



Audit Committee Meeting
Friday, September 22, 2023 at 8:00 a.m.
www.glwater.org

[Join Zoom Meeting](#)

Meeting ID: **856 7763 9240** Passcode: **215645**
US Toll-free: **888 788 0099** or **877 853 5247**

AGENDA

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

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. August 25, 2023 (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
 - A. Annual Financial Audit Update (Page 7)
7. NEW BUSINESS
 - A. *Action Item:* Resolution Regarding Approval of Series Ordinance (Page 8) 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)
 - B. *Action Item:* Resolution Regarding Approval of Series Ordinance (Page 40) 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)
8. REPORTS
 - A. CFO Report (Page 72)
 - B. Business Inclusion and Diversity Program (Page 74)
 - C. Charges Outreach & Modeling Update (Page 78)
 - D. Affordability & Assistance Update (Page 79)
 - E. Gifts, Grants & Other Resources Report (Page 115)
 - F. Quarterly Construction Work in Progress Report through (Page 124) June 30, 2023
 - G. Shared Services Update (Page 143)
9. COMMUNICATIONS
 - A. The Procurement Pipeline for September 2023 (Page 147)
10. LOOK AHEAD
 - A. Next Audit Committee Meeting: October 27, 2023 at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT



Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Friday, August 25, 2023

8:00 AM

Zoom Telephonic Meeting

Zoom Telephonic Meeting

Join Zoom Meeting:

<https://glwater.zoom.us/j/88097642041?pwd=UllBaU14azA3TGprc2NEQjEvdGVQdz09>

Join By Telephone

US Toll-Free:

888 788 0099; or 877 853 5247

Meeting ID: 880 9764 2041

Passcode: 999565

1. Call To Order

Chairperson Baker called the meeting to order at 8:03 a.m.

2. Quorum Call

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

3. Approval of Agenda

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to add an update on the weather event by Suzanne Coffey, Chief Executive Officer, as the first item under 8. Reports, and also requested to move item 8F., Quarterly Investment Report (unaudited), after the weather event update.

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

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Approved as Amended

The motion carried by a unanimous vote.

4. Approval of Minutes

A. [2023-283](#) Minutes of June 26, 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [4A Minutes - June 26, 2023 Audit Committee Meeting](#)

Chairperson Baker requested a Motion to Approve the June 26, 2023 Audit Committee Meeting Minutes.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Approved

The motion carried by a unanimous vote.

5. Public Comment

There were no public comments.

6. Old Business

None

7. New Business

None

8. Reports

Suzanne Coffey, Chief Executive Officer, gave a verbal update regarding the regional system's operations during the last two days (August 23-24, 2023) of intense and significant rain events.

F. [2023-294](#) Quarterly Investment Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8F1 Quarterly Investment Report Cover Memo August 2023](#)

[8F2 GLWA Quarterly Investment Report June 2023](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

- A. [2023-288](#) CFO Report
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [8A1 CFO Report August 2023 Final](#)
[8A2 GFOA Certificate of Excellence](#)
[8A3 NIGP Award July 2023](#)
[8A4 EOTF Quarterly Update_Audit Committee_8.25](#)
[8A5 Process and Calendar FY 2025 and FY 2026 Biennial Budget as of 8.25.2023](#)
- Motion By: Jaye Quadrozzi**
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.
- B. [2023-289](#) Monthly Financial Report for April 2023
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [8B July 2023 Financial Report_Tagetik](#)
- Motion By: Jaye Quadrozzi**
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.
- C. [2023-290](#) Monthly Financial Report for May 2023
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [8C August 2023 Financial Report_Tagetik](#)
- Motion By: Jaye Quadrozzi**
Support By: Gary Brown
Action: Received and Filed
The motion carried by a unanimous vote.

D. [2023-291](#) Business Inclusion and Diversity Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8D B.I.D. Program Update](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

E. [2023-292](#) Charges Outreach & Modeling Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8E Charges Outreach and Modeling Update - 08.25.23](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

G. [2023-295](#) Gifts, Grants & Other Resources Report

Sponsors: Nicolette Bateson

Indexes: Finance

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

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

H. [2023-293](#) Affordability & Assistance Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8H1 Affordability and Assistance Update

[8H2 Attachment 1 MDHHS Grant FY24 Water Affordability Year 1 Allocation Chart](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

I. [2023-286](#) DWSD State Revolving Fund (SRF) Loans 7656-01 and 7657-01 Grant Funded

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8I DWSD 7656-01 and 7657-01 Grant Funded](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

9. Communication

A. [2023-298](#) The Procurement Pipeline for July 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9A The Procurement Pipeline for July 2023](#)

No Action Taken

B. [2023-299](#) The Procurement Pipeline for August 2023

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9B The Procurement Pipeline for August 2023](#)

No Action Taken

10. Look Ahead

A. Next Audit Committee Meeting:

Friday, September 22, 2023, at 8:00 a.m.

11. Other Matters

There were no other matters.

12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Approved

The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 9:05 a.m.



Financial Services Audit Committee Communication

Date: September 22, 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 is working to wrap up year-end adjustments in preparation of the annual financial audit. Baker Tilly conducted preliminary fieldwork August 28, 2023 through August 31, 2023. Fieldwork includes testing transactions, reviewing support, analytics. Fieldwork is scheduled to begin Monday, October 2, 2023 and continue through Friday, October 13, 2023.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: Nick Fedewa, CPA, Acting Public Finance Manager

Re: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$925,000,000 (Ordinance 2023-05)

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

Proposed Action: Audit Committee recommends that the Great Lakes Water Authority Board approve the resolution for the 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 as presented.

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..Title

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)

..Body

Agenda of: September 27, 2023
Item No.: **2023-336**
Amount: Not to Exceed \$925,000,000

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: September 27, 2023

RE: 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)

MOTION

Upon recommendation of Nicolette N. Bateson, Chief Financial Officer\Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), **approves the resolution 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 as presented**, and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

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BACKGROUND

In order for the Great Lakes Water Authority (“GLWA”) to proceed with the issuance of new money bonds to support regional capital plan improvements and refunding of various outstanding water supply system bonds for the purpose of achieving annual debt service savings, potentially including by effecting the tender and/or exchange of certain outstanding bonds, the GLWA Board must approve the included resolution approving the Series Ordinance.

The Series Ordinance sets forth the guidelines for the New Money and Refunding Bonds and authorizes the Chief Executive Officer or the Chief Financial Officer to execute the final terms of the Bonds, paying issuance costs and signing of the Bond Purchase Agreement, within the parameters set forth in the Series Ordinance.

JUSTIFICATION

New Money Portion: The authorized amount for the New Money Bonds is for an aggregate principal amount not to exceed \$200,000,000 for the regional water system.

Refunding Portion: The authorized amount for the Refunding Bonds is presented for an aggregate principal amount of not to exceed \$725,000,000. The final par amount of the Refunding Bonds will be determined at the time of pricing and is based on current bond market pricing levels, tender pricing levels and investor participation in any tender offer, issuance costs and the par amount of the bonds to be refunded or solicited for tender by GLWA as determined by the savings level achieved.

Key Provisions:

- Not to Exceed Par Amount: \$925 million (\$200 million for new money, \$725 million for refunding)
- Maximum Coupon Rate: 6.00%
- Minimum Purchase Price: 98% of principal amount of bonds
- Maximum Underwriter Discount: 0.40% of principal amount of bonds
- Present Value Savings: Equal to or greater than 2.50% of principal amount of bonds to be refunded

BUDGET IMPACT

Savings resulting from the potential Water Refunding Bonds have not been included in the FY 2024 budget or ten-year financial plan. If savings are achieved as a result of the potential refunding, a budget amendment may be required for FY 2024 depending on the

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final pricing and savings structure on the bonds. Savings may not be achieved in every fiscal year.

COMMITTEE REVIEW

This matter was reviewed by the GLWA Audit Committee at its meeting on September 22, 2023. The Audit Committee *[insert action]* the resolution for 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 as presented.

SHARED SERVICES IMPACT

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

GREAT LAKES WATER AUTHORITY
ORDINANCE NO. 2023-05

**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**

WHEREAS, pursuant to Resolution No. 2015-10-02 adopted by the Board of Directors of the Great Lakes Water Authority (the “Authority”) on October 7, 2015, the Authority Board approved and adopted Master Bond Ordinance No. 2015-01 (as subsequently amended through the date hereof, the “Ordinance”), which authorizes the issuance by the Authority of Water Supply System Revenue Bonds; and

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

WHEREAS, the Authority Board has determined that it is necessary and desirable to authorize at this time one or more Series of Revenue Bonds to pay all or part of the costs of the hereinafter described improvements, enlargements, extensions and repairs to the Regional Water System; and

WHEREAS, the Authority Board has determined that it is necessary to authorize at this time one or more Series of Revenue Refunding Bonds (the “2023 Bonds”) (i) to refund a portion of Outstanding Bonds (the “Bonds To Be Refunded”) and cause the Bonds To Be Refunded to be purchased, retired and/or defeased in accordance with the Ordinance, and/or (ii) to effect certain Tender/Exchange Transactions as described herein, all to secure savings for the Authority through the issuance of such Revenue Refunding Bonds; and

WHEREAS, due to market conditions, it is desirable for the Authority, provided that certain conditions are met, to invite Holders of certain Outstanding Bonds (the “Target Bonds”) to offer to tender such Bonds for purchase (the “Tendered Bonds”) or exchange such Bonds (the “Exchanged Bonds”) for certain Revenue Refunding Bonds, pursuant to the terms of an Invitation to Tender or Exchange Water Supply System Revenue Bonds (the “Invitation to Tender or Exchange” or the “Invitation”), and based on the offers received from such Holders, to accept for purchase the Tendered Bonds, provided that funds are available therefor, and/or accept for exchange the Exchanged Bonds, and subsequently cancel all of said Bonds (collectively, the “Tender/Exchange Transactions”).

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

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

Section 2. Definitions. Except as otherwise provided in this 2023 Series Ordinance, all terms which are defined in Section 101 of the Ordinance shall have the same meanings,

respectively, in this 2023 Series Ordinance as such terms are given in the Ordinance. In addition, the following terms shall have the following meanings unless the context shall clearly indicate some other meaning:

(a) “2023 Bonds” means, collectively, the 2023 New Money Bonds and the 2023 Refunding Bonds authorized by Section 3 of this 2023 Series Ordinance.

(b) “2023 New Money Bonds” means those 2023 Bonds, if any, issued for the purpose of paying, reimbursing and/or refinancing Project Costs as authorized by Section 3 of this 2023 Series Ordinance.

(c) “2023 Project” means a portion of the improvements, enlargements, extensions and repairs to the Regional Water System identified in the Capital Improvement Program, all as more fully described in the Sale Order.

(d) “2023 Refunding Bonds” means those 2023 Bonds, if any, issued for the purpose of refunding the Bonds To Be Refunded, purchasing the Tendered Bonds, issued in exchange for the Exchanged Bonds and paying Refunding Costs as authorized by Section 3 of this 2023 Series Ordinance.

(e) “2023 Reserve Requirement” means the sum of the 2023 Senior Lien Reserve Requirement and the 2023 Second Lien Reserve Requirement.

(f) “2023 Second Lien Bonds” means, collectively, the 2023 Second Lien New Money Bonds and the 2023 Second Lien Refunding Bonds.

(g) “2023 Second Lien New Money Bonds” means those 2023 New Money Bonds, if any, issued as Second Lien Bonds as provided in this 2023 Series Ordinance.

(h) “2023 Second Lien Refunding Bonds” means those 2023 Refunding Bonds, if any, issued as Second Lien Bonds as provided in this 2023 Series Ordinance.

(i) “2023 Second Lien Reserve Requirement” means such amount, if any, as is determined in the Sale Order to be the amount necessary to make the amount on deposit in the Second Lien Bond Reserve Account at least equal to the Reserve Requirement for the Second Lien Bond Reserve Account immediately upon the issuance of the 2023 Second Lien Bonds after taking into consideration such provision as is made for the Reserve Requirement from proceeds of the 2023 Second Lien Bonds and other funds and Credit Facilities on deposit or to be deposited in the Second Lien Bond Reserve Account.

(j) “2023 Senior Lien Bonds” means, collectively, the 2023 Senior Lien New Money Bonds and the 2023 Second Lien Refunding Bonds.

(k) “2023 Senior Lien New Money Bonds” means those 2023 New Money Bonds, if any, issued as Senior Lien Bonds as provided in this 2023 Series Ordinance.

(l) “2023 Senior Lien Refunding Bonds” means those 2023 Refunding Bonds, if any, issued as Senior Lien Bonds as provided in this 2023 Series Ordinance.

(m) “2023 Senior Lien Reserve Requirement” means such amount, if any, as is determined in the Sale Order to be the amount necessary to make the amount on deposit in the Senior Lien Bond Reserve Account at least equal to the Reserve Requirement for the Senior Lien Bond Reserve Account immediately upon the issuance of the 2023 Senior Lien Bonds after taking into consideration such provision as is made for the Reserve Requirement from proceeds of the 2023 Senior Lien Bonds and other funds and Credit Facilities on deposit or to be deposited in the Senior Lien Bond Reserve Account.

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

(o) “Authorized Officer” means either the Chief Executive Officer or the Chief Financial Officer.

(p) “Bonds To Be Refunded” has the meaning set forth in the recitals hereto.

(q) “Continuing Disclosure Undertaking” means the continuing disclosure undertaking or undertakings with respect to the 2023 Bonds to be entered into by the Authority pursuant to the Rule.

(r) “Dealer Manager” means, with respect to the Tender/Exchange Transactions, Goldman Sachs & Co. LLC., on behalf of itself and such other firms as may be named in the Dealer Manager Agreement.

(s) “Dealer Manager Agreement” means the Agreement between the Authority and the Dealer Manager relating to the Tender/Exchange Transactions.

(t) “Escrow Agreement” shall have the meaning set forth in Section 10 of this 2023 Series Ordinance.

(u) “Escrow Deposit”, if any, means cash or Government Obligations, or a combination of cash and Government Obligations, at least sufficient to discharge the lien of the Pledged Assets securing the Bonds To Be Refunded in accordance with Section 1001 of the Ordinance.

(v) “Exchanged Bonds” has the meaning set forth in the recitals hereto.

(w) “Fitch” means Fitch Ratings, Inc., and any successor rating agency.

(x) “Forward Delivery Agreement” means a bond purchase agreement providing for the issuance and delivery of certain 2023 Bonds by the Authority and purchase of such 2023 Bonds by the Underwriter on a specified date in the future, for the purposes authorized by this 2023 Series Ordinance including effecting the refunding of the Bonds To Be Refunded.

(y) “Information and Tender/Exchange Agent” means the Information and Tender/Exchange Agent appointed by an Authorized Officer and as shall be confirmed in the Sale Order to act as the Authority’s agent in connection with the Tender/Exchange Transactions.

(z) “Interest Payment Date” means except as otherwise determined in the Sale Order each January 1 and July 1, or such other dates and commencing as set forth in the Sale Order.

(aa) “Invitation to Tender or Exchange” has the meaning set forth in the recitals hereto.

(bb) “Maturity Date” means such dates of maturity of the 2023 Bonds as determined in the Sale Order.

(cc) “Moody’s” means Moody’s Investors Service, Inc., and any successor rating agency.

(dd) “Official Statement” means the final disclosure document with respect to the 2023 Bonds.

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

(ff) “Preliminary Official Statement” means the preliminary disclosure document with respect to the 2023 Bonds.

(gg) “Project Costs” means the costs of acquiring, constructing, equipping, installing and financing the 2023 Project, including Issuance Costs relating to the 2023 New Money Bonds.

(hh) “Purchase Agreement” means any bond purchase agreement between the Authority and the Underwriter providing for the sale of any 2023 Bonds, and includes any Forward Delivery Agreement entered into in accordance with this 2023 Series Ordinance.

(ii) “Refunding Costs” means the costs of refunding the Bonds To Be Refunded and the Tender/Exchange Transactions, including, to the extent authorized in the Sale Order, the amount of the Escrow Deposit, if any, the purchase price of the Tendered Bonds, funding the 2023 Reserve Requirement, if any, and Issuance Costs relating to the 2023 Refunding Bonds, including, without limitation, any costs associated with the Tender/Exchange Transactions including those of the Dealer Manager and an Information and Tender/Exchange Agent.

(jj) “Regular Record Date” means the fifteenth day of the calendar month immediately preceding an Interest Payment Date.

(kk) “Rule” means Rule 15c2-12 promulgated by the United States Securities and Exchange Commission under the Securities and Exchange Act of 1934, as amended.

(ll) “S&P” means S&P Global Ratings, and any successor rating agency.

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

(nn) “Savings Threshold” means that, as the result of the Tender/Exchange Transactions and the refunding of the Bonds To Be Refunded, the Authority will achieve an aggregate reduction in bond debt service that has a present value at the time of sale of the 2023 Refunding Bonds equal to at least two and one-half percent (2.5%) of the par value of the Bonds To Be Refunded, Tendered Bonds and Exchanged Bonds and in accordance with the Ordinance and applicable law.

(oo) “Securities Depository” means (i) The Depository Trust Company and its successors and assigns, if any, or (ii) any other securities depository which agrees to follow the procedures required to be followed by a securities depository in connection with the 2023 Bonds and which is selected by the Authority as provided in Section 6.

(pp) “Target Bonds” has the meaning set forth in the recitals hereto.

(qq) “Taxable 2023 Bonds” means any 2023 Bonds other than Tax-Exempt 2023 Bonds.

(rr) “Tax-Exempt 2023 Bonds” means any 2023 Bonds that are Tax-Exempt Bonds.

(ss) “Tender/Exchange Transactions” has the meaning set forth in the recitals hereto.

(tt) “Tendered Bonds” has the meaning set forth in the recitals hereto.

(uu) “Underwriter” means, with respect to the 2023 Bonds, Siebert Williams Shank & Co., LLC., on behalf of itself and such underwriters as may be named in the Purchase Agreement.

Section 3. Authorization of 2023 Bonds and Tender/Exchange Transactions.

(a) Authorization of 2023 Bonds.

(1) Authorization of Borrowing. The Authority may borrow (A) an aggregate principal amount, exclusive of premium, not in excess of \$725,000,000, in the case of the 2023 Refunding Bonds, and (B) an aggregate principal amount, exclusive of premium, not in excess of \$200,000,000, in the case of the 2023 New Money Bonds, all as finally determined in the Sale Order, and issue 2023 Bonds at one or more times and in one or more Series, all to evidence such borrowing pursuant to Act 233, Act 94 and the Ordinance, as 2023 Senior Lien Bonds and/or 2023 Second Lien Bonds, all as finally determined in the Sale Order.

(2) Purpose of 2023 Bonds. The 2023 Bonds shall be issued as Additional Bonds for the purpose of (A) in the case of the 2023 New Money Bonds, paying, reimbursing and/or refinancing Project Costs, and (B) in the case of the 2023 Refunding Bonds, (i) refunding the Bonds To Be Refunded, (ii) financing the purchase of the Tendered Bonds pursuant to the Tender/Exchange Transactions and causing the Tendered Bonds to be deemed paid and no longer Outstanding, (iii) exchanging 2023 Bonds in place of the Exchanged Bonds and causing the Exchanged Bonds to be no longer Outstanding, and (iv) paying other Refunding Costs, including Issuance Costs relating to the 2023 Refunding Bonds, and may in each case

include amounts necessary to satisfy the 2023 Reserve Requirement and paying the costs of a Credit Facility.

- (3) Limitations on Issuance of 2023 Refunding Bonds. No 2023 Refunding Bonds shall be issued unless:
 - a) The proceeds thereof (exclusive of accrued interest), together with other moneys available to the Authority under the Ordinance, are sufficient to provide funds for all Refunding Costs, as set forth in the Sale Order.
 - b) The Authority's issuance and sale of the 2023 Refunding Bonds, the refunding of the Bonds To Be Refunded and the Tender/Exchange Transactions will meet the Savings Threshold.
 - c) Concurrently with or prior to the delivery of the 2023 Refunding Bonds, an Authorized Officer gives notice to the Trustee to call for redemption at the applicable redemption price all of the Bonds To Be Refunded on the dates set forth in the Escrow Agreement, if any, or in the Sale Order in the absence of an Escrow Agreement. In such notice, an Authorized Officer may direct that the notice of redemption to be given by the Trustee to the Holders of the Bonds To Be Refunded pursuant to Section 303 of the Ordinance shall be given prior to the delivery of the 2023 Refunding Bonds and that such notice of redemption be conditioned upon the delivery of the 2023 Refunding Bonds and the funding of the Escrow Deposit, if any. As provided in Section 303 of the Ordinance, if such conditions in the notice of redemption are not satisfied on or before the date fixed for redemption, then the notice of redemption shall be canceled and of no further force or effect.
- (4) Insufficient Proceeds. To the extent that proceeds of the 2023 New Money Bonds are insufficient to pay Project Costs, the insufficiency shall be paid from the proceeds of future Additional Bonds, if any, and/or moneys of the Regional Water System on hand and legally available therefor, as determined by the Authority Board.
- (5) Priority of Lien. The 2023 Bonds shall be issued as Senior Lien Bonds and/or Second Lien Bonds, as set forth in the Sale Order.
- (6) Separate Series. The 2023 Bonds are issuable at one or more times and as one or more separate Series of Bonds in such amounts as determined in the Sale Order.
- (7) Taxable and Tax-Exempt 2023 Bonds. The 2023 Bonds may be issued as Taxable 2023 Bonds or Tax-Exempt 2023 Bonds, or as separate Series of both, as determined in the Sale Order.

