plan through June 30, 2023, even if all assumptions are met.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Jamal Adora, ASA, EA, MAAA

Judith A. Kermans, EA, FCA, MAAA

James R. Sparks, ASA, FCA, MAAA

JA/JAK/JRS:dj

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SECTION A

VALUATION RESULTS

Executive Summary

($ in Millions)

Valuation Date		June 30, 2022		June 30, 2021
Contributions for Fiscal Year Ending		June 30, 2024		June 30, 2023
Employer Contributions				
Actuarially Determined Employer Contribution*:	$	82.4		N/A
POA Mandated:		N/A	$	48.3
Membership				
Number of:				
Active Members		1,850		2,185
Retirees and Beneficiaries		10,918		11,173
Inactive, Nonretired Members		2,633		2,645
Total		15,401		16,003
Assets				
Funding Value of Assets (FVA)	$	1,671.6	$	1,818.6
Market Value of Assets (MVA)	$	1,529.8	$	1,818.6
Return on Funding Value (net of all expenses)		2.58 %		N/A
Return on Market Value (net of all expenses)		(5.77)%		27.84 %
Actuarial Information (FVA)				
Actuarial Accrued Liability (AAL)	$	2,438.6		N/A
Unfunded Actuarial Accrued Liability: (AAL) - (FVA)		767.0		N/A
Funded Ratio: (FVA) / (AAL)		68.55 %		N/A
Actuarial Information (MVA)				
Actuarial Accrued Liability (AAL)	$	2,438.6	$	2,542.6
Unfunded Actuarial Accrued Liability: (AAL) - (MVA)		908.8		724.0
Funded Ratio: (MVA) / (AAL)		62.73 %		71.53 %

**Total employer contributions, including amounts paid by the employer but funded from other sources as required by POA, if any.*

Fiscal year 2024 is the first year (post-bankruptcy) the employer will be required to make actuarially determined employer contributions in accordance with the plan document.

Liability by Division

	($ Thousands)				
	General	D.O.T.	DWSD	Library	Totals
Accrued Pension Liabilities					
Retirees and beneficiaries	$ 997,086	$ 280,212	$ 529,523	$ 49,383	$ 1,856,204
Inactive members future deferred pensions	112,120	29,617	65,672	5,169	212,578
Active members	106,168	38,098	23,342	15,823	183,431
Total accrued pension liabilities	$1,215,374	$ 347,927	$ 618,537	$ 70,375	$ 2,252,213
Pension fund balance#	748,392	76,824	575,448	74,904	1,475,568
Unfunded accrued pension liabilities	$ 466,982	$ 271,103	$ 43,089	$ (4,529)	$ 776,645
Accrued Annuity Liabilities					
Retirees and beneficiaries#	$ 52,291	$ 9,860	$ 29,835	$ 3,007	$ 94,993
Members annuities & future refunds	49,966	19,127	14,937	7,365	91,395
Total accrued annuity liabilities	$ 102,257	$ 28,987	$ 44,772	$ 10,372	$ 186,388
Annuity fund balances	28,051	17,394	3,460	5,373	54,278
Unfunded accrued annuity liabilities#	$ 74,206	$ 11,593	$ 41,312	$ 4,999	$ 132,110
Totals					
Actuarial Accrued Liabilities	$1,317,631	$ 376,914	$ 663,309	$ 80,747	$ 2,438,601
Market Value of Assets	776,443	94,218	578,908	80,277	1,529,846
Unfunded Actuarial Accrued Liabilities	**$ 541,188**	**$ 282,696**	**$ 84,401**	**$ 470**	**$ 908,755**
Funded Ratio	58.9%	25.0%	87.3%	99.4%	62.7%

Totals may be off slightly due to rounding.

 # The pension fund balance includes a receivable of approximately $95.7 million for future claw-back payments. Liabilities are shown gross, before the annuity savings claw-back.

Valuation Results

Required contributions to the Plan through FY 2023 are provided in the POA. The schedule below details our understanding of the remaining contributions required by the POA.

Contribution Source
($ Millions)

	For DWSD Liabilities		For Other Liabilities					
Fiscal Year	**DWSD**	**Transfers**	**UTGO**	**State**	**DIA**	**Other**	**Transfers from DWSD**	**Total**
2023	$ 45.4	$ (2.5)	$ -	$ -	$ 0.4	$ 2.5	$ 2.5	$ 48.3

We have assumed the contributions outlined above as called for in the POA (with adjustments) will not change. An estimate of the probability of those payments being made was outside the scope of this project, not required by Actuarial Standards, and, therefore, was not made.

In order to develop divisional valuation results in accordance with POA provisions, we allocated the above contributions to the various divisions as instructed by the Retirement System staff. This was done by allocating DWSD transfer amounts to the General City division and remaining DWSD contributions to the DWSD division; allocating $2.5 million per year to the Library; and allocating remaining contributions to DOT and General in proportion to their unfunded liabilities as of June 30, 2022.

The chart below shows this allocation.

($ Thousands)

	General	D.O.T.	Gen. + D.O.T. Subtotal	Library	DWSD	Totals
Unfunded Liabilities (6/30/2022)	$ 541,187	$ 282,695	$ 823,882	$ 471	$ 84,400	$ 908,753
% of Subtotal	65.7%	34.3%	100.0%	N/A	N/A	
FY 2023 Contributions	$ 237	$ 138	$ 375	$ 2,500	$ 45,400	$ 48,275
Transfers	2,500	-	2,500	-	(2,500)	-
FY 2023 UAAL Contributions	**$ 2,737**	**$ 138**	**$ 2,875**	**$ 2,500**	**$ 42,900**	**$ 48,275**

A different allocation procedure would produce different results.

Valuation Results (Continued)

Sample Actuarially Determined Employer Contributions (ADEC)

	($ Millions)				
	General City	D.O.T.	DWSD	Library	System Total
Actuarial Accrued Liability	$ 1,317.6	$ 376.9	$ 663.3	$ 80.7	$ 2,438.6
Funding Value of Assets (FVA)	848.4	102.9	632.6	87.7	1,671.6
UAAL[1] as of June 30, 2022	$ 469.2	$ 274.0	$ 30.7	$ (7.0)	$ 767.0
Anticipated POA Contribution (EOY)	(2.7)	(0.1)	(42.9)	(2.5)	(48.3)
Anticipated Expenses[2]	2.0	0.4	-	0.1	2.4
Interest at 6.75%	31.7	18.5	2.1	(0.5)	51.9
Projected UAAL as of June 30, 2023	$ 500.2	$ 292.7	$ (10.1)	$ (9.9)	$ 773.0
Actuarially Determined Employer Contribution (ADEC) for FY 2024[3]					
UAAL Contribution	$ 50.4	$ 29.5	$ (1.0)	$ (1.0)	$ 77.9
$0 Minimum UAAL Contribution	50.4	29.5	-	-	79.9
Administrative Expense Contribution[4]	1.4	0.4	0.7	0.1	2.5
Total Contribution	**$ 51.8**	**$ 29.9**	**$ 0.7**	**$ 0.1**	**$ 82.4**

Totals may not add due to rounding.

[1] *Unfunded Actuarial Accrued Liability in accordance with the Funding Policy including the use of the Funding Value of Assets (FVA) shown in Section G.*

[2] *Administrative expenses for DWSD are paid by General City through 2023.*

[3] *Total employer contributions, including amounts paid by the employer but funded from other sources as required by POA, if any. Employer contributions are assumed to be made at the end of the fiscal year.*

[4] *FY 2024 and later administrative expenses were allocated (see Section D of the report) and anticipated to be paid by the individual units.*

Valuation Results (Continued)

Actuarially Determined Employer Contributions (ADEC) (Concluded)

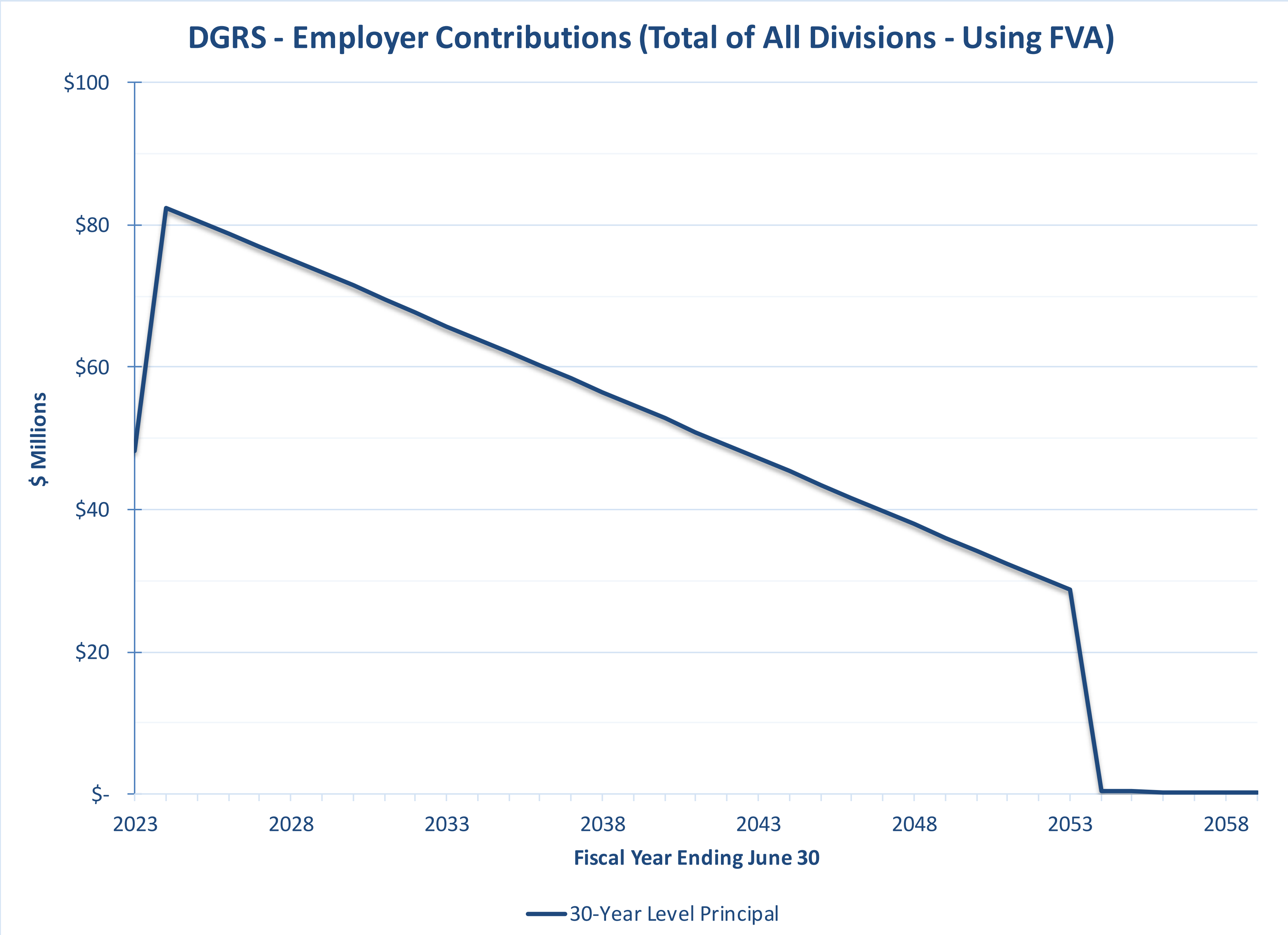
Fiscal year 2024 is the first year (post-bankruptcy) the employer will be required to make actuarially determined employer contributions in accordance with the plan document.

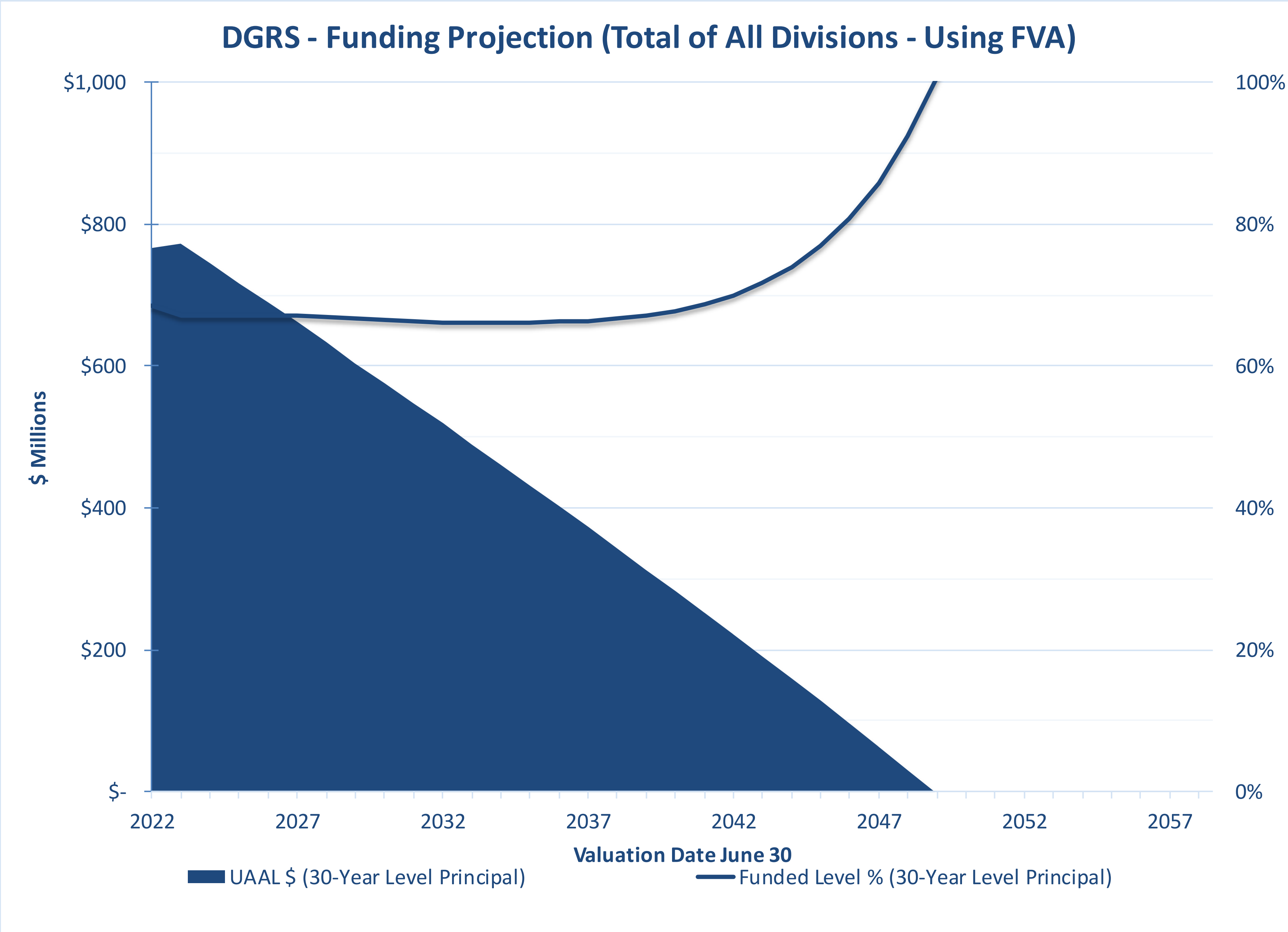
We understand the Employer has set aside some money to contribute to the Pension Plans at some point in the future. This valuation does not reflect any of those assets since they are not being held within the Retirement System trust.

Since the FY 2023 POA contribution is significantly less than the actuarially determined amount would have been, the funding ratio is expected to continue to decline between now and June 30, 2023. In fact, the anticipated POA contribution for FY 2023 is less than the interest that will accrue on the UAAL and about one-quarter of the annual benefit payments.

The charts that follow show projections of the funded status and employer contributions the Board adopted Funding Policy starting in FY 2024 using the Funding Value of Assets (FVA). For purposes of these projections, we have assumed the objective would be for each group (General City, D.O.T., DWSD, and Library) to separately fund their UAAL. **These projections assume that if any division's assets deplete, no extra contributions will be assessed. Separately assessing extra contributions by divisions may result in a different projected total employer contribution than those shown here.** We have also assumed that each group would have a $0 minimum UAAL contribution. For the projections in this report, we note the following:

- Under the projections, the DWSD and Library groups are projected to be more than 100% funded on June 30, 2023.
- Starting in FY 2024 the only contributions for divisions that are more than 100% funded is for administrative expenses (in accordance with the Funding Policy included in the appendix).
- For divisions that are projected to be over 100% funded on June 30, 2023, the funded ratio is projected to continue growing.
- Under the projections, the funded ratio for D.O.T. is projected to be 20% funded on June 30, 2023 and the funded status for D.O.T. is projected to fall below 15% on June 30, 2040.
- Under the projections, the projected UAAL contributions for DWSD decrease to $0 beginning in FY 2024 in this valuation (there is a small contribution requirement for administrative expenses). At any point in the future, plan experience may result in an unfunded actuarial accrued liability for DWSD. In addition, under a different assumption set (such as a lower assumed rate of return), the DWSD may have an unfunded actuarial accrued liability. We understand that the City, System and GLWA have a Memorandum of Understanding dated December 1, 2015 for assessing contributions, if any, to GLWA. This report does not reflect that agreement.


DGRS - Employer Contributions (Total of All Divisions - Using FVA)
$100
$80
$60
$40
$20
$-
$ Millions
2023
2028
2033
2038
2043
2048
2053
2058
Fiscal Year Ending June 30
30-Year Level Principal


DGRS - Funding Projection (Total of All Divisions - Using FVA)
$1,000
$800
$600
$400
$200
$-
$ Millions
100%
80%
60%
40%
20%
0%
2022
2027
2032
2037
2042
2047
2052
2057
Valuation Date June 30
UAAL $ (30-Year Level Principal)
Funded Level % (30-Year Level Principal)

Valuation Results (Concluded)

Present Value		June 30, 2022		June 30, 2021
Accrued Pension Liabilities (Employer Financed)				
Retirees and beneficiaries	$	1,856,204,265	$	1,915,878,072
Inactive members future deferred pensions		212,577,507		214,790,496
Active members		183,430,716		209,090,483
Total accrued pensions	$	2,252,212,488	$	2,339,759,051
Pension fund balances		1,475,568,437		1,741,300,968
Unfunded accrued pension liabilities	$	776,644,051	$	598,458,083
Accrued Annuity Liabilities (Member Financed)				
Retirees and beneficiaries				
Future annuities	$	94,991,973	$	98,087,136
Member annuities & future refunds		91,394,995		104,783,035
Total accrued annuity liabilities	$	186,386,968	$	202,870,171
Annuity fund balances		54,277,858		77,348,330
Unfunded accrued annuity liabilities*	$	132,109,110	$	125,521,841
Totals				
Actuarial Accrued Liabilities (AAL)	**$**	**2,438,599,456**	**$**	**2,542,629,222**
Market Value of Assets (MVA)		**1,529,846,295**		**1,818,649,298**
Unfunded Actuarial Accrued Liabilities (UAAL)	**$**	**908,753,161**	**$**	**723,979,924**
POA Funded Status		**62.7%**		**71.5%**

* *Liabilities are gross before accounting for ASF claw-back. Assets currently include a receivable of approximately $95.7 million related to the ASF claw-back. We believe the receivable is included in the pension fund balances.*

Historical Results ($ Millions)

	2020	2019	2018	2017	2016	2015	2014
Total AAL	$2,716.5	$2,866.1	$2,929.1	$2,995.8	$3,032.3	$3,139.1	$3,222.4
MVA	1,596.1	1,798.9	1,940.6	1,966.7	1,933.5	2,131.3	2,015.2
UAAL	$1,120.4	$1,067.2	$ 988.4	$1,029.1	$1,098.8	$1,007.8	$1,207.1
POA Funded Status	58.8%	62.8%	66.3%	65.6%	63.8%	67.9%	62.5%

Comments

Component II History

The City of Detroit filed for bankruptcy on July 18, 2013. A final Plan of Adjustment ("POA") was confirmed on November 7, 2014 and the official exit from bankruptcy was on December 10, 2014. In connection with the POA, very significant changes were made to the benefits that the General Retirement System provides and to the contributions that it will receive. In particular, the benefits provided by the Retirement System were divided into two separate plans, referred to as "Component I" and "Component II." The benefits provided in each component were effective July 1, 2014 and are described in detail in the Emergency Manager Order No. 44, dated December 8, 2014.

Experience

Experience was less favorable than assumed during the year ending June 30, 2022. The chart below shows the estimated loss by division.

Development of Actuarial Gain or Loss

	($ Millions)				
	General City	D.O.T.	DWSD	Library	System Total
(1) UAAL as of June 30, 2021 (BOY)	$ 416.4	$ 257.2	$ 56.3	$ (5.9)	$ 724.0
(2) Actual POA Contribution (EOY)	2.8	0.1	42.9	2.5	48.3
(3) Administrative Expenses	2.2	0.2	-	0.1	2.5
(4) Interest at 6.75%	28.2	17.4	3.8	(0.4)	49.0
(5) Benefit Changes	-	-	-	-	-
(6) Assumption Changes	-	-	-	-	-
(7) Projected UAAL* as of June 30, 2022	$ 444.0	$ 274.7	$ 17.2	$ (8.7)	$ 727.2
(8) Actual UAAL* as of June 30, 2022	541.2	282.7	84.4	0.5	908.8
Gain or (Loss) (MVA): (7) - (8)	$ (97.2)	$ (8.0)	$ (67.2)	$ (9.1)	$ (181.6)
Gain or (Loss) from Excess Interest Transfers (Inc. FY 2021)	$ 0.5	$ 0.4	$ 0.2	$ -	$ 1.2
Gain or (Loss) from Liabilities	14.0	5.4	9.0	1.6	30.0
Gain or (Loss) from Investments (MVA)	(111.8)	(13.8)	(76.4)	(10.7)	(212.7)
Total Gain or (Loss) (MVA)	$ (97.2)	$ (8.0)	$ (67.2)	$ (9.1)	$ (181.6)
MVA to FVA Adjustment	72.0	8.7	53.7	7.4	141.8
Total Gain or (Loss) (FVA)	$ (25.2)	$ 0.7	$ (13.5)	$ (1.7)	$ (39.8)

* *Unfunded actuarial accrued liability.*

Comments (Continued)

Experience (Continued)

Source of Actuarial Gain or Loss

Type of Risk Area	Gain (Loss) in Period: Totals ($ in Millions)	Gain (Loss) in Period: Percent of AAL^
Data Improvements	$ 6.0	0.2 %
ASF Transfers	$ -	0.0 %
Excess Interest Transfers (Inc. FY 2021)	$ 1.2	0.0 %
Risks Related to Experience		
Economic Risk Areas:		
Investment Return (MVA)*	$ (212.7)	(8.4)%
Demographic Risk Areas:		
Full and Reduced Service Retirements	(1.3)	(0.1)%
Death Benefits	0.1	0.0 %
Disability Benefits	-	0.0 %
Other Terminations	5.4	0.2 %
Post-Retirement Mortality	19.7	0.8 %
Total Gain or (Loss) Related to Experience	$ (188.8)	(7.4)%
Total Gain or (Loss) During Period (MVA)	$ (181.6)	(7.1)%
Total Gain or (Loss) During Period (FVA)	$ (39.8)	(1.6)%

^ Beginning of year Actuarial Accrued Liabilities were $2,542.6 million.
** The loss in investment return on a FVA basis was $70.9 million.*

Demographic Experience

	Number Count: Actual A	Number Count: Expected E	A/E%
Retirement (including early)	130	106	122%
Disability	0	8	0%
Vested Terminations	161	71	228%
Other Terminations (including pre-retirement death)	90	24	382%
Post-Retirement Death	642	480	134%

Expected counts are based on the assumptions used in the prior valuation.

In the last couple of years, we have seen higher terminations than expected. We have not yet determined if this is a long-term trend. Furthermore, we continue to see active members added to the Legacy data. We have assumed these were either data corrections or re-hires. We have observed this every year since 2014. The change this year is included in the “Data Improvements” source of gains/losses shown above. This year, 46 members were added as active members to this plan. This resulted in an increase in accrued liabilities (a loss) of approximately $0.6 million, after accounting for members that were known to come from the deferred and retiree rolls.

Comments (Continued)

Experience (Concluded)

The chart below reconciles our estimate from the June 30, 2021 valuation to our calculation from this valuation (June 30, 2022).

The June 30, 2022 loss, primarily due to investments losses, created upward pressure on the FY 2024 employer contribution.

Reconciliation of June 30, 2024 UAAL^ Contributions – 30-Year Level Principal

	($ Millions)				
	General City	D.O.T.	DWSD	Library	System Total*
Estimated FY 2024 UAAL Contribution from 2021 Valuation	$ 47.7	$ 29.6	$ (2.5)	$ (1.2)	$ 73.6
Gain or Loss from Investments (MVA basis)	12.0	1.5	8.2	1.2	22.9
Gain or Loss from Excess Interest Transfers (Inc. FY 2021)	(0.1)	-	-	-	(0.1)
Gain or Loss from Liabilities	(1.5)	(0.6)	(1.0)	(0.2)	(3.2)
FY 2024 UAAL Contribution Using MVA	$ 58.2	$ 30.5	$ 4.8	$ (0.2)	$ 93.2
MVA to FVA Adjustment	(7.7)	(0.9)	(5.8)	(0.8)	(15.3)
Adjustment for $0 minimum	-	-	1.0	1.0	2.0
FY 2024 UAAL Contribution Using FVA	$ 50.4	$ 29.5	$ -	$ -	$ 79.9

^ Excludes contributions for administrative expenses.
** Totals may not add due to rounding.*

Comments (Continued)

Actuarial Assumptions

We understand that the Board may continue to explore changes in the assumed rate of return. However, per legal counsel, we also understand that for the annual actuarial valuation the 6.75% assumed rate of return cannot be changed until the June 30, 2024 valuation, including for purposes of calculating the actuarially determined contribution. We anticipate the next comprehensive review of experience to cover the period from July 1, 2020 to June 30, 2025.

Service Credit on Workshare

We understand that the bankruptcy court has granted a change to the Component I (Hybrid) Plan to allow members in workshare to get credit for that time. Since the Legacy (Component II) plan benefits are frozen as of June 30, 2014, the change only effects the vesting/eligibility service in the Legacy (Component II) plan. This may allow some of the members valued to retire a few months earlier. While we do not have final data to evaluate the impact of this change, based on our analysis dated May 13, 2022, we believe the impact on the Component II (Legacy) plan is not material (less than 0.01% of total liabilities).

Reasonable Actuarially Determined Employer Contribution

Upcoming actuarial standards will require that an actuary calculate and disclose a reasonable actuarially determined contribution. Although the upcoming standard is not effective for this valuation, it will be effective for the June 30, 2023 valuation.

Annuity Reserve Fund (ARF)

Typically, we would compare the Annuity Reserve Fund (ARF) to the ARF liabilities and recommend a transfer if liabilities exceed assets. However, the annuity claw-back receivable created by the Bankruptcy (which relates to the ARF and the ASF) makes this analysis much more complicated. If the System would like us to perform this calculation, we will need additional information not routinely provided for the valuation. Please let us know if this is needed.

In general, assets were reviewed for reasonableness. During that review, we discovered that the ARF does not appear to have been credited with any interest. As a result, we recommend that all the reserve amounts be reviewed.

Annuity Savings Fund (ASF) Claw-Back Data

For the June 30, 2015 valuation, the System's auditors determined a receivable in accordance with GAAP accounting that was included in the reported June 30, 2015 assets. The reported assets for the June 30, 2022 status valuation also included a receivable for the remaining claw-back payments. We have assumed this information, received by the System's auditors, was reasonable. This assumption complies with the Actuarial Standards of Practice.

Comments (Continued)

Annuity Savings Fund (ASF) Interest Credits

The ASF fund is credited with the lesser of 5.25% interest and the total fund earnings. We understand that any earnings in excess of 5.25% (that otherwise would have been credited to the ASF fund if not for the 5.25% cap) will be transferred to Component I assets, to the extent needed, for funding of transition liability. Since ASF liabilities are equal to ASF balances, we did not model any such future excess earnings as part of this valuation. However, since the fund earned 28% during FY 2021, we expect that there will be a transfer of excess ASF interest in FY 2023 related to last year's performance. Approximately $20.6 million was added to the liabilities in this report to account for anticipated excess earnings expected to occur as a result of return on assets in the 2021 fiscal year. No additional liabilities were included in this report to account for anticipated excess earnings expected to occur as a result of return on assets. We have discussed the potential for additional liability with the Plan's accountants and have been instructed that the excess earnings should not be included as a liability in the GASB Statement Nos. 67 and 68 reports.

We understand that the System has adopted a procedure for computing the ASF interest credits lagging the actual experience of the assets. We have not reviewed or audited this procedure. If the Retirement System can provide the methodology for determining the transfer, we may be able to reflect the Retirement System's methodology.

As of June 30, 2021, it appears that Component I may be fully funded under a 0.0% assumed Variable Pension Improvement Factor (VPIF). There does not currently exist a policy that allocates that unfunded amount between Transition Costs and non-Transition Costs. Since future excess interest transfers are affected by whether or not the Transition Costs are fully funded, we recommend that the Board adopt a method of allocating any unfunded amounts (after exclusion of the Rate Stabilization Fund (RSF)) between Transition Costs and other liabilities. If the Board wishes, we can work with legal counsel and suggest a few methods for consideration and discuss the advantages and disadvantages with the Board. For purposes of this valuation, we have assumed the Component I Transition Cost is fully funded as of June 30, 2021. For Component II, this assumption only affects ASF Return Excess transfers calculated starting with the June 30, 2022 valuation.

Comments (Continued)

Estimated Excess Interest Transfers

				FY 2 Years Prior to Transfer						
Fiscal Year Transfer is Expected (A)	ASF Balance BOY (B)	Assumed ASF Payment (C)	ASF Balance EOY (D)	Year (E)	Market Rate of Return (F)	Investment Return Excess Percent (G) = (F) - 5.25%	ASF Return Excess (H) = (G) x (B)	Estimated Component I Funded Transition Cost Status (I)	Resulting Percent Transfer (J)	Assets to be Transferred Out (BOY) (K) = (H) x (J)
2023	$91,394,995	$11,677,579	$84,213,037	2021	27.84%	22.59%	$ 20,646,129	<100%	100%	$20,646,129
2024	84,213,037	11,677,579	76,654,027	2022	-5.77%	0.00%	$ -	>=100%	50%	$ -

We understand this calculation will be performed by staff and may be different than shown above. The estimates above are used to approximate the effect on UAAL.

Section E-16(c) of the Combined General Plan is shown below:

In any Plan Year during the period beginning on or after July 1, 2014 and ending June 30, 2023 in which the annual rate of return credited to the accounts of members investing in the Annuity Savings Fund as provided in paragraph (b) is less than the actual rate of return net of expenses of the Retirement System's invested assets for the second Plan Year immediately preceding the Plan Year in which the annual rate of return is credited ("ASF Return Excess"), an amount equal to the value of the ASF Return Excess shall be transferred to the Pension Accumulation Fund maintained under Component I of the Combined Plan and shall be used to fund the Transition Cost relating to Component I. The Transition Cost is a measure of the liability that Component I of the Retirement System has at its inception; due to the fact that at its inception, members in Component I of the Retirement System receive vesting and eligibility credit under Component I for service that was earned prior to July 1, 2014 and is otherwise credited to members under Component II of the Retirement System. Transition Cost is calculated by the Plan Actuary. In the event there is an ASF return excess for a Plan Year following the Plan Year in which such transfers have fully funded the Transition Costs relating to Component I, fifty percent (50%) of such ASF Return Excess shall be transferred to the Pension Accumulation Fund maintained under Component II and the remaining fifty percent (50%) of such ASF Return Excess shall be transferred to Component I and credited to the Rate Stabilization Fund maintained under Component I. "Transition Cost" shall be determined by the Plan Actuary.

Comments (Continued)

Option Factors

The Board adopted option factors for the Plan in 2018 but they have not been implemented. We have not been provided with a specific effective date for the new factors. However, we understand the intent is to implement the new factors with the new data system. For the sake of simplicity, we have assumed the new factors apply to all retirements after the valuation date. We will continue to work with the System in the calculation of optional forms of payment. In particular, the Board may want to consider updating the assumptions used in optional forms of payment in order to recognize recent changes to the assumptions used in the annual actuarial valuations.

DWSD Members

For the June 30, 2017 valuation, we received a separate file indicating the June 30, 2014 DWSD status of members. Any members that were indicated as being DWSD division members on that file were valued under the DWSD for this valuation, regardless of the division reported on this year's valuation data.

New Data System

We understand that the Retirement System is in the process of moving to a new data system. We also understand that data may have gone through additional cleaning/auditing as it has been entered into the new system. We anticipate that data will be more precise for valuation purposes once the new system is providing that data. Please note that changes in data may impact future valuation results and generate gains or losses.

Restoration

This valuation assumes no future restoration of Component II benefits (consistent with the expectation of the POA). Any future restoration will be reflected beginning in the next valuation after being granted.

DWSD (Water/Sewer) Contributions

The DWSD contributions and liabilities determined in this report do not consider the separation of DWSD-R and GLWA from the DWSD. For the illustrative employer contributions in this report, we have assumed that contributions would be assessed to the City based on the total unfunded liability for DWSD and without regard to any contribution agreement with GLWA. Our understanding is that the split of DWSD liabilities between DWSD-R and GLWA will be determined by the System's staff under previously established procedures.

We recommend that the proposed administrative expense contribution for DWSD be reviewed in the context of the 2015 agreement between the City, the Retirement System, and the Great Lakes Water Authority. We further recommend that the Retirement System inform us of how the administrative expense contribution for DWSD should be treated.

Comments (Concluded)

Divisional Results

Divisional results are shown on page 2. One result that stands out is the funded status (market value basis) of the DOT division at 25%. This is much lower than the other divisions. We expect that all of the assets in the Retirement System back all of the liabilities in the Retirement System. Therefore, if this division runs out of money before all of its benefits are paid, the Retirement System will pay DOT benefits from other divisional assets. In that case, the total Retirement System funded status is a better measure than individual division funded ratios. However, the Funding Policy states that divisions "shall not be permitted to have a funded status below 0% and contributions shall be accelerated as appropriate." This low funded status for the DOT (relative to the other divisions) could result in a higher DOT employer contribution (relative to the other divisions). Consistent with the Funding Policy, the Board may want to consider more aggressive funding for the DOT division. Please let us know if the Board would like us to do any special projects related to this situation, such as divisional cash flow projections or divisional funding policy suggestions.

Funded Status of the Plan

The Retirement System was defunded because the POA mandated contributions were significantly less than what the actuarially computed contribution would have been for the 10-year period after the POA was established. We would be happy to assist the Board in determining what the funded status would be if actuarially determined contributions had been made in the 10-year period after the POA was established.

Future Results

In order to minimize the risk of insolvency, it is important that employer contributions in an amount greater than or equal to the actuarially determined amount (in accordance with the Funding Policy) are received.

Conclusion

It is likely that the funded status will decline and the unfunded actuarial accrued liability will increase between now and June 30, 2023. On a market value basis, the funded status is projected to decline to approximately 61% as of June 30, 2023 if the market rate of return equals 6.75% and all other assumptions are met.

Recommendation

We recommend that every potential action be taken to generate contributions to the Retirement System above those provided in the POA in FY 2023. Benefit payments to retirees in the Plan were almost $236 million compared to the FY 2022 contribution of $48.3 million.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

Plan Risk Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk.

In our discussions with the Board and Investment Committee, we illustrated various investment return scenarios as part of the funding policy analysis. This type of analysis may also be considered a quantitative risk assessment. We recommend that the Board consider similar periodic analysis as appropriate under the Risk Controls of the newly approved funding policy.

The Board approved funding policy calls for illustrating the table of risk measures shown below. Please see the funding policy for additional information. In the table below, the acronyms are as follows: FVA = Funding Value of Assets; MVA = Market Value of Assets; AAL = Actuarial Accrued liability; UAAL = Unfunded Actuarial Accrued Liability.

Funded Ratio

The funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.

Rate of Return, Geometric Average, and Standard Deviation

Investment return is probably the largest single risk that most systems face. The year-by-year return and the geometric average give an indicator of the realism of the System's assumed return.

Duration of the Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Ratio of Unfunded Actuarial Accrued Liability to Payroll

The ratio of unfunded liability to payroll gives an indication of the plan's sensitivity to differences between assumed and actual experience related to the employer contributions. A value above approximately 300% or 400% may indicate high volatility relative to small gains and losses.

Ratio Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Non-Investment Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, and stress tests. We can provide additional risk assessments at the Board’s request.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

	2022
(i) Classic measures	
– Funded ratio	
MVA	62.7%
FVA	68.5%
– UAAL amortization period	30
– Portfolio rate of return	
MVA	-5.77%
FVA	2.58%
– Geometric average portfolio rate of return[1]	
5-year	
MVA	-5.77%
FVA	2.58%
10-year	
MVA	-5.77%
FVA	2.58%
– Standard deviation of return[1]	
5-year	
MVA	0.00%
FVA	0.00%
10-year	
MVA	0.00%
FVA	0.00%
(ii) Duration of the Actuarial Accrued Liability	8.1
(iii) Total UAAL / Covered Payroll[2]	
MVA	3.2
FVA	2.7
(iv) Total Assets / Covered Payroll[2]	
MVA	5.4
FVA	5.9
(v) Total AAL / Covered Payroll[2]	8.6
(vi) Non-Investment Cash flow / Beginning of year MVA	-10.5%
(vii) MVA / Benefit Payments	6.5
(viii) Solvency Liability ($ millions)[3]	$ 3,184.5
Covered Payroll[2]	284,435,666

[1] *These are developed prospectively from 2022 and consequently do not yet reflect full 5 or 10 years of experience.*

[2] *Payroll for this purpose is Component I payroll.*

[3] *See discussion on next page.*

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

Solvency Liability

The POA Funded Ratio is an expected return-based measurement of the pension obligations. It is based upon the POA mandated 6.75% interest rate assumption (assumption prescribed by another party). It determines an amount that will be sufficient to provide benefits if the portfolio earns the expected 6.75% return on assets and all other assumptions are met. This measure is appropriate for assessing the need for or amount of future contributions if all assumptions are met. This measure is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation, in other words, of transferring the obligation to a third party in a market value type transaction.

Funded Ratio - POA

		Defined Benefit	ASF	Total
A	Actuarial Accrued Liability (AAL)	$ 2,347,204,461	$ 91,394,995	$ 2,438,599,456
B	Market Value of Assets	1,438,451,300	91,394,995	1,529,846,295
C	Unfunded Actuarial Accrued Liability (A-B)	$ 908,753,161	$ -	$ 908,753,161
D	Funded Ratio (B/A)	61.3%	100.0%	62.7%

The Solvency Liability is an alternative measurement of the pension obligations. It represents the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. For this purpose, the solvency liability is computed at 3.69% as of June 30, 2022, based on the long-term municipal bond rate ("20-Year Municipal GO AA Index" rate from the Fidelity Index as of June 30, 2022). No adjustment has been made for the credit quality of the plan sponsor. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligation.

Funded Ratio – Solvency

		Defined Benefit	ASF	Total
A	Actuarial Accrued Benefits	$ 3,093,133,537	$ 91,394,995	$ 3,184,528,532
B	Market Value of Assets	1,438,451,300	91,394,995	1,529,846,295
C	Unfunded Actuarial Accrued Benefits (A-B)	$ 1,654,682,237	$ -	$ 1,654,682,237
D	Funded Ratio (B/A)	46.5%	100.0%	48.0%

The difference between the two measure (POA and Solvency) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.

SECTION B

FUND ASSETS

Statement of Plan Assets
(Reported Assets at Market Value)

Market Value - June 30, 2022	
Cash and Cash Equivalents	$ 103,349,973
Investments at Fair Value	1,326,599,796
Receivables	102,485,447
Cash and Investments held as collateral for securities lending	56,629,288
Capital Assets - Net	3,803,811
Accounts Payable	(63,022,020)
Total Current Assets	**$ 1,529,846,295**

Market Value of Assets

Reserve Accounts

Funds	Fund Balances June 30, 2022	Fund Balances June 30, 2021
Annuity Savings	$ 91,394,995	$ 104,783,035
Annuity Reserve	(37,117,137)	(27,434,705)
Pension Accumulation	(227,582,083)	(65,451,896)
Pension Reserve	1,703,150,520	1,806,752,864
Total Fund Balances	**$ 1,529,846,295**	**$ 1,818,649,298**

Revenues and Expenditures

	Pension Funds	Annuity Funds	Total Funds
Balance, July 1, 2021	$ 1,741,300,969	$ 77,348,329	$ 1,818,649,298
Prior valuation audit adjustment	-	-	-
Market Value July 1, 2021	$ 1,741,300,969	$ 77,348,329	$ 1,818,649,298
Revenues			
Employer Contributions	$ 47,900,000	$ -	$ 47,900,000
Employee Contributions	-	-	-
Foundation Contributions	375,000	-	375,000
ASF Recoupment Interest	5,775,503	-	5,775,503
Investment Income (Net of Investment Expenses)	(102,743,787)	(46,243)	(102,790,030)
Other Income	(548,957)	801,241	252,284
Total	$ (49,242,241)	$ 754,998	$ (48,487,243)
Expenditures			
Benefit Payments	$ 212,727,480	$ 10,029,115	$ 222,756,595
Refund of Member Contributions	-	13,796,354	13,796,354
ASF Recoupment Write Off	1,221,731	-	1,221,731
Transfer to Component I (Transition Cost)	-	-	-
Administrative Expenses	2,541,080	-	2,541,080
Total	$ 216,490,291	$ 23,825,469	$ 240,315,760
Market Value June 30, 2022	$ 1,475,568,437	$ 54,277,858	$ 1,529,846,295
Market Value Rate of Return (Net of all expenses)	(6.04)%	1.15%	(5.77)%
Net Cash Flow as Percent of Assets	(9.59)%	(30.80)%	(10.49)%

Rates of return are dollar-weighted estimates assuming contributions occur at the end of the year and remaining items are mid-year cash flows. “ASF Recoupment Interest” and “Other” items are treated as investment cash flows.

Note that interest credits to the ASF (and other reserves) are determined by Plan provisions and Board policy (including any timing issues) as calculated by the Retirement System’s staff.

Allocation of Assets Used for Valuation by Reserve Account and Division

	June 30, 2021	Adjustments	Contributions	Benefit Payments	Admin. Expenses	Investment and Other	June 30, 2022
Annuity Savings Fund							
General	$ 56,834,178	$ -	$ -	$ (5,749,975)	$ -	$ (1,117,864)	$ 49,966,339
D.O.T.	22,783,374	-	-	(4,514,011)	-	857,441	19,126,804
DWSD	17,265,043	-	-	(3,243,666)	-	915,457	14,936,834
Library	7,900,440	-	-	(288,702)	-	(246,720)	7,365,018
Totals	$ 104,783,035	$ -	$ -	$ (13,796,354)	$ -	$ 408,314	$ 91,394,995
Annuity Reserve Fund							
General	$ (16,474,842)	$ -	$ -	$ (5,617,918)	$ -	$ 177,869	$ (21,914,891)
D.O.T.	(900,758)	-	-	(915,409)	-	83,268	(1,732,899)
DWSD	(8,418,985)	-	-	(3,128,228)	-	70,238	(11,476,975)
Library	(1,640,120)	-	-	(367,561)	-	15,309	(1,992,372)
Totals	$ (27,434,705)	$ -	$ -	$ (10,029,116)	$ -	$ 346,684	$ (37,117,137)
Pension Accumulation Fund							
General	$ (61,621,095)	$ (53,445,345)	$ 2,765,012	$ -	$ (2,225,371)	$ (50,678,577)	$ (165,205,376)
D.O.T.	(147,084,079)	(23,547,304)	109,988	-	(190,555)	(6,782,480)	(177,494,430)
DWSD	108,276,995	(30,458,190)	42,900,000	-	-	(36,632,710)	84,086,095
Library	34,976,283	(1,674,296)	2,500,000	-	(125,154)	(4,645,205)	31,031,628
Totals	$ (65,451,896)	$ (109,125,135)	$ 48,275,000	$ -	$ (2,541,080)	$ (98,738,972)	$ (227,582,083)
Pension Reserve Fund							
General	$ 978,186,655	$ 53,445,345	$ -	$ (118,034,281)	$ -	$ -	$ 913,597,719
D.O.T.	261,581,696	23,547,304	-	(30,810,938)	-	-	254,318,062
DWSD	518,648,809	30,458,190	-	(57,745,077)	-	-	491,361,922
Library	48,335,704	1,674,296	-	(6,137,183)	-	-	43,872,817
Totals	$ 1,806,752,864	$ 109,125,135	$ -	$ (212,727,479)	$ -	$ -	$ 1,703,150,520
Retirement System Totals	$ 1,818,649,298	$ -	$ 48,275,000	$ (236,552,949)	$ (2,541,080)	$ (97,983,974)	$ 1,529,846,295

Funding Value of Assets

	2021	2022	2023	2024
A. Funding Value Beginning of Year	$ 1,596,101,989	$ 1,818,649,298		
B. Market Value End of Year	1,818,649,298	1,529,846,295		
C. Market Value Beginning of Year	1,596,101,989	1,818,649,298		
D. Contributions During Year:				
D1. City Contributions (End of Year)	48,275,000	48,275,000		
D2. Member Contributions	0	0		
D3. Total	48,275,000	48,275,000		
E. Disbursements:				
E1. Benefits Paid During Year	225,790,173	222,756,595		
E2. Refunds	11,333,604	13,796,354		
E3. Transfers	0	0		
E4. Administrative Expenses*	N/A	2,541,080		
E5. Total	237,123,777	239,094,029		
F. Investment Income:				
F1. Average Funding Value	1,477,540,101	1,699,102,284		
F2. Assumed Rate	6.75%	6.75%		
F3. Amount for Immediate Recognition: F1 X F2		114,689,404		
F4. Market Total: B - C - D3 + E5	411,396,086	(97,983,974)		
F5. Amount for Phased-In Recognition: F4-F3		(212,673,378)		
G. Phased-In Recognition of Investment Income:				
G1. Current Year: F5/3		(70,891,126)		
G2. 1st Prior Year		0	$ (70,891,126)	
G3. 2nd Prior Year		0	0	$ (70,891,126)
G4. Total Recognized Investment Gain		(70,891,126)	(70,891,126)	(70,891,126)
H. Total Interest Distributed - Current Year: F3 + G4	411,396,086	43,798,278		
I. Funding Value End of Year:				
I1. Preliminary Funding Value End of Year: A + D - E + H		1,671,628,547		
I2. Upper Corridor Limit 115% x B		1,759,323,239		
I3. Lower Corridor Limit 85% x B		1,300,369,351		
I4. **Funding Value End of Year**	**$ 1,818,649,298**	**$ 1,671,628,547**		
J. Difference Between Market & Funding Value: B - I4	1,818,649,298	(141,782,252)		
K. Recognized Rate of Return: H / F1	27.84%	2.58%		
L. Market Rate of Return: F4 / (F1 + C - A)	27.84%	(5.77)%		
M. Ratio of Funding Value to Market Value: I4 / B	100.00%	109.27%		

**Prior to the 2022 fiscal year, the investment return was net of administrative expenses.*

The Funding Value of Assets recognizes assumed investment income (line F3) fully each year. Differences between actual and assumed investment income (line F5) are phased-in over a closed 3-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is unbiased with respect to Market Value. At any time, it may be either greater or less than Market Value.

SECTION C

PARTICIPANT DATA

Reconciliation of Raw Data

Active Members

A) Count reported in Legacy file	2,019
B) In Legacy file but not in Hybrid file	(33)
C) Hired after plan closed	(89)
D) Non-active Status	(24)
E) Agency "88"	(17)
F) Non-eligible class code & bargaining unit	-
G) No hire date in Hybrid file	-
H) Zero salary in Hybrid file	(6)
I) Number of records to value	1,850

Inactive Vested Members

A) Number of records reported on data file	2,605
B) In Legacy active file but not otherwise in database and not in Hybrid active file	-
C) Valued as inactive in prior year and would not have otherwise been valued in Legacy this year	115
D) Valued as a vested active member in prior year but not in this year's active file and would not have otherwise been valued in Legacy this year	69
E) Deceased	-
F) Less than 8 years of vesting service	(156)
G) Number of records to value	2,633

Retired Members and Beneficiaries

A) Number of records reported on data file	45,922
B) Number of records in P/F plan	(17,152)
C) Records not currently in receipt of benefits based on reported status codes	(17,254)
D) Component I (Hybrid) Records	(598)
E) Number of records valued	10,918

Notes:

Active Row B: Are records that appeared in the Legacy active file but did not appear in the Hybrid active file. It was assumed that these members were no longer active in the General plan.

Active Row D: The Active data file contains a field titled "Stat." Active members were only valued if the record for this field had a value of "1."

Active Row E: Agency "88" is the 36th District Court. We understand that members in that agency are not eligible to receive benefits.

Active Row F: We have received a separate list of Class Codes and Bargaining Units that are not eligible to receive benefits.

Inactive Vested Row B: See the note for Row B of the active member reconciliation.

Inactive Vested Row C: Only includes records that appear in the raw database last year.

Retired Row C: The Retired Life file has a field named "STATUS." We understand that if this field is not blank or equal to zero, the member is no longer receiving a benefit and should not be valued.

Reconciliation of Year-to-Year Data
as of June 30, 2022

	Active	Term. Vested	Retirees		Totals
	Count	Count	Count	Annual Benefits	Count
2021	**2,185**	**2,645**	**11,173**	**$ 212,713,879**	**16,003**
Change in Pay/Pensions	N/A	N/A	N/A	(1,016,844)	
Rehired (Not Vested)	22				22
Rehired (Vested)	24	(23)	(1)	(744)	-
New Beneficiary			104	1,418,916	104
Retired	(130)	(114)	275	4,418,868	31
Non-Duty Disabled			-	-	-
Duty Disabled			-	-	-
Assumed Death/Removals		(65)	(642)	(10,542,048)	(707)
Vested Term	(161)	161			-
Non-Vested Terminated	(90)				(90)
Data Adjustment	-	29	9	151,752	38
2022	**1,850**	**2,633**	**10,918**	**$ 207,143,779**	**15,401**

Notable Data Changes:

31 new retirees came from nowhere. We believe many of these are a result of new EDRO's.

65 Terminated Vested members were valued last year but will not be valued this year. We have assumed these members refunded and forfeited their defined benefit.

The data adjustments relate to records where we could not specifically identify the activity during the year. This could be the result of duplicate Social Security numbers or corrected Social Security numbers.

Data Approximations and Assumptions

As part of our review of the data received from the System, we discussed questionable or missing data with System staff and developed approximations and assumptions in order to perform the valuation. We provided System staff with a letter dated December 23, 2022 with additional information regarding data reconciliation, processing instructions, and assumptions regarding unresolved issues. Note, that letter disclosed our remaining data processing procedures and assumptions and details our reconciliation and final valuation data.

The purpose of this section in this report is to summarize any unresolved concerns about questionable data that are relevant and could have a significant effect on the valuation as disclosed in that letter. This summary also discusses any significant steps we have taken to improve the data due to identifying questionable data values or relationships, significant judgments, or assumptions we have applied to the data.

Active

For active members, frozen AFC amounts and frozen service as of June 30, 2014 was reported. For purposes of this valuation, we matched the June 30, 2022 actives to the active data reported for the June 30, 2014 valuation to check against AFC as of June 30, 2014. In cases where the frozen AFC as reported in the 2022 data file was less than 75% of the AFC as reported on the 2014 data file, the AFC as reported on the 2014 data file was used. This boundary was determined after an analysis of the raw AFC data showed that the AFC for several members was unreasonably low. In cases where AFC was reported in to be $0 in both the current data file and the 2014 data file, the current salary was used in place of the AFC.

Deferred Vested

Data provided for deferred vested members was incomplete. As part of the processing of deferred member data, in cases where AFC was incomplete, we used $30,000 to estimate the AFC. Component II benefit service is not directly provided on the file. The Component II (Legacy) file includes total vesting service and the Component I (Hybrid) file includes Component I benefit service. Since Component II benefit service was frozen as of June 30, 2014 for members that terminated after June 30, 2014, Component II (Legacy) benefit service was determined by subtracting service in the Component I (Hybrid) inactive file from total vesting service in the corresponding Component II (Legacy) inactive file. Members with vesting service of less than 8 years were assumed to be non-vested and were not valued. We estimated the commencement date with the following rules:

- Age 55 if 30 or more years of service and hired before July 1986;
- Age 60 if less than 30 years of service, but more than 10 years of service and hired before 1986; and
- Age 62 for all others.

The entire amount of the deferred benefit was assumed to commence at the same time regardless of the date of hire.

Data Approximations and Assumptions

Retired and Beneficiary

It is our understanding that the current pension amount provided in the retiree data includes the 4.5% reduction as mandated in the POA. However, for members that retired prior to July 1, 2015, the other pension amounts provided in the data (original pension amount, equated pension amount, and prior year's pension amount) did not reflect the 4.5% reduction and, as such, were reduced by 4.5% when valuing any related liability. Other adjustments/assumptions include:

- In cases where the benefit is identified to be a joint and survivor benefit and a beneficiary is not listed in the data, it was assumed that male spouses were 3 years older than females;
- Benefits for dependent children are assumed to cease at age 21; and
- For non-converted disabled members, converted benefits are:
  - assumed to commence at age 60; and
  - estimated, based on reported service and projected service from the date of disability to age 60.

Summary of Member Data
June 30, 2022

Active Members

	General	D.O.T.	DWSD	Library	Totals^
Number	1,134	305	252	159	1,850
% Change in active members	(14.5)%	(17.1)%	(14.0)%	(19.3)%	(15.3)%
Average reported 2014 AFC^	$48,587	$56,276	$45,909	$43,645	$49,065
Average benefit service	14.3	15.4	14.7	16.9	14.7
Average age	54.6	55.4	55.1	56.5	55.0
Average eligibility service	21.2	22.5	21.9	23.3	21.7

^ In cases where the 2014 AFC reported on the current file was less than 75% of the 2014 AFC as reported in 2014, the 2014 AFC as reported in 2014 was used.

Retired Members and Survivor Beneficiaries

	General	D.O.T.	DWSD	Library	Totals
Number	6,350	1,589	2,656	323	10,918
Annual benefits ($ millions) #	$ 120.3	$ 30.6	$ 59.6	$ 6.5	$ 217.0
Average benefits #	$18,952	$19,279	$22,434	$20,048	$19,879
% Change in reported average benefit	0.0 %	(0.5)%	(0.7)%	(2.5)%	(0.3)%

 # Includes annuities. Does not include reductions resulting from the annuity claw-backs.

Inactive Vested Members

	General	D.O.T.	DWSD	Library	Totals
Number	1,427	359	749	98	2,633
Average AFC	$39,726	$44,727	$49,297	$33,527	$42,900
Average years of service	15.2	14.6	15.0	13.0	15.0
Annual benefits ($ millions)	$ 14.0	$ 3.8	$ 9.0	$ 0.7	$ 27.5
Average benefits	$9,818	$10,553	$12,059	$ 7,249	$10,460
% Change in average years of service	(0.4)%	(3.5)%	(1.1)%	(4.0)%	(1.2)%
% Change in average AFC	(0.4)%	(1.2)%	0.1 %	0.8 %	(0.6)%

Active Members as of June 30, 2022
by Attained Age and Years of Service
Retirement System Totals

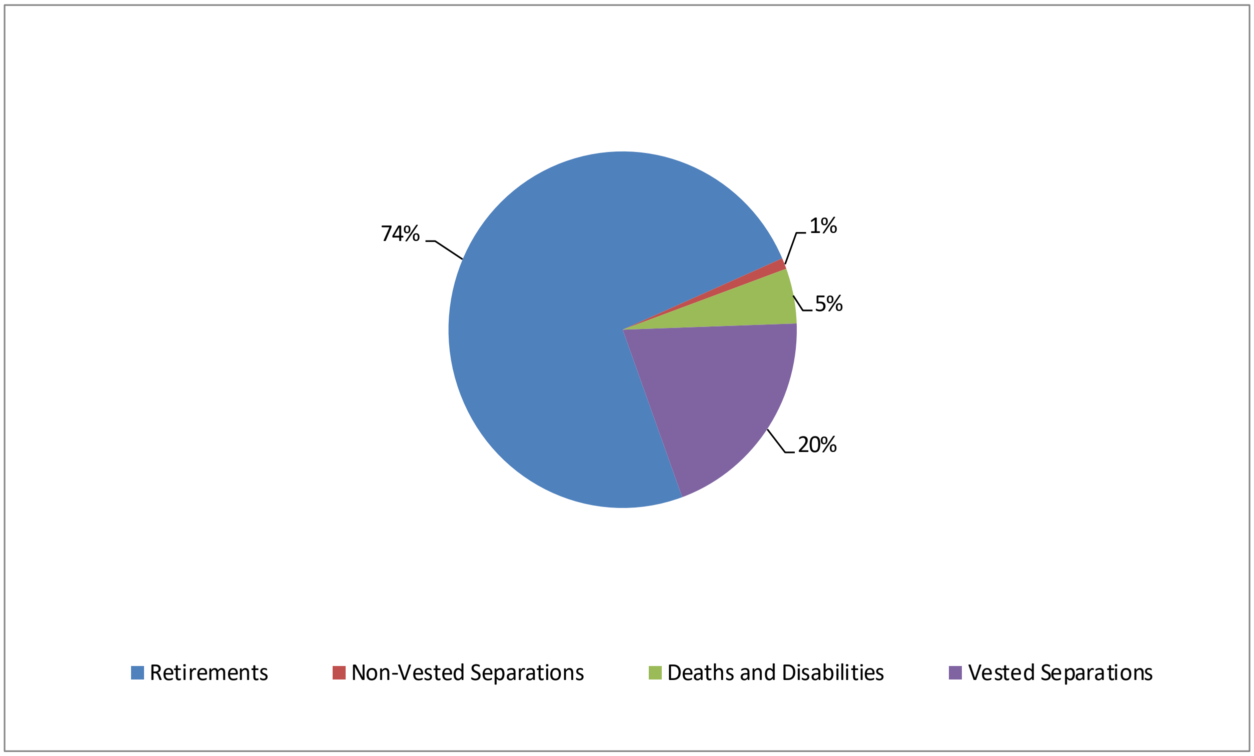
Attained Age	Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Total No.
Under 20	0							0
20-24	0	0						0
25-29	0	0	0					0
30-34	0	26	6	0				32
35-39	2	19	23	9	1			54
40-44	2	18	27	42	32	1		122
45-49	5	45	33	49	70	30	0	232
50-54	4	19	41	63	133	91	30	381
55-59	6	25	28	66	143	121	84	473
60-64	1	27	26	40	77	66	132	369
65-69	0	13	15	11	21	21	50	131
70-74	0	5	5	7	9	5	8	39
75-79	0	0	2	2	6	2	5	17
Totals	**20**	**197**	**206**	**289**	**492**	**337**	**309**	**1,850**

Group Averages:

Age: 55.0 years
Benefit Service: 14.7 years
Eligibility Service: 21.7 years

Service shown in this schedule is Legacy Benefit service plus Hybrid Benefit service.

Expected Terminations from Active Employment for Current Active Members



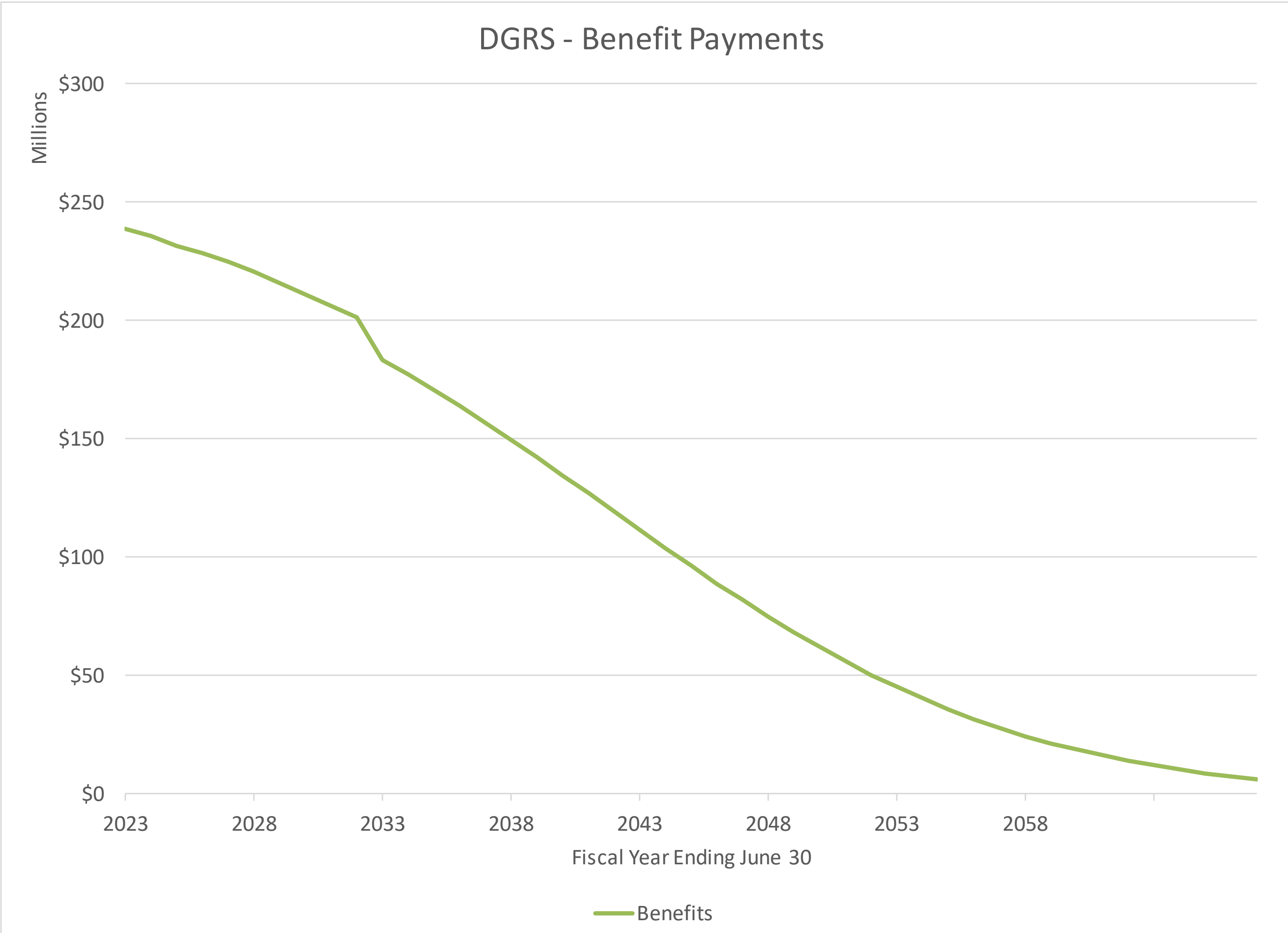
The chart shows the expected future development of the present population in simplified terms. The Retirement System presently covers 1,850 active members. Eventually, 28 people are expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. 1,730 people are expected to receive monthly retirement benefits either by retiring directly from active service, or by retiring from vested deferred status. 92 people are expected to become disabled or die in service. Vested Separations may include members eligible to retire in this Component II (Legacy) plan but not yet eligible to retire in the Component I (Hybrid) plan. A detailed discussion on how members eligible to retire in Component II (Legacy) but not eligible to retire in Component I (Hybrid) are treated is included in Section D of this report.

Actual versus expected retirements for the 2022 fiscal year is shown below:

Year Ended June 30,	Expected	Actual
2022	106	130

Expected Benefit Payments

Shown below is a graph of projected benefit payments remaining in the Retirement System.



The graph above shows the projection of future expected benefit payments. As shown on the prior pages, contributions are expected to be significantly less than benefit payments for many years. The assets in the plan are not sufficient to cover current retiree liabilities and the ratio of assets (Market Value) to retiree benefit payroll is six and a half years. In a closed/frozen mature plan such as this one, it may become difficult to manage the significant amount of cash needed to pay retirement benefits.

Retirees and Beneficiaries as of June 30, 2022
Tabulated by Attained Ages
Retirement System Totals

	Age & Years of Service#		Disability		Death-in-Service		Totals	
Attained Ages	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
Under 20*	52	$ 762,672	0	$ 0	0	$ 0	52	$ 762,672
20-24	9	98,724					9	98,724
25-29	6	67,356					6	67,356
30-34	15	137,592	0	0			15	137,592
35-39	14	90,480	0	0	1	27,732	15	118,212
40-44	18	126,036	2	14,076	1	6,000	21	146,112
45-49	35	314,652	13	90,480	3	23,088	51	428,220
50-54	119	1,890,228	29	241,752	8	94,776	156	2,226,756
55-59	410	8,676,696	76	828,516	15	230,736	501	9,735,948
60-64	1,283	26,221,459	151	2,451,156	34	478,608	1,468	29,151,223
65-69	2,053	40,564,824	225	3,062,532	35	490,452	2,313	44,117,808
70-74	2,071	44,631,840	154	2,247,864	43	889,920	2,268	47,769,624
75-79	1,558	33,630,012	104	1,284,492	32	577,392	1,694	35,491,896
80-84	918	16,546,116	42	484,500	26	353,148	986	17,383,764
85-89	626	9,845,268	22	229,464	17	216,300	665	10,291,032
90-94	403	5,838,168	6	42,672	23	182,292	432	6,063,132
95 and Over	235	2,836,812	10	86,232	21	230,664	266	3,153,708
Totals	**9,825**	**$192,278,935**	**834**	**$11,063,736**	**259**	**$3,801,108**	**10,918**	**$207,143,779**

** May include records with defective birth dates.*
 # Includes survivor beneficiaries of deceased retirees.

Retirees and Beneficiaries as of June 30, 2022
Tabulated by Year of Retirement

Year of Retirement	No.	Annual Allowances Total	Annual Allowances Average
1950 & before	3	$ 71,172	$23,724
1951-1955	4	67,200	16,800
1956-1960	0	0	0
1961-1965	4	16,188	4,047
1966-1970	13	70,236	5,403
1971-1975	49	363,144	7,411
1976-1980	127	1,100,232	8,663
1981-1985	279	3,249,108	11,646
1986-1990	485	6,052,920	12,480
1991-1995	947	13,839,540	14,614
1996-2000	1,234	22,013,892	17,839
2001-2005	1,750	39,163,075	22,379
2006-2010	1,963	43,804,332	22,315
2011-2015	2,358	48,562,044	20,595
2016	394	8,017,560	20,349
2017	249	4,016,280	16,130
2018	236	3,542,736	15,012
2019	226	3,376,548	14,940
2020	222	3,692,304	16,632
2021	265	4,287,228	16,178
2022	110	1,838,040	16,709
Totals	**10,918**	**$207,143,779**	**$18,973**

SECTION D

METHODS AND ASSUMPTIONS

Summary of Assumptions and Methods Used for Actuarial Valuations Adopted by the Board of Trustees

All assumptions are estimates of future experience except as noted. The rationale for the assumptions is based on experience studies where noted.

Economic Assumptions

The investment return rate used in making the valuation was 6.75% per year, compounded annually (net after investment expenses). This assumption is prescribed by the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit (POA).

Price inflation is not directly used in the valuation. For purposes of assessing the reasonability of the investment return assumptions, we assumed price inflation of 2.50% per year.

Future ***administrative expenses*** are assumed to be 1.01% of benefit payments and refunds.

Non-Economic Assumptions

For healthy post-retirement mortality, the PubG-2010(B) Below-Median General Retiree table was used for mortality assumptions going forward, decreased by 3% for males and increased by 26% for females.

For disabled post-retirement mortality, PubNS-2010 Non-Safety Disabled Retiree mortality table was used, increased 4% for males and decreased 2% for females.

For pre-retirement mortality rates, the PubG-2010(B) Below-Median General Employee mortality table was used for both males and females.

The tables are projected to be fully generational, based on the 2-dimensional, sex distinct mortality improvement scale MP-2021 (which was intended to be used with the Pub-2010). 75% of all deaths-in-service are assumed to be non-duty related. This table was first used as of June 30, 2021. The rationale for the mortality assumption is based on the 2015-2020 Mortality Experience Study issued February 4, 2022.

The probabilities of retirement for members eligible to retire are shown on the following pages. These probabilities were revised for the June 30, 2021 valuation. The rationale is based on the 2015-2020 Experience Study.

The probabilities of separation from service (including *death-in-service* and *disability*) are shown for sample ages on the following pages. These probabilities were revised for the June 30, 2021 valuation. The rationale is based on the 2015-2020 Experience Study.

Summary of Assumptions and Methods Used for Actuarial Valuations Adopted by the Board of Trustees (Concluded)

Funding Methods

The unit credit cost method was used in determining age & service pension liabilities, vesting liabilities, and casualty pension liabilities. Under this method, there is no normal cost since benefits are frozen and there are no future accruals and actuarial accrued liability is the present value of each individual's accrued benefit.

Unfunded Actuarial Accrued Liabilities. Actual employer contributions through June 30, 2023 are set by the POA. For contributions starting with the fiscal year ending June 30, 2024, a closed 30-year level principal period is used to amortize Unfunded Actuarial Accrued Liabilities (if any).

Employer contribution dollars were assumed to be paid at the end of the employer fiscal year.

Present assets are set equal to the Market Value.

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

Single Life Retirement Values

Based on PubG-2010(B)
97% of Male Rates/126% of Female Rates
Using Projection Scale MP-2021

Sample Attained Ages in 2022	Future Life Expectancy (Years) Men	Future Life Expectancy (Years) Women
45	37.56	40.04
50	32.64	34.98
55	28.26	30.39
60	24.02	25.88
65	19.92	21.43
70	15.95	17.10
75	12.31	13.09
80	9.11	9.55

Probabilities of Age/Service Retirement for Members Eligible to Retire

Retirement Ages	Percent of Eligible Active Members Retiring within Next Year with Unreduced Benefits		
	EMS	D.O.T.	Others
62	40%	20%	20%
63	40%	20%	20%
64	40%	20%	20%
65	40%	20%	20%
66	40%	20%	20%
67	40%	30%	20%
68	40%	30%	20%
69	40%	30%	20%
70	100%	100%	20%
71			20%
72			20%
73			20%
74			20%
75			20%
76			20%
77			20%
78			20%
79			20%
80			100%
Ref	851	3304	3305

All members are assumed to retire while eligible for Component I (Hybrid) retirement only. The rationale is based on the 2015-2020 Experience Study.

Probabilities of Early Retirement
for Members Eligible for Early Retirement

Retirement Ages	Percent of Eligible Active Members Retiring within Next Year with Reduced Benefits
55	6.5%
56	6.5%
57	6.5%
58	7.5%
59	8.5%
60	9.5%
61	9.5%
62	9.5%
Ref	3303

All members are assumed to retire while eligible for Component I (Hybrid) retirement only. The rationale is based on the 2015-2020 Experience Study.

Sample Rates of Separation from Active Employment Before Retirement

Sample Ages	Years of Service	% of Active Members Separating within Next Year — Withdrawal: EMS	Other
ALL	0	16.00%	28.00%
	1	15.00%	19.00%
	2	15.00%	15.00%
	3	11.00%	14.00%
	4	11.00%	14.00%
25	5 & Over	10.05%	13.00%
30		8.85%	11.91%
35		7.80%	9.25%
40		6.60%	7.19%
45		5.10%	5.91%
50		3.60%	5.00%
55		3.00%	5.00%
60		3.00%	5.00%
	Ref	1405	1406
		1608	1609

Sample Ages	% of Active Members Becoming Disabled within Next Year — D.O.T.: Ordinary	D.O.T.: Duty	Others: Ordinary	Others: Duty
25	0.16%	0.24%	0.03%	0.03%
30	0.19%	0.28%	0.04%	0.04%
35	0.26%	0.39%	0.05%	0.05%
40	0.37%	0.56%	0.08%	0.08%
45	0.56%	0.84%	0.12%	0.12%
50	0.70%	1.05%	0.15%	0.15%
55	0.82%	1.23%	0.17%	0.17%
60	0.94%	1.41%	0.20%	0.20%
Ref	1238 x 1.20	1238 x 1.80	1238 x 0.25	1238 x 0.25

The rationale is based on the 2015-2020 Experience Study.

Miscellaneous and Technical Assumptions

Administrative Expenses — Administrative expenses are assumed to be 1.01% of benefit payments and are to be included in the employer contribution.

Annuity Savings Fund (ASF) Interest Credits — For purposes of calculating future refunds of member contributions, the ASF is assumed to earn 5.25% interest in all future years.

Annuity Savings Fund Excess Interest — The Component I (Hybrid) Transition Cost is funded by Component II (Legacy) ASF returns in excess of 5.25%. ASF return excess ceases in 2023 and the POA mandates the use of a 6.75% return assumption until 2023. The current assumption is:

- For purposes of determining valuation assets and liabilities, only considering transfers related to prior investment experience.

For purposes of determining the Section 9.5 funded status in Component I (Hybrid), projecting the amount of future transfers.

Average Final Compensation (AFC) — Frozen AFC is reported in the data provided for the annual valuation. Longevity payments are included directly in the reported frozen AFC but Sick Leave is not. Eligibility for inclusion of Sick Leave is based upon the members Bargaining Unit. If eligible, we take the AFC provided to us, use the 75% of 2014 AFC check, and then add on an estimate for sick leave. The sick leave is estimated with the following formula:

[Annual pay reported in 2014 valuation] X [Capped Sick Leave Bank hours reported in 2014 valuation] / [8 hours/work day] / [260 work days/year] / [3-years in average period] X [25% added to AFC]

Where [Capped Sick Leave Bank hours reported in 2014 valuation] is the smaller of:
[Sick Leave Bank hours reported in 2014 valuation] OR
[Frozen Service] X [8 hours/work day] X [25 days/year of service]

We annually test the reported AFC against a sample set of retirees to determine if any additional adjustments should be made to the liability. No additional adjustment was made for this report.

Benefit Service — Exact Fractional service is used to determine the amount of benefit payable.

Data Adjustments — Assumptions regarding incomplete or missing data are reviewed annually with the System and adjusted as directed by the System.

Decrement Operation — Disability and mortality decrements do not operate during the first five years of service. Disability and withdrawal do not operate during retirement eligibility.

Decrement Relativity — Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

Miscellaneous and Technical Assumptions

Decrement Timing	Decrements of all types are assumed to occur mid-year.
Deferred Vested Benefit Commencement Age	Members are assumed to commence benefits at the age in which they are first eligible for unreduced benefits.
Disability Change Age	For active members that become duty disabled, the Component II (Legacy) plan is assumed to only be responsible for the frozen benefit which becomes payable starting at the earliest of when the member would have accrued 30 years of service credit (25 for EMS) or age 60.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and rounded service on the date the decrement is assumed to occur.
Forfeiture Assumption	It is assumed that 0% of members will elect to forfeit their benefit.
Incidence of Contributions	Employer contributions are assumed to be received on the last day of the fiscal year.
Marriage Assumption	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Member Contributions	Member contributions to this Component II plan are assumed to have ceased with the bankruptcy.
New Entrant Assumption	No assumption is made for experience related to members rehiring/reentering active service.
Normal Form of Benefit	Straight life is the normal form of benefit. The Board adopted assumptions for Actuarial Equivalence to be an 80%/20% unisex blend of RP-2014 mortality (Male/Female) with Blue Collar Adjustment, set ahead one year for males and females, projected 11 years with MP-2014, an interest rate of 6.75%, and no COLA for optional forms of payment and early retirement reduction. Assumptions for annuitizing member contributions are the same except for using a 60%/40% unisex blend and a 5.25% assumed rate of interest. Prior to the use of these factors, actuarial equivalent factors were based on 7.5% interest and the 1984 Group Annuity Mortality table.
Pop-Up Benefits	For current retirees with a pop-up benefit, the value of the pop-up was estimated by valuing a non-pop-up option and increasing the associated liabilities by 2%.

Miscellaneous and Technical Assumptions

Service Credit Accruals	Service accruals for calculating benefits end as of June 30, 2014 for Component II (Legacy) and begin as of June 30, 2014 for Component I (Hybrid). However, service in Component I (Hybrid) and Component II (Legacy) may be used to satisfy benefit eligibility requirements in both plans.

The rationale is based on the 2015-2020 Experience Study, modified as necessary for changes in data or administration.

SECTION E

PLAN PROVISIONS

Summary of Benefit Provisions Evaluated

Component II Frozen Benefits

All Component II benefits are frozen as of June 30, 2014 based on service and average final compensation accrued as of that date and the provisions of the Detroit General Retirement System as it existed on June 30, 2014. Frozen benefits are further reduced by 4.5% and all future cost-of-living adjustments ("COLAs") were eliminated. Benefits resulting from the Annuity Savings Fund and benefits paid from the Annuity Reserve Fund were subject to a separate reduction described as a "Claw-back." Details of the claw-back provision are complicated and can be found in the Eighth Amended Plan of Adjustment. The benefits evaluated in this report are the frozen reduced benefits after adjusting the assets for the claw-back. Component II benefits are payable after separation from service, upon meeting the eligibility conditions of the plan as it existed on June 30, 2014, regardless of whether the individual is eligible to receive a Component I benefit at that time.

Our understanding of the June 30, 2014 plan provisions is provided below for completeness. The material below does not have legal standing and is not intended to cover all potential situations that could occur. If there are discrepancies between the description below and appropriate legal documents, the latter necessarily govern.

Age and Service Pension

Eligibility - Any age (minimum age 55 for non-EMS members hired after 1995) with 30 years of service (25 for EMS members), or age 60 with 10 years of service, or age 65 with 8 years of service.

Annual Amount - **EMS Members:** Sum of a) a basic pension of $12 for each of the first 10 years of service, plus b) a pension equal to 2.0% of AFC multiplied by years of service. Maximum benefit is 90% of AFC.

Other Members: Sum of a) a basic pension of $12 for each of the first 10 years of service, plus b) a pension equal to the first 10 years of service multiplied by 1.6% of AFC, plus 1.8% of AFC for each year of service greater than 10 years up to 20 years, plus 2.0% of AFC for each year of service greater than 20 years up to 25 years, plus 2.2% of AFC for each year of service greater than 25 years. Future benefit accruals for certain active members (depending on bargaining unit) were reduced to 1.5% of final average compensation per year of service.

Type of Average Final Compensation (AFC) - Highest 3 consecutive years out of the last 10. Pension benefits will not be diminished if compensation is reduced because of a fiscal emergency. Effective July 1, 1999, in computing the AFC, a member shall have the option of adding the value of 25% of unused accrued sick leave to the earnings used in computing the AFC. Longevity is added to AFC in accordance with the following schedule: $150 after 5 years, $300 after 10 years, $450 after 15 years, $600 after 20 years, and $750 after 25 years.

Early Retirement

Eligibility - Any age with 25 or more years of service (min. age 55 for members hired after 1995).

Annual Amount - Same as regular retirement but actuarially reduced.

Summary of Benefit Provisions Evaluated (Continued)

Deferred Retirement (Vested Benefit)

Eligibility - Hired prior to 7-1-80: Age 40 with 8 years of service. Hired on or after 7-1-80: Any age with 10 years of service.

Benefit Commencement - APTE hired prior to July 1, 1988: Benefit begins at the age the member would have become eligible for regular retirement if service had continued. ***SAAA, Non-Union and lawyers hired prior to June 30, 1986:*** Benefit begins at the age the member would have become eligible for regular retirement. ***Others:*** Benefits based on service rendered by June 30, 1986 begin at the age the member would have become eligible for regular retirement. Benefits based on service rendered after July 1, 1986 begin at age 62.

Annual Amount - Same as regular retirement but based on average final compensation and service at the time of termination.

Duty Disability Retirement

Eligibility - Service related disability before eligibility for service retirement prior to and July 1, 2014. No service requirement.

Annual Amount - An annuity which is the actuarial equivalent of the accumulated contributions at date of disability plus a pension of two-thirds of average final compensation at time of disability. The maximum annual pension is $5,700 ($9,000 for EMS). At the earliest of when the member would have accrued 30 years of service credit (25 for EMS) or age 60, the annuity is recomputed assuming contributions would have continued at a salary level equal to final compensation. The pension is recomputed with additional service credit granted from the date of disability to age 60 (or 30 years of service credit) or June 30, 2014, whichever is earlier. **Benefits payable prior to conversion/re-computation, if any, were assumed to be paid outside the trust.**

Non-Duty Disability Retirement

Eligibility - Disability from any cause before age 60 with 10 or more years of service prior to July 1, 2014.

Annual Amount - Computed in the same manner as a regular retirement benefit. Maximum annual pension to age 60 is $6,000. Benefit is recomputed at age 60 with no maximum. **Benefits payable prior to age 60, if any, were assumed to be paid from outside the trust.**

Duty Death before Retirement

Eligibility - Death from service related causes. No age or service requirements.

Annual Amount - One-third of final compensation as of June 30, 2014 to the surviving spouse for life or until remarriage, plus an equal share of 1/4 of final compensation to each unmarried child under age 18. If there is no eligible spouse, eligible children each receive 1/4 of final compensation; if there are more than 2 such children, each child shares an equal part of 1/2 of final compensation. Maximum total amount for spouse and children is $9,000 annually. If there is no eligible spouse or children, dependent parents each receive 1/6 of deceased's final compensation, to a total maximum of $600 annually.

Summary of Benefit Provisions Evaluated (Concluded)

Non-Duty Death before Retirement

Eligibility - Death-in-service at any age with 15 years of service; or after age 60 with 10 years of service; or after age 65 with 8 years of service.

Annual Amount - To Surviving Spouse: Computed as a regular retirement benefit but reduced in accordance with a 100% joint and survivor election for members with 20 or more years of service. For members with 15 years of service but less than 20, benefit is reduced in accordance with a 50% joint and survivor election. To Dependent Children if no Surviving Spouse: $9,000 payable to age 19 of the youngest child or for life if child is physically or mentally impaired for members with 20 or more years of service ($6,000 if less than 20 years of service).

Post-Retirement Cost-of-Living Adjustments

Benefit is increased annually by 2.25% of the **original** pension amount at retirement. Post-retirement cost-of-living increases were eliminated on future accruals for certain active members (depending on bargaining unit).

Member Contributions

Members have the option of choosing one of four contribution amounts: (1) 0%; (2) 3.0% of compensation up to the Social Security wage base, plus 5.0% of compensation in excess of the Social Security wage base; (3) 5.0% of total compensation; or (4) 7.0% of total compensation. Member contributions can be paid as a lump sum or annuitized at retirement to provide an annuity in addition to the pension (which is not affected by the level of member contributions).

SECTION F

GLOSSARY

Glossary

Accrued Service	The service credited under the plan which was rendered before the date of the actuarial valuation.
Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of future Normal Costs and the Actuarial Accrued Liability.
Actuarially Determined Employer Contribution	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's actuarial funding policy.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV)	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits (APVFB)	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Funding Value of Assets, and related Actuarial Present Values for a plan.

Glossary

AFC	Average Final Compensation.
Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
Amortization Payment	That portion of the plan contribution or ARC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
ARF	Average Reserve Fund.
ASF	Annuity Savings Fund of the Component II (Legacy) Plan.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc.
COLA	Cost-of-Living Adjustment.
Contribution Budgeting Liability	An expected return-based measure of pension obligation.
DIA	Detroit Institute of Arts.
D.O.T	Department of Transportation.
Duration	An approximate measure of sensitivity to changes in interest rates.
DWSD	Detroit Water and Sewerage Department.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Glossary

E.M.S.	Emergency Medical Service.
Equivalent Single Amortization Period	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
Funded Ratio	The ratio of the Funding Value of Assets to the Actuarial Accrued Liability.
Funding Value of Assets (FVA)	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined employer contribution (ADEC).
FY	Fiscal Year.
GASB	Governmental Accounting Standards Board.
GASB Statement No. 67 and GASB Statement No. 28	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. GASB Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while GASB Statement No. 67 sets the rules for the systems themselves.
GLWA	Great Lakes Water Authority.
MVA	Market Value Assets.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Glossary

Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
PAF	Pension Accumulation Fund.
POA	The 8th Amended Plan for the Adjustment of the Debt of the City of Detroit.
Reserve Account	An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.
RSF	Rate Stabilization Fund.
Solvency Liability	A market-based measurement of the pension obligations.
Transition Cost	Initial unfunded liability as described in Section E-16 of the Plan document.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Funding Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.
VPIF	Variable Pension Improvement Factor. Discussed in Section 6.2 of the Plan Document.