- (8) Source of Payment and Security. The 2023 Bonds shall be payable and secured as provided in Section 5.

- (b) Authorization of Tender/Exchange Transactions.
 - (1) Approval of Invitation to Tender or Exchange; Authorization of Authorized Officer. The distribution of an Invitation to Tender or Exchange is hereby approved, the invitation to tender for purchase or exchange and subsequent cancellation of Tendered Bonds and Exchanged Bonds as contemplated by and consistent with the terms of this 2023 Series Ordinance, is hereby authorized. An Authorized Officer is hereby authorized to (a) execute and deliver on behalf of the Authority a Dealer Manager Agreement, including the form of the Invitation to Tender or Exchange and any certificates required by the Dealer Manager to be executed on behalf of the Authority; (b) after consultation with the Authority's Financial Advisor and Bond Counsel, finalize the terms of the Invitation to Tender or Exchange consistent with this 2023 Series Ordinance; (c) take actions necessary to invite offers of Bonds to be purchased or exchanged by the Authority as outlined in the Invitation to Tender or Exchange, including, without limitation, a determination of the Target Bonds; (d) determine criteria for acceptable offers; (e) accept or reject, in whole or in part, offers received, or to delegate that authority to the Information and Tender/Exchange Agent subject to certain criteria; (f) take actions necessary to finalize conditional acceptance for the purchase of any Tendered Bonds and the exchange of any Exchanged Bonds, including providing any necessary directions to the Trustee, the Information and Tender/Exchange Agent and/or the Dealer Manager, and including determining the appropriate purchase prices of the Tendered Bonds and the exchange factors by which Exchanged Bonds will be exchanged for 2023 Refunding Bonds, as set forth in the Sale Order; and (g) execute (by manual or facsimile signature) any necessary approvals or instructions for the conditional acceptance of Tendered Bonds or Exchanged Bonds and any actions contemplated by this 2023 Series Ordinance, subject to the conditions described herein and in the Invitation.

 - (2) Limitations Applicable to Tender/Exchange Transactions. The following limitations and parameters shall apply to the Tender/Exchange Transactions:
 - a) The Tender/Exchange Transactions shall result in meeting the Savings Threshold.

 - b) The offers contemplated by the Invitation to Tender or Exchange shall become effective and expire according to the terms of the Invitation to Tender or Exchange.

- (c) Applicability of Ordinance. Except as otherwise provided in this 2023 Series Ordinance or the Sale Order, all of the provisions of the Ordinance shall apply to the 2023 Bonds

as if set forth in full in this 2023 Series Ordinance, the purpose of this 2023 Series Ordinance being to supplement the Ordinance to authorize the issuance of 2023 Bonds and the Tender/Exchange Transactions for the purposes set forth herein.

Section 4. 2023 Bond Details.

(a) Designation.

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

(b) Numbering. 2023 Bonds shall be numbered in such manner as shall be determined in the Sale Order.

(c) Principal. 2023 Bonds shall be issued in the form of Serial Bonds or Term Bonds, or any combination of Serial Bonds and Term Bonds, in any Authorized Denomination, and the principal thereof shall mature on July 1, or such other date as set forth in a Sale Order, in such years and amounts, and shall be or not be subject to redemption prior to maturity, all as shall be determined in the Sale Order subject to the limitations applicable to Taxable 2023 Bonds in Section 4(j) hereof and the following limitations:

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

(d) Interest. 2023 Bonds or portions thereof shall bear interest at such fixed rate or rates as determined in the Sale Order not in excess of the maximum rate permitted by law. Interest on 2023 Bonds shall be payable on each Interest Payment Date.

(e) Payment of Principal and Interest. The principal of, premium, if any, and interest on the 2023 Bonds shall be payable in lawful money of the United States. The principal of and

premium, if any, on the 2023 Bonds are payable upon the surrender thereof at the corporate trust office of the Trustee and the interest is payable by check or draft drawn on the Trustee and mailed to the registered owners as of the immediately preceding Regular Record Date at their address shown on the registration books of the Authority maintained by the Trustee.

(f) Dating. The 2023 Bonds shall be dated such date or dates as determined in the Sale Order.

(g) Reserve Requirement. The 2023 Reserve Requirement, if any, with respect to each Series of the 2023 Bonds shall be satisfied by a deposit into the appropriate Bond Reserve Account of cash, a portion of the proceeds of such Series of 2023 Bonds, funds already on deposit in the appropriate Bond Reserve Account or the provision of a Credit Facility in the same amount and with a credit rating at the time of issuance of such Series of 2023 Bonds not less than the credit rating of such Series of 2023 Bonds, or any combination of the foregoing. The amounts, if any, required to be deposited in the Senior Lien Bond Reserve Account and the Second Lien Bond Reserve Account to cause the amounts on deposit therein to be at least equal to the Reserve Requirement for the Senior Lien Bonds and the Reserve Requirement for the Second Lien Bonds, respectively, shall be set forth in the Sale Order.

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

(i) Execution and Delivery of 2023 Bonds. The 2023 Bonds shall be executed in the name of the Authority by manual or facsimile signature of the Chief Executive Officer of the Authority and countersigned by the manual or facsimile signature of the Secretary of the Authority Board, and shall have the Authority's seal, or facsimile thereof, affixed or printed thereon. The Chief Financial Officer is authorized to deliver the 2023 Bonds to the Underwriter upon receiving the purchase price therefor in lawful money of the United States. The Chief Financial Officer is further authorized to make the necessary arrangements with the Holders of the Exchanged Bonds to establish the date, location, procedure and conditions for the delivery of 2023 Bonds exchanged in place of the Exchanged Bonds in accordance with the Invitation.

(j) Selection of Taxable 2023 Bonds for Redemption. Pursuant to Section 303 of the Ordinance, when Taxable 2023 Bonds are to be redeemed in part, an Authorized Officer shall specify to the Trustee the Series designation and maturity of the Taxable 2023 Bonds from which 2023 Bonds or portions of 2023 Bonds to be redeemed shall be selected. Subject to the Authorized Officer's specification, the particular Taxable 2023 Bonds or portions of Taxable 2023 Bonds to be redeemed will be selected by the Trustee by lot; provided, however, that the Trustee shall select Taxable 2023 Bonds to be redeemed on the basis of a pro rata pass-through distribution of principal in accordance with DTC procedures and provided that, so long as the Taxable 2023 Bonds are held

in book-entry form the selection for redemption of such Taxable 2023 Bonds will be made in accordance with the operational arrangements of DTC then in effect and, if the DTC operational arrangements do not allow for redemption on the basis of a pro-rata pass-through distribution of principal, the Taxable 2023 Bonds will be selected for redemption, in accordance with DTC procedures, by lot. The portion of any Taxable 2023 Bonds to be redeemed in part shall be in the principal amount of \$5,000 or any integral multiple thereof

(k) Form of 2023 Bonds. The 2023 Bonds shall be in substantially the following form, subject to such changes, additions or deletions as determined by an Authorized Officer within the parameters of this 2023 Series Ordinance:

R-__

**UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTIES OF MACOMB, OAKLAND AND WAYNE
GREAT LAKES WATER AUTHORITY**

**WATER SUPPLY SYSTEM [REVENUE][REVENUE REFUNDING]
[SENIOR LIEN][SECOND LIEN] BOND, SERIES 2023__**

REGISTERED OWNER:

PRINCIPAL AMOUNT: \$ _____

INTEREST RATE: _____ %

ORIGINAL ISSUE DATE:

The Great Lakes Water Authority, Counties of Macomb, Oakland and Wayne, State of Michigan (the “Issuer”), upon authorization from the Board of Directors of the Issuer (the “Board”), has issued this Bond. The Issuer, for value received, promises to pay, but only from the Pledged Assets (as defined below), to the Registered Owner named above, or registered assigns, the Principal Amount stated above in lawful money of the United States of America. Interest on this Bond shall accrue from the Original Issue Date set forth above at the Interest Rate per annum set forth above, and shall be payable on _____ 1, 20__ and semiannually on each July 1 and January 1 thereafter (each an “Interest Payment Date”) in lawful money of the United States of America.

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

Interest on this Bond is payable to the registered owner of record as of the close of business on the 15th day of the month immediately preceding any Interest Payment Date as shown on the registration books kept by the Trustee by check or draft mailed by the Trustee to the registered owner at the registered address. Interest on this Bond shall be computed on the basis of a 360-day year comprised of twelve 30-day months.

This Bond is one of a series of bonds designated “Water Supply System [Revenue][Revenue Refunding] [Senior Lien][Second Lien] Bonds, Series 2023__” and is issued pursuant to the provisions of (i) Act 233, Public Acts of Michigan, 1955, as amended (“Act 233”), and Act 94, Public Acts of Michigan, 1933, as amended (“Act 94”), (ii) Master Bond Ordinance No. 2015-01 adopted by the Board on October 7, 2015, as amended (the “Bond Ordinance”), (iii)

the 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, adopted by the Board on _____, 2023 (the “Series Ordinance”), and (vi) a Sale Order of an Authorized Officer of the Issuer dated _____, 2023 (the “Sale Order,” and, collectively with the Bond Ordinance and the Series Ordinance, the “Ordinance”). This Bond is issued for the purposes set forth in the Series Ordinance and the Sale Order.

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

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

This Bond is subject to redemption prior to maturity to the extent, and as provided in, the Sale Order.

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

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

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

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

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

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

GREAT LAKES WATER AUTHORITY

By: _____
Chief Executive Officer

Countersigned:

By: _____
Secretary, Board of Directors

[Seal]

CERTIFICATE OF AUTHENTICATION

This Bond is authenticated as one of the bonds designated by the Issuer as “Water Supply System [Revenue][Revenue Refunding] [Senior Lien][Second Lien] Bonds, Series 2023__”.

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

By: _____

Date of Authentication: _____, 2023

ASSIGNMENT

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

Dated: _____

Signature

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

END OF BOND FORM

Section 5. Payment of 2023 Bonds; Confirmation of Statutory Lien.

(a) The 2023 Bonds and the interest thereon shall be payable solely from the Pledged Assets.

(b) To secure payment of the 2023 Bonds, the statutory lien upon the whole of the Pledged Assets established by Act 94 and the pledge created in Section 501 of the Ordinance is hereby confirmed in favor of the 2023 Bonds as follows:

- (1) Such lien in favor of the 2023 Senior Lien Bonds shall be a first lien of equal standing and Priority of Lien with all issued, to be issued and outstanding Senior Lien Bonds.
- (2) Such lien in favor of the 2023 Second Lien Bonds shall be a second lien of equal standing and Priority of Lien with all issued, to be issued and outstanding Second Lien Bonds.

Section 6. Concerning the Securities Depository.

(a) As used herein:

“Beneficial Owner” means any Person who indirectly owns 2023 Bonds pursuant to the indirect ownership system maintained by the Securities Depository and its Participants, commonly known as the “Book-Entry Only System.”

“Participant” means any Person whose ownership of 2023 Bonds is shown on books of the Securities Depository.

(b) Initially, one fully-registered bond for each maturity of each Series of 2023 Bonds, in the aggregate principal amount of such maturity, shall be issued in the name of Cede & Co., as nominee of the Securities Depository, for the benefit of the Participants in the Book-Entry Only System. While the 2023 Bonds are registered in the name of a Securities Depository or its nominee, neither the Authority nor the Trustee shall have any responsibility or obligation to any Participant or to any Beneficial Owner with respect to any matter, including the following:

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

(c) The Trustee shall pay all principal (and premium, if any) of and interest on the 2023 Bonds only to or upon the order of the Securities Depository, and all such payments shall be valid

and effective fully to satisfy and discharge the Authority's obligations with respect to the principal (and premium, if any) of, and interest on such 2023 Bonds to the extent of the sum or sums so paid.

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

(e) Upon discontinuance of the use of the Book-Entry Only System maintained by the Securities Depository pursuant to subsection (d) above and upon receipt of notice from the Securities Depository containing sufficient information, the Authority shall execute and the Trustee shall authenticate and deliver 2023 Bonds in certificated form to Beneficial Owners in exchange for the beneficial interests of such Beneficial Owners in corresponding principal amounts and in any Authorized Denominations.

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

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

Section 7. Credit Facility.

(a) An Authorized Officer is authorized to negotiate and obtain a Credit Facility with respect to the 2023 Bonds, if the Authorized Officer determines that it is in the best interest of the Authority. An Authorized Officer is further authorized to renegotiate the terms of any outstanding Credit Facility, if the Authorized Officer determines that it is in the best interest of the Authority.

(b) An Authorized Officer is authorized to pay the cost of any such Credit Facility from the proceeds of the 2023 Bonds or any other funds legally available therefor.

(c) An Authorized Officer is authorized to make such covenants and agreements of the Authority as shall be necessary or appropriate in any agreement with the Credit Entity providing such Credit Facility.

Section 8. Funds and Accounts; Flow of Funds. Except as otherwise provided in this 2023 Series Ordinance, all of the provisions relative to funds and accounts, their maintenance, the flow of funds and other details relative thereto, shall remain as specifically set forth in the Ordinance.

Section 9. Disposition of Proceeds.

(a) 2023 Senior Lien New Money Bonds.

- (1) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 Senior Lien New Money Bonds there shall be immediately deposited in the Senior Lien Debt Service Account, an amount equal to any accrued interest received on the delivery of the 2023 Senior Lien New Money Bonds and, to the extent provided in the Sale Order, any capitalized interest on the 2023 Senior Lien New Money Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Senior Lien Debt Service Account for payment of the next maturing interest payment on the 2023 Senior Lien New Money Bonds.
- (2) Senior Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Senior Lien New Money Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Senior Lien Bond Reserve Account, if any, at least equal to the 2023 Senior Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Senior Lien New Money Bonds or any other funds legally available therefor.
- (3) Construction Fund. The balance of the proceeds of the 2023 Senior Lien New Money Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 10.

(b) 2023 Second Lien New Money Bonds.

- (1) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 Second Lien New Money Bonds there shall be immediately deposited in the Second Lien Debt Service Account, and amount equal to any accrued interest received on the delivery of the 2023 Second Lien New Money Bonds and, to the extent provided in the Sale Order, any capitalized interest on the 2023 Second Lien New Money Bonds,

and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Second Lien Debt Service Account for payment of the next maturing interest payment on the 2023 Second Lien New Money Bonds.

- (2) Second Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Second Lien New Money Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Second Lien Bond Reserve Account, if any, at least equal to the 2023 Second Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Second Lien New Money Bonds or any other funds legally available therefor.
 - (3) Construction Fund. The balance of the proceeds of the 2023 Second Lien New Money Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 10.
- (c) 2023 Senior Lien Refunding Bonds.
- (1) Disposition of Accrued Interest and Capitalized Interest: From the proceeds of the sale of the 2023 Senior Lien Refunding Bonds there shall be immediately deposited in the Senior Lien Bond and Interest Redemption Fund an amount equal to any accrued interest received on the delivery of the 2023 Senior Lien Refunding Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Senior Lien Bond and Interest Redemption Fund for payment of the next maturing interest payment on the 2023 Senior Lien Refunding Bonds.
 - (2) Senior Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Senior Lien Refunding Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Senior Lien Bond Reserve Account at least equal to the 2023 Senior Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Senior Lien Refunding Bonds or any other funds legally available therefor.
 - (3) Issuance Costs: As provided in the Sale Order, a portion of the proceeds from the sale of the 2023 Senior Lien Refunding Bonds shall be applied to the payment of Issuance Costs relating to the 2023 Refunding Bonds upon submission of proper documentation to an Authorized Officer.
 - (4) Additional Refunding Costs; Escrow Deposit: As provided in the Sale Order, the balance of the proceeds from the sale of the 2023 Senior Lien Refunding Bonds shall be used to provide the purchase price paid to any seller of Tendered Bonds, to fund the Escrow Deposit for any Bonds To Be

Refunded and to pay any additional Refunding Costs. Such proceeds may be used to acquire Government Obligations, which together with any remaining balance of such proceeds in the form of cash, shall constitute all or part of the Escrow Deposit, if any, to be held in an Escrow Fund. Additional proceeds remaining after payments and deposits made pursuant to this section, if any, shall be applied in accordance with the Ordinance.

(d) 2023 Second Lien Refunding Bonds.

- (1) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 Second Lien Refunding Bonds there shall be immediately deposited in the Second Lien Debt Service Account, and amount equal to any accrued interest received on the delivery of the 2023 Second Lien Refunding Bonds and, to the extent provided in the Sale Order, any capitalized interest on the 2023 Second Lien Refunding Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Second Lien Debt Service Account for payment of the next maturing interest payment on the 2023 Second Lien Refunding Bonds.
- (2) Second Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Second Lien Refunding Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Second Lien Bond Reserve Account at least equal to the 2023 Second Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Second Lien Refunding Bonds or any other funds legally available therefor.
- (3) Issuance Costs: As provided in the Sale Order, a portion of the proceeds from the sale of the 2023 Second Lien Refunding Bonds shall be applied to the payment of Issuance Costs relating to the 2023 Refunding Bonds upon submission of proper documentation to an Authorized Officer.
- (4) Additional Refunding Costs; Escrow Deposit: As provided in the Sale Order, the balance of the proceeds from the sale of the 2023 Second Lien Refunding Bonds shall be used to provide the purchase price paid to any seller of Tendered Bonds, to fund the Escrow Deposit for any Bonds To Be Refunded and to pay any additional Refunding Costs. Such proceeds may be used to acquire Government Obligations, which together with any remaining balance of such proceeds in the form of cash, shall constitute all or part of the Escrow Deposit, if any, to be held in an Escrow Fund. Additional proceeds remaining after payments and deposits made pursuant to this section, if any, shall be applied in accordance with the Ordinance.

Section 10. Construction Fund. A subaccount of the Authority Regional Construction Account of the Construction Fund established by the Ordinance shall be established for the 2023

New Money Bonds and designated the “Construction Fund, Series 2023,” and shall be established and maintained as a separate depository account with a Custodian as designated by the Chief Financial Officer. Moneys in the Construction Fund, Series 2023 shall be applied solely to payment of Project Costs (or to the reimbursement of Project Costs paid by the Authority from other funds prior to the issuance of the 2023 New Money Bonds).

- (a) Payments or reimbursements for Project Costs for construction, either on account or otherwise, shall not be made unless the registered engineer in charge of such work shall file with an Authorized Officer a signed statement to the effect that the work has been completed in accordance with the plans and specifications therefor, that it was done pursuant to and in accordance with the contract therefor, that such work is satisfactory and that such work has not been previously paid for.
- (b) Payments or reimbursements for Project Costs consisting of Issuance Costs relating to the 2023 New Money Bonds and engineering, legal and financial costs shall be made upon submission of appropriate documentation to an Authorized Officer.

Section 11. Escrow Fund; Escrow Agreement.

(a) Establishment of Escrow Fund. The Escrow Deposit, if any, shall be held in or credited to an account designated as the “Great Lakes Water Authority Water Supply System Revenue Bonds Series 2023 Refunding Bonds Escrow Fund” (the “Escrow Fund”) pursuant to an escrow agreement (the “Escrow Agreement”).

(b) Escrow Agreement.

- (1) An Authorized Officer is authorized to enter into an Escrow Agreement on behalf of the Authority with U.S. Bank Trust Company, National Association as “Escrow Trustee.”
- (2) The Escrow Agreement, if any:
 - a) shall be in the form and substance customary for refunding escrow agreements;
 - b) may permit any balance after paying the principal (and premium, if any) and interest on the Bonds To Be Refunded to be applied to any lawful purpose of the Water System if such use will not, in the opinion of Bond Counsel, impair the exclusion of interest on the 2023 Refunding Bonds that are Tax-Exempt 2023 Bonds from gross income for federal income tax purposes; and
 - c) shall otherwise be in the best interests of the Authority as determined by an Authorized Officer, as conclusively established by his or her execution of the Escrow Agreement.

Section 12. Tax Covenant.

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

(b) The actions referred to in subsection (a) above include, but are not limited to, actions relating to any required rebate of arbitrage earnings and the expenditure and investment of proceeds of Tax-Exempt 2023 Bonds and moneys deemed to be proceeds of Tax-Exempt 2023 Bonds, and to prevent the Tax-Exempt 2023 Bonds from being or becoming “private activity bonds” as that term is used in the Code.

Section 13. Preliminary and Final Official Statements.

(a) An Authorized Officer shall assist in the preparation of the Preliminary Official Statement and is authorized to deem the portions of Preliminary Official Statement relating to the 2023 Bonds and the Authority “final” for purposes of the Rule.

(b) The Preliminary Official Statement with such changes and additions as an Authorized Officer shall approve shall constitute the final Official Statement or final Official Statements, as deemed necessary by an Authorized Officer (either the singular or the plural referred to herein as the “Official Statement”), and an Authorized Officer is authorized to execute the final Official Statement on behalf of the Authority approved by him or her with such changes as the Authorized Officer may authorize.

(c) Such final Preliminary Official Statement and final Official Statement and other offering materials satisfactory to an Authorized Officer are authorized to be distributed by the Underwriter in conjunction with the offering and sale of the 2023 Bonds.

Section 14. Continuing Disclosure. Unless otherwise set forth in the Sale Order because of an exemption from the Rule, the 2023 Bonds shall be subject to the Rule, and an Authorized Officer is authorized to execute and deliver the Continuing Disclosure Undertaking in form and substance customary for continuing disclosure undertakings entered into pursuant to the Rule.

Section 15. Sale of 2023 Bonds; Purchase Agreement.

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

(b) The Authority Board hereby determines that the sale of the 2023 Bonds by negotiated sale as described in subsection (a) is in the best interests of the Authority and will allow the 2023 Bonds to be sold in the most efficient manner so as to result in the lowest possible borrowing costs to the Authority.

(c) An Authorized Officer is authorized to accept, on behalf of the Authority, an offer from the Underwriter to purchase the 2023 Bonds subject to the following limitations:

- (1) The interest rate coupon with respect to the 2023 Bonds shall not exceed 6%.
- (2) The purchase price of the 2023 Bonds shall not be less than 98% of the principal amount thereof.
- (3) The Underwriter's discount with respect to the 2023 Bonds or the compensation to be paid to the Underwriter shall not exceed 0.40% of the principal amount of the 2023 Bonds.
- (4) The Authority's issuance and sale of the 2023 Refunding Bonds, together with any other legally available funds to finance the purchase of the Tendered Bonds, to refund the Bonds To Be Refunded and to exchange any Exchanged Bonds for 2023 Refunding Bonds, will meet the Savings Threshold.

(d) An Authorized Officer is authorized to determine if the Purchase Agreement shall provide for liquidated damages and if so, the amount thereof, and if the purchaser of any Series of the 2023 Bonds is required to provide a good faith check and if so, the amount thereof.

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

Section 16. Delegation of Authority to and Authorization of Actions of Authorized Officers.

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

(b) In addition to determinations authorized elsewhere in this 2023 Series Ordinance, an Authorized Officer shall determine the Target Bonds (from the Outstanding Bonds), the Bonds To Be Refunded, if any, and aggregate principal amount of 2023 Refunding Bonds to be issued, but not in excess of the aggregate principal amount authorized by this 2023 Series Ordinance. An Authorized Officer shall also determine and establish, in accordance with this 2023 Series Ordinance, the maturities of the 2023 Refunding Bonds, whether such maturities shall be serial or term maturities and the Mandatory Redemption Requirements for any term maturities, and the redemption provisions for the 2023 Refunding Bonds.

(c) In addition to determinations authorized elsewhere in this 2023 Series Ordinance, and Authorized Officer shall determine the aggregate principal amount of 2023 New Money Bonds to be issued, but not in excess of the aggregate principal amount authorized by this 2023 Series Ordinance, on the basis of his or her evaluation of the maximum amount of 2023 New Money

Bonds which can be sold, given anticipated interest rates and the revenue coverage requirements with respect to the 2023 New Money Bonds and for any other reasons the Authorized Officer deems appropriate.

- (1) Such determination shall also include the type or types of 2023 New Money Bonds to be issued, whether to issue the 2023 New Money Bonds as Senior Lien Bonds or Second Lien Bonds and if in one or more Series, and the redemption provisions for the 2023 New Money Bonds.
- (2) An Authorized Officer shall also determine and establish, in accordance with this 2023 Series Ordinance, the maturities of the 2023 New Money Bonds, whether such maturities shall be serial or term maturities and the Mandatory Redemption Requirements for any term maturities.

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

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

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

Section 17. [Reserved.]

Section 18. Ratification. All determinations and decisions of an Authorized Officer heretofore taken with respect to the issuance and sale of the 2023 Bonds as permitted or required by the Ordinance or law are hereby ratified, confirmed and approved.

Section 19. Additional Authorization. The Chief Executive Officer, the Chief Financial Officer, the Chief Administrative and Compliance Officer and the General Counsel of the Authority, any such officials acting in an interim or acting capacity to such officers, their deputies and staff, or any of them, are hereby authorized to execute and deliver such certificates, letters of representation, documents, instruments, agreements, opinions and other papers as may be deemed necessary or appropriate to complete the sale, execution and delivery of the 2023 Bonds and otherwise give effect to the transactions contemplated by this 2023 Series Ordinance, as determined by such officials executing and delivering the foregoing items.

Section 20. 2023 Series Ordinance a Contract. The provisions of this 2023 Series Ordinance shall constitute a contract between the Authority and each registered owner of an outstanding 2023 Bond.

Section 21. Professional Services.

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

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

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

(d) An Authorized Officer is authorized to engage other consultants, including, without limitation, verification agents or other parties as she deems necessary or appropriate in connection with the sale, issuance and delivery of the 2023 Bonds and to pay the fees and expenses thereof from the proceeds of the 2023 Bonds or other available funds.

Section 22. Severability; Headings; and Conflict. If any section, paragraph, clause or provision of this 2023 Series Ordinance shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this 2023 Series Ordinance. The section and paragraph headings in this 2023 Series Ordinance are furnished for convenience of reference only and shall not be considered to be part of this 2023 Series Ordinance.

Section 23. Publication and Recordation. This 2023 Series Ordinance shall be published in full in the Detroit Legal News, a newspaper of general circulation within the geographic boundaries of the Authority qualified under State law to publish legal notices, promptly after its adoption, and shall be maintained in the official records of the Authority and such recording authenticated by the signatures of the Chairperson and Secretary of the Authority Board.

Section 24. Repeal. All ordinances, resolutions, indentures or orders, or parts thereof, in conflict with the provisions of this 2023 Series Ordinance are, to the extent of such conflict, repealed.

[Remainder of page intentionally left blank]

Section 25. Effective Date. This 2023 Series Ordinance shall be effective upon adoption.

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

GREAT LAKES WATER AUTHORITY

Signed _____
Chairperson

Signed _____
Secretary

Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue and Revenue Refunding Bonds (2023)

4853-6492-8606 v8 [63818-49]

Great Lakes Water Authority

Resolution 2023-336

RE: 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

By Board Member: _____

Whereas There has been presented to the Board of Directors of the Great Lakes Water Authority (the “Authority”) an ordinance entitled “Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue and Revenue Refunding Bonds in an Amount not to Exceed \$925,000,000” (the “2023 Water Series Ordinance”), which ordinance is a Series Ordinance as defined and described in Master Bond Ordinance No. 2015-01 adopted by the Board of Directors on October 7, 2015, as amended on December 9, 2015, January 27, 2016, August 10, 2016 and February 12, 2020 (as amended, the “Master Water Bond Ordinance”).

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

Now, Therefore Be It:

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

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

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



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: Nick Fedewa, CPA, Acting Public Finance Manager

Re: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$1,600,000,000 (Ordinance 2023-06)

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

Proposed Action: Audit Committee recommends that the Great Lakes Water Authority Board approve the resolution Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$1,600,000,000 as presented.

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..Title

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)

..Body

Agenda of: September 27, 2023
Item No.: **2023-337**
Amount: Not to Exceed \$1,600,000,000

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: September 27, 2023

RE: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$1,600,000,000 (Ordinance 2023-06)

MOTION

Upon recommendation of Nicolette N. Bateson, Chief Financial Officer\Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), **approves the resolution 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 as presented**, and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

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BACKGROUND

In order for the Great Lakes Water Authority (“GLWA”) to proceed with the issuance of new money bonds to support regional capital plan improvements and refunding of various outstanding sewage disposal system bonds for the purpose of achieving annual debt service savings, potentially including by effecting the tender and/or exchange of certain outstanding bonds, the GLWA Board must approve the included resolution approving the Series Ordinance.

The Series Ordinance sets forth the guidelines for the New Money and Refunding Bonds and authorizes the Chief Executive Officer or the Chief Financial Officer to execute the final terms of the Bonds, paying issuance costs and signing of the Bond Purchase Agreement, within the parameters set forth in the Series Ordinance.

JUSTIFICATION

New Money Portion: The authorized amount for the New Money Bonds is for an aggregate principal amount not to exceed \$200,000,000 for the regional sewage disposal system.

Refunding Portion: The authorized amount for the Refunding Bonds is for an aggregate principal amount of not to exceed \$1,400,000,000. The final par amount of the Refunding Bonds will be determined at the time of pricing and is based on current bond market pricing levels, tender pricing levels and investor participation in any tender offer, issuance costs and the par amount of the bonds to be refunded or solicited for tender by GLWA as determined by the savings level achieved.

Key Provisions:

- Not to Exceed Par Amount: \$1.6 billion (\$200 million for new money, \$1.4 billion for refunding)
- Maximum Coupon Rate: 6.00%
- Minimum Purchase Price: 98% of principal amount of bonds
- Maximum Underwriter Discount: 0.40% of principal amount of bonds
- Present Value Savings: Greater than 2.50% of principal amount of bonds to be refunded

BUDGET IMPACT

Savings resulting from the potential Sewer Refunding Bonds has not been included in the FY 2024 budget or ten-year financial plan. If savings are achieved as a result of the

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potential refunding, a budget amendment may be required for FY 2024 depending on the final pricing and savings structure on the bonds. Savings may not be achieved in every fiscal year.

COMMITTEE REVIEW

This matter was reviewed by the GLWA Audit Committee at its meeting on September 22, 2023. The Audit Committee *[insert action]* the resolution for the Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in a Principal Amount Not to Exceed \$1,600,000,000 as presented.

SHARED SERVICES IMPACT

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

GREAT LAKES WATER AUTHORITY
ORDINANCE NO. 2023-06

**SERIES ORDINANCE AUTHORIZING ISSUANCE AND SALE OF
SEWAGE DISPOSAL SYSTEM REVENUE AND REVENUE REFUNDING BONDS
IN A PRINCIPAL AMOUNT NOT TO EXCEED \$1,600,000,000**

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

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

WHEREAS, the Authority Board has determined that it is necessary and desirable to authorize at this time one or more Series of Revenue Bonds to pay all or part of the costs of the hereinafter described improvements, enlargements, extensions and repairs to the Regional Sewer System; and

WHEREAS, the Authority Board has determined, further, that it is necessary and desirable to authorize at this time one or more Series of Revenue Refunding Bonds (i) to refund a portion of Outstanding Bonds (the “Bonds To Be Refunded”) and cause the Bonds To Be Refunded to be purchased, retired and/or defeased in accordance with the Ordinance, and/or (ii) to effect certain Tender/Exchange Transactions as described herein, all to secure savings for the Authority through the issuance of such Revenue Refunding Bonds; and

WHEREAS, due to market conditions, it is desirable for the Authority, provided that certain conditions are met, to invite Holders of certain Outstanding Bonds (the “Target Bonds”) to offer to tender such Bonds for purchase (the “Tendered Bonds”) or exchange such Bonds (the “Exchanged Bonds”) for certain Revenue Refunding Bonds, pursuant to the terms of an Invitation to Tender or Exchange Sewage Disposal System Revenue Bonds (the “Invitation to Tender or Exchange” or the “Invitation”), and based on the offers received from such Holders, to accept for purchase the Tendered Bonds, provided that funds are available therefor, and/or accept for exchange the Exchanged Bonds, and subsequently cancel all of said Bonds (collectively, the “Tender/Exchange Transactions”).

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

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

Section 2. Definitions. Except as otherwise provided in this 2023 Series Ordinance, all terms which are defined in Section 101 of the Ordinance shall have the same meanings,

respectively, in this 2023 Series Ordinance as such terms are given in the Ordinance. In addition, the following terms shall have the following meanings unless the context shall clearly indicate some other meaning:

(a) “2023 Bonds” means, collectively, the 2023 New Money Bonds and the 2023 Refunding Bonds authorized by Section 3 of this 2023 Series Ordinance.

(b) “2023 New Money Bonds” means those 2023 Bonds, if any, issued for the purpose of paying, reimbursing and/or refinancing Project Costs as authorized by Section 3 of this 2023 Series Ordinance.

(c) “2023 Project” means a portion of the improvements, enlargements, extensions and repairs to the Regional Sewer System identified in the Capital Improvement Program, all as more fully described in the Sale Order.

(d) “2023 Refunding Bonds” means those 2023 Bonds, if any, issued for the purpose of refunding the Bonds To Be Refunded, purchasing the Tendered Bonds, issued in exchange for the Exchanged Bonds and paying Refunding Costs as authorized by Section 3 of this 2023 Series Ordinance.

(e) “2023 Reserve Requirement” means the sum of the 2023 Senior Lien Reserve Requirement and the 2023 Second Lien Reserve Requirement.

(f) “2023 Second Lien Bonds” means, collectively, the 2023 Second Lien New Money Bonds and the 2023 Second Lien Refunding Bonds.

(g) “2023 Second Lien New Money Bonds” means those 2023 New Money Bonds, if any, issued as Second Lien Bonds as provided in this 2023 Series Ordinance.

(h) “2023 Second Lien Refunding Bonds” means those 2023 Refunding Bonds, if any, issued as Second Lien Bonds as provided in this 2023 Series Ordinance.

(i) “2023 Second Lien Reserve Requirement” means such amount, if any, as is determined in the Sale Order to be the amount necessary to make the amount on deposit in the Second Lien Bond Reserve Account at least equal to the Reserve Requirement for the Second Lien Bond Reserve Account immediately upon the issuance of the 2023 Second Lien Bonds after taking into consideration such provision as is made for the Reserve Requirement from proceeds of the 2023 Second Lien Bonds and other funds and Credit Facilities on deposit or to be deposited in the Second Lien Bond Reserve Account.

(j) “2023 Senior Lien Bonds” means, collectively, the 2023 Senior Lien New Money Bonds and the 2023 Second Lien Refunding Bonds.

(k) “2023 Senior Lien New Money Bonds” means those 2023 New Money Bonds, if any, issued as Senior Lien Bonds as provided in this 2023 Series Ordinance.

(l) “2023 Senior Lien Refunding Bonds” means those 2023 Refunding Bonds, if any, issued as Senior Lien Bonds as provided in this 2023 Series Ordinance.

(m) “2023 Senior Lien Reserve Requirement” means such amount, if any, as is determined in the Sale Order to be the amount necessary to make the amount on deposit in the Senior Lien Bond Reserve Account at least equal to the Reserve Requirement for the Senior Lien Bond Reserve Account immediately upon the issuance of the 2023 Senior Lien Bonds after taking into consideration such provision as is made for the Reserve Requirement from proceeds of the 2023 Senior Lien Bonds and other funds and Credit Facilities on deposit or to be deposited in the Senior Lien Bond Reserve Account.

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

(o) “Authorized Officer” means either the Chief Executive Officer or the Chief Financial Officer.

(p) “Bonds To Be Refunded” has the meaning set forth in the recitals hereto.

(q) “Continuing Disclosure Undertaking” means the continuing disclosure undertaking or undertakings with respect to the 2023 Bonds to be entered into by the Authority pursuant to the Rule.

(r) “Dealer Manager” means, with respect to the Tender/Exchange Transactions, Goldman Sachs & Co. LLC., on behalf of itself and such other firms as may be named in the Dealer Manager Agreement.

(s) “Dealer Manager Agreement” means the Agreement between the Authority and the Dealer Manager relating to the Tender/Exchange Transactions.

(t) “Escrow Agreement” shall have the meaning set forth in Section 10 of this 2023 Series Ordinance.

(u) “Escrow Deposit”, if any, means cash or Government Obligations, or a combination of cash and Government Obligations, at least sufficient to discharge the lien of the Pledged Assets securing the Bonds To Be Refunded in accordance with Section 1001 of the Ordinance.

(v) “Exchanged Bonds” has the meaning set forth in the recitals hereto.

(w) “Fitch” means Fitch Ratings, Inc., and any successor rating agency.

(x) “Forward Delivery Agreement” means a bond purchase agreement providing for the issuance and delivery of certain 2023 Bonds by the Authority and purchase of such 2023 Bonds by the Underwriter on a specified date in the future, for the purposes authorized by this 2023 Series Ordinance including effecting the refunding of the Bonds To Be Refunded.

(y) “Information and Tender/Exchange Agent” means the Information and Tender/Exchange Agent appointed by an Authorized Officer and as shall be approved and confirmed in the Sale Order to act as the Authority’s agent in connection with the Tender/Exchange Transactions.

(z) “Interest Payment Date” means except as otherwise determined in the Sale Order each January 1 and July 1, or such other dates and commencing as set forth in the Sale Order.

(aa) “Invitation to Tender or Exchange” or “Invitation” has the meaning set forth in the recitals hereto.

(bb) “Maturity Date” means such dates of maturity of the 2023 Bonds as determined in the Sale Order.

(cc) “Moody’s” means Moody’s Investors Service, Inc., and any successor rating agency.

(dd) “Official Statement” means the final disclosure document with respect to the 2023 Bonds.

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

(ff) “Preliminary Official Statement” means the preliminary disclosure document with respect to the 2023 Bonds.

(gg) “Project Costs” means the costs of acquiring, constructing, equipping, installing and financing the 2023 Project, including Issuance Costs relating to the 2023 New Money Bonds.

(hh) “Purchase Agreement” means any bond purchase agreement between the Authority and the Underwriter providing for the sale of any 2023 Bonds, and includes any Forward Delivery Agreement entered into in accordance with this 2023 Series Ordinance.

(ii) “Refunding Costs” means the costs of refunding the Bonds To Be Refunded and the Tender/Exchange Transactions, including, to the extent authorized in the Sale Order, the amount of the Escrow Deposit, if any, the purchase price of the Tendered Bonds, funding the 2023 Reserve Requirement, if any, and Issuance Costs relating to the 2023 Refunding Bonds, including, without limitation, any costs associated with the Tender/Exchange Transactions including those of the Dealer Manager and an Information and Tender/Exchange Agent.

(jj) “Regular Record Date” means the fifteenth day of the calendar month immediately preceding an Interest Payment Date.

(kk) “Rule” means Rule 15c2-12 promulgated by the United States Securities and Exchange Commission under the Securities and Exchange Act of 1934, as amended.

(ll) “S&P” means S&P Global Ratings, and any successor rating agency.

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

(nn) “Savings Threshold” means that, as the result of the Tender/Exchange Transactions and the refunding of the Bonds To Be Refunded, the Authority will achieve an aggregate reduction in bond debt service that has a present value at the time of sale of the 2023 Refunding Bonds equal to at least two and one-half percent (2.5%) of the par value of the Bonds To Be Refunded, Tendered Bonds and Exchanged Bonds and in accordance with the Ordinance and applicable law.

(oo) “Securities Depository” means (i) The Depository Trust Company and its successors and assigns, if any, or (ii) any other securities depository which agrees to follow the procedures required to be followed by a securities depository in connection with the 2023 Bonds and which is selected by the Authority as provided in Section 6.

(pp) “Target Bonds” has the meaning set forth in the recitals hereto.

(qq) “Taxable 2023 Bonds” means any 2023 Bonds other than Tax-Exempt 2023 Bonds.

(rr) “Tax-Exempt 2023 Bonds” means any 2023 Bonds that are Tax-Exempt Bonds.

(ss) “Tender/Exchange Transactions” has the meaning set forth in the recitals hereto.

(tt) “Tendered Bonds” has the meaning set forth in the recitals hereto.

(uu) “Underwriter” means, with respect to the 2023 Bonds, Siebert Williams Shank & Co., LLC., on behalf of itself and such underwriters as may be named in the Purchase Agreement.

Section 3. Authorization of 2023 Bonds and Tender/Exchange Transactions.

(a) Authorization of 2023 Bonds.

(1) Authorization of Borrowing. The Authority may borrow (A) an aggregate principal amount, exclusive of premium, not in excess of \$1,400,000,000, in the case of the 2023 Refunding Bonds, and (B) an aggregate principal amount, exclusive of premium, not in excess of \$200,000,000, in the case of the 2023 New Money Bonds, all as finally determined in the Sale Order, and issue 2023 Bonds at one or more times and in one or more Series, all to evidence such borrowing pursuant to Act 233, Act 94 and the Ordinance, as 2023 Senior Lien Bonds and/or 2023 Second Lien Bonds, all as finally determined in the Sale Order.

(2) Purpose of 2023 Bonds. The 2023 Bonds shall be issued as Additional Bonds for the purpose of (A) in the case of the 2023 New Money Bonds, paying, reimbursing and/or refinancing Project Costs, and (B) in the case of the 2023 Refunding Bonds, (i) refunding the Bonds To Be Refunded, (ii) financing the purchase of the Tendered Bonds pursuant to the Tender/Exchange Transactions and causing the Tendered Bonds to be deemed paid and no longer Outstanding, (iii) exchanging 2023 Bonds in place of the Exchanged Bonds and causing the Exchanged Bonds to be no longer Outstanding, and (iv) paying other Refunding Costs, including Issuance Costs relating to the 2023 Refunding Bonds, and may in each case

include amounts necessary to satisfy the 2023 Reserve Requirement and paying the costs of a Credit Facility.