SECTION G

FUNDING POLICY

Actuarial Funding Policy

I. Introduction

The purpose of this Actuarial Funding Policy is to record the funding objectives and policy set by the Board of Trustees (Board) and the Investment Committee (Investment Committee) for the General Retirement System of the City of Detroit (the GRSD). The Board and the Investment Committee establish this Actuarial Funding Policy to help ensure the systematic funding of future benefit payments for members of the Plan.

In 2014, the Combined Plan document for the GRSD was written and approved by the bankruptcy court as part of the City's Plan of Adjustment (POA). At that time, the original retirement plan was split into two retirement plans: Component I (Hybrid) and Component II (Legacy) (collectively the "Plans"). In accordance with the POA, employer contributions and certain assumptions cannot be changed until fiscal year 2024. This Policy is intended to establish a funding policy for the period beginning in fiscal year 2024, when employer contributions must be determined on an actuarial basis. Nothing in this Policy is intended to prevent the Board and the Investment Committee from altering the Policy prior to fiscal year 2024 as conditions change or additional information becomes available to the Board.

This Policy shall be regularly reviewed by the Board and the Investment Committee.

II. Definitions

"Actuarial Accrued Liability (AAL)" means the difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

"Actuarial Assumptions" means the estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

"Actuarial Cost Method" means a mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

"Actuarial Gain (Loss)" means a measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used. For example, if during a given year the assets earn more than the investment return assumption, the amount of earnings above the assumption will cause an unexpected reduction in UAAL, or "actuarial gain" as of the next valuation. These include contribution gains and losses that result from actual contributions made being greater or less than the level determined under the policy.

"Actuary" means a person who is trained in the applications of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries (MAAA). The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA and ultimately to Fellowship with the designation FSA.

"Amortization" means paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

"*Board*" or "*Board of Trustees*" shall mean the Board of Trustees of the General Employees Retirement System of the City of Detroit.

"*Committee*" or "*Investment Committee*" shall mean the Investment Committee of the General Employees Retirement System of the City of Detroit.

"Division" shall mean the General City, DDOT, Library and/or DWSD divisions in the City of Detroit.

"Experience Study" means an actuarial investigation of demographic and economic experiences of the system during the period studied. The investigation was made for the purpose of updating the actuarial assumptions used in valuing the actuarial liabilities.

"Funding Value of Assets" means the value of current plan assets recognized for valuation purposes. Generally based on a phased-in recognition of all or a portion of market related investment return. Sometimes referred to as Actuarial Value of Assets or Smoothed value of Assets.

"*GRSD*" shall mean the General Employees Retirement System of the City of Detroit.

"Market Value of Assets" means the fair value of plan assets as reported in the plan's audited financial statements.

"Normal Cost (NC)" means the annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

"Unfunded Actuarial Accrued Liability (UAAL)" means the positive difference, if any, between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

"Unit Credit Normal Actuarial Cost Method" means a funding method that calculates the Normal Cost as the present value of the change in accrued benefits for active members.

II. Funding Objectives

1. Provide benefit security to members of the GRSD:
   A. For purposes of this policy, benefit security means having adequate liquidity to pay benefits when due.
2. Establish an appropriate employer contribution based on the following objectives:
   A. Upon the recommendation of the GRSD Actuary and after review and consideration of the decision of Judge Thomas J. Tucker with respect to the City of Detroit's Motion to Enforce Plan of Adjustment and Require 30-Year Amortization of the Accrued Liability in the Police and Fire Retirement System filed in the US Bankruptcy Court In re: City of Detroit, Michigan (Case No. 13-53846) (herein after the "Legacy Amortization Motion"); to fully fund the Legacy Plan liability in 30 years from June 30, 2023; and
   B. Fully funding the Hybrid plan liability in 15 years from June 30, 2023; and
   C. Managing employer contribution volatility.

3. Provide a reasonable margin for adverse experience to help offset risks.
4. Measure and monitor funding status, post-2024 contribution estimates and risks.
   A. Perform annual valuations; and
   B. Include post-2024 actuarial determined employer contributions (based on this Policy) in annual actuarial valuations performed for fiscal years before 2024.

III. Elements of the Actuarial Funding Policy

The Plans will have annual actuarial valuations each June 30. Employer contributions will be determined for the fiscal year ending two years after the valuation date. For example, the actuarially determined employer contribution for the fiscal year ending June 30, 2024 will be determined by the June 30, 2022 annual actuarial valuation.

Annual actuarial valuations may or may not also serve other purposes such as for Legacy plan restoration, Hybrid plan Section 9.5 fiscal responsibility calculations, and/or Annuity Savings Fund excess interest transfers between components. Unless otherwise stated, those purposes are not subject to this Policy.

For funding purposes, annual actuarial valuations will include the following elements of the Actuarial Funding Policy:

1. Actuarial Cost Method

A. Hybrid Plan: The Entry Age actuarial cost method shall be used in determining the Actuarial Accrued Liability (AAL) and Normal Cost with the entry age based on the date of hire. Since this component was created in July 2014 and granted eligibility and vesting service prior to July 2014 (for members hired before that date), this plan had an unfunded actuarial accrued liability on the plan effective date, known as the transition liability.

B. Legacy Plan: The Unit Credit Normal actuarial cost method shall be used in determining Actuarial Accrued Liability (AAL) and Normal Cost. Since this component is closed and accrued benefits are frozen as of June 30, 2014, this method results in no normal costs and an AAL that equals the Present Value of Accrued Benefits (PVAB) of each member.

2. Asset Smoothing Method

A. For determining (or estimating) employer contributions on or after fiscal year 2024, the Funding Value of Assets will be based on a method that employs smoothing of market gains and losses over a closed period. The smoothing period for recognize market gains and losses (above or below the assumed rate of return) will be a 3-year period.

B. The Funding Value of Assets shall not diverge from the Market Value of Assets by more than 15%.

C. The annual valuation will calculate results on both the smoothed value of assets and the (non-smoothed) Market Value of Assets beginning with the June 30, 2022 valuation (the Funding Value of Assets will initially be set to the Market Value of Assets as of June 30, 2021 with smoothing beginning prospectively). The post-2024 contribution estimate will always be based on the smoothed value of assets. Other results (UAAL, Funded Status, etc.) will be based on the Market Value of Assets prior to 2024 and the smoothed value of assets starting in 2024.

3. Amortization Method

A. Hybrid Plan

a) A Level Percent of Payroll amortization method shall be used to systematically eliminate (pay off) the Unfunded Actuarial Accrued Liability (UAAL) over a closed 15-year period from the later of July 1, 2023 or the applicable fiscal year after the funded status falls below 100%.

b) If the funded status for a division is above 100%, the contribution requirements for the division's UAAL will be $0 (thereby creating a minimum employer contribution of employer normal cost).

c) Layered amortizations will be considered by the Board for contributions after fiscal year 2024. Considerations for layering could include

(i) Length of initial period remaining;

(ii) Source of liability being amortized (i.e., new liabilities related to benefit changes and assumptions changes may be amortized over specific shorter periods (i.e., less than 15 years)). It is the intention of the Board and IC to align the amortization period in the appropriate circumstances with the corresponding benefit payment time-period;

(iii) Magnitude of base that could be added in the current year;

(iv) The change in contribution levels from the prior year (i.e., if a previous base is falling off and the current base is going in the opposite direction, it might be better to roll it into an existing base in order to levelized contributions).

d) Each division shall be responsible for funding its liability. Funding for any division that is at risk of depleting its divisional assets may be accelerated. Divisions shall not be permitted to have a funded status below 0% and contributions shall be accelerated as appropriate.

B. Legacy Plan

a) The Level Principal amortization method shall be used to systematically eliminate (pay off) the Unfunded Actuarial Accrued Liability (UAAL) over a closed period of 30 years from July 1, 2023, as reflected in the Plan of Adjustment (POA) and consistent with the decision of Judge Thomas J. Tucker with respect to the City's Legacy Amortization Motion.

b) If the funded status for a division is above 100%, the contribution requirements for the division's UAAL will be $0 (thereby creating a minimum employer contribution of administrative expenses).

c) Layered amortizations will be considered by the Board for contributions after fiscal year 2024. Considerations for layering could include:

(i) Length of initial period remaining;

(ii) Source of liability being amortized (i.e., new liabilities related to benefit changes and assumptions changes may be amortized over specific shorter periods (i.e., less than the UAAL amortization period adopted by the Board and IC)). It is the intention of the Board and IC to align the amortization period in the appropriate circumstances with the corresponding benefit payment time period;

(iii) Magnitude of base that could be added in the current year;

(iv) The change in contribution levels from the prior year (i.e., if a previous base is falling off and the current base is going in the opposite direction, it might be better to roll it into an existing base in order to levelized contributions); and

(v) The City has applied for the Protecting MI Grant Program. If approved, any new liabilities related to benefit changes for active employees or retirees in the Legacy Plan must be fully funded when granted.

d) Each division shall be responsible for funding its liability. Funding for any division that is at risk of depleting its divisional assets may be accelerated. Divisions shall not be permitted to have a funded status below 0% and contributions shall be accelerated as appropriate.

4. **Funding Target and Cash Flow Projections**

   A. The targeted funded ratio shall be 100%.

   B. The Legacy annual actuarial valuation shall include projections of estimated employer contributions, expected benefit payments and estimated funded status to the later of fiscal year 2054 or 30 years after the applicable employer contribution fiscal year.

   C. Section 9.5 of the plan details the actions to be taken if the 5-year projected funded status falls below 100% (Hybrid, only).

5. **Risk Management**

   A. Assumption Changes

      a) The actuarial assumptions to be used shall be those last adopted by the Board based on the most recent experience study and upon the advice and recommendation of the actuary. In accordance with the City Ordinance, the actuary shall conduct an experience study at least every five years. The results of the study shall be the basis for the actuarial assumption changes recommended to the Board;

      b) The actuarial assumptions may be updated at any time, as advised by the actuary, if significant plan design changes or other significant events occur that would dictate such a change; and

      c) Even though the investment rate of return may not be changed for determining employer contributions until after June 30, 2023, the Board may elect to show valuation results under an alternative reasonable assumed rate of investment return prior to 2023.

   B. Risk Measures

      a) Risk measures will be included in the annual actuarial valuations. Below is a list of potential measures to be included. The measures may be changed over time as deemed appropriate.

         (i) Classic measures

            – Funded ratio (assets / liability) on both a market value and funding value (if funding value is not equal to market).

            – UAAL amortization period (years required to pay down the UAAL based on current funding rates).

            – Portfolio rate of return for the year on both the market value and funding value of assets.

            – 5-year and 10-year geometric average portfolio rate of return on both the market value and funding value of assets (developed prospectively).

            – 5-year and 10-year standard deviation of return on both the market value and funding value of assets (developed prospectively).

         (ii) Duration of the Actuarial Accrued Liability

            – Measures the sensitivity of the liability to a 1% change in assumed rate of return. A decrease in this measure indicates a decrease in assumed rate sensitivity and vice versa.

         (iii) Total UAAL / Covered Payroll

            – Measures the risk associated with contribution rates relative to the impact on the ability to fund the UAAL. A decrease in this measure indicates a decrease in UAAL contribution risk and vice versa.

            – Consideration will be given to using total payroll or revenue source, if available.

(iv) Total Assets / Covered Payroll

- Measures the risk associated with the potential impact of asset experience on contributions. A decrease in this measure indicates a decrease in asset risk and vice versa.
- Consideration will be given to using total payroll or revenue source, if available.

(v) Total AAL / Covered Payroll

- Measures the risk associated with the potential impact of liability experience on contributions. A decrease in this measure indicates a decrease in experience risk and vice versa. This also provides a long-term measure of the asset risk where the GRSD has a target funded ratio of 100%.
- Consideration will be given to using total payroll or revenue source, if available.

(vi) Non-Investment Cash Flow / Beginning of year assets

- Measures depletion risk, sensitivity to annual investment gains and losses risk and the maturity of the plan. For a mature open plan, this may converge to the negative of the real rate of return assumption (investment return less wage inflation). A less negative number (or a positive number) indicates a less mature plan and/or a plan that is at lower risk of fund depletion and less sensitive to annual gains and losses. A more negative number indicates a more mature plan and/or a plan that is more at risk of fund depletion and more sensitive to annual gains and losses. For a super-mature closed plan such as the Legacy plan, this may become more negative over time as liquidity needs increase.

(vii) Market Value of Assets / Benefit Payments

- Measure depletion risk. A low value estimates the number of years to depletion disregarding future contributions and investment return.

(viii) Solvency Liability

- Measures the estimated cost of accrued benefits as a result of minimizing investment risk in the portfolio.

b) Risk Control: The Board shall carefully monitor the risk measures above and shall consider steps to mitigate risk, particularly as the Legacy Plan funded ratio increases. Examples of risk mitigating techniques include, but are not limited to:

(i) Reviewing investment risk in accordance with the Board's Investment Policy;

(ii) Adding provisions for adverse deviation in the actuarial assumptions; and

(iii) Increasing employer contributions (through a change in methods, assumptions, or amortization period).

IV. Hybrid Plan Section 9.5 Projection Assumptions

Section 9.5 of the Combined Plan titled *"Fiscal Responsibility: Increased Funding Obligations and Benefit Reductions"*, provides generally in the event the funding level of Component I of the Retirement System, projected over a five-year period, falls below specified targets, the Board is required to take established remedial actions. The stated intention of this Section is to "safeguard the long-term actuarial and financial integrity of the Retirement System." Section 9.5(3) further provides that "the actuarial accrued liability of Component I shall be calculated by the Plan's Actuary utilizing an interest rate assumption of six and three-quarters percent (6.75%) and other reasonable assumptions as directed by the Board upon the recommendation of the Investment Committee."

In December, 2016, both the Board and the Investment Committee adopted the following guidelines to be utilized by the actuary in completing the five-year projections as required in Section 9.5 of the Hybrid Plan:

1. The five-year projections should be based on the general valuation assumptions as previously adopted by the Board (e.g., inflation, mortality, retirement, withdrawal, etc.).
2. Section 9.5(1) provides that Variable Pension Improvement Factor ("VPIF") benefits will only be granted in the event the plan is projected to be over 100% funded. It is the considered opinion of the Board and the Investment Committee that the mandatory employee contributions as set forth in the plan based upon the five-year projections required by Section 9.5 are intended to fund base benefits in the normal course and not VPIF benefits. Accordingly, it is the funding policy of the Board to not include any projected future VPIF benefits in the five-year projection calculations. However, in the future and to the extent that VPIF benefits have been granted to retirees at the time of the five-year projection, that Actuary shall assume continuation of those previously granted VPIF benefits except as otherwise provided in Section 9.5(2) of the Combined Plan.
3. For purposes of completing the five-year projection in any given year, an initial projection is to be completed demonstrating the effect of an award of the VPIF benefit to qualified retirees in the following Plan Year. If the Plan continues to be funded at a level greater than 100%. the VPIF may be awarded by the Board and IC in accordance with the Plan provisions. In the event the funding level in the initial projection is less than 100%, a second projection shall be performed to verify if any of the remedial measures required under Section 9.5 are necessary.
4. Transition Costs should not include an assumption of future VPIF benefits. Since there is a separate funding source established in the Combined Plan for payment of Transition costs through 2023 [Section E-16(c)], Transition Costs should be excluded from the Section 9.5 tests until fiscal year 2024. The Transition Costs shall be determined as of July 1, 2014 (without an assumption for payment of future VPIF benefits and financing of the Transition costs shall be calculated based upon a level dollar amortization of the Initial Transition Cost over a 9-year fixed amortization period and the Retirement System's Investment Return Assumption of 6.75%.
5. Component II (Legacy Plan) ASF balances are assumed to be withdrawn as a level dollar amount over the next 10 years, however voluntary employee contributions into the Component Annuity Savings Fund shall be assumed to continue at the historical levels as previously contributed to the Component II ASF. For Transition Funding purposes, an appropriate arbitrage of the difference between the assumed rate of investment return of 6.75% and the maximum interest rate that can be credited to the ASF Accounts of 5.25% should be used for both the Hybrid Plan (Component I) and Legacy Plan (Component II) ASF Accounts. However, for asset transfers based on a lookback period, actual market returns will be used, if known.
6. The Hybrid Plan assets shall include the Rate Stabilization Fund to the extent the plan is less than 100% funded.
7. The Annual Actuarial Valuation for the fiscal year ending June 30, 2015, shall generate the first five-year projection. Upon receipt of the June 30, 2015 valuation, a determination shall be made whether any remedial action is required. In the event remedial action is required, such remedial action shall be effective July 1, 2017 [Section 9.5(1)].
8. The funding value of plan assets for purposes of Section 9.5 testing of the Hybrid Plan (Component I) funding level would otherwise be based upon a three (3) year smoothing method wherein the assumed investment income of 6.75% will be recognized fully each year and the differences between actual and

assumed investment income shall be phased in over a closed three (3) year period. The Actuary has opined that since the projection period is for a five (5) year period, the use of a three (3) year smoothing period is of no consequence and would result in an asset value that is not materially different than projecting the current market value of assets out five (5) years at the assumed rate of return of 6.75%. Accordingly, the projection shall utilize the market value of the portfolio using the 6.75% rate of return [Section 9.5(3)].

9. The forgoing assumptions shall be utilized for both the 100% projection test in Section 9.5(1) and the 80% projection test in Section 9.5(2).

10. The required actions set for in Section 9.5(2), if any, shall be reflected in the projections by the addition of each item in the order listed until the appropriate threshold is reached. Illustrated as follows:

> Perform the first projection ignoring all the 9.5(2) actions. If the projected funded status was less than 80%, then the Actuary is to re-perform the projection reflecting the action in 9.5(2)(a). If the projection results in a funding level that is still below 80%, the projection is to be re-performed reflecting the action in 9.5(2)(b): and so on. Once the 80% threshold is met, such projection would reflect the required actions under Section 9.5(2) that are to be taken.

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Matthew S. Lane MPA, Charges Outreach and Modeling Manager

Re: Annual Report on Water System Max Day

Background: Each year, following the designated peak season of June 1 to August 31, the Great Lakes Water Authority (GLWA) reviews the daily water system pumpage and reservoir data to determine the System Maximum Day (Max Day) and the hourly water system pumpage and reservoir data to determine the System Peak Hour (Peak Hour). The GLWA Systems Analytics and Meter Operations team and the Charges Outreach & Modeling team conduct this review in parallel and compare data to help ensure accuracy and completeness.

Once the Max Day and Peak Hour are determined and verified, the teams review daily and hourly performance for all Member Partners on the water model contracts as of that date to evaluate compliance with the values set forth in the Exhibit B of each Member Partner's model contract, which defines projected annual volumes, minimum annual volumes, pressure ranges and maximum flow rates. The teams complete this analysis using the wholesale master meter data available in GLWA's Wholesale Automated Meter Reading (WAMR) portal.

For this report, all measurements are reflected as million gallons per day or MGD.

Analysis: Based on the system pumpage and reservoir analysis completed for 2023, the System Max Day and Peak Hour are as follows:

2023 GLWA System Max Day

- June 2, 2023
- 690 MGD (631 MGD in 2022)

2023 GLWA System Peak Hour

- 7:00 – 8:00 A.M. EST
- 789 MGD (697 MGD in 2022)

Chart 1 below provides an illustration of demand patterns compared to overall system capacity. It identifies the number of days above threshold amounts of pumpage in MGD, showing the reduced use of system capacity over time. Total GLWA water system capacity is 1,720 MGD (or 1.7 billion gallons per day).

Chart 1: Demand Patterns - 2007 - 2023

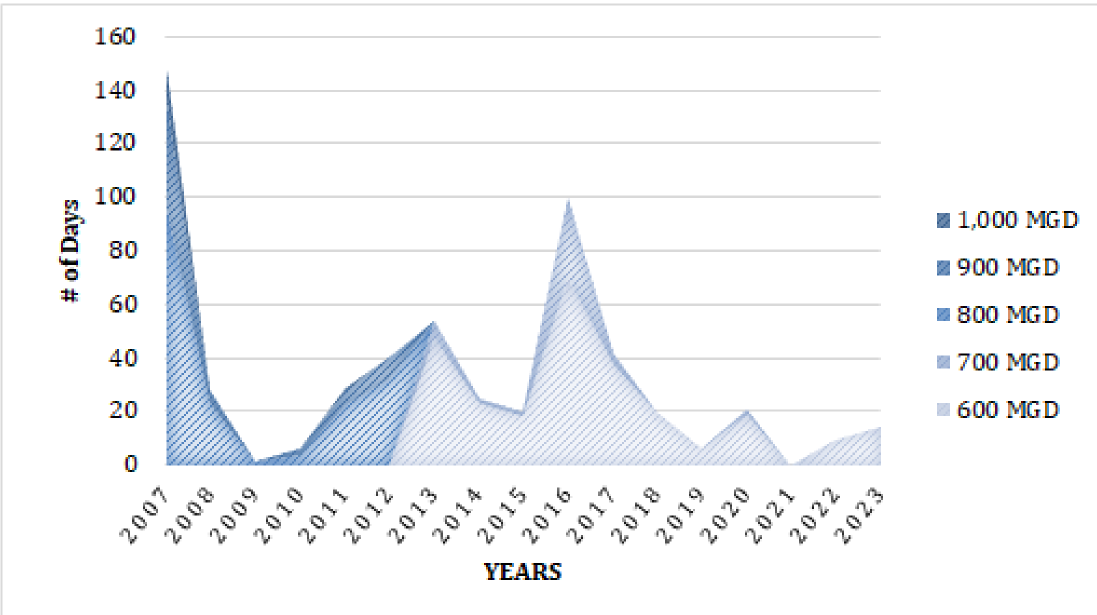
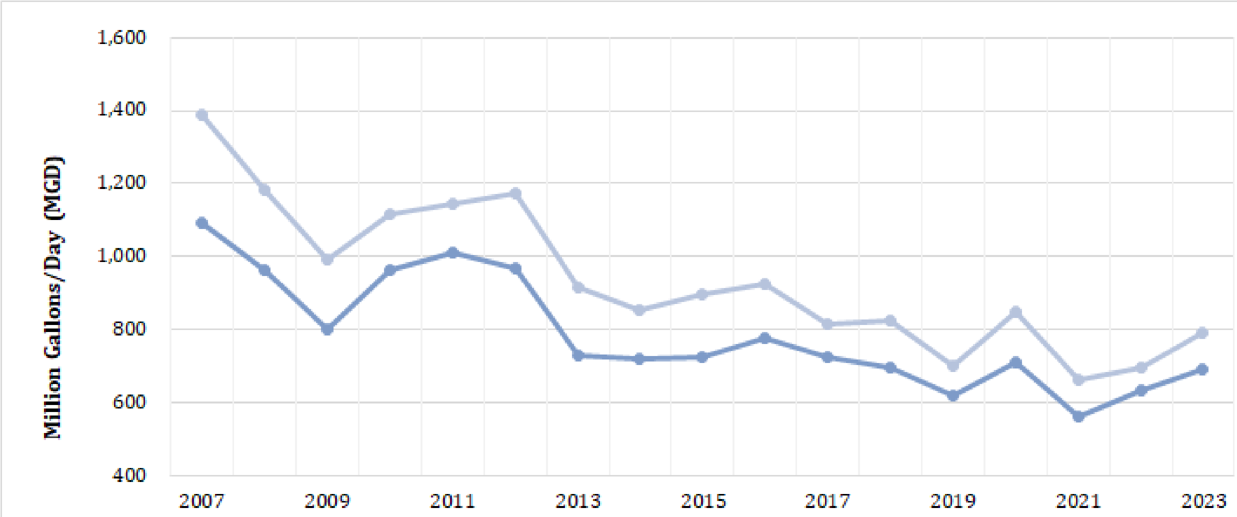


Chart 2 provides historical Max Day and Peak Hour detail by year. It helps further demonstrate the overall downward trend over time representative of system improvements and a focus on water conservation by users of the system. When compared to 2022 data, 2023 reflects an increase of 59 MGD and 92 MGD respectively.

Chart 2: Historic Max Day & Peak Hour - 2003 to 2023



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Max Day	1,092	961	802	962	1,008	969	729	720	725	777	723	693	619	707	562	631	690
Peak Hour	1,388	1,184	989	1,114	1,143	1,171	914	853	897	924	812	823	700	847	662	697	789

After review of the WAMR data from June 2, 2023, GLWA determined that only one Member Partner had exceedances for the Max Day and/or Peak Hour Value in their model contract. This is the City of Lincoln Park, with results as noted below.

- Contract Max Day – 5.50 MGD
  - ✓ Summer 2023 data showed 1 demonstrated value over 5.50 MGD (6.24 MGD)
- Contract Peak Hour – 6.93 MGD
  - ✓ Summer 2023 data showed 1 demonstrated value over 6.93 MGD (7.13 MGD)

Members of the GLWA and Lincoln Park teams met on October 13, 2023, to review the Lincoln Park WAMR data and determine the cause of the exceedances. Based on verified data provided by the city, the group determined that the exceedances on this date were due to a water main break.

Exceedances resulting from water main breaks are exempt from consideration for establishing a communities' demands, as outlined in the model contract. Both the City and GLWA agree that no consequences should apply, and no corrective action plan will be required. GLWA will present this data to the Water Analytical Work Group for their review on Tuesday, October 31, 2023.

Budget Impact: None

Proposed Action: Receive and file report.

AGENDA ITEM #7B

Financial Services
Audit Committee Communication

Date: November 9, 2023

To: Great Lakes Water Authority Audit Committee

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

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

Background/Analysis: With the recent approval of a Term Sheet by the city of Highland Park, Great Lakes Water Authority, and state of Michigan, Member partners and others have inquired about the feasibility of any credits in recognition of prior funding of bad debt expense. While there is no legal commitment for credits, a proposal has been prepared and is attached for consideration by the Audit Committee and potentially the Board of Directors.

Proposed Action: The Audit Committee recommends that the Great Lakes Water Authority Board of Directors adopt a resolution to:

1. Approve the Schedule of Member Partner Bad Debt Recovery Credits #2023-2 totaling $20,026,500 with $5,026,500 for the water system and $15,000,000 for the sewer system with conditions precedent utilizing the Highland Park Bad Debt Recovery Credits Methodology;

2. Acknowledge that the following actions (collectively the "Conditions Precedent"), which provide indirect budget relief, are conditions precedent that must occur prior to the funding, application, and distribution of the credits:

    a. Execution of the implementation agreements as described in the October 18, 2023 Term Sheet (attached) between the City of Highland Park, Great Lakes Water Authority, and the State of Michigan ("Term Sheet") including the successful implementation of the all-receipts trust;

    b. Appropriation by State of Michigan of "a $5M grant for work to be conducted by GLWA on drinking water infrastructure" referenced in section 2.c. of the Term Sheet.";

    c. Release by the State of Michigan and transfer to GLWA of "the $25M sewer infrastructure grant funds previously allocated in the FY 2023 budget to GLWA on or before December 31, 2023";

d. Payment of "$241,418.75 cash bond deposited by HP [Highland Park] with the U.S. District Court Clerk [which] shall be released to GLWA from E.D. Mich. Case No. 16-cv-13840"

3. Request that staff report to the Board of Directors when conditions precedent are met to seek approval to apply credits totaling $20,026,500 as outlined in the above methodology and related Schedule of Member Partner Bad Debt Recovery Credits #2023-2;

4. Provide contingent funding for credits to Member Partners subject to the conditions precedent in the FY 2024 First Quarter Budget Amendments of $5,026,500 for the water system and $15,000,000 for the sewer system;

5. Authorize staff to deposit the $241,418.75 cash bond to the sewer system deposited by Highland Park with the U.S. District Court Clerk related to E.D. Mich. Case No. 16-cv-13840; and

6. Authorize the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

..Title

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

..Body

Agenda of: October 25, 2023
Item No.: **2023-###**
Amount: $20,026,500.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: October 25, 2023

RE: **Resolution Regarding Approval of Schedule of Member Partner Bad Debt Recovery Credits #2023-2 Totaling $20,026,500 With Conditions Precedent**

MOTION

Upon recommendation of Nicolette N. Bateson, Chief Financial Officer & Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), adopts Resolution #2023-### to:

1. **Approve the Schedule of Member Partner Bad Debt Recovery Credits #2023-2 totaling $20,026,500 with $5,026,500 for the water system and $15,000,000 for the sewer system with conditions precedent utilizing the Highland Park Bad Debt Recovery Credits Methodology;**

2. Acknowledge that the following actions (collectively the "Conditions Precedent"), which provide indirect budget relief, are conditions precedent that must occur prior to the funding, application, and distribution of the credits:

a. Execution of the implementation agreements as described in the October 18, 2023 Term Sheet (attached) between the City of Highland Park, Great Lakes Water Authority, and the State of Michigan ("Term Sheet") including the successful implementation of the all-receipts trust;

b. Appropriation by State of Michigan of "a $5M grant for work to be conducted by GLWA on drinking water infrastructure" referenced in section 2.c. of the Term Sheet.";

c. Release by the State of Michigan and transfer to GLWA of "the $25M sewer infrastructure grant funds previously allocated in the FY 2023 budget to GLWA on or before December 31, 2023";

d. Payment of "$241,418.75 cash bond deposited by HP [Highland Park] with the U.S. District Court Clerk [which] shall be released to GLWA from E.D. Mich. Case No. 16-cv-13840"

3. Request that staff report to the Board of Directors when conditions precedent are met to seek approval to apply credits totaling $20,026,500 as outlined in the above methodology and related Schedule of Member Partner Bad Debt Recovery Credits #2023-2;

4. Provide contingent funding for credits to Member Partners subject to the conditions precedent in the FY 2024 First Quarter Budget Amendments of $5,026,500 for the water system and $15,000,000 for the sewer system;

5. Authorize staff to deposit the $241,418.75 cash bond to the sewer system deposited by Highland Park with the U.S. District Court Clerk related to E.D. Mich. Case No. 16-cv-13840; and

6. Authorize the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

In accordance with contractual terms for service and related court orders, Member Partner communities are explicitly responsible for funding certain bad debt expense. Over an extended period, Member Partner communities have been charged for bad debt expense related to partial non-payment by the City of Highland Park. Simultaneously, litigation with Highland Park and the State of Michigan has occurred as it relates to water, sewer, and industrial waste control service charges.

Recently, developments in a confidential mediation process between the City of Highland Park, the Great Lakes Water Authority (GLWA) and the State of Michigan resulted in the parties entering into the attached Term Sheet. The Term Sheet includes the following excerpted provisions which are most pertinent to the release of funds to GLWA to fund Member Partner bad debt expense recovery credits.

- Item #1 - "The Great Lakes Water Authority (GLWA), the City of Highland Park (HP), and the State of Michigan (SOM) shall enter into a settlement agreement by January 15, 2024 that incorporates the basic terms set forth below including mutually agreeable release language."
- Item #2c – "The SOM shall: …. Release the $25M sewer infrastructure grant funds previously allocated in the FY 2023 budget to GLWA on or before December 31, 2023 and appropriate a $5M grant for work to be conducted by GLWA on drinking water infrastructure."
- Item #4i – "HP will enter into contracts based on GLWA's model contract by January 15, 2024 covering the period of January 1, 2014 to December 31, 2044 for water and sewer services. ...

  i. The settlement agreement and contracts shall require all amounts paid for HP water, sewer (including industrial waste control) and stormwater services be placed into a trust in which the trustee pays GLWA and any remaining amounts to HP on the same date."
- Item #9 – "Upon effectuation of the settlement agreement, its attachments and related documents, including initial funding consistent with this agreement and after receipt by the trustee of one month of HP's water and sewer receipts and distribution of one month's payment of funds to GLWA under Paragraph 4.i, all litigation between GLWA, Detroit Water and Sewerage Department (DWSD), HP, or SOM shall be dismissed …"
- Item #10 – "The $241,418.75 cash bond deposited by HP with the U.S. District Court Clerk shall be released to GLWA from E.D. Mich. Case No. 16-cv-13840."

- Item #13 – "This term sheet is conditional and dependent upon (a) final approval of terms by the Governor, (b) appropriation of funds from the legislature to the extent necessary, and (c) approval by the governing bodies of GLWA, and any other necessary party on or before October 26, 2023. "

JUSTIFICATION

History of Bad Debt Expense & Member Partners Charges

The 2011 federal court *Order to Incorporate Rate Settlements into Wastewater Contracts and Dismiss All Prior Rate Settlements*, requires then Detroit Water & Sewerage Department and now GLWA to allocate the bad debt expense in its sewer charges. The 2011 Order also identifies the allocation of bad debt expense by customer class. Under the 2011 Order, bad debt expense recovery from "wholesale contract customers" must be recovered from that same customer class. The status of bad debt expense is discussed every year during charges rollout meetings and several years ago, the cost was shown as a line item of the charge calculation sheet. A similar approach has been applied to water charges. From a utility sector charge setting perspective, bad debt expense is an operating cost that should be accounted for in charges and it is therefore not uncommon. The larger issue for GLWA and its Member Partner communities is that it had likely not envisioned that an unpaid account would reach $54 million. As we look to bring closure to the past with the recent Term Sheet of October 18, 2023, a more wholistic approach is warranted to balance the financial burden.

Highland Park Accounts Receivable as of June 30, 2023 and Member Partner Interests

For the water system, as of June 30, 2023, the Highland Park accounts receivable balance (all amounts rounded for discussion purposes), is $12 million. Of that amount, all Member Partner communities, including suburban wholesale and DWSD, were charged $5 million of bad debt expense and GLWA has absorbed $7 million. Member Partner communities are interested to know if there is a way that they can be made fully or partially whole given the recently agreed upon Term Sheet. The entire amount contributed by Member Partners, in an exact amount is $5,026,500 (which is $5,152,500 previously charged less the one-time credit of $126,000 based upon a specific payment made by Highland Park on June 9, 2023).

For the sewer system, as of June 30, 2023, the Highland Park accounts receivable balance (all amounts rounded for discussion purposes), is $41 million. Of that amount, suburban wholesale Member Partner Communities were charged $35 million of bad debt expense and GLWA has absorbed $6 million. Member Partner communities are interested to know if there is a way that they can be made fully or partially whole given the recently agreed upon Term Sheet. The entire amount contributed by Member Partners, in an exact amount, is o $34,782,400 (which is $35,656,400 previously charged less the one-time credit of $874,000 based upon a specific payment made by Highland Park on June 9, 2023).

What Options Does GLWA Have to Ease the Prior Bad Debt Expense Burden?

The nature of all public utility finances is that the entire cost of operations and capital improvements are borne by the customers. And those costs are largely fixed in nature. Public utilities use break-even budgeting; there is no “profit.” If the fixed cost system has a shortfall in year one, that shortfall directly or indirectly is reflected in future charges – largely because there are less funds carried forward for the capital improvement needs in subsequent years. Barring the availability of other resources, this results in higher charges requests in subsequent years.

Within this past week, there were two concurrent efforts underway which we would like to discuss as a wholistic view of the Member Partner credit requests from availability of other available resources.

Starting with the term sheet itself. First, there will be approximately $250,000 for past legal fees which was agreed upon to be released to GLWA and would be recorded in an operating account. That is a straightforward decision to tag those funds for member partner credits. Second, there is also the potential $5 million water infrastructure grant (pending legislative approval) and the $25 million sewer infrastructure grant (pending release by the State and aligning project costs with federal requirements). These grants are great news for the system overall, but appropriately have spending restrictions and are to be used for capital improvements, not operating expenses, as well as carry a myriad of other restrictions. Also, since they are capital in nature, and will be paid on a reimbursement basis that may extend over a year, they cannot be tagged for Member Partner credits. Our challenge in leveraging how the economic benefit of these grants over a period of time and with restricted uses, can be used for providing charge relief. Understanding timing and cashflow are at the center of evaluating the request.

Turning to the other concurrent matter which is the analysis and preparation of the first quarter FY 2024 budget amendments. The downside is that we are continuing to see intense budget pressure as discussed in great detail at the GLWA Board Workshop on September 13, 2023. Below is a synopsis of the budget status for the fiscal year that began on July 1, 2023.

Water System – Negative FY 2024 Q1 proposed amendment of $18 million due to $4 million water revenue shortfall (wet weather in summer months), $10 million in increased operating expenses (chemicals, utilities and the change in funding source from Improvement & Extension to Operations & Maintenance for the Workday implementation and other services that cannot be capitalized), and $3 million net of other items with the most significant being increased debt service due to new money transaction this fall to keep pace with the water system improvements underway.

We did have good news on investment earnings as our investment manager continues to optimize the portfolio with an $8 million positive variance.

The net of the $18 million negative variance and the $8 million uptick in investment earnings meant that the FY 2024 Q1 budget amendment would be a decrease to the Improvement & Extension (I&E) Fund for future capital improvements by $10 million. Instead, we propose to tag the $5,000,000 of the positive investment earnings in FY 2024 along $26,500 in other operating funds to credit Member Partners based on the previously approved "Highland Park Bad Debt Recovery Credits Methodology." While it means that we would further decrease the I&E contribution this year, the receipt of the grant would make up for it in the future. This is of course, dependent upon the actions of all parties to carry out the tasks outlined in the term sheet. It should be noted that the sum of $5,026,500 would fully reimburse water system Member Partners.

Sewer System – Negative FY 2024 Q1 proposed amendment of $15 million are due to a $14 million increase in operating expenses (chemicals, utilities, repairs & maintenance contracts, and the change in funding source from Improvement & Extension to Operations & Maintenance for the Workday implementation and other services that cannot be capitalized), and $1 million net of other items with the most significant being increased debt service due to new money transaction this fall to keep pace with the sewer system improvements underway.

We did have good news on investment earnings as our investment manager continues to optimize the portfolio with an $9 million positive variance.

The net of the $15 million negative variance and the $9 million uptick in investment earnings meant that the FY 2024 Q1 budget amendment would be a decrease to the Improvement & Extension (I&E) Fund for future capital improvements by $6 million. Instead, we propose to tag the $9 million of the positive investment earnings in FY 2024 to credit Member Partners based on the previously approved

"Highland Park Bad Debt Recovery Credits Methodology". In addition, given that the economic benefit of the grant of $25 Million will accrue to the entire system, we have been asked if there is a way to recognize that 60% of the revenue comes from the suburban customer class – which was charged for bad debt expense. This results in a request of $15 million (60% multiplied by $25 million) for a credit to Member Partners. While it means that we would further decrease the I&E contribution by $6 million this year, the receipt of the grant would make up for it in the future. Bottom line would be $15 million tagged for suburban wholesale Member Partner credits. This is also, of course, dependent upon the actions of all parties to carry out the tasks outlined in the term sheet.

Summary tables are below that depict the proposed budget amendments and tagging of funds for credits.

Water System	FY 2024 Board Adopted Budget	Total 1st Quarter FY 2024 Amendments	FY 2024 Amended Budget	FY 2024 Activity Thru 8/31/2023
Revenues				
Suburban Wholesale Customer Charges	$ 340,540,600	$ (4,000,000)	$ 336,540,600	$ 61,756,600
Less: Bad Debt Expense	-	-	-	-
Less: Pending Bad Debt Recovery Credit	-	(5,026,500)	(5,026,500)	-
Retail Service Charges	25,537,200	-	25,537,200	4,256,200
Investment Earnings	4,061,700	8,000,000	12,061,700	2,352,800
Other Revenues	175,000	265,000	440,000	236,100
Total Revenues	$ 370,314,500	$ (761,500)	$ 369,553,000	$ 68,601,700
Revenue Requirements				
Operations & Maintenance Expense	$ 152,906,400	$ 10,194,100	$ 163,100,500	$ 25,161,400
General Retirement System Legacy Pension	-	-	-	-
Debt Service	159,482,800	3,872,800	163,355,600	26,932,500
General Retirement System Accelerated Pension	3,395,500	(1,890,000)	1,505,500	565,900
Extraordinary Repair & Replacement Deposit	-	-	-	-
Water Residential Assistance Program Contribution	1,851,600	-	1,851,600	308,600
Regional System Lease	22,500,000	-	22,500,000	3,750,000
DWSD Budget Shortfall Pending	-	-	-	-
Receiving Fund Working Capital Requirement	-	1,500,000	1,500,000	-
Improvement & Extension Fund Transfer Pending	30,178,200	(14,438,400)	15,739,800	5,029,700
Total Revenue Requirements	$ 370,314,500	$ (761,500)	$ 369,553,000	$ 61,748,100
Net Actual to Date	$ -	$ -	$ -	$ 6,853,600
Regional System Debt Service Coverage Ratio				
- With Credits	*1.36*	*(0.10)*	*1.26*	
- Without Credits	*1.36*	*(0.07)*	*1.29*	

Sewer System	FY 2024 Board Adopted Budget	Total 1st Quarter FY 2024 Amendments	FY 2024 Amended Budget	FY 2024 Activity Thru 8/31/2023
Revenues				
Suburban Wholesale Customer Charges	$ 282,687,600	$ -	$ 282,687,600	$ 47,142,400
Less: Bad Debt Expense	-	-	-	-
Less: Pending Bad Debt Recovery Credit	-	(15,000,000)	(15,000,000)	-
Retail Service Charges	196,569,600	-	196,569,600	32,761,600
Industrial Waste Control Charges	8,584,200	-	8,584,200	1,437,400
Pollutant Surcharges	5,328,300	-	5,328,300	554,800
Investment Earnings	7,057,300	9,000,000	16,057,300	3,236,300
Other Revenues	400,000	317,000	717,000	362,000
Total Revenues	$ 500,627,000	$ (5,683,000)	$ 494,944,000	$ 85,494,500
Revenue Requirements				
Operations & Maintenance Expense	$ 205,643,700	$ 14,484,700	$ 220,128,400	$ 34,669,500
General Retirement System Legacy Pension	-	-	-	-
Debt Service	228,328,300	3,836,900	232,165,200	38,705,900
General Retirement System Accelerated Pension	6,479,300	(3,382,500)	3,096,800	1,079,900
Extraordinary Repair & Replacement Deposit	-	-	-	-
Water Residential Assistance Program Contribution	2,503,100	-	2,503,100	417,200
Regional System Lease	27,500,000	-	27,500,000	4,583,300
DWSD Budget Shortfall Pending	-	-	-	-
Improvement & Extension Fund Transfer Pending	30,172,600	(20,622,100)	9,550,500	5,028,800
Total Revenue Requirements	$ 500,627,000	$ (5,683,000)	$ 494,944,000	$ 84,484,600
Net Actual to Date	$ -	$ -	$ -	$ 1,009,900
Regional System Debt Service Coverage Ratio				
- With Credits	*1.29*	*(0.11)*	*1.18*	
- Without Credits	*1.29*	*(0.04)*	*1.25*	

Highland Park Bad Debt Recovery Credits Methodology

On June 28, 2023, the Board of Directors adopted a methodology for credit allocation among Member Partners (File #2023-234). The overall allocation is 87.4% Sewer System and 12.6% Water System based on a proportional share of what was included in previous years' charges for services to first-tier Member Partners. Attached is a schedule which identifies a percentage for each Member Partner community and their relative share based on the discussion above.