- (3) Limitations on Issuance of 2023 Refunding Bonds. No 2023 Refunding Bonds shall be issued unless:
 - a) The proceeds thereof (exclusive of accrued interest), together with other moneys available to the Authority under the Ordinance, are sufficient to provide funds for all Refunding Costs, as set forth in the Sale Order.
 - b) The Authority's issuance and sale of the 2023 Refunding Bonds, the refunding of the Bonds To Be Refunded and the Tender/Exchange Transactions will meet the Savings Threshold.
 - c) Concurrently with or prior to the delivery of the 2023 Refunding Bonds, an Authorized Officer gives notice to the Trustee to call for redemption at the applicable redemption price all of the Bonds To Be Refunded on the dates set forth in the Escrow Agreement, if any, or in the Sale Order in the absence of an Escrow Agreement. In such notice, an Authorized Officer may direct that the notice of redemption to be given by the Trustee to the Holders of the Bonds To Be Refunded pursuant to Section 303 of the Ordinance shall be given prior to the delivery of the 2023 Refunding Bonds and that such notice of redemption be conditioned upon the delivery of the 2023 Refunding Bonds and the funding of the Escrow Deposit, if any. As provided in Section 303 of the Ordinance, if such conditions in the notice of redemption are not satisfied on or before the date fixed for redemption, then the notice of redemption shall be canceled and of no further force or effect.
- (4) Insufficient Proceeds. To the extent that proceeds of the 2023 New Money Bonds are insufficient to pay Project Costs, the insufficiency shall be paid from the proceeds of future Additional Bonds, if any, and/or moneys of the Regional Sewer System on hand and legally available therefor, as determined by the Authority Board.
- (5) Priority of Lien. The 2023 Bonds shall be issued as Senior Lien Bonds and/or Second Lien Bonds, as set forth in the Sale Order.
- (6) Separate Series. The 2023 Bonds are issuable at one or more times and as one or more separate Series of Bonds in such amounts as determined in the Sale Order.
- (7) Taxable and Tax-Exempt 2023 Bonds. The 2023 Bonds may be issued as Taxable 2023 Bonds or Tax-Exempt 2023 Bonds, or as separate Series of both, as determined in the Sale Order.

(8) Source of Payment and Security. The 2023 Bonds shall be payable and secured as provided in Section 5.

(b) Authorization of Tender/Exchange Transactions.

(1) Approval of Invitation to Tender or Exchange; Authorization of Authorized Officer. The distribution of an Invitation to Tender or Exchange is hereby approved, the invitation to tender for purchase or exchange and subsequent cancellation of Tendered Bonds and Exchanged Bonds as contemplated by and consistent with the terms of this 2023 Series Ordinance, is hereby authorized. An Authorized Officer is hereby authorized to (a) execute and deliver on behalf of the Authority a Dealer Manager Agreement, including the form of the Invitation to Tender or Exchange and any certificates required by the Dealer Manager to be executed on behalf of the Authority; (b) after consultation with the Authority's Financial Advisor and Bond Counsel, finalize the terms of the Invitation to Tender or Exchange consistent with this 2023 Series Ordinance; (c) take actions necessary to invite offers of Bonds to be purchased or exchanged by the Authority as outlined in the Invitation to Tender or Exchange, including, without limitation, a determination of the Target Bonds; (d) determine criteria for acceptable offers; (e) accept or reject, in whole or in part, offers received, or to delegate that authority to the Information and Tender/Exchange Agent subject to certain criteria; (f) take actions necessary to finalize conditional acceptance for the purchase of any Tendered Bonds and the exchange of any Exchanged Bonds, including providing any necessary directions to the Trustee, the Information and Tender/Exchange Agent and/or the Dealer Manager, and including determining the appropriate purchase prices of the Tendered Bonds and the exchange factors by which Exchanged Bonds will be exchanged for 2023 Refunding Bonds, as set forth in the Sale Order; and (g) to execute (by manual or facsimile signature) any necessary approvals or instructions for the conditional acceptance of Tendered Bonds or Exchanged Bonds and any actions contemplated by this 2023 Series Ordinance, subject to the conditions described herein and in the Invitation.

(2) Limitations Applicable to Tender/Exchange Transactions. The following limitations and parameters shall apply to the Tender/Exchange Transactions:

- a) The Tender/Exchange Transactions shall result in meeting the Savings Threshold.
- b) The offers contemplated by the Invitation to Tender or Exchange shall become effective and expire according to the terms of the Invitation to Tender or Exchange.

(c) Applicability of Ordinance. Except as otherwise provided in this 2023 Series Ordinance or the Sale Order, all of the provisions of the Ordinance shall apply to the 2023 Bonds

as if set forth in full in this 2023 Series Ordinance, the purpose of this 2023 Series Ordinance being to supplement the Ordinance to authorize the issuance of 2023 Bonds and the Tender/Exchange Transactions for the purposes set forth herein.

Section 4. 2023 Bond Details.

(a) Designation.

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

(b) Numbering. 2023 Bonds shall be numbered in such manner as shall be determined in the Sale Order.

(c) Principal. 2023 Bonds shall be issued in the form of Serial Bonds or Term Bonds, or any combination of Serial Bonds and Term Bonds, in any Authorized Denomination, and the principal thereof shall mature on July 1, or such other date as set forth in a Sale Order, in such years and amounts, and shall be or not be subject to redemption prior to maturity, all as shall be determined in the Sale Order subject to the limitations applicable to Taxable 2023 Bonds in Section 4(j) hereof and the following limitations:

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

(d) Interest. 2023 Bonds or portions thereof shall bear interest at such fixed rate or rates as determined in the Sale Order not in excess of the maximum rate permitted by law. Interest on 2023 Bonds shall be payable on each Interest Payment Date.

(e) Payment of Principal and Interest. The principal of, premium, if any, and interest on the 2023 Bonds shall be payable in lawful money of the United States. The principal of and

premium, if any, on the 2023 Bonds are payable upon the surrender thereof at the corporate trust office of the Trustee and the interest is payable by check or draft drawn on the Trustee and mailed to the registered owners as of the immediately preceding Regular Record Date at their address shown on the registration books of the Authority maintained by the Trustee.

(f) Dating. The 2023 Bonds shall be dated such date or dates as determined in the Sale Order.

(g) Reserve Requirement. The 2023 Reserve Requirement, if any, with respect to each Series of the 2023 Bonds shall be satisfied by a deposit into the appropriate Bond Reserve Account of cash, a portion of the proceeds of such Series of 2023 Bonds, funds already on deposit in the appropriate Bond Reserve Account or the provision of a Credit Facility in the same amount and with a credit rating at the time of issuance of such Series of 2023 Bonds not less than the credit rating of such Series of 2023 Bonds, or any combination of the foregoing. The amounts, if any, required to be deposited in the Senior Lien Bond Reserve Account and the Second Lien Bond Reserve Account to cause the amounts on deposit therein to be at least equal to the Reserve Requirement for the Senior Lien Bonds and the Reserve Requirement for the Second Lien Bonds, respectively, shall be set forth in the Sale Order.

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

(i) Execution and Delivery of 2023 Bonds. The 2023 Bonds shall be executed in the name of the Authority by manual or facsimile signature of the Chief Executive Officer of the Authority and countersigned by the manual or facsimile signature of the Secretary of the Authority Board, and shall have the Authority's seal, or facsimile thereof, affixed or printed thereon. The Chief Financial Officer is authorized to deliver the 2023 Bonds to the Underwriter upon receiving the purchase price therefor in lawful money of the United States. The Chief Financial Officer is further authorized to make the necessary arrangements with the Holders of the Exchanged Bonds to establish the date, location, procedure and conditions for the delivery of 2023 Bonds exchanged in place of the Exchanged Bonds in accordance with the Invitation.

(j) Selection of Taxable 2023 Bonds for Redemption. Pursuant to Section 303 of the Ordinance, when Taxable 2023 Bonds are to be redeemed in part, an Authorized Officer shall specify to the Trustee the Series designation and maturity of the Taxable 2023 Bonds from which 2023 Bonds or portions of 2023 Bonds to be redeemed shall be selected. Subject to the Authorized Officer's specification, the particular Taxable 2023 Bonds or portions of Taxable 2023 Bonds to be redeemed will be selected by the Trustee by lot; provided, however, that the Trustee shall select Taxable 2023 Bonds to be redeemed on the basis of a pro rata pass-through distribution of principal in accordance with DTC procedures and provided that, so long as the Taxable 2023 Bonds are held

in book-entry form the selection for redemption of such Taxable 2023 Bonds will be made in accordance with the operational arrangements of DTC then in effect and, if the DTC operational arrangements do not allow for redemption on the basis of a pro-rata pass-through distribution of principal, the Taxable 2023 Bonds will be selected for redemption, in accordance with DTC procedures, by lot. The portion of any Taxable 2023 Bonds to be redeemed in part shall be in the principal amount of \$5,000 or any integral multiple thereof

(k) Form of 2023 Bonds. The 2023 Bonds shall be in substantially the following form, subject to such changes, additions or deletions as determined by an Authorized Officer within the parameters of this 2023 Series Ordinance:

R-__

**UNITED STATES OF AMERICA
STATE OF MICHIGAN
COUNTIES OF MACOMB, OAKLAND AND WAYNE
GREAT LAKES WATER AUTHORITY**

**SEWAGE DISPOSAL SYSTEM [REVENUE][REVENUE REFUNDING]
[SENIOR LIEN][SECOND LIEN] BOND, SERIES 2023__**

REGISTERED OWNER:

PRINCIPAL AMOUNT: \$ _____

INTEREST RATE: _____ %

ORIGINAL ISSUE DATE:

The Great Lakes Water Authority, Counties of Macomb, Oakland and Wayne, State of Michigan (the “Issuer”), upon authorization from the Board of Directors of the Issuer (the “Board”), has issued this Bond. The Issuer, for value received, promises to pay, but only from the Pledged Assets (as defined below), to the Registered Owner named above, or registered assigns, the Principal Amount stated above in lawful money of the United States of America. Interest on this Bond shall accrue from the Original Issue Date set forth above at the Interest Rate per annum set forth above, and shall be payable on _____ 1, 20__ and semiannually on each July 1 and January 1 thereafter (each an “Interest Payment Date”) in lawful money of the United States of America.

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

Interest on this Bond is payable to the registered owner of record as of the close of business on the 15th day of the month immediately preceding any Interest Payment Date as shown on the registration books kept by the Trustee by check or draft mailed by the Trustee to the registered owner at the registered address. Interest on this Bond shall be computed on the basis of a 360-day year comprised of twelve 30-day months.

This Bond is one of a series of bonds designated “Sewage Disposal System Revenue [Revenue][Revenue Refunding] [Senior Lien][Second Lien] Bonds, Series 2023__” and is issued pursuant to the provisions of (i) Act 233, Public Acts of Michigan, 1955, as amended (“Act 233”), and Act 94, Public Acts of Michigan, 1933, as amended (“Act 94”), (ii) Master Bond Ordinance No. 2015-02 adopted by the Board on October 7, 2015, as amended (the “Bond Ordinance”), (iii)

the Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in a Principal Amount not to Exceed \$1,600,000,000, adopted by the Board on _____, 2023 (the “Series Ordinance”), and (vi) a Sale Order of an Authorized Officer of the Issuer dated _____, 2023 (the “Sale Order,” and, collectively with the Bond Ordinance and the Series Ordinance, the “Ordinance”). This Bond is issued for the purposes set forth in the Series Ordinance and the Sale Order.

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

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

This Bond is subject to redemption prior to maturity to the extent, and as provided in, the Sale Order.

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

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

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

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

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

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

GREAT LAKES WATER AUTHORITY

By: _____
Chief Executive Officer

Countersigned:

By: _____
Secretary, Board of Directors

[Seal]

CERTIFICATE OF AUTHENTICATION

This Bond is authenticated as one of the bonds designated by the Issuer as “Sewage Disposal System [Revenue][Revenue Refunding] [Senior Lien][Second Lien] Bonds, Series 2023__”.

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

By: _____

Date of Authentication: _____, 2023

ASSIGNMENT

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

Dated: _____

Signature

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

END OF BOND FORM

Section 5. Payment of 2023 Bonds; Confirmation of Statutory Lien.

(a) The 2023 Bonds and the interest thereon shall be payable solely from the Pledged Assets.

(b) To secure payment of the 2023 Bonds, the statutory lien upon the whole of the Pledged Assets established by Act 94 and the pledge created in Section 501 of the Ordinance is hereby confirmed in favor of the 2023 Bonds as follows:

- (1) Such lien in favor of the 2023 Senior Lien Bonds shall be a first lien of equal standing and Priority of Lien with all issued, to be issued and outstanding Senior Lien Bonds.
- (2) Such lien in favor of the 2023 Second Lien Bonds shall be a second lien of equal standing and Priority of Lien with all issued, to be issued and outstanding Second Lien Bonds.

Section 6. Concerning the Securities Depository.

(a) As used herein:

“Beneficial Owner” means any Person who indirectly owns 2023 Bonds pursuant to the indirect ownership system maintained by the Securities Depository and its Participants, commonly known as the “Book-Entry Only System.”

“Participant” means any Person whose ownership of 2023 Bonds is shown on books of the Securities Depository.

(b) Initially, one fully-registered bond for each maturity of each Series of 2023 Bonds, in the aggregate principal amount of such maturity, shall be issued in the name of Cede & Co., as nominee of the Securities Depository, for the benefit of the Participants in the Book-Entry Only System. While the 2023 Bonds are registered in the name of a Securities Depository or its nominee, neither the Authority nor the Trustee shall have any responsibility or obligation to any Participant or to any Beneficial Owner with respect to any matter, including the following:

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

(c) The Trustee shall pay all principal (and premium, if any) of and interest on the 2023 Bonds only to or upon the order of the Securities Depository, and all such payments shall be valid

and effective fully to satisfy and discharge the Authority's obligations with respect to the principal (and premium, if any) of, and interest on such 2023 Bonds to the extent of the sum or sums so paid.

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

(e) Upon discontinuance of the use of the Book-Entry Only System maintained by the Securities Depository pursuant to subsection (d) above and upon receipt of notice from the Securities Depository containing sufficient information, the Authority shall execute and the Trustee shall authenticate and deliver 2023 Bonds in certificated form to Beneficial Owners in exchange for the beneficial interests of such Beneficial Owners in corresponding principal amounts and in any Authorized Denominations.

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

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

Section 7. Credit Facility.

(a) An Authorized Officer is authorized to negotiate and obtain a Credit Facility with respect to the 2023 Bonds, if the Authorized Officer determines that it is in the best interest of the Authority. An Authorized Officer is further authorized to renegotiate the terms of any outstanding Credit Facility, if the Authorized Officer determines that it is in the best interest of the Authority.

(b) An Authorized Officer is authorized to pay the cost of any such Credit Facility from the proceeds of the 2023 Bonds or any other funds legally available therefor.

(c) An Authorized Officer is authorized to make such covenants and agreements of the Authority as shall be necessary or appropriate in any agreement with the Credit Entity providing such Credit Facility.

Section 8. Funds and Accounts; Flow of Funds. Except as otherwise provided in this 2023 Series Ordinance, all of the provisions relative to funds and accounts, their maintenance, the flow of funds and other details relative thereto, shall remain as specifically set forth in the Ordinance.

Section 9. Disposition of Proceeds.

(a) 2023 Senior Lien New Money Bonds.

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

(2) Senior Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Senior Lien New Money Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Senior Lien Bond Reserve Account, if any, at least equal to the 2023 Senior Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Senior Lien New Money Bonds or any other funds legally available therefor.

(3) Construction Fund. The balance of the proceeds of the 2023 Senior Lien New Money Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 10.

(b) 2023 Second Lien New Money Bonds.

(1) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 Second Lien New Money Bonds there shall be immediately deposited in the Second Lien Debt Service Account, and amount equal to any accrued interest received on the delivery of the 2023 Second Lien New Money Bonds and, to the extent provided in the Sale Order, any capitalized interest on the 2023 Second Lien New Money Bonds,

and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Second Lien Debt Service Account for payment of the next maturing interest payment on the 2023 Second Lien New Money Bonds.

- (2) Second Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Second Lien New Money Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Second Lien Bond Reserve Account, if any, at least equal to the 2023 Second Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Second Lien New Money Bonds or any other funds legally available therefor.
 - (3) Construction Fund. The balance of the proceeds of the 2023 Second Lien New Money Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 10.
- (c) 2023 Senior Lien Refunding Bonds.
- (1) Disposition of Accrued Interest and Capitalized Interest: From the proceeds of the sale of the 2023 Senior Lien Refunding Bonds there shall be immediately deposited in the Senior Lien Bond and Interest Redemption Fund an amount equal to any accrued interest received on the delivery of the 2023 Senior Lien Refunding Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Senior Lien Bond and Interest Redemption Fund for payment of the next maturing interest payment on the 2023 Senior Lien Refunding Bonds.
 - (2) Senior Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Senior Lien Refunding Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Senior Lien Bond Reserve Account at least equal to the 2023 Senior Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Senior Lien Refunding Bonds or any other funds legally available therefor.
 - (3) Issuance Costs: As provided in the Sale Order, a portion of the proceeds from the sale of the 2023 Senior Lien Refunding Bonds shall be applied to the payment of Issuance Costs relating to the 2023 Refunding Bonds upon submission of proper documentation to an Authorized Officer.
 - (4) Additional Refunding Costs; Escrow Deposit: As provided in the Sale Order, the balance of the proceeds from the sale of the 2023 Senior Lien Refunding Bonds shall be used to provide the purchase price paid to any seller of Tendered Bonds, to fund the Escrow Deposit for any Bonds To Be

Refunded and to pay any additional Refunding Costs. Such proceeds may be used to acquire Government Obligations, which together with any remaining balance of such proceeds in the form of cash, shall constitute all or part of the Escrow Deposit, if any, to be held in an Escrow Fund. Additional proceeds remaining after payments and deposits made pursuant to this section, if any, shall be applied in accordance with the Ordinance.

(d) 2023 Second Lien Refunding Bonds.

- (1) Disposition of Accrued Interest and Capitalized Interest. From the proceeds of the sale of the 2023 Second Lien Refunding Bonds there shall be immediately deposited in the Second Lien Debt Service Account, and amount equal to any accrued interest received on the delivery of the 2023 Second Lien Refunding Bonds and, to the extent provided in the Sale Order, any capitalized interest on the 2023 Second Lien Refunding Bonds, and the Authority may take credit for the amount so deposited against the amount required to be deposited in the Second Lien Debt Service Account for payment of the next maturing interest payment on the 2023 Second Lien Refunding Bonds.
- (2) Second Lien Bond Reserve Account Deposit. If required as provided in Section 4(g) of this 2023 Series Ordinance, from the proceeds of the 2023 Second Lien Refunding Bonds, there shall next be applied an amount as set forth in the Sale Order to be deposited to the Second Lien Bond Reserve Account at least equal to the 2023 Second Lien Reserve Requirement after taking into account any Credit Facility or Credit Facilities to be acquired with the proceeds of the 2023 Second Lien Refunding Bonds or any other funds legally available therefor.
- (3) Issuance Costs: As provided in the Sale Order, a portion of the proceeds from the sale of the 2023 Second Lien Refunding Bonds shall be applied to the payment of Issuance Costs relating to the 2023 Refunding Bonds upon submission of proper documentation to an Authorized Officer.
- (4) Additional Refunding Costs; Escrow Deposit: As provided in the Sale Order, the balance of the proceeds from the sale of the 2023 Second Lien Refunding Bonds shall be used to provide the purchase price paid to any seller of Tendered Bonds, to fund the Escrow Deposit for any Bonds To Be Refunded and to pay any additional Refunding Costs. Such proceeds may be used to acquire Government Obligations, which together with any remaining balance of such proceeds in the form of cash, shall constitute all or part of the Escrow Deposit, if any, to be held in an Escrow Fund. Additional proceeds remaining after payments and deposits made pursuant to this section, if any, shall be applied in accordance with the Ordinance.

Section 10. Construction Fund. A subaccount of the Authority Regional Construction Account of the Construction Fund established by the Ordinance shall be established for the 2023

New Money Bonds and designated the “Construction Fund, Series 2023,” and shall be established and maintained as a separate depository account with a Custodian as designated by the Chief Financial Officer. Moneys in the Construction Fund, Series 2023 shall be applied solely to payment of Project Costs (or to the reimbursement of Project Costs paid by the Authority from other funds prior to the issuance of the 2023 New Money Bonds).

- (a) Payments or reimbursements for Project Costs for construction, either on account or otherwise, shall not be made unless the registered engineer in charge of such work shall file with an Authorized Officer a signed statement to the effect that the work has been completed in accordance with the plans and specifications therefor, that it was done pursuant to and in accordance with the contract therefor, that such work is satisfactory and that such work has not been previously paid for.
- (b) Payments or reimbursements for Project Costs consisting of Issuance Costs relating to the 2023 New Money Bonds and engineering, legal and financial costs shall be made upon submission of appropriate documentation to an Authorized Officer.

Section 11. Escrow Fund; Escrow Agreement.

(a) Establishment of Escrow Fund. The Escrow Deposit, if any, shall be held in or credited to an account designated as the “Great Lakes Water Authority Sewage Disposal System Revenue Bonds Series 2023 Refunding Bonds Escrow Fund” (the “Escrow Fund”) pursuant to an escrow agreement (the “Escrow Agreement”).

(b) Escrow Agreement.

- (1) An Authorized Officer is authorized to enter into an Escrow Agreement on behalf of the Authority with U.S. Bank Trust Company, National Association as “Escrow Trustee.”
- (2) The Escrow Agreement, if any:
 - a) shall be in the form and substance customary for refunding escrow agreements;
 - b) may permit any balance after paying the principal (and premium, if any) and interest on the Bonds To Be Refunded to be applied to any lawful purpose of the Sewer System if such use will not, in the opinion of Bond Counsel, impair the exclusion of interest on the 2023 Refunding Bonds that are Tax-Exempt 2023 Bonds from gross income for federal income tax purposes; and
 - c) shall otherwise be in the best interests of the Authority as determined by an Authorized Officer, as conclusively established by his or her execution of the Escrow Agreement.

Section 12. Tax Covenant.

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

(b) The actions referred to in subsection (a) above include, but are not limited to, actions relating to any required rebate of arbitrage earnings and the expenditure and investment of proceeds of Tax-Exempt 2023 Bonds and moneys deemed to be proceeds of Tax-Exempt 2023 Bonds, and to prevent the Tax-Exempt 2023 Bonds from being or becoming “private activity bonds” as that term is used in the Code.

Section 13. Preliminary and Final Official Statements.

(a) An Authorized Officer shall assist in the preparation of the Preliminary Official Statement and is authorized to deem the portions of Preliminary Official Statement relating to the 2023 Bonds and the Authority “final” for purposes of the Rule.

(b) The Preliminary Official Statement with such changes and additions as an Authorized Officer shall approve shall constitute the final Official Statement or final Official Statements, as deemed necessary by an Authorized Officer (either the singular or the plural referred to herein as the “Official Statement”), and an Authorized Officer is authorized to execute the final Official Statement on behalf of the Authority approved by him or her with such changes as the Authorized Officer may authorize.

(c) Such final Preliminary Official Statement and final Official Statement and other offering materials satisfactory to an Authorized Officer are authorized to be distributed by the Underwriter in conjunction with the offering and sale of the 2023 Bonds.

Section 14. Continuing Disclosure. Unless otherwise set forth in the Sale Order because of an exemption from the Rule, the 2023 Bonds shall be subject to the Rule, and an Authorized Officer is authorized to execute and deliver the Continuing Disclosure Undertaking in form and substance customary for continuing disclosure undertakings entered into pursuant to the Rule.

Section 15. Sale of 2023 Bonds; Purchase Agreement.

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

(b) The Authority Board hereby determines that the sale of the 2023 Bonds by negotiated sale as described in subsection (a) is in the best interests of the Authority and will allow the 2023 Bonds to be sold in the most efficient manner so as to result in the lowest possible borrowing costs to the Authority.

(c) An Authorized Officer is authorized to accept, on behalf of the Authority, an offer from the Underwriter to purchase the 2023 Bonds subject to the following limitations:

- (1) The interest rate coupon with respect to the 2023 Bonds shall not exceed 6%.
- (2) The purchase price of the 2023 Bonds shall not be less than 98% of the principal amount thereof.
- (3) The Underwriter's discount with respect to the 2023 Bonds or the compensation to be paid to the Underwriter shall not exceed 0.40% of the principal amount of the 2023 Bonds.
- (4) The Authority's issuance and sale of the 2023 Refunding Bonds, together with any other legally available funds to finance the purchase of the Tendered Bonds, to refund the Bonds To Be Refunded and to exchange any Exchanged Bonds for 2023 Refunding Bonds, will meet the Savings Threshold.

(d) An Authorized Officer is authorized to determine if the Purchase Agreement shall provide for liquidated damages and if so, the amount thereof, and if the purchaser of any Series of the 2023 Bonds is required to provide a good faith check and if so, the amount thereof.

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

Section 16. Delegation of Authority to and Authorization of Actions of Authorized Officers.

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

(b) In addition to determinations authorized elsewhere in this 2023 Series Ordinance, an Authorized Officer shall determine the Target Bonds (from the Outstanding Bonds), the Bonds To Be Refunded, if any, and aggregate principal amount of 2023 Refunding Bonds to be issued, but not in excess of the aggregate principal amount authorized by this 2023 Series Ordinance. An Authorized Officer shall also determine and establish, in accordance with this 2023 Series Ordinance, the maturities of the 2023 Refunding Bonds, whether such maturities shall be serial or term maturities and the Mandatory Redemption Requirements for any term maturities, and the redemption provisions for the 2023 Refunding Bonds.

(c) In addition to determinations authorized elsewhere in this 2023 Series Ordinance, and Authorized Officer shall determine the aggregate principal amount of 2023 New Money Bonds to be issued, but not in excess of the aggregate principal amount authorized by this 2023 Series Ordinance, on the basis of his or her evaluation of the maximum amount of 2023 New Money

Bonds which can be sold, given anticipated interest rates and the revenue coverage requirements with respect to the 2023 New Money Bonds and for any other reasons the Authorized Officer deems appropriate.

- (1) Such determination shall also include the type or types of 2023 New Money Bonds to be issued, whether to issue the 2023 New Money Bonds as Senior Lien Bonds or Second Lien Bonds and if in one or more Series, and the redemption provisions for the 2023 New Money Bonds.
- (2) An Authorized Officer shall also determine and establish, in accordance with this 2023 Series Ordinance, the maturities of the 2023 New Money Bonds, whether such maturities shall be serial or term maturities and the Mandatory Redemption Requirements for any term maturities.

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

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

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

Section 17. [Reserved.]

Section 18. Ratification. All determinations and decisions of an Authorized Officer heretofore taken with respect to the issuance and sale of the 2023 Bonds as permitted or required by the Ordinance or law are hereby ratified, confirmed and approved.

Section 19. Additional Authorization. The Chief Executive Officer, the Chief Financial Officer, the Chief Administrative and Compliance Officer and the General Counsel of the Authority, any such officials acting in an interim or acting capacity to such officers, their deputies and staff, or any of them, are hereby authorized to execute and deliver such certificates, letters of representation, documents, instruments, agreements, opinions and other papers as may be deemed necessary or appropriate to complete the sale, execution and delivery of the 2023 Bonds and otherwise give effect to the transactions contemplated by this 2023 Series Ordinance, as determined by such officials executing and delivering the foregoing items.

Section 20. 2023 Series Ordinance a Contract. The provisions of this 2023 Series Ordinance shall constitute a contract between the Authority and each registered owner of an outstanding 2023 Bond.

Section 21. Professional Services.

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

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

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

(d) An Authorized Officer is authorized to engage other consultants, including, without limitation, verification agents or other parties as she deems necessary or appropriate in connection with the sale, issuance and delivery of the 2023 Bonds and to pay the fees and expenses thereof from the proceeds of the 2023 Bonds or other available funds.

Section 22. Severability; Headings; and Conflict. If any section, paragraph, clause or provision of this 2023 Series Ordinance shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this 2023 Series Ordinance. The section and paragraph headings in this 2023 Series Ordinance are furnished for convenience of reference only and shall not be considered to be part of this 2023 Series Ordinance.

Section 23. Publication and Recordation. This 2023 Series Ordinance shall be published in full in the Detroit Legal News, a newspaper of general circulation within the geographic boundaries of the Authority qualified under State law to publish legal notices, promptly after its adoption, and shall be maintained in the official records of the Authority and such recording authenticated by the signatures of the Chairperson and Secretary of the Authority Board.

Section 24. Repeal. All ordinances, resolutions, indentures or orders, or parts thereof, in conflict with the provisions of this 2023 Series Ordinance are, to the extent of such conflict, repealed.

Section 25. Effective Date. This 2023 Series Ordinance shall be effective upon adoption.

[Remainder of page intentionally left blank]

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

GREAT LAKES WATER AUTHORITY

Signed _____
Chairperson

Signed _____
Secretary

Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds (2023)

4888-8211-3885 v8 [63818-49]

Great Lakes Water Authority

Resolution 2023-337

RE: Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal

System Revenue and Revenue Refunding Bonds

in a Principal Amount not to Exceed \$1,600,000,000

Ordinance 2023-06

By Board Member: _____

Whereas There has been presented to the Board of Directors of the Great Lakes Water Authority (the “Authority”) an ordinance entitled “Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue and Revenue Refunding Bonds in an Amount not to Exceed \$1,600,000,000” (the “2023 Sewer Series Ordinance”), which ordinance is a Series Ordinance as defined and described in Master Bond Ordinance No. 2015-02 adopted by the Board of Directors on October 7, 2015, as amended on December 9, 2015, January 27, 2016, August 10, 2016 and February 12, 2020 (as amended, the “Master Sewer Bond Ordinance”).

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

Now, Therefore Be It:

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

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

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



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

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

Re: CFO Update

GLWA Earns GFOA Budget Award!

At last month's meeting we reported that GLWA received the Certificate of Achievement for Excellence in Financial Reporting for the FY 2022 report. Soon after, we received word that GLWA earned the Government Finance Officers Association's (GFOA) *Distinguished Budget Presentation Award* for the FY 2024 and FY 2025 Biennial Budget & Five-Year Financial Plan FY 2024 through FY 2028 document.

There are many areas, groups, and teams that contribute to this success. Accountability for our organization achieving these standards is led by the Financial Planning & Analysis team who are collegially referred to as the "Budget Buddies" throughout the organization. Specifically, I would like to note the following team members who ensure GLWA's timeliness, clarity in communications, and quality: Robert Arbaugh, Guy Belew, Laurie Echols, Katrina Ingram, Jay Oswalt, David Slowik, Sam Williams, and Michelle Wong. A big thank you to Cindy Cezat for her technical expertise and guidance, Phyllis Walsh and Liz Duncan for production, and Charise Collins for collaboration with this effort. Lastly, thank you to Lisa Mancini for her leadership and calm strength as we worked through multiple drafts and assumptions to present a balanced budget.

Kim Garland, Deputy Chief Financial Officer Appointed to GFOA Debt Committee

We are very excited to announce that Kim Garland, CPA, has been appointed to the GFOA Debt Committee for a three-year term. Given the size of GLWA's outstanding bond portfolio and regular participation in the market, we believe that this is an outstanding professional development opportunity for Kim as well as an excellent venue for GLWA to be engaged in evolving public finance matters at a national level. Kim also serves the municipal finance profession in our state via her ongoing service as President on the Michigan Government Finance Officers Association Board of Directors.

Vendor Outreach on Monday, September 25, 2023

A return to in-person [Vendor Outreach](#) hosted by GLWA is scheduled for Monday, September 25, 2023. The agenda will include presentations by GLWA leadership, breakout sessions featuring cross functional team members involved in the procurement process, and dedicated resource rooms where vendors can meet one-on-one with GLWA Team

Members as well as network with other vendor attendees and GLWA Partners including Detroit Water & Sewerage Department and Euna Solutions (formerly Bonfire).

June 2023 Preliminary, Unaudited Financial Report

Typically, you would see the preliminary, unaudited June 30, 2023 in September. We have experienced a delay largely due to clarifying information received *after* June 30, 2023 from commercial insurance and Federal Emergency Management Agency related to flood events in 2021. While the amounts are not material to the financial statements overall, additional time is needed to clarify the information received. A draft will be distributed when it becomes available.



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

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%	\$679.4
Member Partner Service Area	88%	\$637.2
Disadvantaged Service Area	54%	\$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	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: September 22, 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. Team Member Update

- We welcome Management Professional Guy Belew to the Charges Outreach and Modeling team! Guy is transitioning internally from the GLWA Financial Planning & Analysis team. His experience and expertise will expand our analytical capabilities and build the teams bandwidth to take on more and varied strategic projects.

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.
- 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. The Water Charges Work Group has reached a consensus to move this approach forward to the overall Charges Work Group for review.
- The Water Charges Methodology Review Subgroup met in-person on Friday, August 4th and virtually, August 18, September 1 and 15, 2023.

3. Combined Water and Wastewater Charges Workgroup

- The overall Charges Work Group met virtually via Zoom on September 5, 2023.

4. The next One Water Partnership (OWP) meeting date is scheduled for Thursday, September 28, 2023 at Macomb Community College South Campus in Warren.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: Madison Merzlyakov, Affordability & Assistance Manager

Re: Affordability & Assistance Update

Background: In 2021, an Affordability & Assistance Team was created within GLWA's Financial Services Area. The team serves as the internal and external resource for strategic policies and programs related to water affordability and assistance.

Analysis: This month we present an update on the initiatives the Affordability & Assistance Team have been focused on, including efforts related to the Water Residential Assistance Program (WRAP) and sustainable water assistance funding.

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. An update on this rollout will be provided next month.

The Affordability & Assistance team will be presenting the fourth quarter WRAP report for Fiscal Year 2023 at the October 2023 Audit Committee meeting. Previously, Public Sector Consultants (PSC) has compiled the report for GLWA review. This summer, Affordability & Assistance team members trained with PSC to enable GLWA to bring this report development in-house. This turnover is nearly complete and will enable GLWA to continue to refine and improve the report format and metrics.

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 structure decisions, a proposal portfolio is being developed to document the effectiveness of the program. The team will update the Audit Committee as work progresses.

Sustainable Water Assistance Funding

On Wednesday, August 30, 2023, GLWA, the Southeast Michigan Council of Governments (SEMCOG), and Oakland County Water Resources Commission (WRC) co-hosted a Community Water Legislation Forum for municipalities, public works departments, and local elected officials. The webinar included updates regarding the statewide water affordability and shutoff protection bill package that the Senator Chang work group has been drafting, as well as an update on the stormwater utility bill. The presentation that was given during the webinar is included with this report (Attachment 1).

GLWA continues to be a resource to Senator Chang's Water Affordability Work Group that meets nearly twice per week. The group is focused on refining legislation to be introduced this fall and provides the framework for a sustainable statewide water affordability plan. Below is a summary of the bill package that is also captured in Attachment 1. The Affordability & Assistance team will continue to update the Audit Committee as this important work progresses.

1. Water Affordability Plan Bill (tie-barred with Water Affordability Fund Bill)
 - Creates a statewide water affordability plan that is administered by the Michigan Department of Health & Human Services (MDHHS) **OR** a utility can create their own plan.
 - Authorizes assistance to include:
 - Income-based water bill
 - Arrearage assistance
 - Plumbing repairs
2. Water Affordability Fund Bill (tie-barred with Water Affordability Plan Bill)
 - Creates a sustainable funding source to support the Water Affordability Plan.
 - Sets a statewide fee of \$1 to \$3 per retail meter, per month.
3. Water Shutoff Protection Act
 - Does not prevent service disconnection for all customers.
 - Does provide protections for customers before service disconnection can occur.
 - Does prevent service disconnection for critical care customers.
4. Other related bills:
 - Tenant Protections
 - Penal Code Amendments
 - Data Transparency

Last month, the Affordability & Assistance shared information with the Audit Committee regarding a water affordability grant that was awarded by MDHHS to community action

agencies across the state. Attachment 2 provides a snapshot of available information regarding the grant, as well as other water assistance funding available.

Proposed Action: Receive and file this report.

Michigan Matters: Community Water Legislation Forum

Wednesday, August 30, 2023

Welcome and Overview



Amy O'Leary, CAE
SEMCOG Executive Director

Michigan Matters: Community Water Legislative Forum

Kelly Karll, PE
Manager, Environment &
Infrastructure

Katie Grantham
Planner II, Environment &
Infrastructure

Housekeeping

- This webinar is being recorded and will be available on our On-Demand Webinar Library in the next week.
- As participants you are all in listen only mode.
- Please type your questions into the **questions box**, and we will answer questions during the Q & A session following each presentation.
- Following this webinar, we will send out the slides, copy of the recording and answers to questions posted during the webinar. Thanks!

Michigan Matters: Community Water Legislation Forum Today's Agenda

I. Welcome

James Nash, Oakland County Water Resources Commissioner (OCWRC)

Suzanne Coffey, Great Lakes Water Authority (GLWA)

Gary Brown, Detroit Water & Sewerage Department (DWSD)

II. Stormwater Utility Legislation

Opening Comments from Senator Rosemary Bayer, 13th District

Overview of Draft Legislation - Kelsey Cooke, OCWRC

Q & A on Stormwater Utility Legislation

III. Water Affordability Legislation

Opening Comments from Senator Stephanie Chang, 3rd District

Overview of process and key issues Sara Rubino, OCWRC

Q & A on Water Affordability Legislation

IV. Legislative Lay of the Land

John LaMacchia, Michigan Municipal League (MML)

Andrea Cascarilla, Dykema

Rudy Hobbs, Michigan Legislative Consultants (MLC)

V. Recap and Closing Remarks

Michigan Matters

Community Water Legislation Forum
August 30, 2023



Welcome and Introductions



Oakland County Water Resources
Commissioner Jim Nash



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



Stormwater Utility Legislation

Senator Rosemary Bayer

Michigan's 13th District





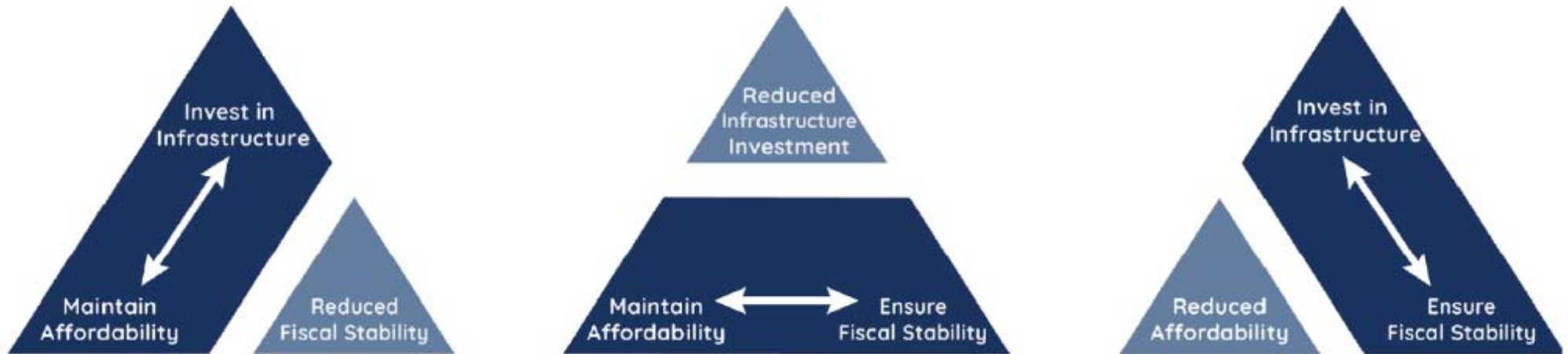
Stormwater Utility

Kelsey Cooke

WRC Manager and Chief Legal Officer



The Water Utility Trilemma Relates to Both Topics



Source: Patterson. 2021. Nicholas Institute for Energy, Environment & Sustainability Duke University Retrieved from <https://nicholasinstitute.duke.edu/water-affordability/water-services.html>

***Bolt* Refresher: What Qualifies as a User Fee?**



A user fee must serve a regulatory purpose rather than a revenue-raising purpose



A user fee must be proportionate to the necessary costs of the service and correspond to any benefit conferred by the service



A user fee must be for a commodity or service voluntarily used

Key Characteristics of *Post-Bolt* Challenges

Allegations

System users
have been
overcharged


The fees are
disguised
taxes

Many are class
actions

What's Changed?