BUDGET IMPACT

The financial impact on the budget is outlined above. In summary, it is reduction to the I&E Fund contribution in FY 2024 with a corresponding increase in construction fund capital grant revenue that spans potentially FY 2024 and subsequent years, *pending completion of the conditions precedent*.

Water System FY 2024 – I&E contribution reduced by $5,026,500 for Member Partner Credits with timing of future $5 million capital grant for the construction fund at a future data.

Sewer System - I&E contribution reduced by $15 million (representing 60% suburban wholesale class allocation) for Member Partner Credits with timing of future $25 million capital grant for the construction fund at a future date.

In terms of timing, it is proposed that this proposal be reflected in the FY 2024 Q1 Budget Amendments. Timing of the credits applied is dependent upon a number of actions, including the establishment of an all receipts trust and 30 days to ensure that the overall agreements are working as intended. There are complexities to the Term Sheet, but it should be reasonable expected that credits could occur in late FY 2024 Q3 or early Q4.

COMMITTEE REVIEW

This matter is presented directly to the full Board.

SHARED SERVICES IMPACT

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

Judicial Resource Services PC
Facilitation - Mediation

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Circuit Judge, Retired

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MEDIATION COMMUNICATION

Term Sheet– 10/18/2023

1. The Great Lakes Water Authority (GLWA), the City of Highland Park (HP), and the State of Michigan (SOM) shall enter into a settlement agreement by January 15, 2024 that incorporates the basic terms set forth below including mutually agreeable release language. The various documents referenced and necessary to effectuate this term sheet shall be attached, signed, and incorporated as a part of that agreement by that date. In addition, the Department of Environment, Great Lakes and Energy (EGLE) will either amend or replace its July 28, 2017 Administrative Consent Order (ACO) by January 15, 2024 to incorporate the terms set forth below that are specific to HP.

2. The SOM shall:

a. Pay for the reasonable and necessary cost to install water master meter(s) on water lines and sufficient temporary meters to estimate the sewage flow produced by HP. Metro Consulting (Metro) will be responsible for conducting the necessary work to install the meters. EGLE shall oversee that work pursuant to its regulatory authority. Metro will submit a proposal(s) to EGLE for this work, which will include the number and placement location of those meters in accordance with the provisions below. Metro will consult with GLWA in preparing the proposal(s). EGLE must approve in writing any proposal before installation of meters or implementation begins. In addition:

    i. The water master meter(s) and temporary sewage metering devices will be installed subject to GLWA's specifications.
    ii. The water master meter(s) shall be installed at all open points of connection between HP and GLWA.
    iii. Upon transfer, GLWA will own, operate, and maintain the water master meter(s). HP shall be responsible for the cost of maintaining and operating the sewer meters.
    iv. HP and GLWA shall agree to a third party and procedures to maintain and operate the sewer meters including the sharing of data produced by the meters. If the parties cannot agree to a third party or the procedures associated with operation, SOM shall identify the third party and prescribe the procedures.
    v. HP shall have the same access to the Wholesale Automated Meter Reading (WAMR) system and Greater Detroit Regional Sewer System (GDRSS) data for the installed HP water and sewer meters as all other customer communities served by GLWA.

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vi. HP shall have the right to annually inspect the water master meter(s) and sewer meters upon request.

vii. Unless otherwise agreed by the parties, the water master meter(s) and sewage metering devices for HP shall be installed within one year of the execution of the settlement agreement and accompanying documents. HP shall provide full access to meter locations to complete the work timely.

b. Pay for work necessary to complete water main and service line replacement efforts within the boundaries of HP. EGLE shall have responsibility for determining the necessary work, including conducting or supervising this work.

c. Release the $25M sewer infrastructure grant funds previously allocated in the FY 2023 budget to GLWA on or before December 31, 2023 and appropriate a $5M grant for work to be conducted by GLWA on drinking water infrastructure.

3. HP shall continue to retain Metro to operate HP's water and sewer operations, which includes all billing, collections, maintenance, and improvements. If for any reason, Metro ceases to be HP's operator, then subject to SOM's approval, HP will retain another entity to conduct these operations. Subject to all terms and conditions of the settlement agreement and the contract between GLWA and HP, beginning January 1, 2024 and on a going forward basis, HP shall pay the full amount of GLWA's monthly charges pursuant to the terms of any contract between GLWA and HP.

4. HP will enter into contracts based on GLWA's model contract by January 15, 2024 covering the period of January 1, 2014 to December 31, 2044 for water and sewer services.

i. The settlement agreement and contracts shall require all amounts paid for HP water, sewer (including industrial waste control) and stormwater services be placed into a trust in which the trustee pays GLWA and any remaining amounts to HP on the same date. Any grants or loans from SOM to HP for infrastructure projects shall not be part of or included in the trust.

ii. Except to enforce the conditions of this term sheet and the settlement agreement, to the extent that any future disputes arise between HP and GLWA over water and sewer services, which the parties are unable to resolve within 30-days' notice of that dispute, HP and GLWA agree to resolve such disputes through expedited mandatory arbitration pursuant to Michigan statute and court rule that shall be binding upon them. For a charge or billing dispute, the trustee must place in escrow the amount in dispute.

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iii. Once the master water meter(s) is installed, HP shall be treated as part of the master metered customer class.

iv. For five years commencing on the date of this agreement, the model water contract will allow for Highland Park's max day and peak hour water volume demand to be updated annually as Highland Park continues to "dry up" its system by replacing water mains and lead service lines, or completing other infrastructure improvements that would impact Highland Park's water demand requirements.

5. HP and EGLE will either revise the current ACO or replace it with a new one to incorporate the terms set forth in this term sheet that are specific to HP. That ACO shall remain effective and in effect until January 1, 2044 after which it may be terminated if HP has met all of its terms.

6. Until metering data can be used to project water and sewer charges:

a. For services provided until December 31, 2023, HP will continue to pay or the trustee will pay on HP's behalf 65% of any and all amounts received by HP in payment of bills for water and wastewater treatment services.
b. Effective January 1, 2024, subject to and conditioned upon execution by all parties of the settlement agreement by January 15, 2024, GLWA will reduce HP's water charges based on reductions in usage volume due to documented repairs of leaks up to 25 percent of its current water usage.
c. Effective January 1, 2024, subject to and conditioned upon execution by all parties of the settlement agreement by January 15, 2024, GLWA will also provide a settlement credit of $60,000 per month to HP on its sewage charges until June 30, 2024 subject to the following:

i. HP may fully participate in GLWA's share and charge process for FY 2025.
ii. Beginning July 1, 2024, HP shall receive the lesser of (A) the current FY 2024 sewage charges and credit or (B) the new FY 2025 share and resulting charges.
iii. This settlement credit will terminate no later than June 30, 2025.

7. Once 12 months of quality metering data is available to project estimated annual water and sewer flows, GLWA charges to HP shall be based on that data and future data.

8. HP shall increase its water and sewer rates by adopting an interim amended budget no later than December 2023, for the period of January 1, 2024 to June 30, 2024. For all subsequent fiscal years, Metro shall annually retain an independent rate analyst, subject to the approval of the SOM, to calculate necessary adjustments in its water

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and sewer rates to ensure that the budget for HP's water and sewer operations is sufficient to ensure payment of all GLWA charges and all overhead, maintenance, and operational costs associated with its water and sewer operations. The analyst will recommend necessary rates changes to HP and HP shall annually adjust its water and sewer rates in accordance with the recommendations of the rate analyst.

9. Upon effectuation of the settlement agreement, its attachments and related documents, including initial funding consistent with this agreement and after receipt by the trustee of one month of HP's water and sewer receipts and distribution of one month's payment of funds to GLWA under Paragraph 4.i, all litigation between GLWA, Detroit Water and Sewerage Department (DWSD), HP, or SOM shall be dismissed with prejudice according to the following:

a. The judgment entered in Wayne County Circuit Court Case No. 2014-001974-CK shall be released or deemed satisfied, and HP shall dismiss its pending appeal from that action (COA Case No. 367193). The court shall retain jurisdiction to enforce the terms of the settlement agreement, which will be entered by the court as a consent judgment.
b. HP and GLWA shall submit a proposed stipulated order of dismissal of Wayne County Circuit Court Case No. 20-011589.
c. HP shall dismiss its appeal (COA Case No. 362416) from Wayne County Circuit Court Case No. 22-004754-CB and shall release and waive any further challenge to GLWA's rules that were the subject of that action.
d. GLWA and SOM shall submit a stipulated order of dismissal of Court of Claims Case No. 2021-000151.
e. HP and SOM will submit a proposed stipulated order of dismissal in Court of Claims Case No. 19-000129-MZ.
f. HP and GLWA shall submit a proposed stipulated order setting aside the Amended Consent Judgment dated June 18, 1996 in E.D. Mich. Case No. 92-CV7677-DT and 94-CV-73135-DT

10. The $241,418.75 cash bond deposited by HP with the U.S. District Court Clerk shall be released to GLWA from E.D. Mich. Case No. 16-cv-13840.

11. Upon approval of this term sheet by HP, SOM, and GLWA, not later than October 23, 2023, GLWA and HP shall submit a signed copy of the term sheet to, and submit a request for, a stipulated Stay of the October 24, 2023, Status Conference and all further proceedings in Judge Joseph's Case No. 14-001974 and all appellate proceedings from that case, Case COA Docket No. 367193, until January 15, 2024.

12. Upon execution and approval of this term sheet by HP, SOM, and GLWA, not later than October 27, 2023, GLWA and HP shall submit:

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a. a signed copy of the term sheet to, and submit a request for, a stipulated Stay of the November 2, 2023, Status conference and all further proceedings in Judge Berry's Case No 20-011589 until January 15, 2024.

b. a signed copy of the term sheet to, and submit a request for, a stipulated Stay of Petition for Rehearing in Banc in 6th circuit case no. 22-1288, until January 15, 2024.

c. Stipulate to a stay of all proceedings in HP's appeal (COA Case No. 362416) from Wayne County Circuit Court Case No. 22-004754-CB.

13. This term sheet is conditional and dependent upon (a) final approval of terms by the Governor, (b) appropriation of funds from the legislature to the extent necessary, and (c) approval by the governing bodies of GLWA, and any other necessary party on or before October 26, 2023.

City of Highland Park:

Mayor

10/19/2023

Dated:

City Clerk
10/19/23

Great Lakes Water Authority:

Suzanne R. Coffey
Chief Executive Officer

10/20/2023

Dated:

State of Michigan:

Dated: 10/19/23

Highland Park Bad Debt Synopsis

Allocation of Potential Subsequent Recovery Credit to **Water and Sewer** Member Partners

	(1)	(2)	(3)	(4)	(5)
	Cumulative Amount in Charges thru FY 2022	Relative Share of Highland Park Bad Debt	Initial Recovery Credit	Pending Subsequent Recovery Credit	Total Recovery Credit
	(a)		*(b)*	*(c)*	*(3) + (4)*
Water Charges					
Macomb	$1,127,700	21.9%	$27,400	**$1,100,300**	$1,127,700
Oakland	1,471,900	28.6%	36,100	**1,435,800**	1,471,900
Wayne *(excl. Detroit)*	1,516,100	29.4%	36,900	**1,479,200**	1,516,100
Other	394,600	7.7%	9,700	**384,900**	394,600
Detroit	642,200	12.5%	15,900	**626,300**	642,200
Total	**$5,152,500**	**100.0%**	**$126,000**	**$5,026,500**	**$5,152,500**
Sewer Charges					
Macomb *(d)*	$8,565,900	24.0%	$209,900	**$3,603,500**	$3,813,500
Oakland *(e)*	14,419,900	40.4%	353,500	**6,066,200**	6,419,600
Wayne *(excl. Detroit)*	12,670,600	35.5%	310,600	**5,330,300**	5,640,900
Other	*NA*	*NA*	*NA*	***NA***	*NA*
Detroit	*NA*	*NA*	*NA*	***NA***	*NA*
Total	**$35,656,400**	**100.0%**	**$874,000**	**$15,000,000**	**$15,874,000**
Combined Water and Sewer Charges					
Macomb *(d)*	$9,693,600	23.8%	$237,300	**$4,703,800**	$4,941,200
Oakland *(e)*	15,891,800	38.9%	389,600	**7,502,000**	7,891,500
Wayne *(excl. Detroit)*	14,186,700	34.8%	347,500	**6,809,500**	7,157,000
Other	394,600	1.0%	9,700	**384,900**	394,600
Detroit	642,200	1.6%	15,900	**626,300**	642,200
Total	**$40,808,900**	**100.0%**	**$1,000,000**	**$20,026,500**	**$21,026,500**
Industrial Waste Control *			0	**0**	0
			$1,000,000	**$20,026,500**	**$21,026,500**

* Highland Park IWC Bad Debt was not directly included in charges to any customer

(a) Reflects different historical time frames for Water and Sewer Charges.
(b) Allocation of initial $1 million combined Water / Sewer recovery payment credited in August 2023.
(c) Potential credit to be issued pending effectuation of conditions precedent.
(b) Includes 60% of Sewer amounts for the Oakland Macomb Interceptor Drain District
(c) Includes 40% of Sewer amounts for the Oakland Macomb Interceptor Drain District

Highland Park Bad Debt Synopsis

Table 1 - Allocation of Pending Subsequent Recovery Credit to **Water** Member Partners

		(1)	(2)	(3)	(4)	(5)
		Cumulative Amount in Charges FY 2019 thru FY 2022	Relative Share of Highland Park Bad Debt	Initial Recovery Credit	Pending Subsequent Recovery Credit	Total Recovery Credit
		(a)		*(b)*	*(c)*	*(3) + (4)*
1	Allen Park	$33,900	0.66%	$800	**$33,100**	$33,900
2	Almont Village	3,300	0.06%	100	**3,200**	3,300
3	Ash Township	11,700	0.23%	300	**11,400**	11,700
4	Belleville	4,300	0.08%	100	**4,200**	4,300
5	Berlin Township	10,600	0.21%	300	**10,300**	10,600
6	Brownstown Township	52,500	1.02%	1,300	**51,200**	52,500
7	Bruce Township	3,900	0.08%	100	**3,800**	3,900
8	Burtchville Township	4,700	0.09%	100	**4,600**	4,700
9	Canton Township	147,400	2.86%	3,600	**143,800**	147,400
10	Center Line	6,500	0.13%	200	**6,300**	6,500
11	Chesterfield Township	59,900	1.16%	1,500	**58,400**	59,900
12	Clinton Township	112,000	2.17%	2,700	**109,300**	112,000
13	Commerce Township	52,300	1.02%	1,300	**51,000**	52,300
14	Dearborn	159,100	3.09%	3,900	**155,200**	159,100
15	Dearborn Heights	52,600	1.02%	1,300	**51,300**	52,600
16	Eastpointe	21,900	0.43%	500	**21,400**	21,900
17	Ecorse	21,500	0.42%	500	**21,000**	21,500
18	Farmington	14,700	0.29%	400	**14,300**	14,700
19	Farmington Hills	129,600	2.52%	3,200	**126,400**	129,600
20	Ferndale	14,300	0.28%	300	**14,000**	14,300
21	Flat Rock	19,500	0.38%	500	**19,000**	19,500
22	Flint *	162,600	3.16%	4,000	**158,600**	162,600
23	Fraser	17,500	0.34%	400	**17,100**	17,500
24	Garden City	24,400	0.47%	600	**23,800**	24,400
25	Gibraltar	5,400	0.10%	100	**5,300**	5,400
26	Greenwood Township (DTE)	7,700	0.15%	200	**7,500**	7,700
27	Grosse Ile Township	16,900	0.33%	400	**16,500**	16,900
28	Grosse Pt. Park	20,900	0.41%	500	**20,400**	20,900
29	Grosse Pt. Shores	9,400	0.18%	200	**9,200**	9,400
30	Grosse Pt. Woods	20,200	0.39%	500	**19,700**	20,200
31	Hamtramck	10,600	0.21%	300	**10,300**	10,600
32	Harper Woods	12,200	0.24%	300	**11,900**	12,200
33	Harrison Township	22,200	0.43%	500	**21,700**	22,200
34	Hazel Park	10,300	0.20%	300	**10,000**	10,300
35	Highland Park *(d)*	0	0.00%	0	**0**	0
36	Huron Township	21,300	0.41%	500	**20,800**	21,300
37	Imlay City	19,500	0.38%	500	**19,000**	19,500
38	Imlay Township (Single User)	100	0.00%	0	**100**	100

Highland Park Bad Debt Synopsis

Table 1 - Allocation of Pending Subsequent Recovery Credit to **Water** Member Partners

		(1)	(2)	(3)	(4)	(5)
		Cumulative Amount in Charges FY 2019 thru FY 2022	Relative Share of Highland Park Bad Debt	Initial Recovery Credit	Pending Subsequent Recovery Credit	Total Recovery Credit
		(a)		*(b)*	*(c)*	*(3) + (4)*
39	Inkster	20,400	0.40%	500	**19,900**	20,400
40	Keego Harbor	4,300	0.08%	100	**4,200**	4,300
41	Lapeer	21,900	0.43%	500	**21,400**	21,900
42	Lenox Township	4,000	0.08%	100	**3,900**	4,000
43	Lincoln Park	32,000	0.62%	800	**31,200**	32,000
44	Livonia	177,500	3.44%	4,300	**173,200**	177,500
45	Macomb Township	177,700	3.45%	4,300	**173,400**	177,700
46	Madison Heights	28,200	0.55%	700	**27,500**	28,200
47	Mayfield Township (KAMAX)	500	0.01%	0	**500**	500
48	Melvindale	9,200	0.18%	200	**9,000**	9,200
49	New Haven, Village of	5,700	0.11%	100	**5,600**	5,700
50	NOCWA	326,400	6.33%	8,000	**318,400**	326,400
51	Northville	11,800	0.23%	300	**11,500**	11,800
52	Northville Township	81,900	1.59%	2,000	**79,900**	81,900
53	Novi	131,200	2.55%	3,200	**128,000**	131,200
54	Oak Park	19,800	0.38%	500	**19,300**	19,800
55	Oakland GWK Drain District	1,000	0.02%	0	**1,000**	1,000
56	Plymouth	15,400	0.30%	400	**15,000**	15,400
57	Plymouth Township	65,000	1.26%	1,600	**63,400**	65,000
58	Redford Township	45,700	0.89%	1,100	**44,600**	45,700
59	River Rouge	9,800	0.19%	200	**9,600**	9,800
60	Riverview	12,400	0.24%	300	**12,100**	12,400
61	Rockwood	4,100	0.08%	100	**4,000**	4,100
62	Romeo	3,600	0.07%	100	**3,500**	3,600
63	Romulus	58,600	1.14%	1,400	**57,200**	58,600
64	Roseville	37,900	0.74%	900	**37,000**	37,900
65	Royal Oak Township	3,000	0.06%	100	**2,900**	3,000
66	Shelby Township	204,300	3.97%	5,000	**199,300**	204,300
67	SOCWA	335,500	6.51%	8,200	**327,300**	335,500
68	South Rockwood	1,600	0.03%	0	**1,600**	1,600
69	Southgate	32,100	0.62%	800	**31,300**	32,100
70	St. Clair Shores	43,200	0.84%	1,100	**42,100**	43,200
71	Sterling Heights	218,300	4.24%	5,300	**213,000**	218,300
72	Sumpter Township	9,600	0.19%	200	**9,400**	9,600
73	Sylvan Lake	3,400	0.07%	100	**3,300**	3,400
74	Taylor	67,000	1.30%	1,600	**65,400**	67,000
75	Trenton	25,800	0.50%	600	**25,200**	25,800
76	Troy	197,700	3.84%	4,800	**192,900**	197,700

Highland Park Bad Debt Synopsis
Table 1 - Allocation of Pending Subsequent Recovery Credit to **Water** Member Partners

		(1)	(2)	(3)	(4)	(5)
		Cumulative Amount in Charges FY 2019 thru FY 2022 *(a)*	Relative Share of Highland Park Bad Debt	Initial Recovery Credit *(b)*	Pending Subsequent Recovery Credit *(c)*	Total Recovery Credit *(3) + (4)*
77	Utica	8,100	0.16%	200	**7,900**	8,100
78	Van Buren Township	48,700	0.95%	1,200	**47,500**	48,700
79	Walled Lake	12,200	0.24%	300	**11,900**	12,200
80	Warren	148,200	2.88%	3,600	**144,600**	148,200
81	Washington Township	32,800	0.64%	800	**32,000**	32,800
82	Wayne	43,500	0.84%	1,100	**42,400**	43,500
83	West Bloomfield Township	151,800	2.95%	3,700	**148,100**	151,800
84	Westland	89,300	1.73%	2,200	**87,100**	89,300
85	Wixom	36,200	0.70%	900	**35,300**	36,200
86	Woodhaven	24,200	0.47%	600	**23,600**	24,200
87	Ypsilanti Comm Util Auth	150,400	2.92%	3,700	**146,700**	150,400
88	Total Suburban Wholesale	4,510,300	87.54%	110,100	**4,400,200**	4,510,300
89	Detroit	642,200	12.46%	15,900	**626,300**	642,200
90	TOTAL	**$5,152,500**	100.00%	**$126,000**	**$5,026,500**	**$5,152,500**
	Summary by County					
	Macomb	$1,127,700	21.89%	$27,400	**$1,100,300**	$1,127,700
	Oakland	1,471,900	28.57%	36,100	**1,435,800**	1,471,900
	Wayne *(excl. Detroit)*	1,516,100	29.42%	36,900	**1,479,200**	1,516,100
	Other	394,600	7.66%	9,700	**384,900**	394,600
	Detroit	642,200	12.46%	15,900	**626,300**	642,200
	Total	**$5,152,500**	100.00%	**$126,000**	**$5,026,500**	**$5,152,500**

(a) Based on amounts allocated in approved charges. Does not reflect impacts of variances in actual purchased volumes.

(b) Allocation of initial $1 million combined Water / Sewer recovery payment credited in August 2023.

(c) Potential credit to be issued pending effectuation of conditions precedent.

(d) Highland Park is NOT allocated responsibility for, NOR charged, an amount related to the Water debt they create - as they have never made a payment.

Highland Park Bad Debt Synopsis
Table 2 - Allocation of Pending Subsequent Recovery Credit to **Sewer** Member Partners

		(1)	(2)	(3)	(4)	(5)
		Cumulative Amount in Charges FY 2008 thru FY 2022 *(a)*	Relative Share of Highland Park Bad Debt	Initial Recovery Credit *(b)*	Pending Subsequent Recovery Credit *(c)*	Total Recovery Credit *(3) + (4)*
1	OMID	$8,281,000	23.22%	$202,900	**$3,483,700**	$3,686,600
2	Rouge Valley	7,420,000	20.81%	181,900	**3,121,500**	$3,303,400
3	Oakland GWK	6,495,000	18.22%	159,200	**2,732,300**	$2,891,500
4	Evergreen Farmington	4,459,200	12.51%	109,300	**1,875,900**	$1,985,200
5	SE Macomb San Dist	3,471,100	9.73%	85,100	**1,460,200**	$1,545,300
6	Dearborn	2,769,000	7.77%	67,900	**1,164,900**	$1,232,800
7	Grosse Pointe Farms	368,300	1.03%	9,000	**154,900**	$163,900
8	Grosse Pointe Park	241,300	0.68%	5,900	**101,500**	$107,400
9	Melvindale	192,600	0.54%	4,700	**81,000**	$85,700
10	Farmington	153,300	0.43%	3,800	**64,500**	$68,300
11	Center Line	126,200	0.35%	3,100	**53,100**	$56,200
12	Allen Park	98,200	0.28%	2,400	**41,300**	$43,700
13	Highland Park *(d)*	753,700	2.11%	18,500	**317,100**	$335,600
14	Hamtramck	616,200	1.73%	15,100	**259,200**	$274,300
15	Grosse Pointe	145,500	0.41%	3,600	**61,200**	$64,800
16	Harper Woods	37,500	0.11%	900	**15,800**	$16,700
17	Redford Township	24,300	0.07%	600	**10,200**	$10,800
18	Wayne County #3	4,000	0.01%	100	**1,700**	$1,800
19	Total	**$35,656,400**	100.00%	**$874,000**	**$15,000,000**	**$15,874,000**
	Summary by County					
	Macomb	$8,565,900	24.02%	$209,900	**$3,603,500**	$3,813,500
	Oakland	14,419,900	40.44%	353,500	**6,066,200**	6,419,600
	Wayne *(excl. Detroit)*	12,670,600	35.54%	310,600	**5,330,300**	5,640,900
	Other	*NA*	*NA*	*NA*	***NA***	*NA*
	Detroit	*NA*	*NA*	*NA*	***NA***	*NA*
	Total	**$35,656,400**	100.00%	**$874,000**	**$15,000,000**	**$15,874,000**

(a) Based on amounts allocated in approved charges. Does not reflect impacts of variances in actual contributed wastewater volumes.

(b) Allocation of initial $1 million combined Water / Sewer recovery payment credited in August 2023.

(c) Potential credit to be issued pending effectuation of conditions precedent.

(d) Yes, Highland Park is allocated responsibility for, and charged, an amount related to the Sewer bad debt they create - reflecting the partial payments they have made.

CONFERENCE OF WESTERN WAYNE

The Governing Voice for
700,000 Wayne County Residents

CWW Represents:

Cities: Belleville, Dearborn, Dearborn Heights, Garden City, Inkster, Livonia, Northville, Plymouth, Romulus, Wayne and Westland

Townships: Canton Charter Township, Huron Charter Township, Northville Charter Township, Plymouth Charter Township, Redford Charter Township, Sumpter Township and Van Buren Charter Township

Resolution 2023-003

REQUESTING IMPACTED GLWA MEMBER COMMUNITIES BE REIMBURSED FOR THEIR PAYMENTS OF THE HIGHLAND PARK WATER AND SEWER DEBT

WHEREAS the Conference of Western Wayne (CWW) is comprised of 18 member communities and over 730,000 residents; and

WHEREAS Wayne County receives water services from the Great Lakes Water Authority (GLWA) and all 18 CWW members are paying members of the GLWA; and

WHEREAS the State of Michigan has had a direct role in GLWA providing water services to the City of Highland Park; and

WHEREAS the State of Michigan assisted in facilitating an agreement between the state of Michigan, GLWA and Highland Park; and

WHEREAS on October 19, 2023, the Highland Park City Council voted unanimously to approve the tentative deal; and

WHEREAS on October 25, 2023, the water authority's board of directors approved terms of a settlement agreement between GLWA and Highland Park; and

WHEREAS the proposed settlement agreement dismisses all related litigation, including the $24 million Highland Park debt lawsuit; and

WHEREAS the proposed settlement agreement would require the State of Michigan to pay for and oversee the installation of waters meters in Highland Park. GLWA will reduce Highland Park's water charges and will provide a settlement credit of $60,000 per month to Highland Park on its sewage charges until June 30, 2024; and

WHEREAS the proposed settlement agreement funds water main and service line replacements in Highland Park, releases a $25M sewer infrastructure grant for GLWA and funds a $5M drinking water infrastructure grant for GLWA; and

WHEREAS by 2022 Highland Park had accumulated $54,233,700 in debt to GLWA for both water and sewer services since 2012; and

WHEREAS the City of Highland Park's debt had been allocated to the 87 other GLWA member communities, including the 18 communities in western Wayne County; and

WHEREAS of the $54,233,700 debt Highland Park had accumulated since 2012 $19,882,700 (36%) had been allocated to the paying members in Wayne County including $14,600,600 (27% of total) to the paying members in the Conference of Western Wayne region; and

WHEREAS the Conference of Western Wayne 18 communities and their residents were charged and subsequently paid for 27% of the entire debt owed to GLWA; and

WHEREAS 73% of the entire Wayne County allocation was charged to the 18 communities in the Conference of Western Wayne; now

THEREFORE, BE IT RESOLVED AS FOLLOWS:

1. The Conference of Western Wayne Board of Directors applauds the State of Michigan, GLWA and Highland Park for reaching a tentative settlement.

2. The Conference of Western Wayne Board of Directors fully supports a long-term infrastructure solution to address the water and sewer issues in Highland Park.

3. The CWW Board of Directors hereby requests the State of Michigan and/or GLWA to fully reimburse our 18 communities the nearly $15 million that has been paid by our residents towards the Highland Park Debt.

4. The CWW Board of Directors hereby requests that our state legislators and our Wayne County Commissioners call on the State of Michigan and the Great Lakes Water Authority to reimburse member partner communities for the debt amounts that have been paid towards the Highland Park debt.

I attest that this is a true and correct copy of the resolution adopted at the direction of the CWW Board of Directors at its regular meeting held on November 3, 2023 in Huron Charter Township.

Supervisor David Glaab, CWW Chairman of the Board

David A. Glaab

Motion by Plymouth Township, seconded by Sumpter Township

Ayes:
City of Dearborn
City of Dearborn Heights
City of Garden City
City of Livonia
City of Northville
City of Romulus
City of Wayne
Canton Charter Township
Huron Charter Township
Northville Charter Township
Plymouth Charter Township
Redford Charter Township
Sumpter Township

Nays: None

Absent: City of Belleville, City of Inkster, City of Plymouth, City of Westland, Van Buren Township

Monthly Financial Report Binder

June 2023 (Unaudited)

Presented to the
Great Lakes Water Authority
Audit Committee on October 27, 2023
Rescheduled for November 9, 2023

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Financial Report
Executive Summary Dashboard
for the Month Ended June 30, 2023

Key Financial Metrics

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

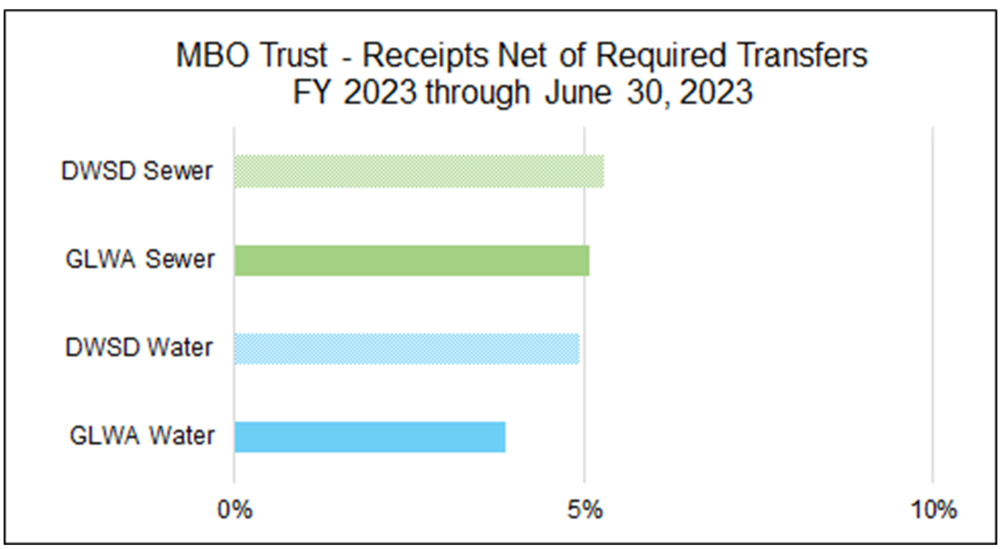
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Staff reviews the need for budget amendments quarterly and requests necessary amendments when required based on the most current information available. This report reflects fourth quarter budget amendments approved by the GLWA Board of Directors on June 28, 2023.

For the current year, both water and sewer capital spend reflect variances to budget outside the normal range. These variances reflect the increased costs and ongoing resource challenges facing the construction industry as a whole.

As of June 30, 2023					
Metric	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue ($M)	$338.8	$338.8	$342.9	1%	48
Wholesale Water Billed Usage (mcf)	13,513,000	13,513,000	13,813,000	2%	
Wholesale Sewer Billed Revenue ($M)	$274.7	$274.7	$274.7	0%	50
Wholesale Water Operations & Maintenance ($M)	$144.8	$156.7	$154.3	-2%	5
Wholesale Sewer Operations & Maintenance ($M)	$184.1	$204.1	$203.8	0%	
Investment Income ($M)	$2.3	$32.6	$34.8	7%	37
Water Prorated Capital Spend w/SRA* ($M)	$155.5	$207.9	$196.3	-6%	28
Sewer Prorated Capital Spend w/SRA* ($M)	$125.9	$108.5	$104.6	-4%	29

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

Master Bond Ordinance (MBO) Trust Net Receipts (page 55)



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 $15.8 million of net receipts over disbursements through June 2023.

Budget to Actual Analysis (page 3)

- FY 2023 information includes the fourth quarter budget amendments which were approved by the GLWA Board of Directors on June 28, 2023.
- This report is not final. Adjustments related to the fiscal year end 2023 audit will affect the Budget to Actual Analysis.
- The total Revenue Requirements are on target through June 2023.
- The total overall Operations & Maintenance expenses are at 99.2% of budget through June 2023. This positive variance equates to a dollar amount of $2.7 million.

Basic Financial Statements (page 9)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for June 2023 is $78.6 million for the Water fund (21.6% of total revenues) and $109.8 million for the Sewer fund (22.8 % of total revenues).
- Water Net Position decreased by $ 14.6 million, and Sewage Disposal Net Position increased by $ 5.8 million for the year to date through June 2023.

Capital Improvement Plan Financial Summary (page 28)

- Water system costs incurred to date are below the amended 107% Capital Spend Ratio assumption.
- Sewer system costs incurred to date are below the amended 86.2% Capital Spend Ratio assumption.

Master Bond Ordinance Transfers (page 31)

- For June, transfers of $22.9 million and $22.7 million were completed for the GLWA Water and Sewer funds, respectively.
- Also, for June, transfers of $6.0 million and $6.0 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 38)

- Total cash & investments are $535 million for Water and $665 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through June is $34.8 million.

DWSD Retail Revenues, Receivables & Collections (page 42)

- Water usage through June 30, 2023 is 109.25% and revenues are 107.06% of budget.
- Sewer usage through June 30, 2023 is 103.47%and revenues are 100.49% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of $26.7 million over the prior year.
- Past dues over 180 days make up of 70.4% the total accounts receivable balance. The current bad debt allowance covers 99.0% of past dues over 60 days.

GLWA Wholesale Billing, Receivables & Collections (page 48)

- GLWA accounts receivable past due balance net of Highland Park is 10.90% 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 $54.2 million. It includes $40.3 million for wastewater treatment services, $1.8 million for industrial waste control services, and $12.1 million for water supply services. Highland Park made a catch-up payment of $1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling $5.9 million as of June 30, 2023.

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

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

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

The FY 2023 information presented in these sections includes the fourth quarter FY 2023 budget amendments approved by the GLWA Board of Directors on June 28, 2023.

It is important to note that the tables in these sections are presented in a draft format. Adjustments related to the fiscal year end 2023 audit will affect the Budget to Actual Analysis. This includes the final amendment of the budget to allocate the administrative and centralized budget categories to the *water* and *sewer* categories.

Revenue Requirements Budget Basis Analysis - Draft

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

Table 1A – <u>Water</u> Revenue Requirements Budget and ***Table 1B – <u>Sewer</u> Revenue Requirements Budget*** presents a year-over-year budget to actual performance report. The revenue requirements budget is accounted for in the operations and maintenance fund for each system. Since this report is for June 2023, the pro-rata benchmark is 100% (12 of 12 months of the fiscal year).

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

1. ***Revenues***: For *both* systems, total revenues for FY 2023 are at, or slightly above, the pro-rata benchmark; the *water* system is at 100.0% while the *sewer* system is at 100.5%. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

   Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the Flint Water Agreement. Through June 30, 2023, these payments total $6.5 million for FY 2023.

2. ***Investment Earnings:*** For both systems, investment earnings are below the pro-rata benchmark for FY 2023; the *water* system is at 94.7% while the *sewer* system is at 92.4%. 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.
4. ***Operations & Maintenance Expense:*** Actual expenses[1] for *both* systems are slightly below the pro-rata benchmark for FY 2023 the *water* system is at 98.5% while the *sewer* system O&M expenses is at 99.9%.
5. ***Debt Service:*** For FY 2023, both systems are above the pro-rata benchmark for debt service; the *water* system is at 102.4% while the *sewer* system is at 102.1%. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. ***Operating Reserve Deposit:*** GLWA has established a target balance in the O&M Fund of 45 days of operating expense which works in tandem with the I&E Funds to provide liquidity to the utility. Adequate funding is in place to meet this requirement; therefore, it is expected that additional transfers to this reserve will not be required in FY 2023.
7. ***DWSD Budget Shortfall Pending:*** To the extent that the local (DWSD) system experiences budgetary shortfalls as defined by the Water & Sewer Services Agreement, the GLWA budget is impacted.[2] Steps to proactively detect, and ideally prevent, this shortfall scenario were put into place with the 2018 Memorandum of Understanding (dated June 27, 2018). For FY 2022, DWSD management successfully implemented a formal plan to end the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2023, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through June 30, 2023. GLWA and DWSD staff meet regularly to discuss steps to mitigate shortfalls, when they occur, as outlined in the 2018 MOU.
8. ***Improvement & Extension (I&E) Fund Transfer Pending:*** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the *water* and *sewer* systems.
9. ***Other Revenue Requirements:*** The remaining revenue requirements for *both* systems are funded on a 1/12th basis each month in accordance with the Master Bond Ordinance.
10. ***Overall:*** Total revenue requirements for *both* systems are in line with the benchmark.

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

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

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

Water System	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to-Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date
Revenues							
Suburban Wholesale Customer Charges	$ 315,011	$ 316,530	100.5%	$ 331,962	$ 333,856	$ 334,141	100.1%
Retail Service Charges	21,697	21,697	100.0%	22,986	22,834	22,834	100.0%
Investment Earnings	1,924	1,946	101.1%	949	9,670	9,162	94.7%
Other Revenues	684	775	113.3%	175	995	1,379	138.6%
Total Revenues	$ 339,316	$ 340,948	100.5%	$ 356,072	$ 367,356	$ 367,516	100.0%
Revenue Requirements							
Operations & Maintenance Expense	$ 143,934	$ 136,437	94.8%	$ 144,848	$ 156,748	$ 154,328	98.5%
General Retirement System Legacy Pension	6,048	6,048	100.0%	6,048	6,048	6,048	100.0%
Debt Service	135,121	136,040	100.7%	150,337	150,055	153,652	102.4%
General Retirement System Accelerated Pension	6,268	6,268	100.0%	6,268	6,268	6,268	100.0%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	200	2,200	1100.0%
Water Residential Assistance Program Contribution	1,706	1,706	100.0%	1,771	1,771	1,771	100.0%
Regional System Lease	22,500	22,500	100.0%	22,500	22,500	22,500	100.0%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,740	23,740	100.0%	24,300	23,766	23,766	100.0%
Total Revenue Requirements	$ 339,316	$ 332,738	98.1%	$ 356,072	$ 367,356	$ 370,533	100.9%
Net Difference		$ 8,210				$ (3,017)	
Recap of Net Positive Variance							
Revenue Variance		$ 1,632				$ 160	
Revenue Requirement Variance		6,579				(3,177)	
Overall Variance		$ 8,210				$ (3,017)	

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

Sewer System	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to-Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date
Revenues							
Suburban Wholesale Customer Charges	$ 268,130	$ 268,813	100.3%	$ 275,404	$ 274,907	$ 275,918	100.4%
Retail Service Charges	188,662	188,662	100.0%	191,042	191,042	191,042	100.0%
Industrial Waste Control Charges	8,325	8,300	99.7%	8,420	8,420	8,393	99.7%
Pollutant Surcharges	5,089	5,182	101.8%	4,951	4,951	4,895	98.9%
Investment Earnings	1,876	1,843	98.2%	1,156	13,532	12,498	92.4%
Other Revenues	538	817	151.9%	400	2,355	4,901	208.1%
Total Revenues	$ 472,620	$ 473,618	100.2%	$ 481,372	$ 495,207	$ 497,647	100.5%
Revenue Requirements							
Operations & Maintenance Expense	$ 191,909	$ 182,862	95.3%	$ 184,053	$ 204,123	$ 203,830	99.9%
Pension	10,824	10,824	100.0%	10,824	10,824	10,824	100.0%
Debt Service	204,985	206,490	100.7%	205,638	212,509	217,055	102.1%
General Retirement System Accelerated Pension	11,621	11,621	100.0%	11,621	11,621	11,621	100.0%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,358	2,358	100.0%	2,394	2,394	2,394	100.0%
Regional System Lease	27,500	27,500	100.0%	27,500	27,500	27,500	100.0%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,424	23,424	100.0%	39,343	26,237	26,237	100.0%
Total Revenue Requirements	$ 472,620	$ 465,080	98.4%	$ 481,372	$ 495,207	$ 499,461	100.9%
Net Difference		$ 8,538				$ (1,814)	
Recap of Net Positive Variance							
Revenue Variance		$ 997				$ 2,440	
Revenue Requirement Variance		7,541				(4,254)	
Overall Variance		$ 8,538				$ (1,814)	

Operations & Maintenance Budget – Major Budget Categories - Draft

The year-over-year benchmark ratio as of June 30, 2023, is 100% (twelve months). When comparing FY 2023 to FY 2022 in ***Table 2 – Operations & Maintenance Budget – Major Budget Categories***, the overall spending is higher in FY 2023.