Why is this bill necessary? *Hint: It's not because you can't already*



Municipalities need clear guidelines to create a plan, fund, and manage stormwater in their communities

Courts need statutory guidance to help judge whether a utility was properly established, funded, and managed

Property owners need transparency

Proposed Process Recipe in Stormwater Utility Act

Goal:

To create a stormwater management utility and adopt a stormwater utility fee

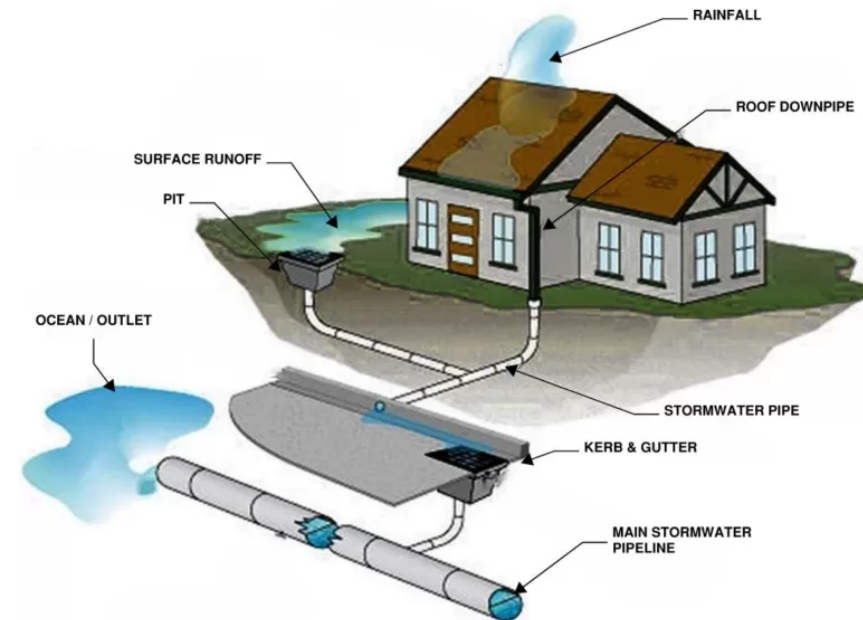
Local government steps:

1. Public notice of intent to prepare a stormwater management plan
2. Public hearing on proposed plan
3. Adopt a stormwater management plan by resolution
4. Adopt a stormwater utility rate ordinance consistent with the adopted plan
5. Establish a stormwater enterprise fund to deposit collected fees

Meeting the Three-Part Test in a Stormwater Management Plan

Stormwater Management Plan must include:

1. Periodic basis for plan review and updating
2. Service area
3. Projected operation and maintenance costs
4. Fee applies to property assessment
5. Method of calculating fee
6. Explanation of property eligibility for fee reduction/elimination
7. Property fee appeal process
8. Property owner notification process



Content of the Stormwater Utility Rate Ordinance

1

Identify purpose and the services needed

2

Establish a property fee to pay for stormwater management services

3

Describe methods for determining fee

May also include:

Fee for new, redeveloped, or modified properties that connect to or result in increased use of the stormwater system

Determining the Stormwater Utility Fee



In short:

The fee will consider impervious area of each property

In detail:

The fee depends on stormwater services provided to each property, using accepted engineering methods to assess stormwater quality and required management based on property characteristics

Suggestion:

Call your local stormwater engineer!

Stormwater Utility Discussion Q&A





Water Affordability and Shut-off Protection Legislation

Senator Stephanie Chang

Michigan's 3rd District





Water Affordability and Shut-off Protection

Sara Rubino

WRC Government Policy Attorney



Why are these bills important?

•More people are struggling to pay the costs of their drinking water, sewer, and stormwater services

Increasing costs to operate and maintain aging infrastructure

Increasing regulations to keep water sources safe

Increasing frequency and intensity of extreme weather

History in the Making



Topics Covered in 2023 Bill Package



Draft Water Affordability Plan and Fund Bills

Plan Bill:

- Creates a statewide affordability plan
- Administered by the Michigan Department of Health and Human Services

OR

Utilities can create their own plan:

- Utilities select an administrative partner
- Authorizes bill rates or discounts to keep water and sewer bills at or below 3% of household income
- Plan eligibility is set at 200% Federal Poverty Level
- Establish an affordability task force



Fund Bill:

- Create a sustainable funding source to support the affordability plan
- Sets a statewide fee of \$1 to \$3 per meter, per month
- Utilities collect the fee, and remit to the State Department of Treasury
- The Department of Treasury manages the funds
- Funds are distributed back to utilities to pay for the affordability plan

Affordability Plan Overview

Income Based Water Bill

- Tiers based on household income levels
- Bills no greater than 3% of household income
- Applied via discounts, credits or rates



Arrearage Reduction

- \$1,500 arrearage reduction after first 12 months
- Remainder of arrearage reduction after 24 months
- Remain enrolled in program and timely monthly payments



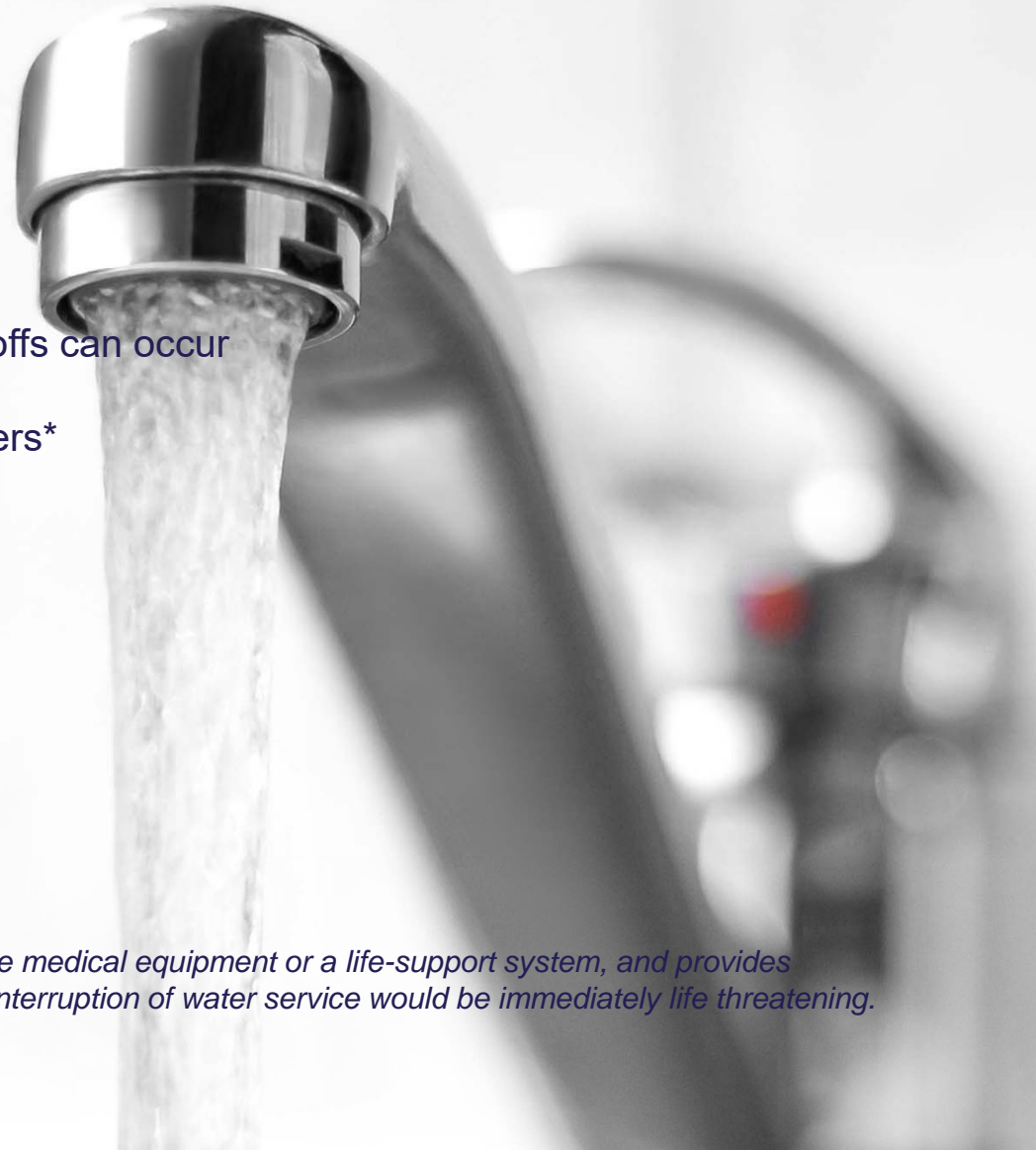
Household Plumbing

- \$2,500 per household
- Address leak or service issue
- Waiver available for additional repairs



Draft Water Shutoff Protection Act

1. Does not prevent shut offs for all customers
2. Does provide protections for customers before shut offs can occur
3. Does prevent water shut offs for critical care customers*



**A customer, or household member of a customer, who requires home medical equipment or a life-support system, and provides documentation to a provider from a physician or medical facility that interruption of water service would be immediately life threatening.*

Other Related Draft Bills



Tenant Protections

Landlord must provide copy of water bill and/or transfer bill to tenant, if requested by tenant

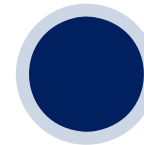
Prohibits landlords from increasing rent if tenant pays water bill directly



Penal Code Amendments

Under current law, a person who turns water service back on after it has been shut off may be charged with a felony and sentenced to jail time

Proposed amendment would change it to a civil infraction punishable with community service and fine, if the water services lines are not damaged



Data Transparency

Mandates that water providers disclose and report water and sewer rates and other information, including data related to water service shut offs

Creates a statewide "data bank" for the information. Intended to identify communities who need it most

Water Affordability & Shut-Off Protection Discussion Q&A



Legislative Process

John LaMacchia, MML
Rudy Hobbs, MLC
Andrea M. Cascarilla, Dykema



Open Discussion





Thank you!

 **Questions**
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 **Trisha Bruzek**
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Water Assistance Funding – Updated September 12, 2023

Program	Funding Source	Household Assistance	Program Details	Total Allocation	Administered By
LIHWAP (Low Income Household Water Assistance Program)	American Rescue Plan	Up to \$1,500 towards arrears or past due balance	<ul style="list-style-type: none"> Eligible households must be at or below 150% of the federal poverty level (FPL) and have past due balance or be facing shutoff Water providers must opt-in to the program in order for their residents to be eligible Funds go directly to water providers 	\$36 million, expiring 9/30/23	Michigan Department of Health and Human Services (MDHHS) through the Community Action Agencies (CAAs)
LIHWAP (Low Income Household Water Assistance Program)	Consolidated Appropriations Act	Up to \$1,500 towards arrears or past due balance	<ul style="list-style-type: none"> Eligible households must be at or below 150% of the federal poverty level (FPL) and have past due balance or be facing shutoff Water providers must opt-in to the program in order for their residents to be eligible Funds go directly to water providers 	Unused funds from original LIHWAP can be rolled over or reallocated. CAAs must request an extension to 3/31/24	Michigan Department of Health and Human Services (MDHHS) through the CAAs
Water Affordability Grant	Supplemental Appropriation from FY22-23 Budget	Up to \$3,000	<ul style="list-style-type: none"> Eligible households must be at or below 200% of the FPL Funds go directly to water providers No requirement for water providers to opt in Additional details still to be shared out. Funds available 10/1/23 or when LIHWAP funding is depleted. 	\$25 million, expiring 9/30/27	Michigan Department of Health and Human Services (MDHHS) through the CAAs
Water Fiscal Recovery Funds*	American Rescue Plan	Unknown	<ul style="list-style-type: none"> Income-based assistance to support efforts by community water systems to ensure affordability of water Capping or lowering utility bills Reducing consumer debt Improving in-home plumbing Shut-off protection for participants 	\$35 million, expiring 9/30/26	Michigan Department of Health and Human Services (MDHHS)
Water Residential Assistance Program Income Based Plan (WRAP IBP)	Great Lakes Water Authority (GLWA) budgeted revenue	<ul style="list-style-type: none"> Up to \$2,000 for home water audit and plumbing repairs Up to \$1,200/ year in bill credit assistance Up to \$1,200/year for arrearage assistance 	<ul style="list-style-type: none"> Eligible households must be at or below 200% of the FPL and be part of the GLWA service area Program provides income-based bill credits, arrearage assistance, and minor plumbing repairs Households are eligible for up to two years of arrearage and bill payment assistance, with exceptions for senior citizens and those with disabilities Funds go directly to water providers No requirement for water providers to opt in 	0.5% of budgeted revenues	GLWA through service delivery partners.

*Implementation details not yet available.



Financial Services Audit Committee Communication

Date: September 22, 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 August 31, 2023, includes the following.

- ✓ **Federal Emergency Management Agency (FEMA) activity related to COVID-19** – GLWA received three payments for projects related to the COVID-19 grant through the State of Michigan. These payments included \$1,858,713 for project 144208, \$573,325 for project 553713, and \$19,348 for project 149797. These three grants are now closed.
- ✓ **NOAA Climate Resilience Regional Challenge University of Michigan** – GLWA is a collaborator on a National Oceanic and Atmospheric Administration (NOAA) grant with the prime recipient being the University of Michigan. This relates to a NOAA Climate Resilience Regional Challenge grant that helps find solutions for climate disasters that affect underserved and underrepresented communities.

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 projects, with one grant reimbursement request submission, 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 2 - Awarded Programs reflects all awarded grants from FY 2021 through FY 2024. Current month updates to the summarized activity below includes the two

State Revolving Fund American Rescue Plan Act Funding programs in which there has been one disbursement request submitted and two award receipts related to a local nonprofit apprenticeship grant.

Table 3 – Post Award Programs reflects three programs with seven reimbursement requests and receipts through August 31, 2023. The programs that are reflected below are FEMA Covid-19, FEMA Flood Event and the DESC apprenticeship 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.



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 projects with one grant reimbursement request submission, 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
2023-004	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	State is reviewing payment
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)	\$519,000	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)	\$1,332,000	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
2023-014		Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 664811 East Side Sewers and Conner Creek	Federal pass-through State (Reimbursement Basis)	\$8,889,000	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)	\$589,000	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 the two State Revolving Fund American Rescue Plan Act Funding programs in which there has been one disbursement request submitted and two award receipts related to a local nonprofit apprenticeship grant.

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 Liquefaction 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

Reference Number	Request 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	Disbursement Request submitted 8/04/2023 waiting on state approval.

Table 3 – Post Award Programs reflects three programs with seven reimbursement requests and receipts through August 31, 2023. The programs that are reflected below are FEMA Covid-19, FEMA Flood Event and the DESC apprenticeship 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
2020-002a	9/15/2020	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 144208	Federal pass-through State (Reimbursement Basis)	\$1,858,713	Federal Audit Requirements	Payment was received on 7/3/2023 for full amount of \$1,858,713
2022-005	3/25/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 553713	Federal pass-through State (Reimbursement Basis)	\$573,325	Federal Audit Requirements	Payment was received on 7/3/2023 in the full amount of \$573,325
2022-006	3/3/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 149797-Amended	Federal pass-through State (Reimbursement Basis)	\$19,348	Federal Audit Requirements	Payment was received on 7/3/2023 for full amount of \$19,348.06

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status
2022-014	4/1/2023	Detroit Employment Solutions Corporation (DESC) Apprentices \$5,000 per apprentice; 8 apprentices	Detroit At Work (Nonprofit)	\$40,000	None	Grant Received Ended 06/30/2023
2023-006	2/24/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660138 – Received \$46,996.16 Seven Mile CSO	Federal pass-through State (Reimbursement Basis)	\$46,996	Federal Audit Requirements	Payment was received on 6/30/2023 for the full amount of \$46,996
2023-007	4/4/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 660076 – Received \$180,000 Springwells Water Treatment Plant	Federal pass-through State (Reimbursement Basis)	\$180,000	Federal Audit Requirements	Payment was received on 6/30/2023 for the full amount of \$180,000
2023-008	4/4/2023	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 Project 668336 – Received \$180,000 Fairview PS Protective Measures	Federal pass-through State (Reimbursement Basis)	\$180,000	Federal Audit Requirements	Payment was received on 6/30/2023 for the full amount of \$180,000

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: William Baker, Financial Management Professional, Construction Accounting & Reporting

Re: FY 2023 Q4 Construction Work-in-Progress Report through June 30, 2023
(Unaudited)

Background: The quarterly construction work-in-progress (CWIP) provides information and analysis related to the execution of the Great Lakes Water Authority capital improvement program (CIP).

Analysis: The attached documents summarize the FY 2023 Q4 CWIP positions and provides a detailed snapshot to inform decision makers and stakeholders.

Proposed Action: Receive and file this report.



**Construction Work-in-Progress Quarterly Report
(Unaudited)**

As of June 30, 2023

For questions, please contact:

William Baker

Construction Accounting and Reporting Phone:

313.378.9760

Email: william.baker@glwater.org

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September 22, 2023**To Our Stakeholders:**

The contents of this report represent the financial presentation of construction work-in-progress activity for the Great Lakes Water Authority (GLWA) as of June 30, 2023. The information in this report presents a detailed snapshot and is important as we track the execution of the FY 2023–2027 Capital Improvement Plan (CIP) and look to inform decision makers as we evaluate the FY 2024–2028 CIP.

As we continue to refine this report to better communicate pertinent information to inform decision makers and stakeholders, content and formatting may be changed. With the summary of active projects now regularly being reported to the Capital Planning Committee the project highlights previously being reported have been removed from this report.

Report Contents and Organization

Construction Work-in-Progress (CWIP) Appendices: Includes breakdown by jurisdiction which provides a summary of the planned and actual project activity by the jurisdictions identified within the FY 2023 – 2027 Board Approved CIP Plan, detailed CWIP rollforward, which lists all projects in the CIP along with financial activity. These tables may be used to revisit priorities, workload, and phasing. In addition, this section contains project amendment summaries which consider the award of CIP contracts and the related execution thereof may result in deviations from the amount and timing of project activity. Project amendments are prepared to fund the related increase or decrease with either an adjustment to Capital Reserve or Program / Allowance accounts to amend the board approved fiscal year CIP accordingly and to inform decision makers in the development of future Capital Improvement Plans.

Financial Information

All project amounts are unaudited. This means that direct contractor costs are generally included in these totals with most pay estimates entered through June 30, 2023. There may, however, be some pay estimates that lag. The totals do not include indirect overhead.

Budget vs. Plan

Generally, GLWA's CIP projects span two or more fiscal years. The GLWA Board of Directors adopts a biennial "budget" and a five-year capital improvement "plan".

- ✓ The adopted **budget** relates to operations and maintenance expense, annual fixed commitments such as debt service, and incremental adjustments to reserves. The budget provides authority to spend within defined amounts. The budget is also referred to as the "revenue requirement" for the utility.
- ✓ After contracts are awarded at amounts variant from the CIP plan and more reliable anticipated spend data becomes available, the amended budget for the current fiscal year may increase or decrease by way of "Capital Reserve" budget amendments.
- ✓ The five-year capital improvement **plan** is a rolling plan that is updated at an administrative tracking level as projects move from estimated to actual bid numbers. An updated mid-cycle CIP would be presented to the Board for approval if the prioritization strategy was revised and/or the plan was in need of material revisions.
- ✓ 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.

Executive Summary

The rate of spend is a key performance indicator. The development of the FY 2023-2027 and related CIP Plan for FY 2023 were based on anticipation of FY 2023 activity resulting in 80% of planned spend for the Water system and 75% of planned spend for the Wastewater system. On June 26, 2023, the GLWA Board of Directors amended the Adjusted Capital Spending Ratio (SRA) to 107.0 % for the Water system and 86.2% for the Wastewater system.

The Water System spend for the period ending June 30, 2023, is 101.0% of the FY 2023 board approved CIP, 98.4% of the FY 2023 board approved CIP with project amendments, 126.2% of the FY 2023 Approved Capital Spending Rate Assumption (SRA) and 94.4% of the FY 2023 Adjusted Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2023 Board Approved CIP was amended from \$194.4M to \$199.5M is provided in the subsequent Project Amendment Summary appendix of this report.

The Wastewater System spend for the period ending June 30, 2023, is 83.2% of the FY 2023 board approved CIP, 77.0% of the FY 2023 board approved CIP with project amendments, 110.9% of the FY 2023 Approved Capital Spending Rate Assumption (SRA) and 96.5% of the FY 2023 Adjusted Capital Spending Rate Assumption (SRA). Detailed analysis of the projects for which FY 2023 Board Approved CIP was amended from \$125.9M to \$136.0M is provided in the subsequent Project Amendment Summary appendix of this report.

Water System Projects (in millions)	FY 2022		FY 2022 Activity	FY 2022 Percentage	FY 2023	Prorated (Twelve Months)	FY 2023 Activity (Unaudited)	FY 2023 Percentage
FY 2022 Board Approved CIP	\$	179.2	\$	159.0	88.7%			
FY 2022 Board Approved CIP With Project Amendments		180.3		159.0	88.2%			
FY 2022 Capital Spend Rate Assumption (SRA)		170.3		159.0	93.4%			
FY 2023 Board Approved CIP					\$ 194.4	\$ 194.4	\$ 196.3	101.0%
FY 2023 Board Approved CIP With Project Amendments					199.5	199.5	196.3	98.4%
FY 2023 Capital Spend Rate Assumption (SRA) - Approved					155.5	155.5	196.3	126.2%
FY 2023 Capital Spend Rate Assumption (SRA) - Adjusted					208.0	208.0	196.3	94.4%
Wastewater System Projects (in millions)	FY 2022		FY 2022 Activity	FY 2022 Percentage	FY 2023	Prorated (Twelve Months)	FY 2023 Activity (Unaudited)	FY 2023 Percentage
FY 2022 Board Approved CIP	\$	106.1	\$	70.5	66.4%			
FY 2022 Board Approved CIP With Project Amendments		100.3		70.5	70.3%			
FY 2022 Capital Spend Rate Assumption (SRA)		74.0		70.5	95.3%			
FY 2023 Board Approved CIP					\$ 125.9	\$ 125.9	\$ 104.7	83.2%
FY 2023 Board Approved CIP With Project Amendments					136.0	136.0	104.7	77.0%
FY 2023 Capital Spend Rate Assumption (SRA) - Approved					94.4	94.4	104.7	110.9%
FY 2023 Capital Spend Rate Assumption (SRA) - Adjusted					108.5	108.5	104.7	96.5%

Appendix A - Construction Work-in-Progress Rollforward Summaries by Jurisdiction

The purpose of the construction work-in-progress (CWIP) summary rollforward by jurisdiction is to provide a high-level overview of the financial status of the projects identified within the current board approved CIP by their jurisdiction. Within the FY 2023 – 2027 Board Approved CIP Plan, projects are identified and categorized as either City of Detroit, Wayne County - Outside Detroit, Lapeer County, Macomb County, Oakland County, Saint Clair County or Multiple Counties and reflected accordingly in this report.

\$374.2 million is in CWIP as of June 30, 2023 as shown for the Water System in A1 - Water - CWIP Rollforward by Jurisdiction

\$288.7 million is in CWIP as of June 30, 2023 as show for the Wastewater System in A2 - Wastewater - CWIP Rollforward by Jurisdiction

The order of these appendices on the subsequent pages are in ascending by jurisdiction alphabetically.

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority

**A1 - Water System Construction Work-in-Progress (CWIP) FY 2023 Rollforward Summary By Jurisdiction
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023**

Jurisdiction	Total Project Plan Estimate from FY 2023-2027 CIP	CWIP Balance July 1, 2022	FY 2023 Board Approved CIP	FY 2023 Board Approved CIP With Project Amendments	FY 2023 Activity through June 30, 2023	CWIP Balance June 30, 2023
City of Detroit	\$ 586,743,000	\$ 81,436,384	\$ 63,482,209	\$ 64,489,409	\$ 49,432,075	\$ 106,551,466
Lapeer County	5,373,000	1,332,496	115,188	115,188	4,075,794	5,451,155
Mutiple Counties	766,763,000	50,555,675	37,374,236	43,935,236	55,539,100	94,920,092
Oakland County	296,959,000	56,921,561	46,824,890	49,689,119	62,215,625	101,425,208
Saint Clair County	220,073,000	9,935,379	14,840,398	14,330,398	3,503,000	10,362,274
Wayne County - Outside Detroit	898,628,000	72,772,563	31,738,615	26,942,288	21,498,182	55,533,758
Grand Total	\$ 2,774,539,000	\$ 272,954,060	\$ 194,375,536	\$ 199,501,638	\$ 196,263,776	\$ 374,243,953

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority

A2 - Wastewater System Construction Work-in-Progress (CWIP) FY 2023 Rollforward Summary By Jurisdiction Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Jurisdiction	Total Project Plan Estimate from FY 2023-2027 CIP	CWIP Balance July 1, 2022	FY 2023 Board Approved CIP	FY 2023 Board Approved CIP With Project Amendments	FY 2023 Activity through June 30, 2023	CWIP Balance June 30, 2023
City of Detroit	\$ 1,451,487,000	\$ 155,664,232	\$ 63,607,797	\$ 66,319,353	\$ 56,782,926	\$ 209,701,082
Mutiple Counties	1,475,727,000	36,400,308	61,791,748	69,155,730	47,484,788	78,549,059
Wayne County - Outside Detroit	88,314,000	1,035,923	532,700	532,700	387,088	438,459
Grand Total	\$ 3,015,528,000	\$ 193,100,463	\$ 125,932,245	\$ 136,007,783	\$ 104,654,802	\$ 288,688,600

Appendix B - Construction Work-in-Progress Rollforwards

The purpose of the construction work-in-progress (CWIP) rollforward is to analyze the current year activity for each project in relation to the overall capital improvement program as well as the project portfolio overall.

As part of our project life cycle review the Construction Accounting team identifies when it is appropriate for projects to be capitalized. Projects are to be capitalized when they have been completed in totality or are inclusive of identifiable assets that have been placed in service. Capitalization of project cost occurred in the FY 2023 3rd quarter for the following projects:

<u>Project</u>	<u>Contract</u>	<u>Description</u>
276002	1803025-3	2104157 – Task 76: Replacement of MUA-2 Unit
341001	SOQ-135A	Security Infrastructure Improvements
122011	1802775	Park Merriman Water Main Final Phase
260504	1900796	Rehabilitation of CSO Outfalls – Phase II
232002	CON-109	Emergency Refurb. Of Storm Pumps 5 & 7
122013	1903312	14 Mile Road Transmission Main Loop – Phase I
114011	CON-252	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP

Northeast Water Treatment Plant

The 2015 Water Master Plan recommended right-sizing the capacity of the Regional Water System based on the trends of lower projections of population and water volume demands. The Water Master Plan found that the Authority's combined water treatment plant design capacity was estimated to be over 60% greater than the forecasted 20-year water demands. The total rated capacity of the existing five water treatment plants is 1.7 billion gallons per day. The 2015 Master Plan Update identified likely maximum demands in the range of up to 1.0 billion gallons per day during the 20-year planning period. This provided the rationale to strategically align capacity and service requirements and planning for structural de-rating of capacity as warranted at all of the water treatment plants.

The Water Master Plan identified the financial benefit of capital cost avoidance in reducing the combined treatment capacity at all five of the GLWA Water Treatment Plants. That recommendation included the decommissioning of Water Treatment Plants. During FY 2023, operational, regulatory and life cycle cost updates no longer support decommissioning Water Treatment Plants. A report related to the factors that impacted this decision was presented to the GLWA Board of Directors on June 28, 2023 which included a write-off of some or all of the activity for the following CIP projects: 122003 - Waterworks Park to NE Transmission Main, 122017 - Seven Mile/Nevada Transmission Main, and 122018 - Garland, Hurlbut, Bewick Transmission Main.

\$374.2 million is in CWIP as of June 30, 2023, as shown for the Water System in B1 - Water - Detailed CWIP Rollforward

\$288.7 million is in CWIP as of June 30, 2023, as shown for the Wastewater System in B2 - Wastewater - Detailed CWIP Rollforward

The order of these appendices on the subsequent pages are in ascending order by CIP project number.

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority
 B1 - Water System Construction Work-in-Progress (CWIP) FY 2023 Rollforward
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Total Project Plan Estimate from FY 2023 - 2027 CIP	CWIP Balance July 1, 2022	FY 2023 Board Approved CIP	FY 2023 Board Approved CIP With Project Amendments	FY 2023 Activity through June 30, 2023	Life to Date Capitalization / Expense through June 30, 2023	CWIP Balance June 30, 2023	Life to Date Activity Through June 30, 2023	Life to Date Activity / Total Project Plan Estimate
111001	Energy Management: Lake Huron Water Treatment Plant Low Lift Pumping Improvements	\$ 69,390,000	\$ 2,918,249	\$ 1,600,000	\$ 1,600,000	\$ 618,214	\$ -	\$ 3,536,463	\$ 3,536,463	5%
	Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements at Lake	25,941,000	1,281,522	600,000	90,000	99,751	-	1,381,273	1,381,273	5%
111008	LHWTP Architectural Programming - Lab	856,000	-	-	-	-	-	-	-	0%
111009	Lake Huron WTP-35 MGD HLP, Flow Meters	30,051,000	3,035,092	9,021,435	9,021,435	1,664,160	-	4,699,252	4,699,252	16%
111010	Lake Huron Water Treatment Plant -Filtration and Pretreatment Improvements	58,433,000	-	-	-	-	-	-	-	0%
111011	Lake Huron WTP Pilot Plant	3,323,000	2,236,714	1,506,378	1,506,378	839,391	3,076,105	-	3,076,105	93%
111012	LHWTP-Flocculation Improvements	32,079,000	463,802	2,112,585	2,112,585	278,176	-	741,978	741,978	2%
111013	LH WTP Fireloop & Plant Water Improvements	-	-	-	-	3,308	-	3,308	3,308	-
112003	NE WTP High Lift Pumping Electrical	72,115,000	536,340	1,000,000	1,000,000	21,268	-	557,608	557,608	1%
112006	Northeast Water Treatment Plant Flocculator Replacements	14,054,000	333,817	2,760,000	2,760,000	3,784,975	52,671	4,066,122	4,118,793	29%
112007	NE WTP Structural Repair of Slab and Bea Southwest Water Treatment Plant, Sludge Treatment & Waste Wash water Treatment Facilit	-	-	-	-	235,924	-	235,924	235,924	-
113001	Replacement of Butterfly Valves	21,812,000	20,182	-	-	-	191,262	-	191,262	0%
113006	SW WTP Chloring Scrubber	8,023,000	2,482,713	4,397,583	4,397,583	3,624,921	2,951,140	3,156,493	6,107,634	76%
113007	Architectural and Building Mechanical	1,000,000	-	-	-	-	-	-	-	0%
113008	Water Supply Pumping Assessment Study	45,000,000	-	-	-	-	-	-	-	0%
113009	SW WTP Flight and Chain Upgrades	-	-	-	-	-	(20,182)	20,182	-	-
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	281,908,000	22,467,665	12,000,000	3,476,339	4,150,764	731	26,617,698	26,618,429	9%
114005	Springwells WTP Admin Building Improvements	10,109,000	1,211,635	-	-	108,887	-	1,320,522	1,320,522	13%
114006	Replacement of Rapid Mix Units at Springwells WTP 1958 Process Train	-	10,674	-	-	(10,674)	1,021,039	-	1,021,039	0%
114007	Powder Activated Carbon Systems	4,021,000	-	-	-	-	-	-	-	0%
114008	1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP	-	11,753,925	125	125	389,054	11,738,479	404,500	12,142,979	0%
114010	Yard Piping Improvements	195,689,000	1,705,045	-	-	102,901	-	1,807,946	1,807,946	1%
114011	Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells Water Treatment Plant 1958 Settled Water Conduits Concrete	25,853,000	23,945,367	807,907	807,907	1,739,326	24,356,450	1,328,244	25,684,693	99%
114016	Pavement Replacement	1,524,000	15,260	-	-	(15,991)	1,565,739	(0)	1,565,739	103%
114017	Springwells Water Treatment Plant Flocculator Drive Replacement	20,730,000	895,893	660,000	968,987	169,355	-	1,065,249	1,065,249	5%
114018	Springwells Water Treatment Plant - Service Building Electrical Substation and Miscellaneous Improvements	2,335,000	-	55,000	55,000	-	-	-	-	0%
115001	Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	55,042,000	12,037,016	11,790,097	11,790,097	17,183,768	-	29,220,784	29,220,784	53%
115004	Water Works Park WTP Chlorine System Upgrade	-	9,563	-	-	-	6,966,596	-	6,966,596	0%
115005	WWP WTP Building Ventilation Improvements	11,449,000	764,514	5,400,000	6,407,200	5,177,363	-	5,941,878	5,941,878	52%
115006	Water Works Park Site/Civil Improvements	5,882,000	-	-	-	-	-	-	-	0%
115007	Water Works Park High Lift Pumping Station Modernization	96,800,000	-	-	-	-	-	-	-	0%
115009	Water Works Park Sedimentation Basins Structural Upgrades	18,339,000	-	-	-	-	-	-	-	0%
116002	Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel	98,986,000	51,427,985	13,663,132	13,663,132	13,191,471	4,685,231	64,619,456	69,304,687	70%
116005	Belle Isle Seawall Rehabilitation	2,540,000	702	600,000	600,000	156,499	-	157,201	157,201	6%
116006	Belle Isle Intake System Rehabilitation and Improvements	3,363,000	-	-	-	-	-	-	-	0%
116007	System Electrical Power Improvements	4,000,000	-	2,229,508	2,229,508	-	-	-	-	0%
122003	New Waterworks Park to Northeast Transmission Main	147,768,000	5,165,736	23,903,829	23,903,829	3,786,576	38,742,580	(0)	38,742,580	26%
122004	96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main	259,843,000	16,072,467	15,000,000	15,000,000	34,785,231	148,741	50,857,698	51,006,439	20%
122005	Replacement Schoolcraft Watermain	15,049,000	640,821	-	3,266,000	3,396,485	14,297,655	3,396,485	17,694,141	118%
122006	Transmission System Water Main Work-Wick Road Parallel Water Main	25,697,000	1,756,084	-	-	2,545,355	20,751,264	4,301,439	25,052,702	97%
122007	Design and Construction of a new Newburgh Road 24" Main along	22,154,000	-	-	-	-	-	-	-	0%

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority
 B1 - Water System Construction Work-in-Progress (CWIP) FY 2023 Rollforward
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Total Project Plan Estimate from FY 2023 - 2027 CIP	CWIP Balance July 1, 2022	FY 2023 Board Approved CIP	FY 2023 Board Approved CIP With Project Amendments	FY 2023 Activity through June 30, 2023	Life to Date Capitalization / Expense through June 30, 2023	CWIP Balance June 30, 2023	Life to Date Activity Through June 30, 2023	Life to Date Activity / Total Project Plan Estimate
122011	Park-Merriman Water Main-Final Phase	9,318,000	725,309	-	-	(248,692)	6,912,565	(0)	6,912,565	74%
122013	Lyon Township Transmission Main Extension Project	111,420,000	28,177,042	29,635,560	30,349,642	46,687,887	18,111,180	57,111,557	75,222,737	68%
122016	Downriver Transmission Loop	62,962,000	2,450,853	7,500,000	7,652,348	161,217	(219,873)	2,831,943	2,612,070	4%
122017	7 Mile/Nevada Transmission Main Rehab and Carrie/Nevada Flow Control Station	60,729,000	6,046,322	1,023,269	1,023,269	3,177,840	9,224,162	-	9,224,162	15%
122018	Garland, Hurlbut, Bewick Water Transmission System Rehabilitation	53,938,000	1,381,474	1,998,892	1,998,892	1,344,677	2,726,151	-	2,726,151	5%
122019	Jefferson Main Replacement	29,700,000	-	827,195	827,195	1,097,554	-	1,097,554	1,097,554	4%
132006	Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chica	-	1,731	-	-	(1,731)	3,226,045	(0)	3,226,045	0%
132007	Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station	5,146,000	1,105,151	115,188	115,188	4,075,794	-	5,180,944	5,180,944	101%
132010	West Service Center/Duval Rd Division Valve Upgrades	45,588,000	28,175,975	16,689,330	16,689,330	14,731,125	(13,950)	42,921,051	42,907,101	94%
132012	Ypsilanti PS Improvements	39,084,000	659,128	200,000	200,000	1,771,873	(12,544)	2,443,545	2,431,001	6%
132014	Adams Road Booster Pumping Improvements	52,875,000	83,262	-	-	-	(19,187)	102,450	83,262	0%
132015	Newburgh BPS	45,083,000	493,886	-	-	754,843	15,805	1,232,925	1,248,730	3%
132016	North Service Center BPS Improvements	82,263,000	371,816	500,000	2,650,147	797,736	(25,912)	1,195,463	1,169,551	1%
132018	Schoolcraft BPS	24,469,000	47,317	-	-	-	47,317	-	47,317	0%
132019	Wick Road BPS - Switchgear	24,661,000	56,912	-	-	-	(7,699)	64,610	56,912	0%
132020	Franklin BPS - Isolation Gate Valves	4,813,000	93,160	-	-	-	(1,528)	94,688	93,160	2%
132021	Imlay BPS - Replace VFDs, Pumps & Motors	227,000	227,346	-	-	-	(42,865)	270,211	227,346	100%
132022	Joy Road BPS - Replace Reservoir Pumps	39,685,000	71,380	-	-	-	71,380	-	71,380	0%
132025	Northwest Booster Station Yard Piping Improvements	-	20,306	-	-	(1,123)	19,183	-	19,183	0%
170102	Water Production Plant Flow Metering Improvements at NE, SP & SW WTP	-	373,640	-	-	-	373,640	-	373,640	0%
170109	Inspection of Raw Water Intakes and Tunnels	1,773,000	-	68,000	68,000	-	-	-	-	0%
170300	Water Treatment Plant Automation Program	23,258,000	-	-	-	-	-	-	-	0%
170301	Water Plant Automation	-	1,755,142	-	-	-	1,755,142	-	1,755,142	0%
170302	SW WTP SCADA Improvements	7,979,000	1,140,911	4,000,000	4,000,000	2,860,288	(1,540,778)	5,541,977	4,001,199	50%
170303	WWP WTP Power Monitoring Installation	2,266,000	1,716,628	438,000	438,000	94,728	1,811,356	-	1,811,356	80%
170304	WWP WTP SCADA Upgrade	319,000	261,142	77,795	77,795	179,433	(214,364)	654,940	440,575	138%
170305	WWP SCADA Network Upgrade	7,336,000	-	-	-	-	-	-	-	0%
170306	SPW SCADA PLC Network Upgrade	3,146,000	-	1,573,000	1,573,000	-	-	-	-	0%
170307	NE SCADA Network Upgrade	2,917,000	-	-	-	-	-	-	-	0%
170400	Water Transmission Improvement Program	32,049,000	-	-	-	-	-	-	-	0%
170500	Transmission System Valve Assessment and Rehabilitation/Replacement Program	5,327,000	-	276,826	276,826	-	-	-	-	0%
170502	Transmission System Valve Assessment and Rehabilitation/Replacement A	15,392,000	-	-	-	-	7,689,584	-	7,689,584	50%
170503	Transmission System Valve Assessment and Rehabilitation/Replacement B	10,000,000	3,163,184	1,314,960	7,875,960	10,017,026	-	13,180,210	13,180,210	132%
170504	Repair of WTM, Valves, & Priority Repair	7,500,000	8,514,195	1,250,000	1,250,000	705,613	-	9,219,808	9,219,808	123%
170600	Water Transmission Main Asset Assessment Program	242,000	-	9,854	9,854	-	-	-	-	0%
170601	Linear System Integrity Program	9,082,000	-	1,815,370	1,815,370	-	-	-	-	0%
170800	Reservoir Inspection, Design and Rehabilitation Program	127,000	-	12,727	12,727	-	-	-	-	0%
170801	Reservoir Inspection, Design and Rehabilitation	24,758,000	10,894,420	6,830,000	6,830,000	5,182,095	8,766,834	14,494,537	23,261,371	94%
170802	Reservoir Inspection, Design	41,500,000	-	8,000,000	8,000,000	2,460,276	-	2,460,276	2,460,276	6%
170803	Reservoir Inspection, Design, and Construction Mangement Services Phase III	93,916,000	-	-	-	-	-	-	-	0%
170900	Suburban Water Meter Pit Rehabilitation and Meter Replacement Program	44,037,000	-	-	-	-	-	-	-	0%
170901	Suburban Water Meter Pit Rehabilitation and Meter Replacement	10,637,000	2,312,410	-	-	2,395,153	7,703,013	4,707,563	12,410,576	117%

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority
 B1 - Water System Construction Work-in-Progress (CWIP) FY 2023 Rollforward
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Total Project Plan Estimate from FY 2023 - 2027 CIP	CWIP Balance July 1, 2022	FY 2023 Board Approved CIP	FY 2023 Board Approved CIP With Project Amendments	FY 2023 Activity through June 30, 2023	Life to Date Capitalization / Expense through June 30, 2023	CWIP Balance June 30, 2023	Life to Date Activity Through June 30, 2023	Life to Date Activity / Total Project Plan Estimate
170902	Brownstown Meter Pit Rehabilitation	1,022,000	219,873	545,000	545,000	-	219,873	-	219,873	22%
171500	Roof Replacement - Var Facilities Program	15,908,000	-	-	-	-	-	-	-	0%
171502	Lake Huron and Southwest Roof Replacement	2,703,000	-	-	-	-	-	-	-	0%
341001	Security Infrastructure Improvements	-	9,218,693	-	-	373	10,357,757	-	10,357,757	0%
351001	Water Facility Lighting Renovations	-	6,667	-	-	(6,667)	-	-	-	0%
	As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services Allowance	602,000	-	-	-	-	-	-	-	-
380700	Borings, other Testing Services, and Related Services Allowance	602,000	-	-	-	-	-	-	-	-
381000	Energy Management: Electric Metering Improvement Program	2,624,000	-	566,991	566,991	-	-	-	-	0%
383300	Masonry Replacement and Rehabilitation Program	25,000,000	-	-	-	-	-	-	-	0%
Grand Total		\$ 2,774,539,000	\$ 272,954,060	\$ 194,375,536	\$ 199,501,638	\$ 196,263,776	\$ 447,400,185	\$ 374,243,953	\$ 821,644,138	30%
				Project Amendments:	5,126,102					