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

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

Major Budget Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to-Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date
Water	$ 76,422	$ 74,380	97.3%	$ 76,518	$ 85,337	$ 86,772	101.7%
Sewer	120,971	119,646	98.9%	113,198	136,348	136,026	99.8%
Centralized	103,846	91,883	88.5%	104,503	104,502	100,031	95.7%
Administrative	34,603	33,391	96.5%	34,682	34,682	35,330	101.9%
Employee Benefits	-		0.0%	-	-	-	0.0%
Total O&M Budget	$ 335,843	$ 319,300	95.1%	$ 328,900	$ 360,870	$ 358,158	99.2%

Totals may be off due to rounding

Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis - Draft

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 99.2% which is slightly below the pro-rata benchmark of 100%. This positive variance equates to a dollar amount of $2.7 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 98.8% through June 2023.

Utilities: The overall category is slightly below the pro-rata benchmark; coming in at 98.9% through June 2023. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is slightly above the pro-rata benchmark, coming in at 100.4%. The FY 2023 budget was adjusted for the increase to the charge for kWh. It should be noted that variances are not unexpected as usage varies throughout the year. The first three months of GLWA's fiscal year (July, August, and September) are typically peak months for the usage of electricity. June, the last month of GLWA's fiscal year, is typically a peak month as well.
- **Gas** is coming in at 89.9% which is lower than the benchmark of 100%. Variances within this category are not unexpected as usage varies throughout the year. The FY 2023 budget was adjusted for the increase in both usage as well as for the cost of natural gas MMBTU.
- **Sewage service** is slightly higher than the benchmark, coming in at 100.8%. Increased usage has been 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 2023 budget was adjusted for the increased usage and this category continues to be closely monitored.
- **Water service** is slightly higher than the benchmark, coming in at 101.2%. As meters have been repaired or replaced at the WRRF, the billings that previously reported estimated readings have been replaced with actual readings. The actual readings have been coming in higher than the estimated billings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate. The FY 2023 budget was adjusted for the increased meter readings and billing rate.

Chemicals: This category is higher than the benchmark; coming in at 103.4% through June 2023. The FY 2023 budget has been amended for both systems to adjust for the rising chemical costs and this category continues to be closely monitored.

Supplies & Other: This category is slightly lower than the pro-rata benchmark; coming in at 98.9% through June 2023. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, variances are not unexpected.

Contractual Services: The overall category is higher than the pro-rata benchmark; coming in at 102.0% through June 2023. Variances in this category, when they occur, are not unexpected as the usage of contracts varies throughout the year (projects scheduled to begin during the latter half of the year as well as contracts that are on an as needed basis). Budget amendments are processed for those projects in which the actual start dates have been delayed from that in which they were budgeted.

Capital Program Allocation: This category is higher than the benchmark; coming in at 102.5% through June 2023. The amount in the Capital Program Allocation account is shown as negative as this is a "contra" account which represents an offset to the

Personnel Costs section of the Operations & Maintenance (O&M) budget. The FY 2023 budget was amended.

Shared Services: This category is higher than the benchmark; coming in at 208.2% through June 2023. The variance is the result of true-up adjusting entries (FY 2018 through FY 2022) of $1.7 million that were posted to FY 2023. The shared services reimbursement is comprised of both labor (tracked via BigTime) and expenses, such as annual fees for software licensing. Staff from both GLWA and DWSD have been working together to evaluate and refine the budget for the shared services agreements. Based on these evaluations, adjustments have been made to both the billings and accounting accruals to reflect the forecasted activity more accurately for FY 2023. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount and activity includes true-up billings from prior years.

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

Expense Categories Entity-wide	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to-Date at 6/30/2022	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 6/30/2023	Percent Year-to-Date 6/30/2023	FY 2023 AMENDED BUDGET LESS FY 2023 ACTIVITY
Salaries & Wages	$ 66,113	$ 63,901	96.7%	$ 71,395	$ 70,114	98.2%	$ 1,281
Workforce Development	869	844	97.1%	1,326	1,414	106.6%	(88)
Overtime	8,126	8,113	99.8%	8,411	8,571	101.9%	(161)
Employee Benefits	25,956	24,206	93.3%	25,582	24,790	96.9%	792
Transition Services	10,805	9,990	92.5%	9,432	9,920	105.2%	(488)
Employee Benefits Fund	-		0.0%	-	-	0.0%	-
Personnel Costs	*111,869*	*107,053*	*95.7%*	*116,145*	*114,808*	*98.8%*	*1,336*
Electric	43,950	43,755	99.6%	47,963	48,176	100.4%	(213)
Gas	7,081	8,665	122.4%	12,042	10,821	89.9%	1,221
Sewage Service	2,510	2,568	102.3%	3,028	3,052	100.8%	(24)
Water Service	5,841	4,669	79.9%	11,589	11,728	101.2%	(139)
Utilities	*59,383*	*59,656*	*100.5%*	*74,622*	*73,777*	*98.9%*	*845*
Chemicals	19,842	20,382	102.7%	29,525	30,542	103.4%	(1,017)
Supplies & Other	35,034	29,711	84.8%	36,163	35,766	98.9%	396
Contractual Services	111,198	107,527	96.7%	106,625	108,725	102.0%	(2,100)
Capital Program Allocation	(2,684)	(2,632)	98.0%	(2,135)	(2,190)	102.5%	54
Shared Services	(3,202)	(2,398)	74.9%	(1,571)	(3,270)	208.2%	1,699
Unallocated Reserve	4,402	-	0.0%	1,497	-	0.0%	1,497
Total Expenses	$ 335,843	$ 319,300	95.1%	$ 360,870	$ 358,158	99.2%	$ 2,710

Totals may be off due to rounding

The Basic Financial Statements report includes the following four tables.

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

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

The June 2023 basic financial statements are presented in a draft format. Adjustments related to fiscal year end 2023 audit affect the basic financial statements. The results of these adjustments will be presented in the audited annual report. The June 2022 comparative amounts shown in the tables below are presented based on final audited figures.

Statement of Net Position – All Funds Combined - Draft

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

Table 1 – Statement of Net Position - All Funds Combined - Draft
As of June 30, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2022
Assets				
Cash - unrestricted (a)	$ 222,626	$ 260,110	$ 482,736	$ 347,655
Cash - restricted (a)	241,634	228,570	470,204	113,378
Investments - unrestricted (a)	21,082	42,160	63,241	185,209
Investments - restricted (a)	31,977	146,021	177,998	144,445
Accounts Receivable	109,697	62,050	171,747	175,133
Due from (to) Other Funds (b)	(1,182)	1,182	-	-
Other Assets (c)	659,947	397,009	1,056,956	1,077,698
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,243,554	1,985,690	3,229,243	3,432,437
Land	293,617	126,816	420,433	420,750
Construction Work in Process (e)	376,941	291,385	668,326	467,190
Total assets	3,199,892	3,540,992	6,740,885	6,363,896
Deferred Outflows (f)	56,424	125,249	181,672	182,497
Liabilities				
Liabilities - Liabilities-ST	200,052	220,677	420,729	354,055
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,000	5,500	7,500	7,500
Cash Held FBO DWSD (d)	17,475	24,989	42,464	20,470
Liabilities - Long-Term (i)	3,116,409	3,482,210	6,598,619	6,263,510
Total liabilities	3,335,936	3,733,376	7,069,312	6,645,535
Deferred Inflows (f)	44,239	37,088	81,327	120,157
Total net position (j)	$ (123,860)	$ (104,222)	$ (228,082)	$ (219,299)

Totals may be off due to rounding

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

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

Footnotes to Statement of Net Position

a. *Cash and Investments* are reported at market value. Investments at June 30, 2022 are also reported at market value. The June 30, 2023 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

Statement of Revenues, Expenses and Changes in Net Position – All Funds Combined - Draft

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 June 2023 Financial Report Binder. Prior year ending balances are provided in the June 30, 2022 column as a reference for comparative purposes. Explanatory notes follow this statement.

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

Table 2 – Statement of Revenues, Expenses and Changes in Net Position – All Funds Combined - Draft For the Twelve Months ended June 30, 2023 ($000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business-Type Activities	Comparative June 30, 2022
Revenue						
Wholesale customer charges	$ 340,594	93.6%	$ 275,918	57.3%	$ 616,511	$ 591,840
Local system charges	22,834	6.3%	191,042	39.6%	213,877	210,360
Industrial waste charges		0.0%	8,393	1.7%	8,393	8,300
Pollutant surcharges		0.0%	4,895	1.0%	4,895	5,182
Other revenues	351	0.1%	1,660	0.3%	2,011	664
Total Revenues	**363,779**	**100.0%**	**481,907**	**100.0%**	**845,686**	**816,345**
Operating expenses						
Operations and Maintenance	155,167	42.7%	208,156	43.2%	363,323	324,735
Depreciation	126,486	34.8%	163,471	33.9%	289,957	281,210
Amortization of intangible assets	3,567	1.0%	440	0.1%	4,006	4,006
Total operating expenses	**285,219**	**78.4%**	**372,067**	**77.2%**	**657,286**	**609,951**
Operating Income	78,560	21.6%	109,841	22.8%	188,400	206,394
Total Nonoperating (revenue) expense	93,154	25.6%	104,030	21.6%	197,183	215,561
Increase/(Decrease) in Net Position	**(14,594)**	**-4.0%**	**5,811**	**1.2%**	**(8,783)**	**(9,167)**
Net Position (deficit), beginning of year	(109,266)		(110,033)		(219,299)	(210,132)
Net position (deficit), end of year	$ (123,860)		$ (104,222)		$ (228,082)	$ (219,299)

Totals may be off due to rounding

Water Fund

- ✓ The decrease in Water Fund Net Position is $14.6 million.
- ✓ Wholesale water customer charges of $340.6 million account for 93.6% of Water System revenues.
- ✓ Operating expenses of $285.2 million represent 78.4% of total operating revenue. Depreciation is the largest operating expense at $126.5 million or 44.3% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals $78.6 million or 21.6% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $85.4 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is $5.8 million.
- ✓ Wholesale customer charges of $275.9 million account for 57.3% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average "share" of each customer's historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of $191.0 million account for 39.6% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of $372.1 million represent 77.2% of total operating revenue. Depreciation is the largest operating expense at $163.5 million or 43.9% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals $109.8 million or 22.8% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $101.6 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 - Draft

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 June 2023 Financial Report Binder. Explanatory notes follow this schedule.

Table 3 – Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined - Draft
For the Twelve Months ended June 30, 2023
($000)

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business-Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	26,024	16.8%	55,423	26.6%	81,448	22.4%
Overtime	5,359	3.5%	3,212	1.5%	8,571	2.4%
Benefits	17,472	11.3%	7,318	3.5%	24,790	6.8%
Total Personnel	$ 48,855	31.5%	$ 65,953	31.7%	$ 114,808	31.6%
Utilities						
Electric	31,165	20.1%	17,011	8.2%	48,176	13.3%
Gas	1,473	0.9%	9,348	4.5%	10,821	3.0%
Sewage	793	0.5%	2,259	1.1%	3,052	0.8%
Water	5	0.0%	11,722	5.6%	11,728	3.2%
Total Utilities	$ 33,437	21.5%	$ 40,340	19.4%	$ 73,777	20.3%
Chemicals	12,690	8.2%	17,852	8.6%	30,542	8.4%
Supplies and other	11,926	7.7%	22,646	10.9%	34,572	9.5%
Contractual services	52,817	34.0%	64,130	30.8%	116,947	32.2%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(1,172)	-0.8%	(1,017)	-0.5%	(2,190)	-0.6%
Intergovernmental Agreement	(1,013)	-0.7%	(849)	-0.4%	(1,862)	-0.5%
Shared services allocation	(2,372)	-1.5%	(898)	-0.4%	(3,270)	-0.9%
Operations and Maintenance Expenses	**$ 155,167**	**100.0%**	**$ 208,156**	**100.0%**	**$ 363,323**	**100.0%**

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (20.3% of total O&M expenses) and chemicals (8.4% of total O&M expenses).
- ✓ Personnel costs (31.6% 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 (32.2%) includes:
  - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately $5.4 million);
  - Sewage Disposal System costs for the operation and maintenace of the biosolids dryer facility (approximately $16.7 million); and
  - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenace, field, planning and other services.
- ✓ The Capital Program Allocation, Intergovernmental Agreement and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offets to associated costs in other Operations and Maintenance expense categories.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined - Draft

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 - Draft
For the Twelve Months ended June 30, 2023
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2022
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	$ (24,662)	$ (16,397)	$ (41,059)	$ (42,120)
Interest income DWSD Shortfall	-	-	-	(145)
Investment earnings	(15,504)	(19,841)	(35,344)	(3,735)
Net (incr) decr in fair value of invstmt	(1,221)	(1,037)	(2,257)	9,119
Other nonoperating revenue	(804)	(3,068)	(3,872)	(476)
Interest Expense				
Bonded debt	110,095	117,971	228,066	212,284
Lease obligation	16,793	20,525	37,319	37,836
Other obligations	4,274	1,632	5,906	6,077
Total interest expense	131,162	140,129	271,291	256,197
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	(2,176)	(2,176)	(6,991)
Amortization, issuance costs, debt	(14,578)	10,580	(3,998)	(13,318)
(Gain) loss on disposal of capital assets	277	1,842	2,119	322
Loss on impairment of capital assets	-	-	-	-
Discontinued Capital Projects	20,903	-	20,903	-
Water Residential Assistance Program	5,023	7,319	12,343	2,793
Legacy pension expense	(7,444)	(13,322)	(20,765)	13,915
Total Nonoperating (Revenue)/Expense	**$ 93,154**	**$ 104,030**	**$ 197,183**	**$ 215,561**

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

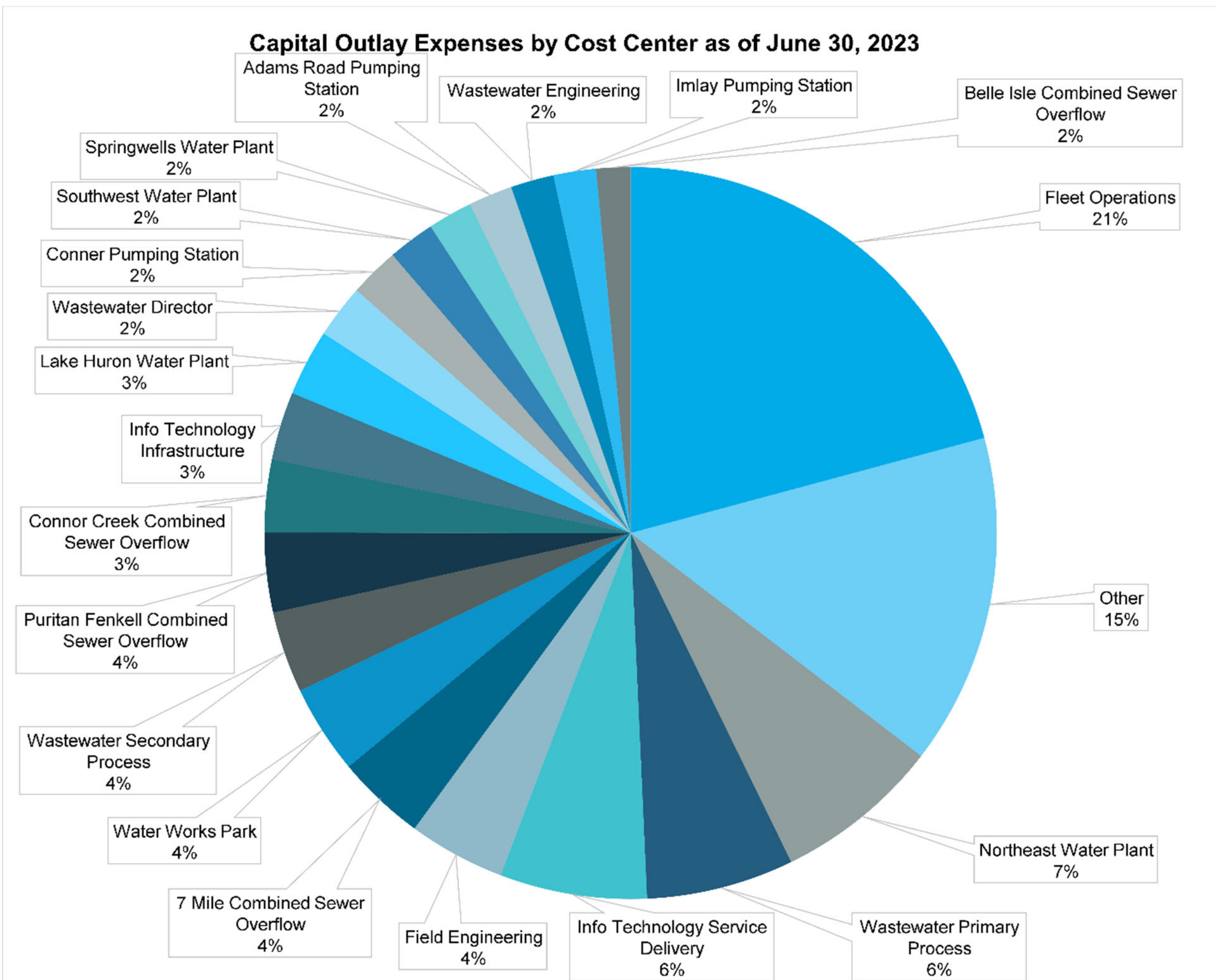
- ✓ Net (increase) decrease in fair value of investments consists of market value of investments and realized gain/loss on sale of investments. FY 2022 market value adjustments for Water and Sewer total $2.8 million and $3.9 million, respectively. FY 2023 market value adjustments for Water and Sewer total $1.3 million and $2.6 million, respectively. Any difference is due to realized gain or loss on investments.
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
  - Bonded debt;
  - Lease obligation for the regional assets from the City of Detroit; and
  - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ FY 2023 other non-operating income primarily represents FEMA Covid-19 grant income for the Water and Sewage Disposal systems.
- ✓ The FY 2023 capital contribution in Nonoperating (revenue) expense represents funds from the Evergreen Farmington Sewer District for a maximum discharge capacity of 227 cubic feet per second (cfs) to the regional sewer system.
- ✓ The FY 2022 capital contribution in Nonoperating (revenue) expense represents $7.0 million from the Oakland Macomb Interceptor Drainage District for assets placed in service during FY 2022.
- ✓ FY 2023 Sewage Disposal loss on disposal of capital assets includes sale of McKinstry warehouse.
- ✓ For FY 2023, GLWA is recognizing non-operating pension revenue rather than expense as a result of improved investment earnings for the plan.
- ✓ The Water Discontinued capital projects represents the cancellation of three CIP projects to repurpose the Northeast Water Treatment Plant.

Financial Activity Charts

Chart 1 – Capital Outlay – Water and Sewer System Combined

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

Through June 30, 2023, total capital outlay spend is $13.4 million. Following this chart is a sample list of projects and purchases from the total spend of $13.4 million:



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

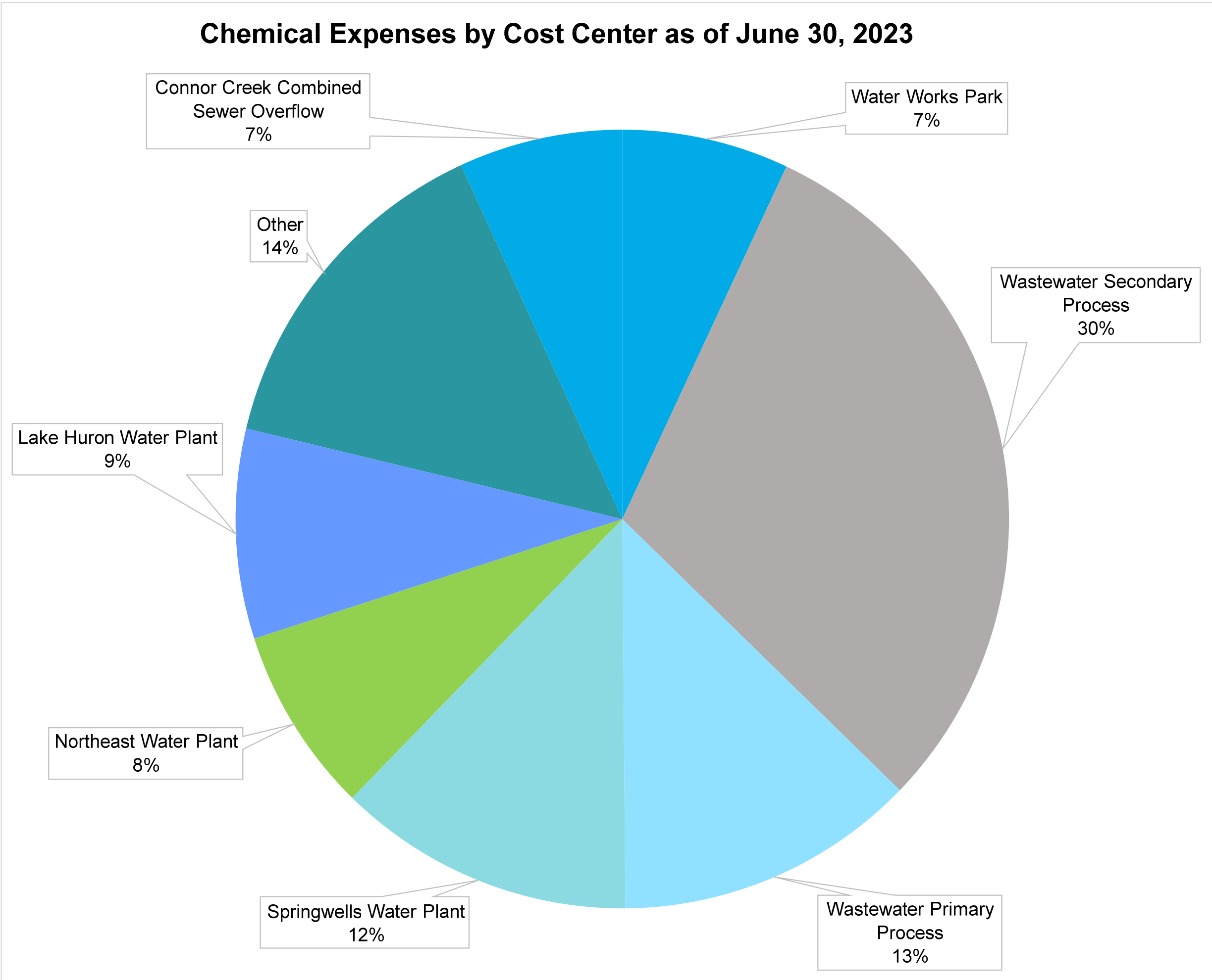
Water Operations: Northeast Water treatment plant loss of flow and head measurement ($842k); Imlay City motor ($319k); VFD Drives and drawings ($259k);

Furniture for multiple sites ($162k); Overhead door repair ($160k); EDS Dashboard ($86k); Rotork actuator ($78k); Power meter ($77k); Pump ($63k); Metering pump repairs ($57k); Clarifier drive ($47k) and composite cylinders ($45k).

Wastewater Operations: CSO actuator replacement ($984); Water intake improvements ($372k); Complex A pump replacement ($367k); Instrumentation and Controls ($254k); Chemical induction unit ($212k); Rotork replacements ($188k); Lift pump ($184k); WRRF Electrical Buildings project ($163k); Scum hopper ($153k); WRRF Actuator ($132k); Pulsafeeders ($121k); Gas detection unit ($120k); CSO PQM meters ($102k); Water Champ ($97k); Terrain litter vacuum ($95k); Storage rack and lifting device ($88k); Puritan-Fenkell courtyard accessibility improvements ($84k); Flygt Mixer ($73k); Wastewater pumps ($71k); Skid Steer Loader ($70k); Flowserve pump ($70k); X-ripper grinder ($58k); 7 mile CSO preventative maintenance ($55k); Electric actuator ($50k) and flow meter replacement ($45k).

Centralized & Administrative Facilities: Trucks and vehicles ($2.6m); Software ($698k); Cloud Backup Project ($665k); Computer hardware ($430k); Charging stations ($177k); Pressure transmitter ($87k); Meters ($84k); Furniture for OD ($77k); Water Board Building workstations ($55k); Water Board Building flooring ($55k) and transmitter ($46k).

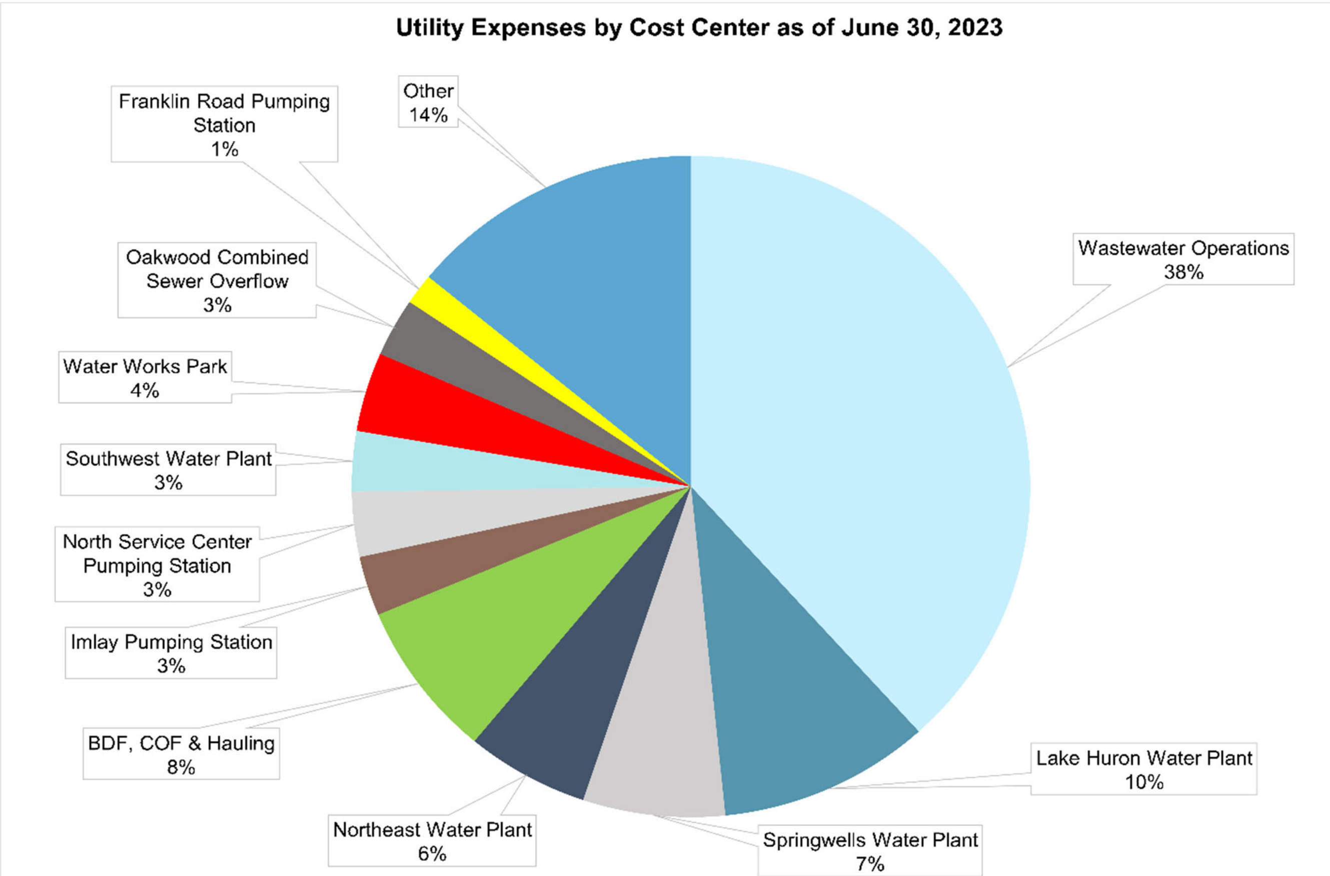
Chart 2 – Chemical Expenses – Water and Sewer System Combined
Chemical expenses are $30.5 million through June 30, 2023. The allocation is shown in the chart below and remains consistent with prior periods.



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

Chart 3 – Utility Expenses – Water and Sewer System Combined

Utility expenses are $73.8 million through June 30, 2023. The allocation is shown in the chart below and consistent with prior periods.



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

Financial Operations KPI

This key performance indicator shown in ***Chart 1 – Bank Reconciliation Completion Status*** below provides a measure of the progress made in the month-end close process which includes bank reconciliations with a completed status at month end. Through June 30, 2023 all reconciliations are up-to-date and complete.

There was one account added in the general ledger accounts since May 2023.

Chart 1 – Bank Reconciliation Completion Status

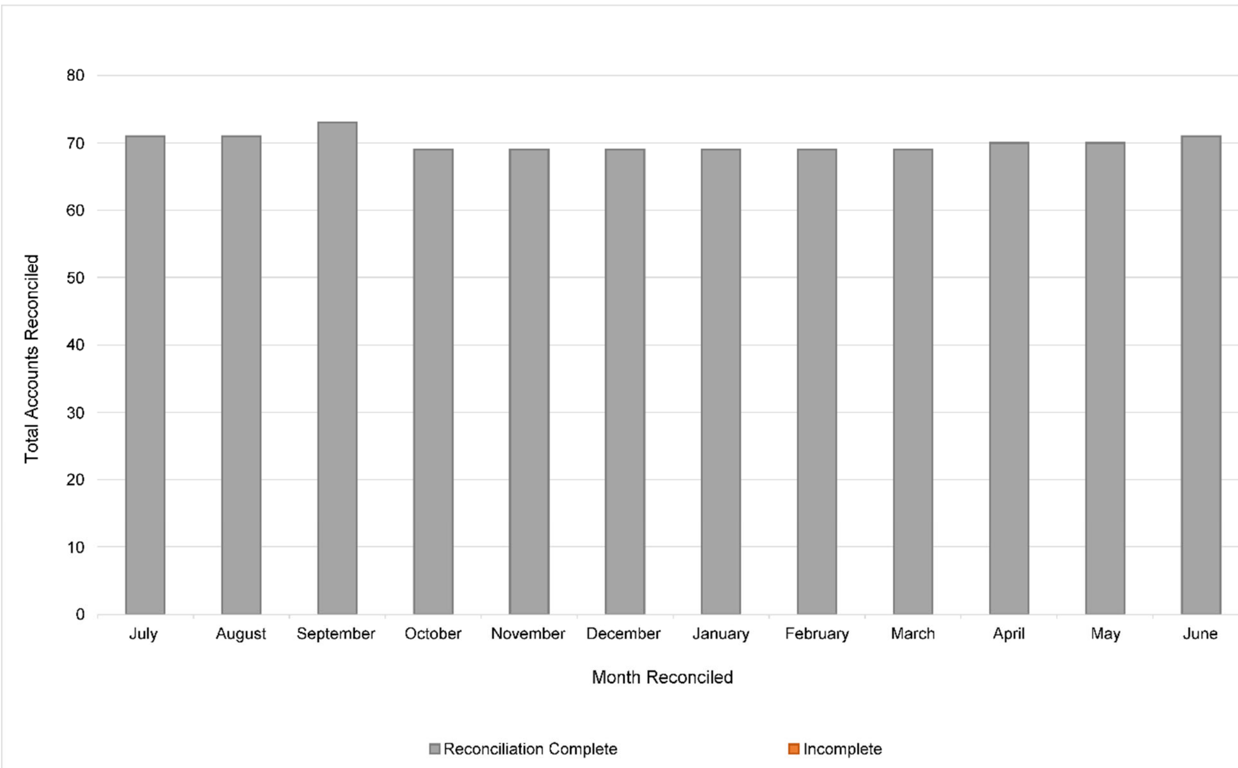


Table 1 – Fiscal Year 2023 GL Cash Account Rollforward

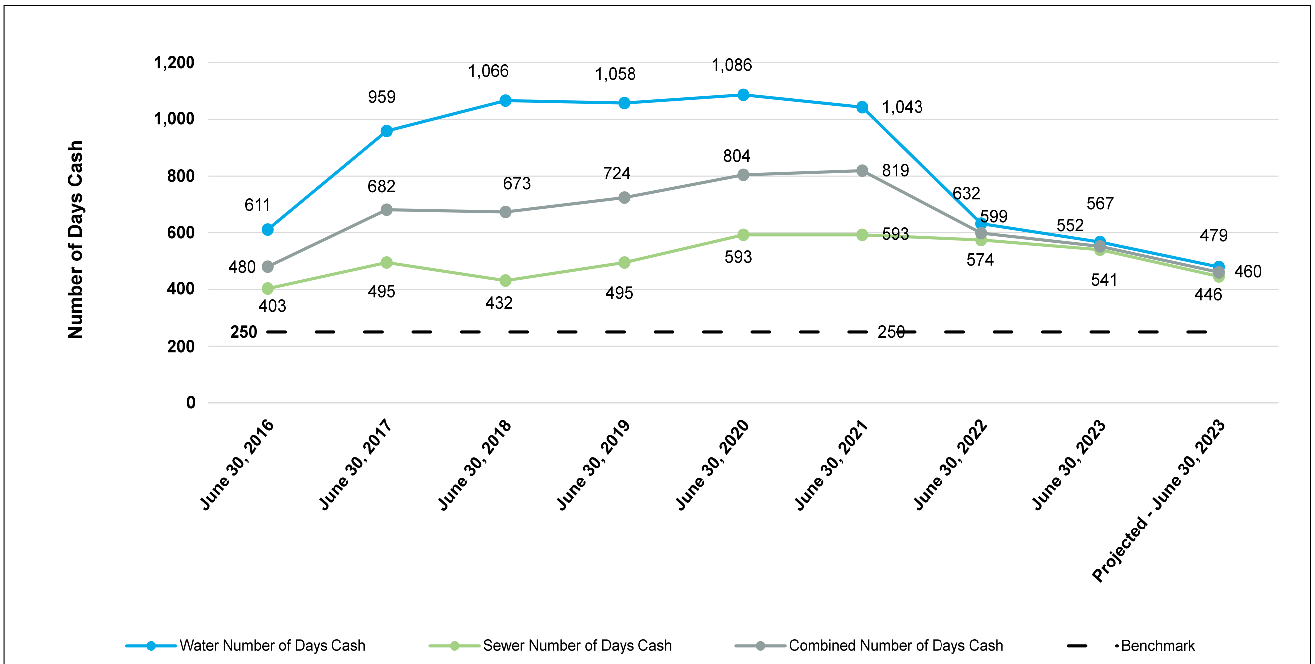
Total GL Cash accounts as of July 1, 2022	71
New GL Cash accounts	5
Inactivated GL Cash accounts	(5)
Total GL Cash accounts as of June 30, 2023	71

Financial Operations KPI - Liquidity

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

Both GLWA Water and Sewer funds continue to exceed this target with Water at 567 and Sewer at 541 days cash on hand as of June 30, 2023. These balances remain strong for the regional system but did decrease in FY 2022 as I&E funds were used as planned to fund capital improvement projects. A September 2022 revenue bond transaction replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2023 projection is calculated based on values from the GLWA FY 2023 – 2027 Budget & Five-Year Plan.

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



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

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

	June 30, 2022	June 30, 2023	Projected June 30, 2023
Water Fund			
Cash and Investments - Unrestricted	$ 238,691,000	$ 243,707,000	$ 205,800,000
Operating Expense			
Operating Expense (a)	$ 264,579,000	$ 295,614,000	$ 295,614,000
Less: Depreciation (a)	(123,196,000)	(135,300,000)	(135,300,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(3,567,000)	(3,567,000)
Net Operating Expense	$ 137,816,000	$ 156,748,000	$ 156,748,000
Operating Expense per Day	$ 378,000	$ 429,000	$ 429,000
Days Cash			
Number of Days Cash	632	567	479
Sewage Disposal Fund			
Cash and Investments - Unrestricted	$ 294,174,000	$ 302,270,000	$ 249,400,000
Operating Expense			
Operating Expense (a)	$ 345,372,000	$ 365,923,000	$ 365,923,000
Less: Depreciation (a)	(158,014,000)	(161,800,000)	(161,800,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	$ 186,919,000	$ 204,123,000	$ 204,123,000
Operating Expense per Day	$ 512,000	$ 559,000	$ 559,000
Days Cash			
Number of Days Cash	574	541	446
Combined			
Cash and Investments - Unrestricted	$ 532,865,000	$ 545,977,000	$ 455,200,000
Operating Expense			
Operating Expense (a)	$ 609,951,000	$ 661,537,000	$ 661,537,000
Less: Depreciation (a)	(281,210,000)	(297,100,000)	(297,100,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(3,567,000)	(3,567,000)
Net Operating Expense	$ 324,735,000	$ 360,870,000	$ 360,870,000
Operating Expense per Day	$ 890,000	$ 989,000	$ 989,000
Days Cash			
Number of Days Cash	599	552	460

Totals may be off due to rounding

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

The monthly Budget to Financial Statements Crosswalk includes the following.

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

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

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

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

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

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

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

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

Table 1 – Crosswalk Budget Basis to Financial Reporting Basis ($000)
For the Twelve Months Ended June 30, 2023

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	$ (3,017)	$ (1,814)	$ (4,831)
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	10,811	19,348	30,159
Prior year pension contribution accounted for in current year (d)	7,444	13,322	20,766
Administrative prepaid adjustment (e)	406	727	1,133
Debt service (f)	68,219	115,481	183,700
Accelerated pension B&C notes obligation portion (g)	203	458	661
Regional System lease (h)	5,707	6,975	12,682
GASB 87 & GASB 96 adjustments (h)	953	720	1,673
WRAP (i)	(3,252)	(4,925)	(8,177)
Extraordinary Repair & Replacement Fund transfers (j)	2,200	-	2,200
Improvement & Extension Fund transfers (j)	23,766	26,237	50,003
Nonbudgeted financial reporting categories adjustments			
Depreciation and amortization (k)	(130,053)	(163,911)	(293,964)
Amortization - debt related (k)	14,578	(10,580)	3,998
Discontinued capital projects (k)	(20,903)		(20,903)
Other nonoperating income (k)	-	228	228
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	(277)	(1,842)	(2,119)
Raw water rights obligation (l)	2,851	-	2,851
Investment earnings for construction fund (m)	6,022	7,136	13,157
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	1,540	1,243	2,783
Improvement & extension fund operating expenses (p)	(1,792)	(5,168)	(6,958)
Capital Contribution (q)	-	2,176	2,176
Net Position Increase/(Decrease) per Financial Statements (b)	$ (14,594)	$ 5,811	$ (8,783)

Table 2 - Explanatory Notes for Crosswalk

(a) Source: Budget to Actual Table 1A and Table 1B in Monthly Financial Report

(b) Source: Basic Financial Statements Table 2 in Monthly Financial Report

(c) Current year pension payments are an expense for budget purposes but not for financial reporting purposes.

(d) Prior year pension payments are accounted for in the current year financial statements.

(e) The administrative fee is part of the O&M Legacy Pension shown as an expense for budget purposes. For financial reporting purposes part of the administrative fee is considered prepaid based on the prior year General Retirement System audit information and therefore not an expense for the current year financial reporting. The prepaid portion is adjusted in June each year.

(f) Debt service (principal and interest payments) are shown as an expense for budget purposes. Most of the adjustment relates to principal payments which are not an expense for financial reporting purposes. A portion of the adjustment relates to interest expense variances on state revolving fund debt due to the timing of payment draws. The cash set aside basis for interest expense generally is the same as the accrual basis for financial reporting.

(g) The accelerated pension payment includes the obligation payable for the B&C notes. The pension portion is included in item (c) above. This adjustment relates to the B&C note obligation payments. The principal and interest cash basis payments are treated as an expense for budget purposes. The principal portion is not an expense for financial reporting purposes. For financial reporting purposes interest is expensed on an accrual basis which is different from the cash basis.

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

(i) WRAP is shown as an expense for budget purposes. For financial reporting purposes the expense is not recognized until the funds have been transferred to the WRAP administrator. The adjustment shown is the amount of current year transfers that have not been transferred to the WRAP administrator. Note that there are funds from the prior year that have not been transferred to the WRAP administrator.

(j) The Improvement & Extension Fund and Extraordinary Repair & Replacement Fund transfers are shown as an expense for budget purposes but not for financial reporting purposes.

(k) Certain nonoperating income and expenses are reported in financial statements only.

(l) The water service contract with Flint includes a license for raw water rights which has been recorded as an asset and liability by the Authority. The contract provides for a credit to Flint as Flint satisfies its monthly bond payment obligation to KWA. This KWA credit is treated as a noncash payment of principal and interest on the liability recorded for the raw water rights. For budget, wholesale customer charges are net of the anticipated KWA credits to Flint as that is the cash that will be received and available to meet the budgeted revenue requirements. For financial reporting purposes the Flint wholesale charges are recorded as the total amount billed. When the KWA credit is issued, the receivable from Flint is reduced and the principal and interest payments on the liability for the raw water rights are recorded as a noncash transaction. Most of the adjustment shown relates to the principal reduction made for the credits applied which are not an expense for financial reporting basis.

(m) Investment earnings from the construction fund are not shown as revenue in the budget and are shown as revenue in the financial statements. Construction fund investment earnings are excluded from the definition of revenue for budget purposes as they are used for construction costs and are not used to meet the revenue requirements in the budget.

(n) Interest on a DWSD note receivable is budgeted as part of the Sewer improvement and extension fund and is transferred directly to that fund as payments are made. DWSD does not currently have a note receivable due to GLWA.

(o) Unrealized gains and losses are recorded annually as required for financial reporting purposes but do not reflect actual investment earnings and are not included in cash basis reporting.

(p) The Water Improvement and Extension fund and the Sewer Improvement and Extension fund reflect certain expenses relating to repairs paid for through the Water and Sewer Improvement and Extension funds, respectively. These are consolidated expenses for financial reporting purposes but are not reflected in the current Operations and Maintenance budget expenses.

The Monthly Capital Improvement Plan Financial Summary includes the following.

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

Capital Improvement Plan Financial Summary

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

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

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

Capital spend reflects a noticeable variance from budgeted CIP for both the water and sewer funds. For the purposes of this metric, we compare actual spend with the Board-approved budget. For the purposes of managing the financial plan, budget amendments are made to align spending with resources available. Fourth quarter FY 2023 budget amendments were approved by the Board on June 28, 2023. The capital spend rate adjustment is 107% of the Board approved CIP planned spend for the water fund and 86.2% of the Board approved CIP planned spend for the sewer fund.

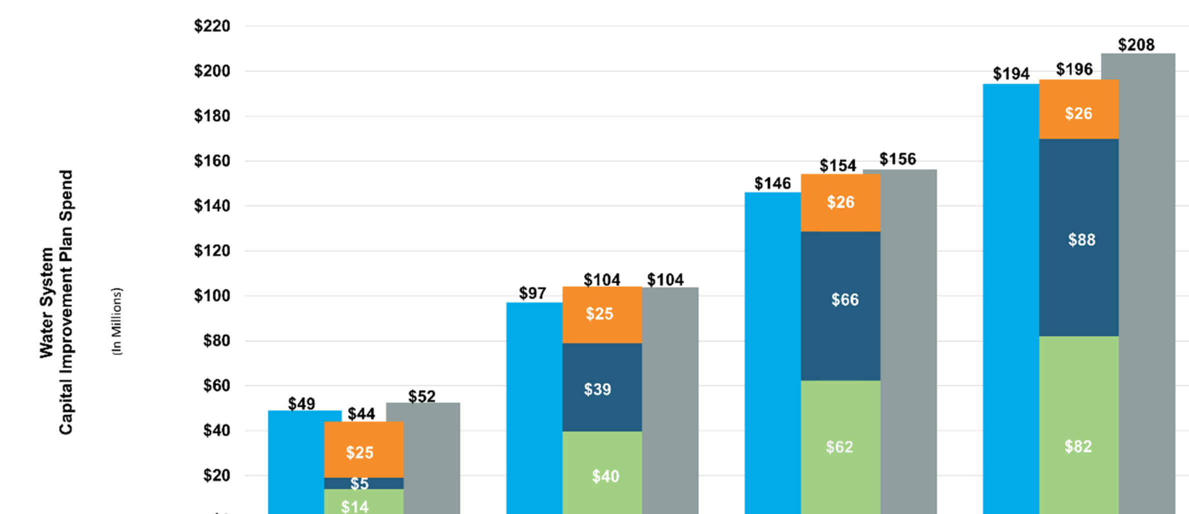
As of December 31, 2022, the State Revolving Fund (SRF) activity reported in Charts 1 and 2 has been revised to reflect changes in approved, GLWA SRF funding.

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

As of June 2023, the water system incurred $196 million of construction costs to date. This spend represents 101% of the original, Board-approved CIP, and 94% of the Board-reviewed spend rate adjustment.

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

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



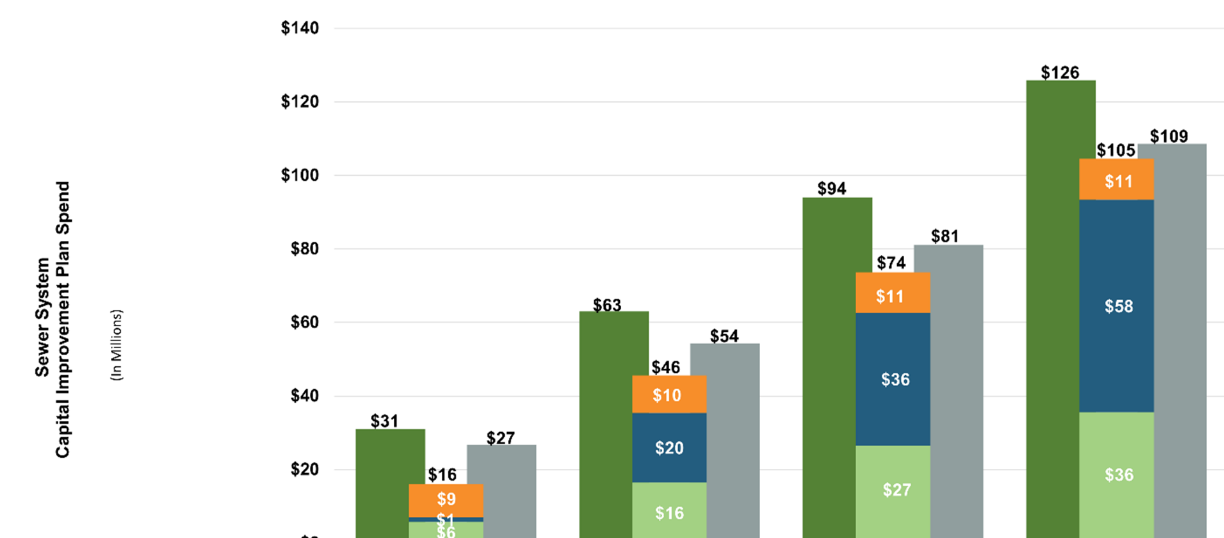
	YTD Thru FY 2023 Q1	YTD Thru FY 2023 Q2	YTD Thru FY 2023 Q3	YTD Thru FY 2023 Q4 (Pre-Close)
FY 2023 CIP	$49	$97	$146	$194
Spend Rate Adjusted (107% CIP)	$52	$104	$156	$208
Actual Spend - I & E	$25	$25	$26	$26
Actual Spend - Revenue Bond	$5	$39	$66	$88
Actual Spend - SRF	$14	$40	$62	$82

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

As of June 2023, the Sewer system incurred $105 million of construction costs to date. This spend represents 83% of the original, Board-approved CIP, and 96% of the Board-reviewed spend rate adjustment.

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

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



	YTD Thru FY 2023 Q1	YTD Thru FY 2023 Q2	YTD Thru FY 2023 Q3	YTD Thru FY 2023 Q4 (Pre-Close)
FY 2023 CIP	$31	$63	$94	$126
Spend Rate Adjusted (86.2%)	$27	$54	$81	$109
Actual Spend - I & E	$9	$10	$11	$11
Actual Spend - Revenue Bond	$1	$19	$36	$58
Actual Spend - SRF	$6	$16	$27	$36

This report includes the following.

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

MBO Transfers to Accounts Held by GLWA

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

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

Table 1 – GLWA FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through June 2023. MBO transfers for water totaling $178.3 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through June 2023. MBO transfers for sewer totaling $233.3 million have been transferred to GLWA accounts.

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

Table 1 – GLWA FY 2023 Water MBO Transfers

WATER	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
FY 2023							
July 2022	$ 12,070,642	$504,000	$891,308	$200,975	-	2,000,000	$15,666,925
August 2022	$ 12,070,642	$504,000	$891,308	$200,975	-	-	13,666,925
September 2022	$ 12,070,642	$504,000	$891,308	$200,975	-	-	13,666,925
October 2022	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
November 2022	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
December 2022	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
January 2023	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
February 2023	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
March 2023	$ 12,070,642	$504,000	$891,308	$223,209	-	-	13,689,159
April 2023	$ 13,503,974	$504,000	$891,308	$223,209	-	-	15,122,491
May 2023	$ 13,503,974	$504,000	$891,308	$223,209	-	-	15,122,491
June 2023	$ 21,103,974	$504,000	$891,312	$223,203	-	200,000	22,922,489
Total FY 2023	$ 156,747,700	$ 6,048,000	$ 10,695,700	$ 2,611,800	$ -	$ 2,200,000	$ 178,303,200

Table 2 – GLWA FY 2023 Sewer MBO Transfers

SEWER	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
FY 2023							
July 2022	$ 15,337,717	$902,000	$1,223,950	$321,925	-	-	$17,785,592
August 2022	$ 15,337,717	$902,000	$1,223,950	$321,925	-	-	17,785,592
September 2022	$ 15,337,717	$902,000	$1,223,950	$321,925	-	-	17,785,592
October 2022	$ 16,534,372	$902,000	$1,223,950	$300,892	-	-	18,961,214
November 2022	$ 16,534,372	$902,000	$1,223,950	$300,892	-	-	18,961,214
December 2022	$ 16,534,372	$902,000	$1,223,950	$300,892	-	-	18,961,214
January 2023	$ 16,534,372	$902,000	$1,223,950	$300,892	-	-	18,961,214
February 2023	$ 16,534,372	$902,000	$1,223,950	$300,892	-	-	18,961,214
March 2023	$ 16.534.372	$902.000	$1.223.950	$300.892	-	-	18.961.214
April 2023	$ 19,334,372	$902,000	$1,223,950	$300,892	-	-	21,761,214
May 2023	$ 19,334,372	$902,000	$1,223,950	$300,892	-	-	21,761,214
June 2023	$ 20,234,373	$902,000	$1,223,950	$300,889	-	-	22,661,212
Total FY 2023	$ 204,122,500	$10,824,000	$14,687,400	$3,673,800	$ -	$ -	$233,307,700

Table 3 – GLWA MBO Transfer History

GLWA MBO Transfer History

WATER

	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
Total FY 2016	$71,052,000	$6,037,100	$10,297,200	$1,983,300	$2,326,900	$606,000	$92,302,500
Total FY 2017	111,879,600	6,037,200	10,297,200	2,077,200	360,000	-	130,651,200
Total FY 2018	121,562,604	6,048,000	10,695,696	2,159,400	-	-	140,465,700
Total FY 2019	121,562,604	6,048,000	10,695,696	2,061,000	-	-	140,367,300
Total FY 2020	126,840,204	6,048,000	10,695,683	1,980,804	-	-	145,564,691
Total FY 2021	134,127,300	6,048,000	10,695,700	2,324,200	-	-	153,195,200
Total FY 2022	143,933,800	6,048,000	10,695,700	2,376,600	-	-	163,054,100
Total FY 2023	156,747,700	6,048,000	10,695,700	2,611,800	-	2,200,000	178,303,200
Life to Date	$987,705,812	$48,362,300	$84,768,575	$17,574,304	$2,686,900	$2,806,000	$1,143,903,891

SEWER

	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
Total FY 2016	$100,865,600	$10,838,400	$14,025,800	$2,523,400	$5,591,700	$779,600	$134,624,500
Total FY 2017	175,858,800	10,838,400	14,026,800	2,654,400	2,654,400	-	206,032,800
Total FY 2018	191,079,396	10,824,000	14,687,496	2,760,804	-	-	219,351,696
Total FY 2019	191,079,396	10,824,000	14,687,496	2,870,992	-	-	219,461,884
Total FY 2020	181,925,800	10,824,000	14,687,517	2,887,300	-	-	210,324,617
Total FY 2021	182,296,000	10,824,000	14,687,500	3,764,300	-	-	211,571,800
Total FY 2022	191,908,600	10,824,000	14,687,400	3,868,700	-	-	221,288,700
Total FY 2023	204,122,500	10,824,000	14,687,400	3,673,800	-	-	233,307,700
Life to Date	$1,419,136,092	$86,620,800	$116,177,409	$25,003,696	$8,246,100	$779,600	$1,655,963,697

MBO Required and Lease Payment Transfers to DWSD

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

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

Table 4 – DWSD FY 2023 Water MBO Transfers reflects the required transfers for FY 2023 completed through June 2023. MBO transfers for Water totaling $66.4 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that $2,922,100 of the lease payment be utilized to offset a portion of debt service.

Table 5 – DWSD FY 2023 Sewer MBO Transfers reflects the required transfers for FY 2023 completed through June 2023. MBO transfers for Sewer totaling $77.4 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that $4,388,300 of the lease payment be utilized to offset a portion of debt service.

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

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

Table 4 – DWSD FY 2023 Water MBO Transfers

WATER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Water
FY 2023				
July 2022	$2,540,833	$356,000	$1,150,750	$4,047,583
August 2022	2,540,833	356,000	1,150,750	4,047,583
September 2022	2,540,833	356,000	1,150,750	4,047,583
October 2022	3,884,345	356,000	1,791,739	6,032,084
November 2022	3,884,345	356,000	1,791,739	6,032,084
December 2022	3,884,345	356,000	1,791,739	6,032,084
January 2023	3,884,345	356,000	1,791,739	6,032,084
February 2023	3,884,345	356,000	1,791,739	6,032,084
March 2023	3,884,345	356,000	1,791,739	6,032,084
April 2023	3,884,345	356,000	1,791,739	6,032,084
May 2023	3,884,345	356,000	1,791,739	6,032,084
June 2023	3,884,341	356,000	1,791,738	6,032,079
Total FY 2023	$42,581,600	$4,272,000	$19,577,900	$66,431,500

Table 5 – DWSD FY 2023 Sewer MBO Transfers

SEWER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2023				
July 2022	$5,282,500	$238,000	$2,291,667	$7,812,167
August 2022	5,282,500	238,000	2,291,667	7,812,167
September 2022	5,282,500	238,000	2,291,667	7,812,167
October 2022	3,949,878	238,000	1,804,078	5,991,956
November 2022	3,949,878	238,000	1,804,078	5,991,956
December 2022	3,949,878	238,000	1,804,078	5,991,956
January 2023	3,949,878	238,000	1,804,078	5,991,956
February 2023	3,949,878	238,000	1,804,078	5,991,956
March 2023	3,949,878	238,000	1,804,078	5,991,956
April 2023	3,949,878	238,000	1,804,078	5,991,956
May 2023	3,949,878	238,000	1,804,078	5,991,956
June 2023	3,949,876	238,000	1,804,075	5,991,951
Total FY 2023	$51,396,400	$2,856,000	$23,111,700	$77,364,100

Table 6 – DWSD Water MBO and Lease Payment Transfer History

Transfers to DWSD				
WATER				
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
FY 2016 *				
MBO/Lease Requirement	$26,185,600	$4,262,700	$22,500,000	$52,948,300
Offset to Debt Service	-	-	(2,326,900)	(2,326,900)
Net MBO Transfer	26,185,600	4,262,700	20,173,100	50,621,400
FY 2017				
MBO/Lease Requirement	33,596,400	4,262,400	22,500,000	60,358,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	33,596,400	4,262,400	22,500,000	60,358,800
FY 2018				
MBO/Lease Requirement	35,059,704	4,272,000	22,500,000	61,831,704
Offset to Debt Service	-	-	(1,875,000)	(1,875,000)
Net MBO Transfer	35,059,704	4,272,000	20,625,000	59,956,704
FY 2019				
MBO/Lease Requirement	35,484,300	4,272,000	22,500,000	62,256,300
Offset to Debt Service	-	-	(3,972,200)	(3,972,200)
Net MBO Transfer	35,484,300	4,272,000	18,527,800	58,284,100
FY 2020				
MBO/Lease Requirement	34,662,400	4,272,000	22,500,000	61,434,400
Offset to Debt Service	-	-	(3,548,000)	(3,548,000)
Net MBO Transfer	34,662,400	4,272,000	18,952,000	57,886,400
FY 2021				
MBO/Lease Requirement	35,833,900	4,272,000	22,500,000	62,605,900
Offset to Debt Service	-	-	(8,278,300)	(8,278,300)
Net MBO Transfer	35,833,900	4,272,000	14,221,700	54,327,600
FY 2022				
MBO/Lease Requirement	29,989,000	4,272,000	22,500,000	56,761,000
Offset to Debt Service	-	-	(8,925,400)	(8,925,400)
Net MBO Transfer	29,989,000	4,272,000	13,574,600	47,835,600
FY 2023				
MBO/Lease Requirement	42,581,600	4,272,000	22,500,000	69,353,600
Offset to Debt Service	-	-	(2,922,100)	(2,922,100)
Net MBO Transfer	42,581,600	4,272,000	19,577,900	66,431,500
Life-to-Date				
MBO/Lease Requirement	273,392,904	34,157,100	180,000,000	487,550,004
Offsets	-	-	(31,847,900)	(31,847,900)
Total Water	**273,392,904**	**34,157,100**	**148,152,100**	**455,702,104**

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History

SEWER	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2016 *				
MBO/Lease Requirement	$19,774,300	$2,861,800	$27,500,000	$50,136,100
Offset to Debt Service	-	-	(19,991,500)	(19,991,500)
Total MBO Transfer	19,774,300	2,861,800	7,508,500	30,144,600
FY 2017				
MBO/Lease Requirement	41,535,600	2,862,000	27,500,000	71,897,600
Offset to Debt Service	-	-	-	-
Total MBO Transfer	41,535,600	2,862,000	27,500,000	71,897,600
FY 2018				
MBO/Lease Requirement	60,517,992	2,856,000	27,500,000	90,873,992
Offset to Debt Service	-	-	(9,166,664)	(9,166,664)
Total MBO Transfer	60,517,992	2,856,000	18,333,336	81,707,328
FY 2019				
MBO/Lease Requirement	56,767,920	2,856,000	27,500,000	87,123,920
Offset to Debt Service	-	-	(4,415,000)	(4,415,000)
Total MBO Transfer	56,767,920	2,856,000	23,085,000	82,708,920
FY 2020				
MBO/Lease Requirement	62,343,500	2,856,000	27,500,000	92,699,500
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(5,032,700)	(5,032,700)
Total MBO Transfer	55,243,500	2,856,000	22,467,300	80,566,800
FY 2021				
MBO/Lease Requirement	69,915,700	2,856,000	27,500,000	100,271,700
Offset to Debt Service	-	-	(3,257,200)	(3,257,200)
Total MBO Transfer	69,915,700	2,856,000	24,242,800	97,014,500
FY 2022				
MBO/Lease Requirement	61,301,000	2,856,000	27,500,000	90,735,453
Offset to Debt Service	-	-	(5,529,297)	(4,607,750)
Total MBO Transfer	61,301,000	2,856,000	21,970,703	86,127,703
FY 2023				
MBO/Lease Requirement	51,396,400	2,856,000	27,500,000	81,752,400
Offset to Debt Service	-	-	(4,388,300)	(4,388,300)
Total MBO Transfer	51,396,400	2,856,000	23,111,700	77,364,100
Life-to-Date				
MBO/Lease Requirement	423,552,412	22,859,800	220,000,000	665,490,665
Offsets	(7,100,000)	-	(51,780,661)	(57,959,114)
Total Sewer	**416,452,412**	**22,859,800**	**168,219,339**	**607,531,551**

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

This report includes the following:
1. Monthly Cash Balances Compared to Investment Income
2. Cash Balance Detail

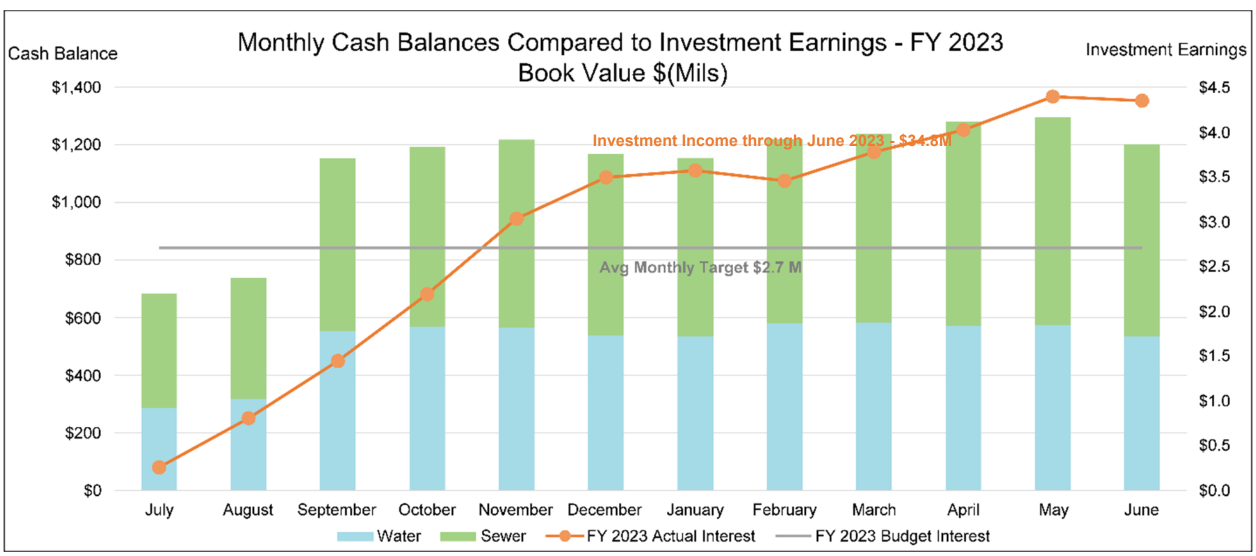
Monthly Cash Balances Compared to Investment Income

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

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of June 2023, GLWA earned investment income of $4.4 million and cumulative FY 2023 earnings through June 2023 of $34.8 million. Total investment income reported includes earnings from revenue requirement funds as well as construction bond funds.

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

Chart 1 – Monthly Cash Balances Compared to Investment Income – Through June 2023



$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	$287	$318	553	570	564	538	535	581	582	572	573	535
Sewer	$397	$418	599	624	654	631	619	640	655	710	722	665
Total	$684	$737	1,152	1,194	1,219	1,169	1,154	1,221	1,237	1,282	1,296	1,200
Investment Income	$0.3	$0.8	$1.4	$2.2	$3.0	$3.5	$3.6	$3.5	$3.8	$4.0	$4.4	$4.4

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:

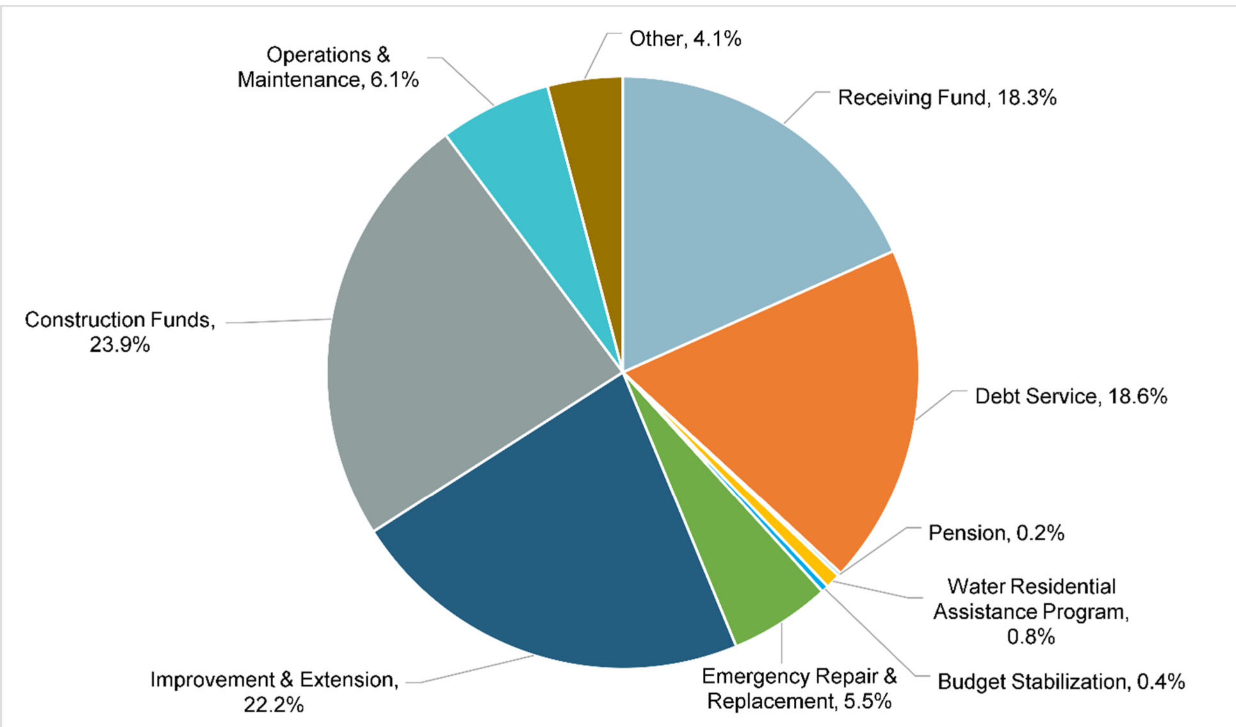
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors 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 June 2023 - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of June 30, 2023 is $535 million. The allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

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

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

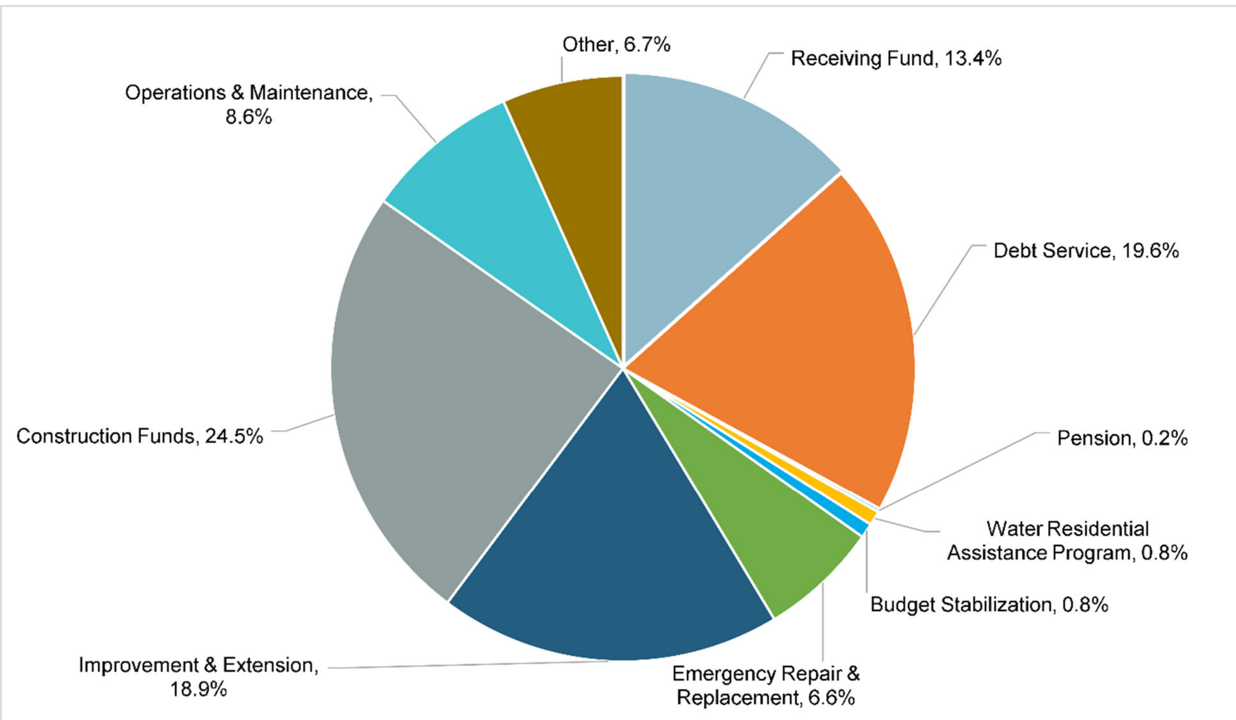


Note: *Due to rounding totals may not equal 100%.*

Chart 3 – Cash Balances - Sewer Funds as of June 2023 - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of June 30, 2023 is $665 million. Like the Water Funds, the allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA's commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

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

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



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

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

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

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

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

DWSD Retail Water Billings and Collections

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

> ***Table 1 - DWSD Retail Billings*** shows the FY 2023 water usage and billed revenue which are provided by DWSD staff. As of June 30, 2023, the DWSD usage was at 109.25% of the budget and billed revenue was at 107.06% of budget.

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

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

Table 1 – DWSD Retail Water Billing

RETAIL WATER CUSTOMERS

	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
Month (1)	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*	*Mcf*	*$*
July	257,000	11,956,000	244,749	9,490,589	(12,251)	(2,465,411)	266,704	10,064,683
August	248,900	11,711,000	277,313	13,301,941	28,413	1,590,941	264,644	9,994,589
September	218,600	10,776,000	234,806	11,591,601	16,206	815,601	232,348	9,169,300
October	198,900	10,184,900	239,062	11,730,809	40,162	1,545,909	204,290	8,422,092
November	194,500	9,954,500	212,663	10,706,519	18,163	752,019	209,830	8,544,611
December	193,700	9,902,000	222,502	11,073,513	28,802	1,171,513	204,072	8,442,152
January	198,600	10,050,700	227,748	11,257,742	29,148	1,207,042	221,369	8,819,430
February	190,400	9,842,000	208,568	10,569,468	18,168	727,468	204,489	8,438,300
March	204,900	10,276,600	229,264	11,383,630	24,364	1,107,030	233,190	9,221,716
April	192,400	9,922,800	198,665	10,121,640	6,265	198,840	192,495	8,305,331
May	214,500	10,567,000	241,525	11,820,301	27,025	1,253,301	245,471	9,530,928
June	245,700	11,523,800	257,749	12,567,250	12,049	1,043,450	272,811	10,281,954
Total	2,558,100	126,667,300	2,794,614	135,615,003	236,514	8,947,703	2,751,713	109,235,086
Subtotals ytd	*2,558,100*	*126,667,300*	*2,794,614*	*135,615,003*	*236,514*	*8,947,703*		
Achievement of Budget			*109.25%*	*107.06%*				

(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**
July	8,518,373	8,387,705	130,668	1.56%
August	9,636,219	8,588,507	1,047,712	12.20%
September	5,082,383	8,041,683	(2,959,300)	-36.80%
October	13,082,745	8,512,614	4,570,131	53.69%
November	10,270,582	7,926,331	2,344,251	29.58%
December	11,630,994	8,121,586	3,509,408	43.21%
January	8,857,268	6,919,040	1,938,228	28.01%
February	8,244,713	10,156,126	(1,911,413)	-18.82%
March	10,417,832	11,093,125	(675,293)	-6.09%
April	9,417,449	7,431,900	1,985,549	26.72%
May	12,162,719	7,660,852	4,501,867	58.76%
June	13,467,858	9,123,179	4,344,679	47.62%
Rolling, 12-Month Total	120,789,135	101,962,648		
Rolling, 12-Month Average	10,065,761	8,496,887		

DWSD Retail Sewer Billings and Collections

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

Table 3 - DWSD Retail Sewer Billings shows the FY 2023 sewer billed revenue which are provided by DWSD staff. As of June 30, 2023, the DWSD usage was at 103.47% of the budget and billed revenue was at 100.49% of budget.

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

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

Table 3 - DWSD Retail Sewer Billings

RETAIL SEWER CUSTOMERS								
	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
Month (1)	Volume Mcf	Revenue $	Volume (2) Mcf	Revenue (3) $	Volume Mcf	Revenue $	Volume Mcf	Revenue $
July	211,900	27,858,000	223,661	29,297,748	11,761	1,439,748	219,791	29,462,804
August	217,600	28,027,300	231,809	29,640,202	14,209	1,612,902	249,522	31,231,624
September	188,400	27,285,000	197,455	27,523,933	9,055	238,933	215,748	29,401,234
October	182,400	27,102,800	194,154	27,375,180	11,754	272,380	190,483	27,936,280
November	167,500	26,696,800	172,579	26,525,064	5,079	(171,736)	194,135	28,032,939
December	166,500	26,780,100	174,896	26,676,360	8,396	(103,740)	189,283	27,836,982
January	169,200	26,797,900	175,562	26,403,544	6,362	(394,356)	203,526	28,493,782
February	166,100	26,702,400	160,804	25,814,735	(5,296)	(887,665)	189,525	27,837,984
March	176,100	26,994,800	181,217	26,720,229	5,117	(274,571)	212,176	29,032,277
April	166,400	26,761,800	167,727	26,120,878	1,327	(640,922)	179,291	27,196,557
May	182,100	27,166,400	195,191	27,508,373	13,091	341,973	220,082	29,382,758
June	210,600	27,861,300	206,163	28,018,278	(4,437)	156,978	242,746	30,704,517
Total	2,204,800	326,034,600	2,281,218	327,624,524	76,418	1,589,924	2,506,308	346,549,738
Subtotals ytd	*2,204,800*	*326,034,600*	*2,281,218*	*327,624,524*		*1,589,924*		
Achievement of Budget/Goal			*103.47%*	*100.49%*				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.
(2) Reflects billed volume based on actual usage except for residential customers where the billed volume differs from actual usage due to residential sewer volume caps implemented in FY 2023
(3) Retail Revenues include Miscellaneous Revenues and Penalties

Table 4 – DWSD Retail Sewer Collections

Sewer				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
July	30,935,343	24,185,252	6,750,091	27.91%
August	26,064,896	25,036,198	1,028,698	4.11%
September	15,261,467	22,635,796	(7,374,329)	-32.58%
October	28,182,933	25,119,240	3,063,693	12.20%
November	21,994,899	23,505,249	(1,510,350)	-6.43%
December	23,756,153	24,880,743	(1,124,590)	-4.52%
January	23,760,629	23,020,491	740,138	3.22%
February	23,867,073	24,495,922	(628,849)	-2.57%
March	30,697,464	29,410,086	1,287,378	4.38%
April	21,542,671	22,115,076	(572,405)	-2.59%
May	24,419,561	20,952,592	3,466,969	16.55%
June	23,769,625	25,922,279	(2,152,654)	-8.30%
Rolling 12-Month Total	294,252,715	291,278,924		
Rolling, 12-Month Average	24,521,060	24,273,244		

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 June 30, 2023 with comparative totals from June 30, 2022, 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 held in check overall due to a consistent practice of adjusting the allowance for doubtful accounts monthly. To the extent this allowance is adjusted, and bad debt expense is recognized in the DWSD budget, it does not impact GLWA.

Table 6 is a summary of the total, current and non-current Water and Sewer receivables by category as of June 30, 2023 with comparative totals from June 30, 2022. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The Total Balance and Total Bad Debt Allowance as of June 30, 2023 are reflective of the values in both the Table 5 Summary and Table 6 breakdown.

Table 5 – DWSD Retail Accounts Receivable Aging Report – <u>Summary</u>

Summary					
	Monthly	Receivables			
Period Ending	Sales	Total	Allowance	Net	Days in AR (1)
June 30, 2020	$ 33,061,000	$ 213,846,000	$ (142,882,000)	$ 70,964,000	64
June 30, 2021	$ 36,335,000	$ 248,055,000	$ (200,146,000)	$ 47,909,000	40
June 30, 2022	$ 39,022,000	$ 300,346,000	$ (253,924,000)	$ 46,422,000	36
June 30, 2023	$ 39,443,000	$ 327,023,000	$ (272,012,000)	$ 55,011,000	42

Totals may be off due to rounding

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

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

Sales Class	# of Accounts	Avg. Balance	Current	> 30 Days	> 60 Days	> 180 Days	A/R Balance
Residential	215,199	$ 856.13	$ 14,720,000	$ 12,823,000	$ 28,187,000	$ 128,509,000	$ 184,239,000
			8.0%	*7.0%*	*15.3%*	*69.8%*	*100.0%*
Commercial	21,327	1,409.86	7,310,000	2,307,000	5,740,000	14,711,000	30,068,000
			24.3%	*7.7%*	*19.1%*	*48.9%*	*100.0%*
Industrial	4,372	3,373.90	5,048,000	999,000	2,262,000	6,442,000	14,751,000
			34.2%	*6.8%*	*15.3%*	*43.7%*	*100.0%*
Tax Exempt	3,801	842.90	528,000	212,000	814,000	1,649,000	3,204,000
			16.5%	*6.6%*	*25.4%*	*51.5%*	*100.0%*
Government	48,090	405.20	4,493,000	218,000	1,994,000	12,782,000	19,486,000
			23.1%	*1.1%*	*10.2%*	*65.6%*	*100.0%*
Drainage	45,350	670.42	2,277,000	1,354,000	4,645,000	22,127,000	30,403,000
			7.5%	*4.5%*	*15.3%*	*72.8%*	*100.0%*
Subtotal - Active Accounts	**338,139**	**$ 834.42**	**$ 34,375,000**	**$ 17,912,000**	**$ 43,642,000**	**$ 186,221,000**	**$ 282,151,000**
			12.2%	*6.3%*	*15.5%*	*66.0%*	*100.0%*
Inactive Accounts	334,569	134.12	(23,000)	37,000	839,000	44,019,000	44,872,000
			(0.1%)	*0.1%*	*1.9%*	*98.1%*	*100.0%*
Total	**672,708**	**$ 486.13**	**$ 34,352,000**	**$ 17,950,000**	**$ 44,481,000**	**$ 230,240,000**	**$ 327,023,000**
% of Total A/R			*10.5%*	*5.5%*	*13.6%*	*70.4%*	*100.0%*
Water Fund	248,691	272.23	$ 8,301,000	$ 3,535,000	$ 11,722,000	$ 44,144,000	$ 67,702,000
Sewer Fund	283,675	914.15	$ 26,052,000	$ 14,415,000	$ 32,759,000	$ 186,097,000	$ 259,322,000
Total June 30, 2023 (a)	**672,708**	**$ 486.13**	**$ 34,352,000**	**$ 17,950,000**	**$ 44,481,000**	**$ 230,240,000**	**$ 327,023,000**
Water Fund- Allowance							$ (54,620,000)
Sewer Fund- Allowance							$ (217,392,000)
Total Bad Debt Allowance							**$ (272,012,000)**
Comparative - June 2022 (b)	**649,831**	**$ 462.19**	**$ 33,757,000**	**$ 13,813,000**	**$ 44,530,000**	**$ 208,246,000**	**$ 300,346,000**
Difference (a) - (b)	**22,877**		**$ 595,000**	**$ 4,137,000**	**$ (49,000)**	**$ 21,994,000**	**$ 26,677,000**

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

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

Wholesale Water Billings and Collections

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

Service Arrangement Type

Model Contract	84
Emergency	1
Older Contracts	2
Total	87

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

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

Table 1 - Wholesale Water Billings shows the FY 2023 water billed usage and revenues. As of June 30, 2023, the billed usage was at 102.22% of the original plan and billed revenue at 101.22% of the original plan. Billings and usage from the City of Flint *are* included as they were assumed in the FY 2023 Budget.

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

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

Table 1 – FY 2023 Wholesale Water Billings Report

WHOLESALE WATER CHARGES

	FY 2023 Charges (3)		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
Month (1)	Volume Mcf	Revenue $	Volume Mcf	Revenue (2) $	Volume Mcf	Revenue $	Volume Mcf	Revenue $
July	1,565,900	33,114,500	1,664,936	34,349,872	99,036	1,235,372	1,342,686	29,642,785
August	1,513,500	32,632,400	1,418,347	31,555,444	(95,153)	(1,076,956)	1,417,142	30,604,230
September	1,271,200	29,674,600	1,308,481	30,306,713	37,281	632,113	1,298,750	29,065,588
October	1,033,200	27,094,600	1,055,245	27,391,089	22,045	296,489	1,006,217	26,123,483
November	901,100	25,815,700	906,669	25,911,801	5,569	96,101	905,525	25,117,181
December	966,900	26,357,900	990,177	26,652,607	23,277	294,707	958,879	25,542,432
January	954,300	26,296,700	979,573	26,536,118	25,273	239,418	979,803	25,791,405
February	877,900	25,580,400	869,843	25,535,320	(8,057)	(45,080)	875,553	24,800,493
March	965,300	26,359,200	961,541	26,356,490	(3,759)	(2,710)	963,825	25,592,186
April	907,300	25,855,100	917,599	25,997,955	10,299	142,855	912,124	25,139,078
May	1,086,000	27,886,200	1,169,448	28,895,975	83,448	1,009,775	1,094,002	27,116,529
June	1,470,200	32,090,900	1,570,958	33,407,419	100,758	1,316,519	1,385,287	30,301,351
Total	13,512,800	338,758,200	13,812,817	342,896,802	300,017	4,138,602	13,139,793	324,836,740
Subtotals ytd	*13,512,800*	*338,758,200*	*13,812,817*	*342,896,802*	*300,017*	*4,138,602*		
Achievement of Original Plan			*102.22%*	*101.22%*				
Billing Adjustments (4)			*17,346*	*(103,661)*				
			13,830,163	*342,793,141*				
			102.35%	*101.19%*				

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

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

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

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

Table 2 - Wholesale Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
July	14,435,092	23,709,847	(23,709,847)	-100.00%
August	41,154,992	31,668,492	9,486,500	29.96%
September	21,887,632	23,849,618	(1,961,986)	-8.23%
October	38,029,648	29,212,277	8,817,371	30.18%
November	30,903,329	25,265,770	5,637,559	22.31%
December	34,298,469	25,302,369	8,996,100	35.55%
January	19,182,054	31,280,599	(12,098,545)	-38.68%
February	26,553,529	24,919,847	1,633,682	6.56%
March	26,074,213	22,123,572	3,950,641	17.86%
April	20,940,451	21,726,941	(786,490)	-3.62%
May	29,265,308	27,717,969	1,547,339	5.58%
June	29,370,704	26,379,503	2,991,201	11.34%
Rolling 12-Month Total	332,095,421	313,156,804		
Rolling, 12-Month Average	27,674,618	26,096,400		

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	18

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

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

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

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

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

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

Table 3 – FY 2023 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
	FY 2023 Charges		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
Month (1)	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	$	Mcf	$	Mcf	$	Mcf	$
July	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
August	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
September	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
October	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
November	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
December	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
January	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
February	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
March	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
April	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
May	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
June	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
Total		274,657,200		274,657,200		-		271,380,000
Subtotals ytd		*274,657,200*		*274,657,200*		-		
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**
July	28,223,515	28,523,650	(300,135)	-1.05%
August	21,036,661	21,842,125	(805,464)	-3.69%
September	22,244,437	22,191,725	52,712	0.24%
October	24,707,249	26,706,558	(1,999,309)	-7.49%
November	19,882,939	16,534,758	3,348,181	20.25%
December	18,314,222	21,765,958	(3,451,736)	-15.86%
January	17,636,972	26,436,258	(8,799,286)	-33.28%
February	33,102,769	23,937,258	9,165,511	38.29%
March	23,746,469	24,713,158	(966,689)	-3.91%
April	17,769,710	19,937,558	(2,167,848)	-10.87%
May	18,213,966	10,226,700	7,987,266	78.10%
June	38,287,549	29,659,245	8,628,304	29.09%
Rolling 12-Month Total	283,166,458	272,474,951		
Rolling, 12-Month Average	23,597,205	22,706,246		

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 June 30, 2023, Highland Park had a delinquent balance of $54.2 million, including $40.3 million for wastewater treatment services, $1.9 million for industrial waste control services, and $12.1 million for water supply services.

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

Table 5 - City of Highland Park Billings and Collections

City of Highland Park Billings and Payments

	Service Month	Water	Sewer	IWC	Total
July 2022 Billing	June 2022	104,262	446,400	4,002	554,664
July 2022 Payments		-	(126,056)	-	(126,056)
July 31, 2022 Balance		11,045,712	40,951,391	1,822,087	53,819,190
August 2022 Billing	July 2022	112,017	451,700	4,082	567,799
August 2022 Payments		-	(117,079)	-	(117,079)
August 31, 2022 Balance		11,157,729	41,286,012	1,826,169	54,269,910
September 2022 Billing	August 2022	113,427	451,700	4,025	569,152
September 2022 Payments		-	(144,837)	-	(144,837)
September 30, 2022 Balance		11,271,156	41,592,875	1,830,194	54,694,225
October 2022 Billing	September 2022	106,220	451,700	4,026	561,946
October 2022 Payments		-	(133,899)	-	(133,899)
October 31, 2022 Balance		11,377,376	41,910,676	1,834,220	55,122,272
November 2022 Billing	October 2022	106,221	451,700	4,026	561,947
November 2022 Payments		-	(492,789)	-	(492,789)
November 30, 2022 Balance		11,483,597	41,869,587	1,838,246	55,191,430
December 2022 Billing	November 2022	103,645	451,700	4,025	559,370
December 2022 Payments		-	(641,773)	-	(641,773)
December 31, 2022 Balance		11,587,242	41,679,514	1,842,271	55,109,027
January 2023 Billing	December 2022	99,260	451,700	3,997	554,957
January 2023 Payments		-	(1,341,522)	-	(1,341,522)
January 31, 2023 Balance		11,686,502	40,789,692	1,846,268	54,322,462
February 2023 Billing	January 2023	106,448	451,700	3,998	562,146
February 2023 Payments		-	(434,682)	-	(434,682)
February 28, 2023 Balance		11,792,950	40,806,710	1,850,266	54,449,926
March 2023 Billing	February 2023	99,164	451,700	3,889	554,753
March 2023 Payments		-	(347,442)	-	(347,442)
March 31, 2023 Balance		11,892,114	40,910,969	1,854,155	54,657,238
April 2023 Billing	March 2023	101,068	451,700	3,897	556,665
April 2023 Payments		-	(358,010)	-	(358,010)
April 30, 2023 Balance		11,993,182	41,004,659	1,858,052	54,855,893
May 2023 Billing	April 2023	98,870	451,700	3,906	554,476
May 2023 Payments		-	(349,566)	-	(349,566)
May 31, 2023 Balance		12,092,052	41,106,793	1,861,958	55,060,803
June 2023 Billing	May 2023	103,555	451,700	3,906	559,161
June 2023 Payments		(126,000)	(1,261,249)		(1,387,249)
June 30, 2023 Balance		12,069,607	40,297,244	1,865,864	54,232,714

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 June 30, 2023.

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

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn is the same summary *without* the past due balances for the City of Highland Park and Dearborn. Six water accounts comprise the past due balances over 75 days. Three accounts make up a past due balance of $543 thousand were paid in full in July. One credit balance related to an overpayment was cleared in August. The remaining three past due amounts relate to ongoing disputes regarding the Highland Park portion of their water charges.

The IWC credit balance was cleared with a July payment. One Pollutant Surcharge account past due of $3 thousand was paid in full in July. The remaining Pollutant Surcharge past due balance consist of smaller account holders that GLWA staff continue to communicate with.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 55,359,908.13	$ 37,252,505.45	$ 1,621,072.82	$ 847,563.65	$ 15,638,766.21
Sewer	$ 53,239,188.50	$ 13,393,644.87	$ 451,700.00	$ 451,700.00	$ 38,942,143.63
IWC	$ 2,235,610.49	$ 386,039.46	$ (4,584.19)	$ -	$ 1,854,155.22
Pollutant Surcharge	$ 706,688.65	$ 694,630.84	$ 8,755.41	$ 1,850.74	$ 1,451.66
Total	$ 111,541,395.77	$ 51,726,820.62	$ 2,076,944.04	$ 1,301,114.39	$ 56,436,516.72
	100.00%	46.37%	1.86%	1.17%	50.60%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 43,290,301.01	$ 37,050,080.59	$ 1,520,004.81	$ 748,399.83	$ 3,971,815.78
Sewer	$ 12,941,944.87	$ 12,941,944.87	$ -	$ -	$ -
IWC	$ 369,746.88	$ 378,227.90	$ (8,481.02)	$ -	$ -
Pollutant Surcharge	$ 706,688.65	$ 694,630.84	$ 8,755.41	$ 1,850.74	$ 1,451.66
Total	$ 57,308,681.41	$ 51,064,884.20	$ 1,520,279.20	$ 750,250.57	$ 3,973,267.44
	100.00%	89.10%	2.65%	1.31%	6.93%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 36,005,688.77	$ 35,499,649.08	$ 564,833.72	$ 19,758.35	$ (78,552.38)
Sewer	$ 12,941,944.87	$ 12,941,944.87	$ -	$ -	$ -
IWC	$ 369,746.88	$ 378,227.90	$ (8,481.02)	$ -	$ -
Pollutant Surcharge	$ 706,688.65	$ 694,630.84	$ 8,755.41	$ 1,850.74	$ 1,451.66
Total	$ 50,024,069.17	$ 49,514,452.69	$ 565,108.11	$ 21,609.09	$ (77,100.72)
	100.00%	98.98%	1.13%	0.04%	-0.15%

Note: *percentages vary from 100% due to rounding.*

The Monthly Trust Receipts & Disbursements Report includes the following.

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

GLWA Trust Receipts & Disbursements

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

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

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

Water fund receipts exceeded required disbursements by 4% through June 30, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 11% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 5% through June 30, 2023 in line with the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2018.

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

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

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

		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru June 30 (Prelim)
	Water					
1	Receipts	$ 336,594,234	$ 332,606,196	$ 336,642,021	$ 338,117,694	$ 363,335,474
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	336,594,234	332,606,196	336,642,021	338,117,694	363,335,474
4	Disbursements	(289,230,481)	(296,190,425)	(308,713,407)	(316,495,360)	(349,186,375)
5	Receipts Net of Required Transfers	47,363,753	36,415,771	27,928,614	21,622,334	14,149,099
6	I&E Transfer	(47,695,000)	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)
7	Net Receipts	$ (331,247)	$ 10,696,020	$ (4,063,073)	$ (5,000,528)	$ 4,250,999
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*116%*	*112%*	*109%*	*107%*	*104%*
	Sewer					
9	Receipts	$ 467,743,744	$ 490,461,356	$ 472,871,853	$ 471,979,297	$ 498,888,416
10	MOU Adjustments	-	-	-	-	-
11	Adjusted Receipts	467,743,744	490,461,356	472,871,853	471,979,297	498,888,416
12	Disbursements	(453,406,636)	(445,604,952)	(436,600,883)	(450,701,751)	(473,516,238)
13	Receipts Net of Required Transfers	14,337,108	44,856,404	36,270,970	21,277,546	25,372,178
14	I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)
15	DWSD Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17	Net Receipts	$ 1,156,763	$ 43,302,873	$ 13,972,674	$ (8,077,664)	$ (1,394,022)
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*103%*	*110%*	*108%*	*105%*	*105%*
	Combined					
19	Receipts	$ 804,337,978	$ 823,067,552	$ 809,513,874	$ 810,096,991	$ 862,223,890
20	MOU Adjustments	-	-	-	-	-
21	Adjusted Receipts	804,337,978	823,067,552	809,513,874	810,096,991	862,223,890
22	Disbursements	(742,637,117)	(741,795,377)	(745,314,290)	(767,197,111)	(822,702,613)
23	Receipts Net of Required Transfers	61,700,861	81,272,175	64,199,584	42,899,880	39,521,277
24	I&E Transfer	(70,242,700)	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	-
27	Net Receipts	$ 825,516	$ 53,998,893	$ 9,909,601	$ (13,078,192)	$ 2,856,977
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*108%*	*111%*	*109%*	*106%*	*105%*

Chart 1 – GLWA 12-Month Net Receipts – Water

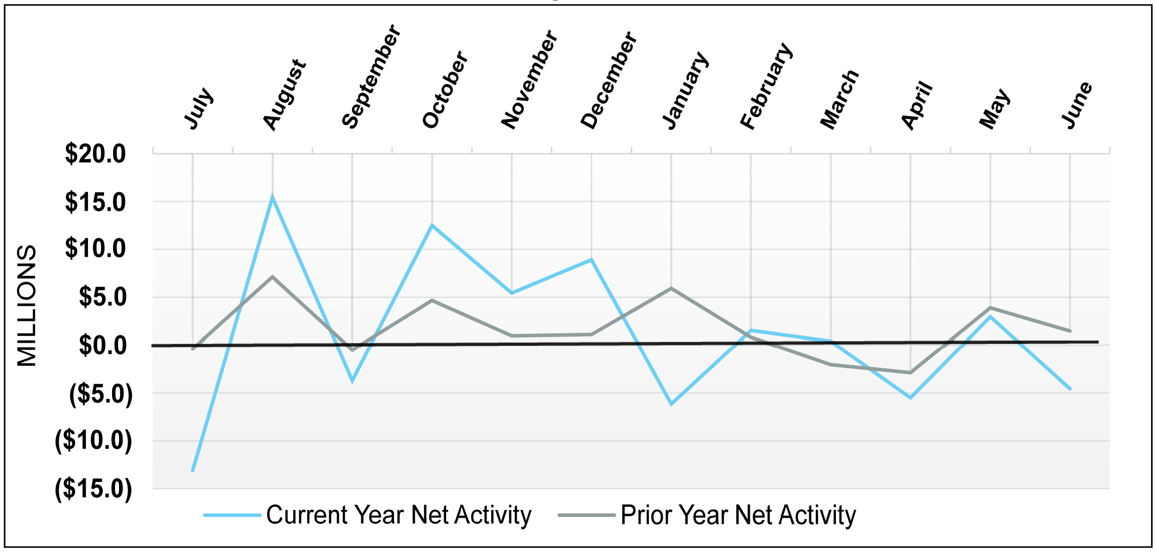
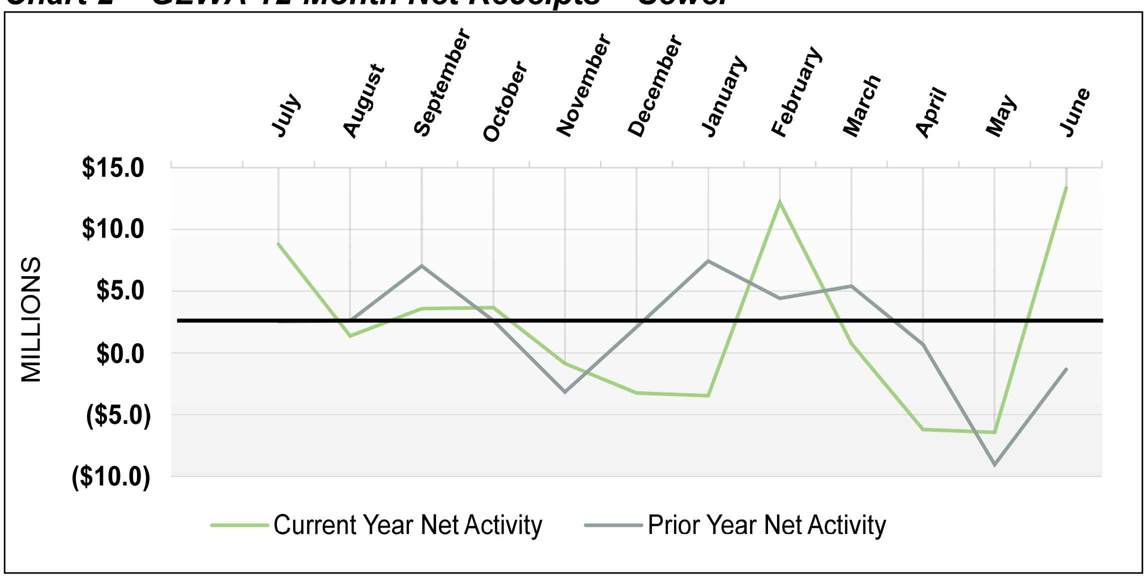


Chart 2 – GLWA 12-Month Net Receipts – Sewer



DWSD Trust Receipts & Disbursements

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

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

Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year. Fiscal year 2023 reflects twelve months of activity to date.

Water fund receipts exceeded required disbursements by 5% through June 30, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 6% through June 30, 2023 compared to the four-year historical average of required receipts exceeding disbursements by 1% since July 1, 2018.

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

		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru June 30 (Prelim)
	Water					
1	Receipts	$ 99,868,219	$ 96,885,723	$ 102,067,423	$ 101,964,963	$ 123,766,624
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	99,868,219	96,885,723	102,067,423	101,964,963	123,766,624
4	Disbursements	(97,694,600)	(97,823,097)	(100,707,200)	(94,495,601)	(117,666,100)
5	Receipts Net of Required Transfers	2,173,619	(937,374)	1,360,223	7,469,362	6,100,524
6	I&E Transfer	(8,407,080)	-	-	-	-
7	Net Receipts	$ (6,233,461)	$ (937,374)	$ 1,360,223	$ 7,469,362	$ 6,100,524
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*102%*	*99%*	*101%*	*108%*	*105%*
	Sewer					
9	Receipts	$ 265,339,797	$ 264,689,559	$ 308,210,767	$ 291,280,896	$ 298,896,942
10	MOU Adjustments	6,527,200	-	-	-	-
11	Adjusted Receipts	271,866,997	264,689,559	308,210,767	291,280,896	298,896,942
12	Disbursements	(271,018,306)	(275,507,374)	(295,100,771)	(285,256,000)	(283,095,100)
13	Receipts Net of Required Transfers	848,691	(10,817,815)	13,109,996	6,024,896	15,801,842
14	I&E Transfer	-	-	-	-	-
15	Shortfall Advance from GLWA	-	-	-	-	-
16	Net Receipts	$ 848,691	$ (10,817,815)	$ 13,109,996	$ 6,024,896	$ 15,801,842
17	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*100%*	*96%*	*104%*	*102%*	*106%*
	Combined					
18	Receipts	$ 365,208,016	$ 361,575,282	$ 410,278,190	$ 393,245,859	$ 422,663,566
19	MOU Adjustments	6,527,200	-	-	-	-
20	Adjusted Receipts	371,735,216	361,575,282	410,278,190	393,245,859	422,663,566
21	Disbursements	(368,712,906)	(373,330,471)	(395,807,971)	(379,751,601)	(400,761,200)
22	Receipts Net of Required Transfers	3,022,310	(11,755,189)	14,470,219	13,494,258	21,902,366
23	I&E Transfer	(8,407,080)	-	-	-	-
24	Shortfall Advance from GLWA	-	-	-	-	-
25	Net Receipts	$ (5,384,770)	$ (11,755,189)	$ 14,470,219	$ 13,494,258	$ 21,902,366
26	*Ratio of Receipts to Required Disbursements (Line 20/Line 21)*	*101%*	*97%*	*104%*	*104%*	*105%*

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

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

Chart 3 – DWSD 12-Month Net Receipts – Water

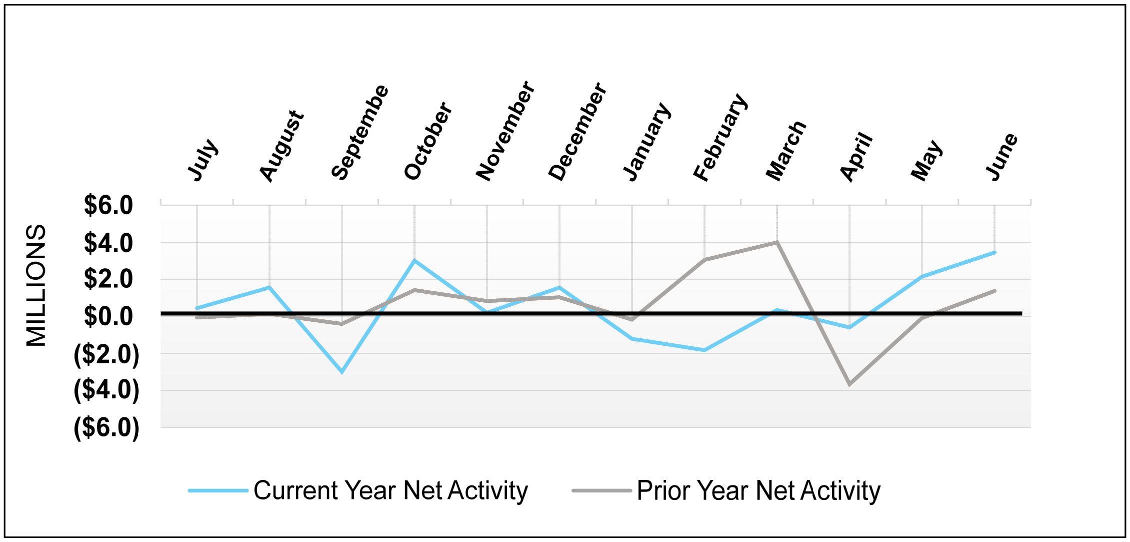
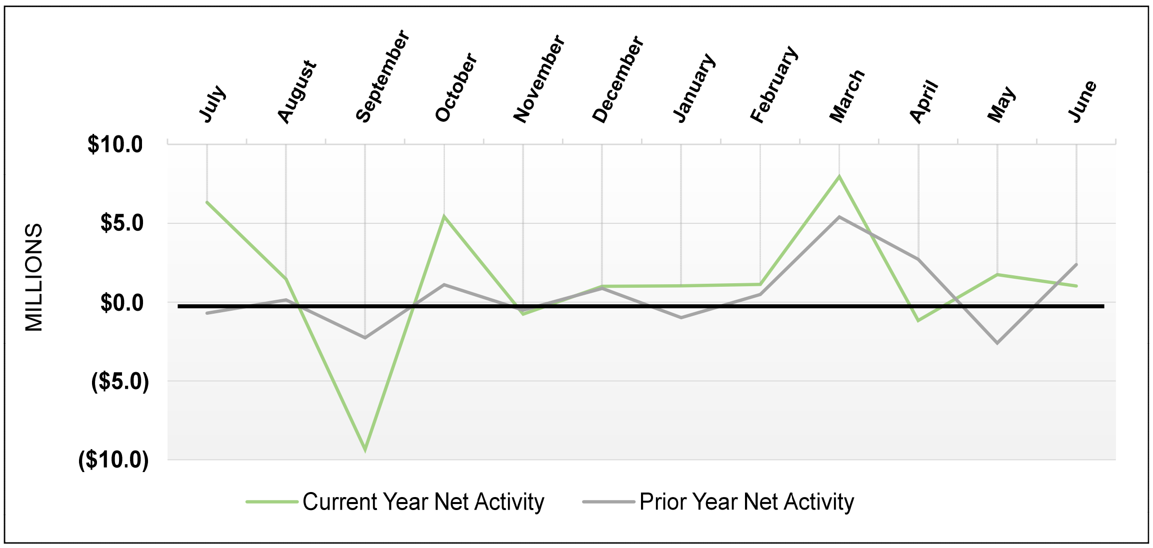


Chart 4 – DWSD 12-Month Net Receipts – Sewer



Combined System Trust Receipts & Disbursements

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

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

Water fund net receipts exceeded required disbursements by 4% through June 30, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 9% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 5% through June 30, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 4% since July 1, 2018.

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

		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru June 30 (Prelim)
	Water					
1	Receipts	$ 436,462,453	$ 429,491,919	$ 438,709,444	$ 440,082,657	$ 487,102,098
2	MOU Adjustments	-	-	-	-	-
3	Adjusted Receipts	436,462,453	429,491,919	438,709,444	440,082,657	487,102,098
4	Disbursements	(386,925,081)	(394,013,522)	(409,420,607)	(410,990,961)	(466,852,475)
5	Receipts Net of Required Transfers	49,537,372	35,478,397	29,288,837	29,091,696	20,249,623
6	I&E Transfer	(56,102,080)	(25,719,751)	(31,991,687)	(26,622,862)	(9,898,100)
7	Net Receipts	$ (6,564,708)	$ 9,758,646	$ (2,702,850)	$ 2,468,834	$ 10,351,523
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*113%*	*109%*	*107%*	*107%*	*104%*
	Sewer					
9	Receipts	$ 733,083,541	$ 755,150,915	$ 781,082,620	$ 763,260,193	$ 797,785,358
10	MOU Adjustments	6,527,200	-	-	-	-
11	Adjusted Receipts	739,610,741	755,150,915	781,082,620	763,260,193	797,785,358
12	Disbursements	(724,424,942)	(721,112,326)	(731,701,654)	(735,957,751)	(756,611,338)
13	Receipts Net of Required Transfers	15,185,799	34,038,589	49,380,966	27,302,442	41,174,020
14	I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(26,766,200)
15	Shortfall Advance	-	-	-	-	-
16	Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17	Net Receipts	$ (7,361,901)	$ 32,485,058	$ 27,082,670	$ (2,052,768)	$ 14,407,820
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*102%*	*105%*	*107%*	*104%*	*105%*
	Combined					
19	Receipts	$ 1,169,545,994	$ 1,184,642,834	$ 1,219,792,064	$ 1,203,342,850	$ 1,284,887,456
20	MOU Adjustments	6,527,200	-	-	-	-
21	Adjusted Receipts	1,176,073,194	1,184,642,834	1,219,792,064	1,203,342,850	1,284,887,456
22	Disbursements	(1,111,350,023)	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(1,223,463,813)
23	Receipts Net of Required Transfers	64,723,171	69,516,986	78,669,803	56,394,138	61,423,643
24	I&E Transfer	(78,649,780)	(44,815,951)	(72,496,414)	(64,274,650)	(36,664,300)
25	Shortfall Advance	-	-	-	-	-
26	Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	-
27	Net Receipts	$ (4,559,254)	$ 42,243,704	$ 24,379,820	$ 416,066	$ 24,759,343
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*106%*	*106%*	*107%*	*105%*	*105%*

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$217,813.07	$217,813.07	$0.00	$0.00	$0.00
ALMONT VILLAGE	$22,088.02	$22,088.02	$0.00	$0.00	$0.00
ASH TOWNSHIP	$76,490.32	$76,490.32	$0.00	$0.00	$0.00
BELLEVILLE	$29,723.16	$29,723.16	$0.00	$0.00	$0.00
BERLIN TOWNSHIP	$70,283.30	$70,283.30	$0.00	$0.00	$0.00
BROWNSTOWN TOWNSHIP	$351,011.21	$351,011.21	$0.00	$0.00	$0.00
BRUCE TOWNSHIP	$46,422.99	$46,422.99	$0.00	$0.00	$0.00
BURTCHVILLE TOWNSHIP	$37,639.19	$37,639.19	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$1,040,342.92	$1,040,342.92	$0.00	$0.00	$0.00
CENTER LINE	$84,238.33	$84,238.33	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$771,195.21	$771,195.21	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$693,981.85	$693,981.85	$0.00	$0.00	$0.00
COMMERCE TOWNSHIP	$639,303.51	$639,303.51	$0.00	$0.00	$0.00
DEARBORN	$7,284,612.24	$1,550,431.51	$955,171.09	$728,641.48	$4,050,368.16
DEARBORN HEIGHTS	$339,035.70	$339,035.70	$0.00	$0.00	$0.00
EASTPOINTE	$140,827.15	$140,827.15	$0.00	$0.00	$0.00
ECORSE	$109,829.31	$109,829.31	$0.00	$0.00	$0.00
FARMINGTON	$179,599.39	$179,599.39	$0.00	$0.00	$0.00
FARMINGTON HILLS	$1,552,467.68	$1,552,467.68	$0.00	$0.00	$0.00
FERNDALE	$271,163.59	$182,196.39	$88,967.20	$0.00	$0.00
FLAT ROCK	$114,290.94	$114,290.94	$0.00	$0.00	$0.00
FLINT	$366,338.81	$366,338.81	$0.00	$0.00	$0.00
FRASER	$112,319.79	$112,319.79	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	$152,570.63	$152,570.63	$0.00	$0.00	$0.00
GENESEE COUNTY DRAIN COMM	$0.00	$0.00	$0.00	$0.00	$0.00
GIBRALTAR	$30,745.69	$30,745.69	$0.00	$0.00	$0.00
GREATER LAPEER CUA	$0.00	$0.00	$0.00	$0.00	$0.00
GREENWOOD TWP. (DTE)	$158,054.21	$158,054.21	$0.00	$0.00	$0.00
GROSSE ILE TOWNSHIP	$117,967.83	$117,967.83	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$122,287.98	$122,287.98	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$61,385.76	$61,385.76	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$118,616.96	$118,616.96	$0.00	$0.00	$0.00
HAMTRAMCK	$(78,552.38)	$0.00	$0.00	$0.00	$(78,552.38)
HARPER WOODS	$77,290.71	$77,290.71	$0.00	$0.00	$0.00
HARRISON TWP	$156,055.80	$156,055.80	$0.00	$0.00	$0.00
HAZEL PARK	$67,582.13	$67,582.13	$0.00	$0.00	$0.00
HIGHLAND PARK	$12,069,607.12	$202,424.86	$101,068.01	$99,163.82	$11,666,950.43
HURON TOWNSHIP	$187,714.67	$187,714.67	$0.00	$0.00	$0.00
IMLAY CITY	$151,286.57	$151,286.57	$0.00	$0.00	$0.00
IMLAY TOWNSHIP (CHAMPION BUS	$801.59	$801.59	$0.00	$0.00	$0.00
INKSTER	$111,190.69	$111,190.69	$0.00	$0.00	$0.00
KEEGO HARBOR	$27,440.83	$27,440.83	$0.00	$0.00	$0.00
LAPEER	$147,129.47	$147,129.47	$0.00	$0.00	$0.00
LENOX TOWNSHIP	$55,147.95	$55,147.95	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	$218,203.37	$218,203.37	$0.00	$0.00	$0.00
LIVONIA	$1,071,381.92	$1,071,381.92	$0.00	$0.00	$0.00
MACOMB TWP	$1,240,914.77	$1,240,914.77	$0.00	$0.00	$0.00
MADISON HEIGHTS	$195,311.44	$195,311.44	$0.00	$0.00	$0.00
MAYFIELD TOWNSHIP (KAMAX)	$14,305.92	$7,132.85	$3,718.72	$3,454.35	$0.00
MELVINDALE	$60,351.73	$60,351.73	$0.00	$0.00	$0.00
NEW HAVEN	$36,529.73	$36,529.73	$0.00	$0.00	$0.00
NOCWA	$2,061,871.04	$2,061,871.04	$0.00	$0.00	$0.00
NORTHVILLE	$134,169.92	$133,269.92	$900.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$546,191.74	$546,191.74	$0.00	$0.00	$0.00
NOVI	$825,258.52	$825,258.52	$0.00	$0.00	$0.00
OAK PARK	$122,646.64	$122,646.64	$0.00	$0.00	$0.00
OAKLAND CO DR COM	$7,270.32	$7,270.32	$0.00	$0.00	$0.00
PLYMOUTH	$94,782.99	$94,782.99	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$787,586.56	$772,086.56	$15,500.00	$0.00	$0.00
REDFORD TOWNSHIP	$566,426.53	$566,426.53	$0.00	$0.00	$0.00
RIVER ROUGE	$126,579.64	$126,579.64	$0.00	$0.00	$0.00
RIVERVIEW	$79,334.69	$79,334.69	$0.00	$0.00	$0.00
ROCKWOOD	$25,796.58	$25,796.58	$0.00	$0.00	$0.00
ROMEO	$36,907.15	$36,907.15	$0.00	$0.00	$0.00
ROMULUS	$735,679.92	$735,679.92	$0.00	$0.00	$0.00
ROSEVILLE	$235,723.85	$235,723.85	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$18,317.00	$18,317.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	$1,408,814.97	$1,408,814.97	$0.00	$0.00	$0.00
SOCWA	$4,105,894.34	$4,060,909.56	$44,984.78	$0.00	$0.00
SOUTH ROCKWOOD	$10,806.67	$10,806.67	$0.00	$0.00	$0.00
SOUTHGATE	$207,612.31	$207,612.31	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$298,718.96	$298,718.96	$0.00	$0.00	$0.00
STERLING HEIGHTS	$1,398,659.50	$1,398,659.50	$0.00	$0.00	$0.00
SUMPTER TOWNSHIP	$127,772.54	$127,772.54	$0.00	$0.00	$0.00
SYLVAN LAKE	$22,521.33	$22,521.33	$0.00	$0.00	$0.00
TAYLOR	$1,269,757.07	$842,690.05	$410,763.02	$16,304.00	$0.00
TRENTON	$153,479.45	$153,479.45	$0.00	$0.00	$0.00
TROY (SEOC)	$1,234,200.34	$1,234,200.34	$0.00	$0.00	$0.00
UTICA	$52,575.63	$52,575.63	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$328,132.79	$328,132.79	$0.00	$0.00	$0.00
WALLED LAKE	$72,279.25	$72,279.25	$0.00	$0.00	$0.00
WARREN	$1,844,574.42	$1,844,574.42	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$238,181.98	$238,181.98	$0.00	$0.00	$0.00
WAYNE	$218,115.03	$218,115.03	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (C-O)	$1,867,360.44	$1,867,360.44	$0.00	$0.00	$0.00
WESTLAND	$527,126.79	$527,126.79	$0.00	$0.00	$0.00
WIXOM	$443,131.64	$443,131.64	$0.00	$0.00	$0.00
WOODHAVEN	$153,883.48	$153,883.48	$0.00	$0.00	$0.00
YCUA	$1,849,425.34	$1,849,425.34	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	$55,359,908.13	$37,252,505.45	$1,621,072.82	$847,563.65	$15,638,766.21

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$0.00	$0.00	$0.00	$0.00	$0.00
CENTER LINE	$86,899.50	$86,899.50	$0.00	$0.00	$0.00
DEARBORN	$0.00	$0.00	$0.00	$0.00	$0.00
EVERGREEN-FARMINGTON	$3,016,300.00	$3,016,300.00	$0.00	$0.00	$0.00
FARMINGTON	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
HAMTRAMCK	$0.00	$0.00	$0.00	$0.00	$0.00
HARPER WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
HIGHLAND PARK	$40,297,243.63	$451,700.00	$451,700.00	$451,700.00	$38,942,143.63
MELVINDALE	$0.00	$0.00	$0.00	$0.00	$0.00
OAKLAND COUNTY GWK DD	$3,864,800.00	$3,864,800.00	$0.00	$0.00	$0.00
OMID	$5,973,945.37	$5,973,945.37	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
ROUGE VALLEY	$0.00	$0.00	$0.00	$0.00	$0.00
SOUTH MACOMB SANITATION DIST	$0.00	$0.00	$0.00	$0.00	$0.00
WAYNE COUNTY-AREA #3	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL SEWER ACCOUNTS	$53,239,188.50	$13,393,644.87	$451,700.00	$451,700.00	$38,942,143.63

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$1,623.53	$1,623.53	$0.00	$0.00	$0.00
AUBURN HILLS (C-O)	$11,566.98	$11,566.98	$0.00	$0.00	$0.00
AUBURN HILLS (C-O) ADMIN	$1,959.24	$1,959.24	$0.00	$0.00	$0.00
AUBURN HILLS (E-F)	$397.38	$397.38	$0.00	$0.00	$0.00
BERKLEY	$3,182.62	$3,182.62	$0.00	$0.00	$0.00
BEVERLY HILLS	$1,005.98	$1,005.98	$0.00	$0.00	$0.00
BINGHAM FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
BIRMINGHAM (E-F)	$2,446.93	$2,446.93	$0.00	$0.00	$0.00
BIRMINGHAM (SEOC)	$5,728.00	$5,728.00	$0.00	$0.00	$0.00
BLOOMFIELD HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
BLOOMFIELD TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$85.92	$85.92	$0.00	$0.00	$0.00
CENTER LINE	$2,611.61	$2,611.61	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF INDEPENI	$0.00	$0.00	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$13,158.29	$13,158.29	$0.00	$0.00	$0.00
CITY OF FARMINGTON (E-F)	$202.27	$202.27	$0.00	$0.00	$0.00
CITY OF FERNDALE	$17,935.80	$17,935.80	$0.00	$0.00	$0.00
CITY OF ROCHESTER	$3,750.05	$3,750.05	$0.00	$0.00	$0.00
CLARKSTON	$0.00	$0.00	$0.00	$0.00	$0.00
CLARKSTON (C-O) ADMIN	$0.00	$0.00	$0.00	$0.00	$0.00
CLAWSON	$6,297.22	$6,291.85	$5.37	$0.00	$0.00
CLINTON TOWNSHIP	$27,469.34	$27,469.34	$0.00	$0.00	$0.00
DEARBORN	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	$(8,486.39)	$0.00	$(8,486.39)	$0.00	$0.00
DETROIT METRO WC AIRPORT	$107.40	$107.40	$0.00	$0.00	$0.00
EASTPOINTE	$6,499.49	$6,499.49	$0.00	$0.00	$0.00
FARMINGTON	$4,065.09	$4,065.09	$0.00	$0.00	$0.00
FARMINGTON HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
FRASER	$4,994.10	$4,994.10	$0.00	$0.00	$0.00
GARDEN CITY	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE	$1,591.31	$1,591.31	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$1,190.35	$1,190.35	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
HAMTRAMCK	$4,202.92	$4,202.92	$0.00	$0.00	$0.00
HARPER WOODS	$1,811.48	$1,811.48	$0.00	$0.00	$0.00
HARRISON TWP	$2,869.37	$2,869.37	$0.00	$0.00	$0.00
HAZEL PARK	$3,363.41	$3,363.41	$0.00	$0.00	$0.00
HIGHLAND PARK	$1,865,863.61	$7,811.56	$3,896.83	$0.00	$1,854,155.22
HUNTINGTON WOODS	$0.00	$0.00	$0.00	$0.00	$0.00
INDEPENDENCE (C-O) ADMIN	$1,312.77	$1,312.77	$0.00	$0.00	$0.00
INKSTER	$11,198.24	$11,198.24	$0.00	$0.00	$0.00
KEEGO HARBOR	$710.63	$710.63	$0.00	$0.00	$0.00
LATHRUP	$1,415.89	$1,415.89	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LENOX TOWNSHIP	$655.14	$655.14	$0.00	$0.00	$0.00
LIVONIA	$0.00	$0.00	$0.00	$0.00	$0.00
MACOMB TWP	$207.64	$207.64	$0.00	$0.00	$0.00
MADISON HEIGHTS	$0.00	$0.00	$0.00	$0.00	$0.00
MELVINDALE	$3,540.62	$3,540.62	$0.00	$0.00	$0.00
NEW HAVEN	$619.34	$619.34	$0.00	$0.00	$0.00
NORTHVILLE	$2,348.48	$2,348.48	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
NOVI	$18,095.11	$18,095.11	$0.00	$0.00	$0.00
OAK PARK	$7,032.91	$7,032.91	$0.00	$0.00	$0.00
OAKLAND TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
ORCHARD LAKE VILLAGE	$0.00	$0.00	$0.00	$0.00	$0.00
ORION TOWNSHIP (C-O)	$4,376.55	$4,376.55	$0.00	$0.00	$0.00
ORION TOWNSHIP (C-O) ADMIN	$499.80	$499.80	$0.00	$0.00	$0.00
OXFORD TOWNSHIP	$1,050.73	$1,050.73	$0.00	$0.00	$0.00
OXFORD VILLAGE	$0.00	$0.00	$0.00	$0.00	$0.00
PLEASANT RIDGE	$275.66	$275.66	$0.00	$0.00	$0.00
PLYMOUTH	$3,927.26	$3,927.26	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$137.83	$137.83	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$12,596.23	$12,596.23	$0.00	$0.00	$0.00
ROCHESTER HILLS	$19,038.44	$19,038.44	$0.00	$0.00	$0.00
ROMULUS	$787.60	$787.60	$0.00	$0.00	$0.00
ROSEVILLE	$14,919.65	$14,919.65	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROYAL OAK	$13,879.66	$13,879.66	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
SHELBY TOWNSHIP	$15,488.87	$15,488.87	$0.00	$0.00	$0.00
SOUTHFIELD (E-F)	$28,926.40	$28,926.40	$0.00	$0.00	$0.00
SOUTHFIELD (SEOC)	$3,349.09	$3,349.09	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$12,222.12	$12,222.12	$0.00	$0.00	$0.00
STERLING HEIGHTS	$32,259.38	$32,259.38	$0.00	$0.00	$0.00
TROY (E-F)	$386.64	$386.64	$0.00	$0.00	$0.00
TROY (SEOC)	$0.00	$0.00	$0.00	$0.00	$0.00
UTICA	$3,075.22	$3,075.22	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
VILLAGE OF FRANKLIN	$0.00	$0.00	$0.00	$0.00	$0.00
VILLAGE OF LAKE ORION	$809.08	$809.08	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW	$0.00	$0.00	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW (ADMI	$3,214.13	$3,214.13	$0.00	$0.00	$0.00
WAYNE	$0.00	$0.00	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (C-O)	$0.00	$0.00	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (E-F)	$6,138.37	$6,138.37	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP. (C-O) A	$237.15	$237.15	$0.00	$0.00	$0.00
WESTLAND	$23,384.56	$23,384.56	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	$2,235,610.49	$386,039.46	$(4,584.19)	$0.00	$1,854,155.22

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	$0.00	$0.00	$0.00	$0.00	$0.00
A & R PACKING CO., LLC	$1,257.48	$1,257.48	$0.00	$0.00	$0.00
AACTRON	$0.00	$0.00	$0.00	$0.00	$0.00
ACADEMY PACKING CO.	$0.00	$0.00	$0.00	$0.00	$0.00
ACME RUSTPROOF	$87.55	$66.17	$21.38	$0.00	$0.00
ADORING PET FUNERAL HOME	$57.30	$57.30	$0.00	$0.00	$0.00
ADVANCE ENGINEERING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
AEVITAS SPECIALITY SERVICES	$374.09	$374.09	$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.	$10,705.69	$6,989.13	$3,716.56	$0.00	$0.00
APPLIED TECHNOLOGY INDUSTRIE	$0.00	$0.00	$0.00	$0.00	$0.00
ATWATER IN THE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
AUTOMOTIVE FINISH	$0.00	$0.00	$0.00	$0.00	$0.00
AXLE BREWING COMPANY, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
B. NEKTAR MEADERY	$0.00	$0.00	$0.00	$0.00	$0.00
BAFFIN BREWING COMPANY	$137.26	$0.00	$137.26	$0.00	$0.00
BARON INDUSTRIES	$1,275.56	$1,275.56	$0.00	$0.00	$0.00
BARTZ BAKERY	$0.00	$0.00	$0.00	$0.00	$0.00
BASTONE BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
BAYS MICHIGAN CORPORATION	$0.00	$0.00	$0.00	$0.00	$0.00
BEIRUT BAKERY, INC.	$37.00	$0.00	$0.00	$0.00	$37.00
BETTER MADE SNACK FOOD	$25,753.46	$25,753.46	$0.00	$0.00	$0.00
BLACK LOTUS BREWING CO.	$61.25	$0.00	$0.00	$0.00	$61.25
BOZEK'S MARKET	$(1,245.13)	$0.00	$0.00	$0.00	$(1,245.13)
BREW DETROIT	$6,348.27	$6,348.27	$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
CAPITOL REPRODUCTIONS	$0.00	$0.00	$0.00	$0.00	$0.00
CF BURGER CREAMERY	$24,071.00	$24,071.00	$0.00	$0.00	$0.00
CHARTER TOWNSHIP OF CLINTON	$0.00	$0.00	$0.00	$0.00	$0.00
CHIEFTAN COATING, LLC.	$2,560.59	$2,560.59	$0.00	$0.00	$0.00
CHILANGO'S BAKERY	$163.18	$29.90	$13.80	$13.80	$105.68
CINTAS CORP. - MACOMB TWP.	$0.00	$0.00	$0.00	$0.00	$0.00
CINTAS CORPORATION	$12,021.40	$12,021.40	$0.00	$0.00	$0.00
CINTAS CORPORATION	$4,802.90	$4,802.90	$0.00	$0.00	$0.00
CITY LAUNDRY, INC.	$11.81	$11.81	$0.00	$0.00	$0.00
CLASSIC CONTAINER CORP.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
CLEAN EARTH OF MICHIGAN, LLC	$79.11	$79.11	$0.00	$0.00	$0.00
COCA-COLA REFRESHMENTS USA,	$0.00	$0.00	$0.00	$0.00	$0.00
COSTCO WHOLESALE STORE	$0.00	$0.00	$0.00	$0.00	$0.00
COSTCO WHOLESALE STORE	$0.00	$0.00	$0.00	$0.00	$0.00
COSTCO WHOLESALE STORE	$0.00	$0.00	$0.00	$0.00	$0.00
COSTCO WHOLESALE STORE	$0.00	$0.00	$0.00	$0.00	$0.00
COUNTRY FRESH DAIRY CO.	$0.00	$0.00	$0.00	$0.00	$0.00
CROSS CHEMICAL COMPANY, INC.	$94.53	$94.53	$0.00	$0.00	$0.00
DANA CONTAINER, INC.	$968.72	$968.72	$0.00	$0.00	$0.00
DARLING INGREDIENTS, INC.	$6,090.35	$6,090.35	$0.00	$0.00	$0.00
DAVE'S SAUSAGE FACTORY 2	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN BREWING	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN SAUSAGE	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN SAUSAGE CO., INC.	$0.00	$0.00	$0.00	$0.00	$0.00
DETROIT BEER CO.	$0.00	$0.00	$0.00	$0.00	$0.00
DETROIT LINEN SERVICE	$0.00	$0.00	$0.00	$0.00	$0.00
DETROIT METRO WC AIRPORT	$129,077.06	$129,077.06	$0.00	$0.00	$0.00
DETROIT RIVERTOWN BREWERY CO	$0.00	$0.00	$0.00	$0.00	$0.00
DETROIT SAUSAGES CO INC	$29.08	$20.13	$8.95	$0.00	$0.00
DETRONIC INDUSTRIES, INC.	$(51.47)	$0.00	$0.00	$0.00	$(51.47)
DIFCO LABORATORIES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
DIVERSIFIED CHEM TECH. INC.	$89.76	$89.76	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$6,202.50	$6,202.50	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DOMESTIC UNIFORM RENTAL	$1,308.52	$1,308.52	$0.00	$0.00	$0.00
DOWNEY BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
DUBOIS CHEMICALS, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$72.48	$72.48	$0.00	$0.00	$0.00
E & E MANUFACTURING CO, PLAN	$71.01	$71.01	$0.00	$0.00	$0.00
E.W. GROBBEL'S SONS, INC.	$3,394.30	$3,394.30	$0.00	$0.00	$0.00
EASTERN MARKET BREWING COMPA	$0.00	$0.00	$0.00	$0.00	$0.00
ENVIROSOLIDS, L.L.C.	$0.00	$0.00	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$637.24	$637.24	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$2,848.96	$1,938.19	$910.77	$0.00	$0.00
EQ DETROIT, INC.	$(0.59)	$0.00	$0.00	$0.00	$(0.59)
EQ DETROIT, INC.	$(0.01)	$0.00	$0.00	$(0.01)	$0.00
ETON ST BREWERY- GRIFFIN CLA	$0.00	$0.00	$0.00	$0.00	$0.00
EXTRUDE HONE CORPORATION	$185.60	$185.60	$0.00	$0.00	$0.00
EXTRUDEHODE	$0.00	$0.00	$0.00	$0.00	$0.00
FARMINGTON BREWING COMPANY	$16.28	$0.00	$16.28	$0.00	$0.00
FAYGO BEVERAGES, INC.	$4,160.64	$4,160.64	$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 MOTOR CO- STERLING PLAN	$5,200.06	$2,746.78	$1,240.31	$1,212.97	$0.00
FORD NEW MODEL PROGRAM	$0.00	$0.00	$0.00	$0.00	$0.00
FOUNDERS BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
FRESH-PAK	$802.22	$802.22	$0.00	$0.00	$0.00
FRESH-PAK	$0.00	$0.00	$0.00	$0.00	$0.00
GENERAL LINEN SUPPLY CO.	$3,994.93	$3,994.93	$0.00	$0.00	$0.00
GENERAL MOTORS, LLC ROMULUS	$1,682.55	$1,682.55	$0.00	$0.00	$0.00
GLOBAL TITANIUM, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
GREAT BARABOO BREWING CO.	$88.58	$0.00	$88.58	$0.00	$0.00
HACIENDA MEXICAN FOODS	$236.45	$70.52	$37.33	$29.04	$99.56
HACIENDA MEXICAN FOODS	$1,393.12	$1,049.45	$343.67	$0.00	$0.00
HENKEL CORPORATION	$0.00	$0.00	$0.00	$0.00	$0.00
HENRY FORD MACOMB HOSPITAL	$0.00	$0.00	$0.00	$0.00	$0.00
HOME STYLE FOOD INC.	$2,195.93	$2,195.93	$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
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	$146.99	$146.99	$0.00	$0.00	$0.00
INTRASTATE DISTRIBUTORS	$1,407.28	$1,407.28	$0.00	$0.00	$0.00
ISLAMIC SLAUGHTER HOUSE	$262.01	$262.01	$0.00	$0.00	$0.00
ITALIAN BUTTER BREAD STICKS	$0.00	$0.00	$0.00	$0.00	$0.00
JAMEX BREWING CO.	$21.31	$0.00	$21.31	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
JELD-WEN, INC.	$656.12	$315.05	$163.73	$177.34	$0.00
KAR NUT PRODUCTS	$0.00	$0.00	$0.00	$0.00	$0.00
KOWALSKI SAUSAGES, CO.	$198.89	$198.89	$0.00	$0.00	$0.00
KUHNHENN BREWING	$0.00	$0.00	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$439.69	$439.69	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$41.48	$41.48	$0.00	$0.00	$0.00
LEAR CORPORATION DBA EAGLE C	$218.68	$218.68	$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	$39.96	$0.00	$39.96	$0.00	$0.00
LIQUID ENVIRONMENTAL OF ILLI	$0.00	$0.00	$0.00	$0.00	$0.00
LIQUID ENVIRONMENTAL SOLUTIC	$2,245.30	$1,600.82	$644.48	$0.00	$0.00
MACDERMID, INC.	$949.12	$949.12	$0.00	$0.00	$0.00
MCCLURE'S PICKLES	$548.51	$548.51	$0.00	$0.00	$0.00
MCGEAN CHEMICALS	$145.60	$145.60	$0.00	$0.00	$0.00
MCNICHOLS POLISHING & ANODIZ	$(31.54)	$0.00	$0.00	$0.00	$(31.54)
MELLO MEATS INC, - KUBISCH S	$268.53	$134.27	$67.13	$67.13	$0.00
METROPOLITAN BAKERY	$367.05	$367.05	$0.00	$0.00	$0.00
MIBA HYDRAMECHANICA CORP.	$1,434.50	$822.68	$338.58	$273.24	$0.00
MICHIGAN DAIRY	$90,159.13	$90,159.13	$0.00	$0.00	$0.00
MICHIGAN PROD. MACHINING	$0.00	$0.00	$0.00	$0.00	$0.00
MICHIGAN SOY PRODUCTS CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MIDWEST WIRE PRODUCTS, INC.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MILANO BAKERY	$524.48	$524.48	$0.00	$0.00	$0.00
MILTON CHILI CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MINNIE MARIE BAKERS, INC	$1,414.91	$1,414.91	$0.00	$0.00	$0.00
MISTER UNIFORM & MAT RENTALS	$(7.50)	$0.00	$0.00	$0.00	$(7.50)
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
ND INDUSTRIES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
NEAPCO DRIVELINES	$0.00	$0.00	$0.00	$0.00	$0.00
NORTH CENTER BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
NORTHERN LAKES SEAFOOD & MEA	$24.52	$24.52	$0.00	$0.00	$0.00
OAKWOOD BAKERY	$30.27	$30.27	$0.00	$0.00	$0.00
OLIVER HATCH CONSTRUCTION	$0.00	$0.00	$0.00	$0.00	$0.00
PARKEDALE PHARMACEUTICALS/PE	$184.80	$184.80	$0.00	$0.00	$0.00
PARKER'S HILLTOP BREWER & SE	$67.00	$0.00	$67.00	$0.00	$0.00
PELLERITO FOODS INC.	$22.43	$22.43	$0.00	$0.00	$0.00
PEPSI COLA, INC.	$5,388.32	$5,388.32	$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	$(18.19)	$0.00	$0.00	$0.00	$(18.19)
PETRO ENVIRON TECH, INC.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PINE TREE ACRES, INC.	$250,794.59	$250,794.59	$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	$584.22	$584.22	$0.00	$0.00	$0.00
PREMIER PLATING- STERLING HE	$0.00	$0.00	$0.00	$0.00	$0.00
PRODUCTION SPRING, LLC.	$0.00	$0.00	$0.00	$0.00	$0.00
QUAKER HOUGHTON - PLANT #2	$(4.29)	$0.00	$0.00	$0.00	$(4.29)
QUAKER HOUGHTON - PLANT #2	$(636.65)	$0.00	$0.00	$0.00	$(636.65)
QUAKER HOUGHTON - PLANT #2	$1,273.39	$1,273.39	$0.00	$0.00	$0.00
QUALA SERVICES, LLC	$42.35	$42.35	$0.00	$0.00	$0.00
RAY'S ICE CREAM CO.	$0.00	$0.00	$0.00	$0.00	$0.00
RED SPOT PAINT #409139	$0.00	$0.00	$0.00	$0.00	$0.00
RIVER ROUGE BREWING COMPANY	$440.60	$0.00	$0.00	$0.00	$440.60
ROAK BREWING CO. LLC	$0.00	$0.00	$0.00	$0.00	$0.00
ROCHESTER MILLS BEER COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
ROCHESTER MILLS PROD BREWERY	$3,229.67	$0.00	$1,181.66	$0.00	$2,048.01
ROYAL OAK BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
RTT	$0.00	$0.00	$0.00	$0.00	$0.00
SEAFARE FOODS, INC.	$97.47	$97.47	$0.00	$0.00	$0.00
SHERWOOD BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
SMITH-WATKINS, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
SPRAYTEK INC.- MADISON HEIGH	$(615.03)	$0.00	$(615.03)	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SPRAYTEK, INC.	$14.52	$0.00	$0.00	$0.00	$14.52
SUPERNATURAL SPIRITS & BREWI	$0.00	$0.00	$0.00	$0.00	$0.00
SWEETHEART BAKERY, INC.	$400.74	$157.81	$61.25	$61.25	$120.43
THE CROWN GROUP-LIVONIA PLAN	$0.00	$0.00	$0.00	$0.00	$0.00
THE DEBURRING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
THERMO FISHER SCIENTIFIC	$44,171.90	$44,171.90	$0.00	$0.00	$0.00
TOM LAUNDRY CLEANERS	$0.00	$0.00	$0.00	$0.00	$0.00
TRAFFIC JAM & SNUG	$(31.16)	$0.00	$0.00	$0.00	$(31.16)
TURRI'S ITALIAN FOODS	$0.00	$0.00	$0.00	$0.00	$0.00
TURRI'S ITALIAN FOODS	$0.00	$0.00	$0.00	$0.00	$0.00
U-METCO, INC.	$349.65	$349.65	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$19,988.70	$19,988.70	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$1,194.05	$1,194.05	$0.00	$0.00	$0.00
UNIQUE LINEN SERVICES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
UNITED FISH DISTRIBUTORS	$0.49	$0.49	$0.00	$0.00	$0.00
UNITED LINEN SERVICE, LLC.	$727.47	$334.82	$181.11	$15.98	$195.56
UNITED MEAT & DELI	$0.00	$0.00	$0.00	$0.00	$0.00
URBANREST BREWING COMPANY	$69.34	$0.00	$69.34	$0.00	$0.00
US ECOLOGY MICHIGAN	$460.39	$460.39	$0.00	$0.00	$0.00
US ECOLOGY ROMULUS, INC.	$818.82	$818.82	$0.00	$0.00	$0.00
USHER OIL SERVICES	$190.10	$190.10	$0.00	$0.00	$0.00
VALICOR ENVIROMENTAL SERVICE	$419.45	$419.45	$0.00	$0.00	$0.00
VALICOR ENVIRONMENTAL SERVIC	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 06/30/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
VAUGHAN INDUSTRIES, INC.	$34.09	$34.09	$0.00	$0.00	$0.00
VERNDALE PRODUCTS	$6,912.00	$6,912.00	$0.00	$0.00	$0.00
VERNDALE PRODUCTS, INC.	$4,242.65	$4,242.65	$0.00	$0.00	$0.00
WIGLEY'S MEAT PROCESS	$371.44	$371.44	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$390.47	$390.47	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$80.25	$80.25	$0.00	$0.00	$0.00
WOLVERINE PACKING CO	$1,737.82	$1,737.82	$0.00	$0.00	$0.00
WOLVERINE PACKING CO.	$2,085.36	$2,085.36	$0.00	$0.00	$0.00
WOLVERINE PACKING CO., PLANT	$0.00	$0.00	$0.00	$0.00	$0.00
WOODWARD AVENUE BREWERS	$144.24	$0.00	$0.00	$0.00	$144.24
X-R-I TESTING	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL POLLUTANT SURCHARGE ACCOUNTS	$706,688.65	$694,630.84	$8,755.41	$1,850.74	$1,451.66

City of Highland Park Billings and Collections

	Water	Sewer	IWC	Cumulative Total
June 30, 2012 Balance	$ -	$ 10,207,956	$ 852,987	$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	(65,652)	(2,206,211)	-	(2,271,863)
				-
June 30, 2013 Balance	$ 420,235	$ 12,989,380	$ 1,007,431	$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	-	(1,612,633)	-	(1,612,633)
				-
June 30, 2014 Balance	$ 1,424,592	$ 18,357,189	$ 1,169,382	$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	-	(1,444,623)	-	(1,444,623)
				-
June 30, 2015 Balance	$ 2,432,625	$ 22,465,689	$ 1,335,121	$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	-	(2,022,335)	-	(2,022,335)
				-
June 30, 2016 Balance	$ 3,589,803	$ 26,055,521	$ 1,441,551	$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	-	(2,309,186)	-	(2,309,186)
				-
June 30, 2017 Balance	$ 4,835,070	$ 29,548,335	$ 1,543,550	$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	-	(4,108,108)	-	(4,108,108)
June 30, 2018 Balance	$ 6,112,248	$ 31,097,327	$ 1,624,022	$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	-	(5,241,583)	-	(5,241,583)
June 30, 2019 Balance	$ 7,351,045	$ 31,472,844	$ 1,675,243	$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	-	(3,026,117)	-	(3,026,117)
June 30, 2020 Balance	$ 8,533,684	$ 34,112,127	$ 1,722,340	$ 44,368,151
FY 2021 Billings	1,185,506	5,702,000	47,423	6,934,929
FY 2021 Payments	-	(2,783,552)	-	(2,783,552)
June 30, 2021 Balance	9,719,190	37,030,575	1,769,763	48,519,528
FY 2022 Billings	1,222,260	5,389,300	48,322	6,659,882
FY 2022 Payments	-	(1,788,828)	-	(1,788,828)
June 30, 2022 Balance	$ 10,941,450	$ 40,631,047	$ 1,818,085	$ 53,390,582
FY 2023 Billings (12 Months)	1,254,157	5,415,100	47,779	6,717,035
FY 2023 Payments (12 Months)	(126,000)	(5,748,903)	-	(5,874,903)
Balance as of June 30, 2023	**$ 12,069,607**	**$ 40,297,244**	**$ 1,865,863**	**$ 54,232,714**

AGENDA ITEM #8C

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Megan Savage, Vendor Outreach Coordinator

Re: Business Inclusion & Diversity Program Update

Background: On November 25, 2020, the GLWA Board of Directors approved an amendment to the Procurement Policy allowing for the formation of a new Business Inclusion & Diversity (B.I.D.) Program within the Financial Services' Procurement Group. The B.I.D. Program Team, which includes internal GLWA Team Members as well as external consultants, executed a Phase I launch of the program on February 1, 2021 and a Phase II launch on July 1, 2021.

Analysis: This month we present tables to recap B.I.D. Program activity from the date of the program launch on February 1, 2021 through September 30, 2023 for procurements budgeted to exceed $1 million.

Table 1: B.I.D. Eligible Procurements as of September 30, 2023

Table 1 provides an overview of the total number of B.I.D. Program-eligible Procurements awarded, in evaluation, or advertised as active opportunities in GLWA's Bonfire Procurement Portal. Each vendor who submits a response to a B.I.D. Program-eligible procurement must also submit a Business Inclusion and Diversity Plan. The total number of Diversity Plans that GLWA has received for B.I.D. eligible procurements that have been awarded and that are in evaluation is also provided.

	Awarded	In Evaluation Phase	Active (Advertised)	Total
Procurements Requiring B.I.D. Submittals	74	13	4	91
Total Number of Diversity Plans Submitted	237	34	n/a	271

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	76%	$679.4
Member Partner Service Area	72%	$637.2
Disadvantaged Service Area	39%	$349.4

Table 3: Member Partner Communities

Table 3 provides a breakdown of the number of awarded contracts to vendors located in GLWA's Member Partner Service area.

	Total Contract Count	Total Contract Amount (in millions)	% of Total $ Awarded
City of Detroit	40	$349.4	39.30%
City of Auburn Hills	5	$76.7	8.63%
City of Novi	3	$94.4	10.61%
City of Livonia	3	$59.6	6.71%
City of Taylor	1	$12.6	1.42%
City of Troy	3	$17.0	1.91%
City of Southfield	2	$6.3	0.71%
City of Madison Heights	1	$6.0	0.67%
City of Warren	2	$4.7	0.52%
City of Wixom	1	$1.1	0.12%
City of Farmington Hills	2	$6.5	0.73%
City of Riverview	1	$1.9	0.21%
Harrison Township	1	$1.0	0.12%
Subtotal	**65**	**$637.2**	**71.67%**
Other Michigan Communities	4	$154.7	17.40%
Out of State	5	$97.2	10.93%
Total	**74**	**$889.1**	**100.00%**

Table 4: Economically Disadvantaged Communities

Table 4 provides a breakdown of the number of awarded contracts to vendors who have a business presence in an economically disadvantaged GLWA service territory area. This means that the vendor is located in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau every five years.

	Total Contract Count	Total Contract Amount (in millions)
Detroit	40	$349.4

Table 5: Non-Scored Criteria - Disadvantaged, Minority-owned, Women-owned, and Small Businesses

Table 5 provides a breakdown of the percentage of B.I.D. Program-eligible procurements awarded thus far that met the B.I.D. Program Non-Scored Criteria. This Non-Scored Criteria refers to any diversity certifications that the vendor may hold as a Disadvantaged Business Enterprise (DBE), Minority-Owned Business Enterprise (MBE), Women-Owned Business Enterprise (WBE), or Small Business Enterprise (SBE).

	Procurements Awarded as a % of Total $ Awards	Total Contract Amount (in millions)
Awarded to Disadvantaged, Minority-owned, Women-owned, and Small Businesses	35%	$310.4

Table 6: Diversity Certification Percentages

Table 6 provides a breakdown of the vendors who met the certification criteria as SBE (Small Business Enterprise), DBE (Disadvantaged Business Enterprise), MBE (Minority-owned Business Enterprise), and/or WBE (Women-owned Business Enterprise). Note that some firms may have multiple certifications.

	SBE	DBE	MBE	WBE
Percentage of Awarded Procurements to SBE, DBE, MBE, and WBE (based on total number of contracts)	10%	74%	35%	7%
Total Contract Amount (in millions)	$18.5	$333.6	$96.3	$65.2

Table 7: Overall Contracts Awarded

Table 7 provides a breakdown of overall dollars awarded under the B.I.D. Program thus far, distinguishing between firms that met the B.I.D. Program certification criteria (non-scored criteria) and firms that met the three B.I.D. Program geographic criteria (scored criteria).

	Total Contract Count	Total Contract Amount (in millions)	% of Total $ Awarded
Eligible Procurements	74	$889.1	100%
Firms that met the certification criteria (non-scored criteria)	31	$310.4	35%
Firms that met the three geographic criteria (scored criteria)	40	$349.4	39%

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.

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

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

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

Attached below is the September 2023 B.I.D. Program Update with revisions added to Table 2 (Scored Criteria for Awarded Procurements). The numbers originally provided in this update reflected procurements awarded as a percentage of total contracts. The revised numbers now reflect procurements awarded as a percentage of total dollars.

Proposed Action: Receive and file this report.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: Megan Savage, Vendor Outreach Coordinator

Re: Business Inclusion & Diversity Program Update

Background: On November 25, 2020, the GLWA Board of Directors approved an amendment to the Procurement Policy allowing for the formation of a new Business Inclusion & Diversity (B.I.D.) Program within the Financial Services' Procurement Group. The B.I.D. Program Team, which includes internal GLWA Team Members as well as external consultants, executed a Phase I launch of the program on February 1, 2021 and a Phase II launch on July 1, 2021.

Analysis: This month we present tables to recap B.I.D. Program activity from the date of the program launch on February 1, 2021 through August 31, 2023 for procurements budgeted to exceed $1 million.

Table 1: B.I.D. Eligible Procurements as of August 31, 2023
Table 1 provides an overview of the total number of B.I.D. Program-eligible Procurements awarded, in evaluation, or advertised as active opportunities in GLWA's Bonfire Procurement Portal. Each vendor who submits a response to a B.I.D. Program-eligible procurement must also submit a Business Inclusion and Diversity Plan. The total number of Diversity Plans that GLWA has received for B.I.D. eligible procurements that have been awarded and that are in evaluation is also provided.

	Awarded	In Evaluation Phase	Active (Advertised)	Total
Procurements Requiring B.I.D. Submittals	74	11	4	89
Total Number of Diversity Plans Submitted	237	32	n/a	269

Table 2: Scored Criteria for Awarded Procurements – *Revised 10.27.23*

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	~~92%~~ **76%**	$679.4
Member Partner Service Area	~~88%~~ **72%**	$637.2
Disadvantaged Service Area	~~54%~~ **39%**	$349.4

Table 3: Member Partner Communities

Table 3 provides a breakdown of the number of awarded contracts to vendors located in GLWA's Member Partner Service area.

	Total Contract Count	Total Contract Amount (in millions)	% of Total $ Awarded
City of Detroit	40	$349.4	39.30%
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City of Taylor	1	$12.6	1.42%
City of Troy	3	$17.0	1.91%
City of Southfield	2	$6.3	0.71%
City of Madison Heights	1	$6.0	0.67%
City of Warren	2	$4.7	0.52%
City of Wixom	1	$1.1	0.12%
City of Farmington Hills	2	$6.5	0.73%
City of Riverview	1	$1.9	0.21%
Harrison Township	1	$1.0	0.12%
Subtotal	**65**	**$637.2**	**71.67%**
Other Michigan Communities	4	$154.7	17.40%
Out of State	5	$97.2	10.93%
Total	**74**	**$889.1**	**100.00%**

Table 4: Economically Disadvantaged Communities

Table 4 provides a breakdown of the number of awarded contracts to vendors who have a business presence in an economically disadvantaged GLWA service territory area. This means that the vendor is located in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau every five years.

	Total Contract Count	Total Contract Amount (in millions)
Detroit	40	$349.4

Table 5: Non-Scored Criteria - Disadvantaged, Minority-owned, Women-owned, and Small Businesses

Table 5 provides a breakdown of the percentage of B.I.D. Program-eligible procurements awarded thus far that met the B.I.D. Program Non-Scored Criteria. This Non-Scored Criteria refers to any diversity certifications that the vendor may hold as a Disadvantaged Business Enterprise (DBE), Minority-Owned Business Enterprise (MBE), Women-Owned Business Enterprise (WBE), or Small Business Enterprise (SBE).

	Procurements Awarded as a % of Total $ Awards	Total Contract Amount (in millions)
Awarded to Disadvantaged, Minority-owned, Women-owned, and Small Businesses	35%	$310.4

Table 6: Diversity Certification Percentages

Table 6 provides a breakdown of the vendors who met the certification criteria as SBE (Small Business Enterprise), DBE (Disadvantaged Business Enterprise), MBE (Minority-owned Business Enterprise), and/or WBE (Women-owned Business Enterprise). Note that some firms may have multiple certifications.

	SBE	DBE	MBE	WBE
Percentage of Awarded Procurements to SBE, DBE, MBE, and WBE	10%	74%	35%	7%
Total Contract Amount (in millions)	$18.5	$333.6	$96.3	$65.2

Table 7: Overall Contracts Awarded

Table 7 provides a breakdown of overall dollars awarded under the B.I.D. Program thus far, distinguishing between firms that met the B.I.D. Program certification criteria (non-scored criteria) and firms that met the three B.I.D. Program geographic criteria (scored criteria).

	Total Contract Count	Total Contract Amount (in millions)	% of Total $ Awarded
Eligible Procurements	74	$889.1	100%
Firms that met the certification criteria (non-scored criteria)	31	$310.4	35%
Firms that met the three geographic criteria (scored criteria)	40	$349.4	39%

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.

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

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

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

Proposed Action: Receive and file this report.

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Matthew S. Lane, MPA, Charges Outreach and Modeling Manager

Re: Charges Outreach & Modeling Update

Background: The Charges Outreach & Modeling (CO&M) Team was established in Fiscal Year 2023 as part of the Financial Management & Planning Group to facilitate internal communication and external outreach with GLWA Member Partners as it relates to the charge methodology and charge-related financial matters. This team also serves as liaison between GLWA and third-party consultants in the development, maintenance and review of the annual water and sewer charges.

Analysis: This month we present an update on activities related to charges work group activities.

1. 2023 Max Day and Peak Hour Determination

    - CO&M and the Systems Analytics & Meter Operations (SA&MO) teams worked together to calculate the annual coincidental max day and peak hour values. The SA&MO team and the CO&M team conduct parallel analyses to provide quality assurance and quality control for the process. Using the same source data and analytical methods, both teams arrived at the same conclusion. Details of the 2023 Max Day and Peak Hour values are included in a separate report. The basic conclusions include:
        i. Max Day: June 2, 2023: 690 MGD - (631 MGD in 2022)
        ii. Peak Hour: 7:00 AM-8:00 AM: 789 MGD - (697 MGD in 2022)

2. Water Charges Work Group

    - This group is made up of Member Partners and staff from GLWA and convenes for the purpose of reviewing the water charge methodology and recommending potential changes.
    - A subset of this group, the Water Charges Methodology Review Subgroup, met virtually on Friday, September 1st and Friday, September 15th.
    - The subgroup has been discussing various potential modifications to the water charge methodology. Most recently, the discussion has focused on the concept of a "delivery factor" as a simplification to the existing methodology as well as

reducing the number of cost pools from nine to three. They have moved the discussion to the larger Water Charges Work Group for consideration.

3. Combined Water and Wastewater Charges Workgroup
   - The overall Charges Work Group met virtually via Zoom on September 5th and October 16th, 2023. The next meeting date is to-be-determined.
4. FY 2025 Charges Rollout Process:
   - Rollout # 1: Thursday, October 19th, 2023 (Done)
   - Rollout # 2: Tuesday, November 14th, 2023
   - Rollout # 3: Thursday, January 11th, 2024
   - *Member Partner One-on-One Meetings: January 12-17th, 2024*
   - Rollout # 4: Thursday, January 18th, 2024
5. The CO&M team was represented at the One Water Partnership (OWP) meeting on September 28th at Macomb Community College in Warren. The next OWP meeting date is scheduled for Wednesday, December 6, location to-be-determined.

Proposed Action: Receive and file this report.

GLWA Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Haran Stanley, Management Professional

Re: Affordability & Assistance Update

Background: In 2021, an Affordability & Assistance Team was created within GLWA's Financial Services Area. The team serves as the internal and external resource for strategic policies and programs related to water affordability and assistance.

Analysis: This month we present an update on the initiatives the Affordability & Assistance Team have been focused on, including efforts related to sustainable water assistance funding and the Water Residential Assistance Program (WRAP).

Sustainable Water Assistance Funding

On October 2, 2023, State Senator Stephanie Chang hosted a press conference to announce the introduction of draft legislation regarding water affordability. GLWA applauds the efforts of Senator Stephanie Chang in engaging a diverse group of stakeholders in the meaningful discussions that have resulted in this first of its kind statewide water affordability and assistance legislation.

GLWA is proud of its participation, and ability to contribute as a resource to Senator Chang and the workgroup as they developed the framework for the legislation. It is now important for GLWA to further this dialogue by sharing this package of bills with its Member Partner communities for their review and consideration.

As Michigan's largest water and wastewater utility, GLWA is committed to both short-term and long-term water affordability. GLWA's WRAP was the first of its kind for a utility in the state of Michigan. GLWA recognizes that to be truly effective, short- and long-term affordability programs must both be pursued. Short-term affordability programs play a critical role in assisting residents in need through bill payment and conservation assistance; also important are long-term investments in Michigan's water infrastructure that protect public health and control future costs.

On September 28, 2023, GLWA provided an overview of the draft bills during the One Water Partnership Meeting.

GLWA looks forward to continuing to be a part of the affordability conversation that Senator Chang initiated around this package of proposed legislation.

On October 19, 2023 GLWA participated in a panel focused on water assistance and affordability efforts at Wayne Metropolitan Community Action Agency's 2023 Annual Meeting. State Senator Stephanie Chang was the keynote speaker and fellow panelists include Director Gary Brown of Detroit Water and Sewerage Department (DWSD) and Sylvia Orduno of The People's Water Board Coalition (PWBC).

WRAP Updates

BS&A has completed development of an optional feature within Member Partner's BS&A billing systems that automates the process of applying WRAP payments to the corresponding customer utility account. GLWA launched this project as part of our commitment to streamlining administrative processes related to WRAP funding and to reduce the burden on Member Partners as well as increase their engagement with the program. WRAP Service Delivery Partners are updating and testing their internal systems to accommodate this new feature and are working with communities to begin implementation. Service Delivery Partners have notified member partner communities of the new tool and are scheduling meetings to walk them through the new feature and what the change means. Flint has successfully begun using the tool.

As WRAP utilization continues to grow due to the launch of the Income Based Plan (WRAP IBP), the team is exploring a structure that will allow for donations to fund WRAP services. Along with structural decisions, a proposal portfolio is being developed to document the effectiveness of the program.

WRAP enrollments in the City of Flint and Out-Wayne County are currently paused as funds are fully committed for FY 2024.

Proposed Action: Receive and file this report.

GLWA Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Alicia Schwartz, Manager – Grants and Intergovernmental Relations

Re: Grants, Gifts, and Other Resources Report

Background: The Great Lakes Water Authority (GLWA) delegated authority to the Chief Executive Officer to oversee and report on activities identified in the GLWA Articles of Incorporation related to solicitation and receipt of grants, gifts, and other resources as stated in Article 4 – Powers, Section B (4):

> (4) Solicit, receive, and accept gifts, grants, labor, loans, contributions of money, property, or other things of value, and other aid or payment from any federal, state, local, or intergovernmental government agency or from any other person or entity, public or private, upon terms and conditions acceptable to the Authority, or participate in any other way in a federal, state, local, or intergovernmental government program.

Other resources in this context refer to labor, contributions of money, property, or other things of value from any other person or entity, public or private with the exception for loans, subject to provisions of the GLWA Board Debt Management Policy, and Intergovernmental agreements and other activities that are addressed in the GLWA Board Procurement Policy.

Participation in any other way in a federal, state local, or intergovernmental government program includes participation in research projects at universities.

Refer to the Grants, Gifts, and Other Resources Delegation Policy at Grants, Gifts, and Other Resources Delegation Policy - GLWA (glwater.org).

Analysis: To ensure transparency and timely communication, this report is provided to the Board, no less than quarterly, documenting activities subject to the policy. The report will, at a minimum, include description, type of activity, dollar amount, compliance and/or performance requirements, if any, and status including, at a minimum, solicitation, acceptance, and close-out.

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

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

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

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

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

Bolded items in the attached tables reflect changes from the prior report.

Highlights of this report through September 30, 2023, includes the following.

- ✓ **Federal Emergency Management Agency (FEMA) activity related to COVID-19** – GLWA received a grant payment in the amount of $334,193 for project 697073 under the FEMA COVID-19 grant through the State of Michigan. This grant is now closed as all obligated funds for that project have been received.

- ✓ **American Rescue Plan Act State Revolving Fund (WRRF Pump Station 1)** – GLWA received a federal grant payment for the Water Resource Recovery Facility project related to SRF #5836-01 in which ARPA funds were awarded in the amount of $2,342,280, all funds were received in September. This grant is now closed as all funds for that ARPA grant have been received.

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

  Table 1 – Pre-Award Programs reflects open submissions for FY 2023 and FY 2024 to date. The summarized activity provided identifies nine FEMA Flood projects with two new letters of intent to support and collaborate with other entities, two EPA Community Grants, a supplemental State appropriation, and the I-94 Modernization Project grant.

  ***Table 2 - Awarded* Programs** reflects all awarded grants from FY 2021 through FY 2024. Current month updates to the summarized activity below includes one State Revolving Fund American Rescue Plan Act Funding programs in which there has been

no disbursement activity to date, three award receipts related to a local nonprofit apprenticeship grant, and the Department of Energy grant in which only cost share has been accounted for to date.

Table 3 – Post Award Programs reflects two programs with two reimbursement requests and two receipts through September 30, 2023. The programs that are reflected below are State Revolving Fund ARPA Funds and FEMA Covid-19 program. Funds related to these programs have been received in full and the programs are in the process of being closed out, including any closeout reporting requirements.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Table 1 – Pre-Award Programs reflects open submissions for FY 2023 and FY 2024 to date. The Programs listed under this section do not have a grant agreement between the awarding agency and GLWA at this time, but the grant has been applied to or earmarked. The summarized activity provided identifies nine FEMA Flood projects with two new letters of intent to support and collaborate with other entities, two EPA Community Grants and the I-94 Modernization Project grant in the NEPA process.

Table 1 – Pre-Award Programs

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

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

Reference Number	Request Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-022		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660745 Conner Creek Sewer System	Federal Grant (Reimbursement Basis)	$8,888,277	Federal Audit Requirements	Grant Amount is Estimated
2023-014		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 664811 East Side Sewers	Federal pass-through State (Reimbursement Basis)	$3,566,407	Federal Audit Requirements	Grant Amount is Estimated
2023-015		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 670521 CAT-Z – Allocation of Management Costs	Federal pass-through State (Reimbursement Basis)	$50,000	Federal Audit Requirements	Grant Amount is Estimated
2024-001	8/30/2023	NFWF Coastal Resilience Challenge	Letter of Intent by University of Michigan	Unknown at this time	Unknown at this time	Grant Amount is Estimated
2024-002	8/30/2023	NOAA Climate Resilience Regional Challenge	Letter of Intent by University of Michigan	Min $25,000,000	Unknown at this time	Grant Amount is Estimated
2023-017		American Rescue Plan PA-53 Clean Water Infrastructure Improvements	Federal pass-through State (Reimbursement Basis)	$25,000,000	Federal Audit Requirements	Supplemental Budget Appropriation
2023-023	8/30/2023	I-94 Modernization Project	MDOT Federal pass-through State (Reimbursement Basis)	$34,400,000	Federal Audit Requirements	NEPA Review with the State of Michigan

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

Table 2 – Awarded Programs

Reference Number	Request Date	Program Description	Type of Activity	Grant Amount	Compliance and/or Performance Requirements	Status
2022-004	2/23/2022	Water Technician Registered Apprenticeship Program- $2,225 per apprentice, 25 apprentices	Macomb Community College Tuition (Nonprofit)	$55,625	None	Ongoing No activity as of date for FY 2024
2021-012	9/21/2021	Michigan Industrial Cluster Approach (MICA 3.0) Apprenticeship Program - $1,000 per apprentice, 45 apprentices	Focus Hope (Nonprofit)	$45,000	None	Ongoing No activity as of date for FY 2024
2024-003	7/7/2023	Detroit Employment Solutions Corporation (DESC) Apprentices $5,000 per apprentice; 9 apprentices	Detroit At Work (Nonprofit)	$45,000	None	$25,000 received in the month of August
2023-005	4/1/2023	Department Of Energy – Hydrothermal Liquification Project	Federal Grant (Reimbursement Basis)	$1,000,000	Federal Audit Requirements	Awarded Ongoing

2023-019	3/3/2021	American Rescue Plan – State Revolving Fund (ARP) Funded Project 7532-02 96 Inch Water Transmission Main Relocation Phase 2 EGLE	Federal pass-through State (Reimbursement Basis)	$16,057,500	Federal Audit Requirements	No disbursement requests submitted to date

Table 3 – Post Award Programs reflects two programs with two reimbursement requests and two receipts through September 30, 2023. The programs that are reflected below are State Revolving Fund ARPA Funds and FEMA Covid-19 program. Funds related to these programs have been received in full and the programs are in the process of being closed out, including any closeout reporting requirements.

Table 3 – Post Award Programs

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2023-020	**10/11/2021**	**American Rescue Plan – State Revolving Fund (ARP) Funded Project 5836-01 WRRF Pump Station 1 Rehabilitation EGLE**	**Federal pass-through State (Reimbursement Basis)**	**$2,342,280**	**Federal Audit Requirements**	**Funds were received on 9/13/2023**
2023-004	**12/19/22**	**Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 697073**	**Federal pass-through State (Reimbursement Basis)**	**$334,193**	**Federal Audit Requirements**	**Payment was received in the full amount of $334,193**

Proposed Action: Receive and file this report.

AGENDA ITEM #8G

Financial Services
Audit Committee Communication

Date: October 27, 2023 (Rescheduled to November 9, 2023)

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Qualified Financial Institution Review

Background: One of the ways that a public entity manages risk is to actively monitor and evaluate each financial institution and broker/dealer for credit worthiness with whom it may conduct business for managing public funds. This approach is in alignment with the Great Lakes Water Authority (GLWA) Investment Policy and Michigan Public Act 20. As stated in section 9 of the GLWA Investment Policy, the Treasury Manager shall maintain a listing of Qualified Institutions that provide banking and investment services to GLWA. This list shall be reviewed and approved periodically by the GLWA Audit Committee.

Analysis: GLWA has maintained consistent relationships with the institutions listed on the Qualified list since 2016. The Treasury Manager conducts a quarterly review of each institution. The latest quarterly review was conducted based on information as of June 30, 2023.

For Broker/Dealers, the following documents were reviewed.

- Audited financial statements
- Financial Industry Regulatory Authority (FINRA) registration
- Federal Deposit Insurance Corporation (FDIC) insurance coverage
- Bank ratings service provider reports

For Financial Institutions, the following documents were reviewed.

- Audited financial statements
- FDIC insurance coverage
- Bank ratings service provider reports

For the Local Government Investment Pools, the following documents were reviewed,

- Information Statement which explains the investment objectives of the investment pool
- Audited financial statements for investment pool
- Audited financial statements for investment advisor
- Credit rating

PFM Asset Management LLC (PFM), the Investment Advisor for GLWA, annually provides a list of their approved broker/dealers. PFM evaluated this list for credit worthiness. Reliance on the investment advisor's analysis of qualified institutions is provided for in the GLWA investment policy.

Based on our review of the above reference documents, we have determined that the financial institutions that GLWA utilizes meets our criteria of a "satisfactory review".

Proposed Action: Receive and file this report.

Procurement Pipeline

AGENDA ITEM #9A

Great Lakes Water Authority (313) 964-9157 www.glwater.org **October 2023 - Volume 53**

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

Thank You for Attending the 2023 GLWA Vendor Outreach Event!

GLWA thanks the Vendor Community for attending last month's 2023 Vendor Outreach Event at the Laurel Manor Conference Center in Livonia. GLWA values our relationship with the Vendor Community, and this event was a great opportunity to connect in person, to share new information about GLWA, and to hear your most important questions. Thank you again to all who attended!

The 2023 Vendor Outreach Contact Guide

To help ensure that the Vendor Community has direct access to the GLWA team members who can best answer your questions, we have created the 2023 Vendor Outreach Contact Guide. The guide, which provides contact information for GLWA team members involved in all aspects of the procurement process, may be accessed by attendees of the 2023 Vendor Outreach Event via the Whova mobile or web platform. All other Vendors interested to receive the Contact Guide may request a copy via GLWAVendorOutreach@glwater.org.

Reminder: How to Submit Renewal Certificates of Insurance (COIs)

The March 2023 *Procurement Pipeline* featured an article on fulfilling GLWA's standard insurance requirements, including how renewal Certificates of Insurance (COIs) must be submitted on an annual basis until all work on a contract is completed.

To provide improvements in GLWA's processing and tracking of vendor COIs, vendors should now submit their renewal COIs directly to COI@GLWater.org. Vendors must also include the GLWA contract number on COI documents. Note that this process update applies only to renewal COIs. COIs for new contracts or purchase orders (POs) must still be submitted to the GLWA Buyer of Record.

Virtual Vendor Introduction Meetings

If you are interested in learning more about doing business with GLWA, contact us at GLWAVendorOutreach@glwater.org to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to any GLWA solicitation.

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 September 2023 Monthly Report, please click here.

What's Coming Down the Pipe?

Current Solicitations: Register in GLWA's Bonfire Procurement Portal for new solicitations and contract award information.

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

Visit GLWA online!

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

Upcoming Solicitations October 2023

Category	CIP #	Description/Project Title	Budget Estimate
Water System (next four to nine months)			
Construction	122004	96-Inch Water Transmission Main Relocation - Phase III	$90,000,000
Construction- Pre-Purchase	122004	96-Inch Water Transmission Main Relocation - Phase III - Pre-Purchase Pipe	$2,300,000
Construction	122016	Downriver Transmission Main Loop – Phase 1 – Inkster Rd	$21,000,000
Wastewater Systems (next four to nine months)			
Construction	260510	CSO Outfall Rehabilitation Phase VI	$15,000,000
Construction	211005.2	WRRF Pump Station 2 VFD Replacements	$12,000,000
Design	270001	Pilot Netting and Disinfection Facilities at B03, B04, and B05	$8,000,000
Design	270008	CSO Facility Disinfection Improvements	$3,900,000
Water System (next three months)			
Professional Services	O&M	Valve Exercising Project for Field Services	$7,500,000
Construction - Pre-Purchase	122004	96-Inch Water Transmission Main Relocation - Phase III - Pre-Purchase Valves	$3,000,000
Wastewater (next three months)			
Study	213009	Biosolids Study	$2,500,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Construction	122016	Downriver Transmission Main Loop-Phase I	$20,700,000
Professional Services	O&M	Refuse and Recycling Waste Pickup and Disposal Services	$655,000
Professional Services	170506 & O&M	Water Transmission main, valves and other priority repairs	$21,500,000
Construction	260211	Sewer Rehabilitation and Repair II	$18,000,000
Construction	211007	Pump Station - 2 Bar Rack Replacement and Grit Collection System Improvements	$110,000,000
Design-Bid-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	$2,300,000

Vendors should continue to monitor Bonfire for solicitation updates.

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

AGENDA ITEM #9B

Financial Services
Audit Committee Communication

Date: November 9, 2023

To: Great Lakes Water Authority Audit Committee

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

Re: Canceled Meeting Binder Materials from October 27, 2023

Background/Analysis: A binder of materials was distributed and posted on the Great lakes Authority website for an October 27, 2023 meeting. That meeting was canceled and rescheduled for November 9, 2023. That initial binder is being retained in public record with this agenda item in Legistar as an attachment. All items from October 27, 2023 were moved forward to the November 9, 2023 meeting.

Proposed Action: Receive and file this report.