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority
 B2 - Wastewater System Construction Work-in-Progress (CWIP) FY 2023 Rollforward
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Total Project Plan	CWIP Balance	FY 2023	FY 2023 Board	FY 2023	Life to Date	CWIP Balance	Life to Date	Life to Date
		Estimate from		Board	Approved CIP		Capitalization /		Activity Through	
		FY 2023 - 2027 CIP	July 1, 2022	Approved CIP	With Project Amendments	June 30, 2023	Expense Through June 30, 2023	June 30, 2023	Activity Through June 30, 2023	Life to Date
211001	Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines, Electrical/Mechanical Building and Pipe Gallery	\$ 54,968,000.00	\$ -	\$ -	\$ -	\$ -	\$ 54,748,738.03	\$ -	\$ 54,748,738.03	99.60%
211002	Pump Station No. 2 Pumping Improvments	3,463,000.00	2,634,214.71	-	-	20,488.27	-	2,654,702.98	2,654,702.98	76.66%
211005	Pump Station No. 2 Improvements	67,002,000	14,864	-	-	364,731	-	379,595	379,595	0.57%
211006	Pump Station No. 1 Improvements	70,042,000	6,014,644	8,100,000	8,189,860	5,396,288	-	11,410,932	11,410,932	16.29%
211007	2	88,771,000	5,318,275	2,461,426	2,461,426	3,459,563	-	8,777,838	8,777,838	9.89%
211008	Complex B Sludge Lines	12,644,000	5,488,309	2,506,271	2,522,271	4,990,510	-	10,478,819	10,478,819	82.88%
211009	Rehabilitation of the Circular Primary Clarifier Scum Removal System	21,790,000	201,653	1,000,000	1,000,000	347,691	-	549,344	549,344	2.52%
211010	Rehabilitation of Sludge Processing Complexes A and B	19,894,000	94,337	-	-	-	-	94,337	94,337	0.47%
211011	WRRF PS1 Screening and Grit Improvements	93,000,000	-	-	-	27,289	-	27,289	27,289	0.03%
212008	WRRF Rehabilitation of Intermediate Lift	73,884,000	968,407	-	-	227,484	-	1,195,891	1,195,891	1.62%
212009	WRRF Aeration Improvements 3 and 4	66,983,000	-	-	-	-	-	-	-	0.00%
212010	WRRF Conversion of Disinfection of all Flow to Sodium Hypochlorite and Sodium Bisulfite	5,456,000	-	-	-	-	-	-	-	0.00%
213006	Improvements to Sludge Feed Pumps at Dewatering Facilities	7,094,000	297,000	750,000	750,000	449,836	-	746,836	746,836	10.53%
213007	the WWTP	23,810,000	21,788,969	-	-	1,063,896	-	22,852,865	22,852,865	95.98%
213008	Rehabilitation of the Wet and Dry Ash Handling Systems	6,351,000	151,058	-	-	-	-	151,058	151,058	2.38%
213009	Phosphorous Recovery Facility at the WRRF	180,000,000	-	-	-	10,848	-	10,848	10,848	0.01%
214001	Relocation of Industrial Waste Division and Analytical Laboratory Operations	14,282,000	-	-	-	-	14,300,183	-	14,300,183	100.13%
216004	at WWTP	5,281,000	6,338,791	-	-	1,385,144	-	7,723,935	7,723,935	146.26%
216006	Secondary Water System	21,108,000	3,761,533	2,963,200	4,760,328	2,221,145	-	5,982,678	5,982,678	28.34%
216008	Rehabilitation of Screened Final Effluent (SFE) Pump Station	40,226,000	1,665,007	2,509,960	2,509,960	2,046,021	-	3,711,028	3,711,028	9.23%
216011	WRRF Structural Improvements	11,400,000	25,011	400,000	400,000	1,708,049	-	1,733,060	1,733,060	15.20%
222001	Intercommunity Relief Sewer Modifications in Detroit Oakwood District	53,466,000	1,812,691	1,181,929	1,181,929	797,192	-	2,609,882	2,609,882	4.88%
222002	Detroit River Interceptor Evaluation and Rehabilitation	77,184,000	42,278,907	9,415,401	9,415,401	8,784,234	-	51,063,141	51,063,141	66.16%
222004	Collection System Valve Remote Operation Structures Improvements	-	4,246	-	-	-	4,246	-	4,246	0.00%
232001	Fairview Pumping Station - Replace Four Sanitary Pumps	39,756,000	38,787,010	38,292	38,292	5,062,160	-	43,849,170	43,849,170	110.30%
232002	Freud and Connor Creek Pump Station Improvements	262,798,000	9,045,858	10,753,379	10,753,379	3,295,653	6,103,686	12,238,422	18,342,108	6.98%
232004	CONDITION ASSESSMENT AT BLUE HILL PUMP STATION	257,000	-	-	-	-	-	-	-	0.00%
233003	Rouge River In-system Storage Devices	46,317,000	-	-	-	-	-	-	-	0.00%
260200	Sewer and Interceptor Evaluation and Rehabilitation Program	65,845,000	-	6,603,863	6,603,863	-	-	-	-	0.00%
260201	Conveyance System Interceptor Rehab	38,252,000	16,407,136	3,050,766	3,050,766	3,818,487	18,542,127	20,225,624	38,767,751	101.35%
260202	Conveyance System Interceptor Rehab	-	1,904	-	-	-	-	1,904	1,904	0.00%
260204	Energy Services for Rehabilitation of Conveyance Sewer System	50,053,000	1,923,103	11,168,334	11,168,334	8,085,755	(34,697)	10,043,555	10,008,858	20.00%
260205	NWI Outfall Rehabilitation	10,379,000	334,750	5,044,122	5,044,122	1,968,946	-	2,303,696	2,303,696	22.20%
260206	Conveyance System Rehabilitation - Interceptors	35,270,000	395,678	2,149,139	2,149,139	801,757	-	1,197,436	1,197,436	3.40%
260207	Rehabilitation of Woodward Sewer System	19,160,000	3,576,770	4,848,636	4,848,636	8,431,522	-	12,008,292	12,008,292	62.67%
260208	Linwood/Lonyo/Ashland/2nd Ave/Shiawassee	-	34,697	-	-	-	34,697	-	34,697	0.00%
260209	Sewer Repair Contract - As Needed	12,200,000	3,836	4,504,389	4,504,389	2,094,247	-	2,098,083	2,098,083	17.20%
260210	Linwood/Lonyo/Ashland/2nd Ave/Shiawassee	-	209	-	-	319,962	-	320,171	320,171	0.00%
260500	CSO Outfall Rehab	21,500,000	-	1,641,572	1,641,572	-	-	-	-	0.00%
260504	Rehabilitation of Outfalls - Phase II	5,042,000	22,843	-	-	-	4,923,589	-	4,923,589	97.65%
260506	Pilot Regulator Orifice Expansion	-	78,641	-	-	(78,641)	-	-	-	0.00%
260508	B-39 Outfall Rehab	8,755,000	873,311	5,391,594	5,604,162	5,158,631	-	6,031,942	6,031,942	68.90%
260509	B-40 Outfall Rehab	-	82,308	-	-	30,283	-	112,591	112,591	0.00%
260510	Conveyance System Rehabilitation - Outfalls	35,825,000	902,646	1,340,350	1,340,350	968,961	-	1,871,607	1,871,607	5.22%
260600	CSO Facilities Improvements	1,045,500,000	-	1,500,000	1,500,000	-	-	-	-	0.00%
260603	Conner Creek CSO Basin Rehab	8,175,000	65,894	-	-	(65,894)	7,675,407	-	7,675,407	93.89%

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority
 B2 - Wastewater System Construction Work-in-Progress (CWIP) FY 2023 Rollforward
 Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Total Project Plan	CWIP Balance	FY 2023	FY 2023 Board	FY 2023	Life to Date	CWIP Balance	Life to Date	Life to Date
		Estimate from		Board	Approved CIP		Capitalization /		Activity Through	
		FY 2023 - 2027 CIP	July 1, 2022	Approved CIP	With Project Amendments	June 30, 2023	June 30, 2023	June 30, 2023	June 30, 2023	Life to Date
260613	Baby Creek HVAC Improvements	604,000	-	-	-	-	545,401	-	545,401	90.30%
260614	CSO Facilities Structural Improvements	13,590,000	6,908,490	3,100,700	4,100,700	5,523,591	128,543	12,303,538	12,432,081	91.48%
260615	PF & Lieb CSO Facilities Site & Drainage Improvements	759,000	-	-	-	-	582,444	-	582,444	76.74%
260617	St. Aubin Chemical Disinfection Improvements	6,456,000	-	274,800	274,800	-	-	-	-	0.00%
260618	Oakwood HVAC Improvements	6,091,000	4,850,407	498,000	1,094,000	770,537	-	5,620,944	5,620,944	92.28%
260619	Control System Upgrade At St. Aubin, Lieb and 7 Mile	7,635,000	62,766	2,116,286	2,116,286	987,367	-	1,050,133	1,050,133	13.75%
260620	Baby Creek Roof Replacement	1,047,000	610,931	-	-	373,621	984,552	-	984,552	94.04%
260621	Connor Creek Berm Improvements	2,542,000	2,218,752	-	-	30,859	2,244,862	4,749	2,249,611	88.50%
260622	CSO Facilities Emergency Generator Improvements	2,061,000	95,455	1,220,000	1,220,000	988,339	105,382	978,411	1,083,793	52.59%
260623	Baby Creek Screen Rehabilitation	2,175,000	22,933	1,077,500	1,077,500	1,424,584	-	1,447,517	1,447,517	66.55%
260700	Sewer System Infrastructure Improvements & Pumping Stations	526,000	-	75,129	75,129	-	-	-	-	0.00%
260701	Conveyance System Infrastructure Improvements	55,631,000	2,241,437	15,638,605	22,002,586	10,931,963	(4,246)	13,177,646	13,173,400	23.68%
260702	Pump Station Assets Updates	2,000,000	-	-	-	-	-	-	-	0.00%
260800	WRRF Roof Replacement Program	5,000,000	-	1,891,192	1,891,192	-	-	-	-	0.00%
260802	2022 WRRF Roof Improvements Project	-	44,637	-	-	257,423	-	302,060	302,060	0.00%
260900	WRRF Facility Optimization Program	429,000	-	-	-	-	-	-	-	0.00%
260901	Rehab. Hazmat Facility at WRRF	1,405,000	227,002	1,273,978	1,273,978	102,596	-	329,597	329,597	23.46%
260902	WRRF Renovation of 4th Floor	2,721,000	65,149	2,671,406	2,671,406	3,078,143	-	3,143,292	3,143,292	115.52%
260903	WRRF Front Entrance Rehab.	1,005,000	136,823	1,004,587	1,004,587	230,774	-	367,597	367,597	36.58%
260904	WRRF 3rd Floor Renovation	-	2,752	-	-	65,665	-	68,417	68,417	0.00%
260905	WRRF Plumbing Shop Rehab	-	-	-	-	134,360	-	134,360	134,360	0.00%
261000	WRRF Rehabilitation of Secondary Clarifiers	46,827,000	-	-	-	-	-	-	-	0.00%
261001	Rehabilitation of Secondary Clarifiers	4,030,000	2,986	-	-	23,726	-	26,712	26,712	0.66%
270001	Pilot CSO Netting Facility	6,199,000	329	-	-	1,878	-	2,207	2,207	0.04%
270002	Meldrum Sewer Diversion and VR-15 Improvements	5,840,000	-	-	-	-	-	-	-	0.00%
270003	Long Term CSO Control Plan	8,249,000	-	2,519,339	2,519,339	1,771,799	1,771,799	-	1,771,799	21.48%
270004	Oakwood Lieb CSO Facility Improvement	17,004,000	69,908	1,250,000	1,250,000	2,000,944	-	2,070,852	2,070,852	12.18%
270005	CSO Safety Improvements & Building Rehab	6,481,000	-	122,200	122,200	-	-	-	-	0.00%
270006	Control System Upgrades - Baby Creek/Belle	1,916,000	477,215	93,200	93,200	676,871	50,128	1,103,959	1,154,086	60.23%
270007	Disinfection System Improvements at CSO	8,216,000	285	-	-	962	-	1,247	1,247	0.02%
270008	Flushing System Improvements at Conner Creek and St. Aubin CSO Facilities	7,007,000	-	-	-	-	-	-	-	0.00%
270009	Site Improvements at St. Aubin, Belle Isle, and Baby Creek CSO Facilities	1,378,000	-	-	-	-	-	-	-	0.00%
270010	HVAC Improvements at Puritan Fenkell and Seven Mile CSO Facilities	1,509,000	-	-	-	8,756	-	8,756	8,756	0.58%
270011	HVAC Improvements at Conner Creek and Belle Isle CSO Facilities	384,000	-	-	-	-	-	-	-	0.00%
270012	CSO Facilities	5,921,000	-	-	-	-	-	-	-	0.00%
270013	Facility Improvements at Puritan Fenkell and Seven Mile CSO Facilities	894,000	-	-	-	-	-	-	-	0.00%
270014	Convert to Complete Capture Basin CSO Fa	4,442,000	-	-	-	-	-	-	-	0.00%
273001	Hubbell Southfield CSO Facility Improvement	38,576,000	424,992	532,700	532,700	13,467	-	438,459	438,459	1.14%
273002	CSO Hubbell Southfield VR-8 Gate Improvements	1,770,000	-	-	-	-	-	-	-	0.00%
276002	Replacement Make-up Air Unit at CON	-	8,172	-	-	340,436	347,996	611	348,607	0.00%
277001	Baby Creek Outfall Improvements Project	13,287,000	37,444	1,250,000	1,250,000	1,720,140	486,918	1,650,965	2,137,883	16.09%
277002	Baby Creek CSO Facility Influent Flushing System	738,000	-	-	-	-	-	-	-	0.00%
341001	Security Infrastructure Improvements	-	-	-	-	-	-	-	-	0.00%
341002	Security Infrastructure Improvements	-	3,197,089	-	-	3,762	3,200,851	-	3,200,851	0.00%
Grand Totals		\$ 3,015,528,000	\$ 193,100,463	\$ 125,932,245	\$ 136,007,783	\$ 104,654,802	\$ 116,742,606	\$ 288,688,600	\$ 405,431,206	13%
				Project Amendments:	\$ 10,075,538					

Appendix C - Project Amendment Summaries

The purpose of the Project Amendment Summary is to illustrate the amendments to the current fiscal year board approved CIP for each project with an amendment resulting from the use of allowance and program funding for a specific amount necessitated by contract award.

The award of CIP contracts and the related execution thereof may result in deviation from the amount and timing of planned spend. Acknowledging the aforementioned deviation, project amendments are prepared to fund the related increase or decrease either to or from the Capital Reserve to amend the current fiscal year board approved Capital Improvement Plan accordingly and to inform decision makers in the development of future Capital Improvement Plans. Similar to the project amendments prepared for the Capital Reserve, project amendments are also prepared for contracts that are planned or funded by way of the CIP Program and Allowance accounts. As additional contracts are awarded, and other project information becomes available additional project amendments to and from the Capital Reserve will be prepared to amend the board approved FY 2023 Capital Improvement Plan.

\$5,126,102 of Capital Reserve project amendments have been prepared as of June 30, 2023, as shown for the Water System in C1 – Water FY 2023 Project Amendment Summary with project amendments detailing the assignment of funding within Program and Allowance accounts.

\$10,075,538 of Capital Reserve project amendments have been prepared as of June 30, 2023, as shown for the Wastewater system in C2 – Wastewater FY 2023 Project Amendment Summary with project amendments detailing the assignment of funding within Program and Allowance accounts.

The order of these appendices on the subsequent pages are in ascending order by CIP project number.

Construction Work-in-Progress Quarterly Report

As of June 30, 2023

Great Lakes Water Authority

C1 - Water System Project Amendment Summary

Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Capital Reserve	Grand Total
115005	WWP WTP Building Ventilation Improvements	1,007,200	1,007,200
114002	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station	1,098,339	1,098,339
132016	North Service Center BPS Improvements	2,150,147	2,150,147
122013	14 Mile Transmission Main Loop	529,374	529,374
114002	Springwells WTP Low and High Lift Improvements	(9,313,013)	(9,313,013)
122013	14 Mile Transmission Main Loop	184,708	184,708
122005	Replacement Schoolcraft Water Main	3,266,000	3,266,000
170503	Transmission System Valve Replacement Pa	6,561,000	6,561,000
111006	Replace Instrumentation: LHWTP	(510,000)	(510,000)
122016	Downriver Transmission Main Loop	152,348	152,348
Grand Total		\$ 5,126,102	\$ 5,126,102

Great Lakes Water Authority

C2 - Wastewater System Project Amendment Summary

Unaudited Activity For the Fiscal Quarter Ended June 30, 2023

Project	Project Name	Capital Reserve	Grand Total
211008	Rehabilitation of Ferric Chloride Feed systems at the Pump Station -1 and Complex B Sludge Lines	\$ 16,000	\$ 16,000
216006	Rehabilitation of the Screened Final Effluent (SFE) Pump Station and Secondary Water System	1,797,128	1,797,128
211006	Pump Station No. 1 Improvements	89,860	89,860
260701	Conveyance System Infrastructure Improvements	5,900,000	5,900,000
260618	Oakwood HVAC Improvement	596,000	596,000
260614	CSO Facilities - Structural Improvements	1,000,000	1,000,000
260508	B-39 Outfall Rehabilitation	212,568	212,568
260701	Conveyance System Infrastructure Improvements	463,981	463,981
Grand Total		\$ 10,075,538	\$ 10,075,538



Financial Services Audit Committee Communication

Date: September 22, 2023

To: Great Lakes Water Authority Audit Committee

From: Alicia Schwartz, Grants & Intergovernmental Relations Manager

Re: Shared Services Update

Background: The Great Lakes Water Authority (GLWA) and the Detroit Water and Sewerage Department (DWSD) are parties to a Shared Services Agreement (the Agreement) dated December 1, 2015. This agreement provides the framework for shared services for the efficient operation of both entities.

Invoices are prepared monthly. While the intent is for the monthly invoices to represent actual costs, the reality is that the timing of certain vendor invoices and accumulation of internal charges requires a “True-up” process. It is also the intent for the parties to transmit payment monthly utilizing estimates for service provided. Section 5.1 of the Agreement states, “Payments for services shall be payable monthly.”

Analysis: Following is a summary of the Shared Services that have outstanding issues or costs associated with them for fiscal years prior to 2023.

For the ongoing services that DWSD and GLWA continued to provide in FY 2023 monthly invoices and payments have been exchanged. FY 2023 will require only small true ups to be completed.

OPS-008 Systems Control Center – Ongoing

- The Systems Control Center Shared Service provided to DWSD by GLWA includes monitoring, operation and maintenance activities for the following facilities that serve the City of Detroit: Belle Isle Main Pump Station and Combined Sewer Overflow (CSO), Bluehill Pump Station, Fischer Pump Station, and Woodmere Pump Station.
- The GLWA Shared Services Team provided a proposal representing final cost of service to DWSD for FY 2020, FY 2021, and FY 2022 on August 9, 2023. This includes an analysis of costs associated with the Systems Control Center in a more streamlined manner than provided in previous years. The DWSD Shared Services Team is currently reviewing the proposal with the DWSD Executive Team. DWSD and GLWA hope to have resolution by the end of September 2023.

	FY 2020	FY 2021	FY 2022	Total
Final Cost of Service	1,206,260	1,211,608	1,625,734	4,043,602
Payments	-	(712,682)	(751,561)	(1,464,243)
Preliminary Amount Due From DWSD	1,206,260	498,926	874,173	2,579,359

ITS-009 IT Infrastructure – Ended June 30, 2021

- The IT Infrastructure Shared Service included services provided to DWSD from GLWA for datacenter usage and support, server usage and support, network usage and support, internet usage and support to disaster recovery services.
- DWSD is completing the review for FY 2021 and plans to make this payment by end of September. The GLWA Shared Services team is currently working to finalize the FY 2022 final cost of service and anticipate this analysis will be complete by end of September 2023 to share with DWSD.

	FY 2021	FY 2022	Total
Final Cost of Service	2,371,063	140,000	2,511,063
Payments	(2,069,384)	(406,002)	(2,475,386)
Amount Due From DWSD	301,679	(266,002)	35,677

Public Finance – Ongoing

- The Public Finance Shared Service includes services GLWA provides DWSD related to State Revolving Fund (SRF) Revenue Bond issuance and SRF loan management support for DWSD State Revolving Fund projects. This Shared Service also includes revenue bond issuance costs for DWSD during periods in which these transactions occur.
- The GLWA Shared Services Team provided a final cost of service proposal for DWSD covering FY 2020, FY 2021, and FY 2022 on August 24, 2023. This included an analysis of costs associated with the Public Finance in a more streamlined manner than that provided in previous years.

	FY 2020	FY 2021	FY 2022	Total
Final Cost of Service	54,023	50,566	53,621	158,210
Payments	-	(16,550)	(17,666)	(34,216)
Preliminary Amount Due From DWSD	54,023	34,016	35,955	123,994

OPS-006 Shared Facilities – Ongoing

- The Shared Facilities Shared Service provided by DWSD to GLWA is associated with building management, repair and maintenance, utilities, facilities improvements to shared spaces and contracted services. Contracted services include janitorial, grounds, rubbish removal, plumbing, fire suppression and elevator services.
- DWSD is preparing the final cost of service analysis for GLWA covering FY 2022. The DWSD Shared Services team is working on preparing the final cost of service for FY 2022 in September 2023.

	FY 2022	Total
Estimated Final Cost of Service	2,140,000	2,140,000
Payments	(1,980,000)	(1,980,000)
Preliminary Amount Due To DWSD	160,000	160,000

New: Capital Improvement Project Costs – Central Services Facility and Main Office Building

- DWSD completed certain capital improvements projects completed at the Central Services Facility (Huber Street) and Main Office Building (Randolph Street).
- Estimates for three specific projects were recently shared with GLWA in July 2023 for HVAC replacement, roof replacement at Central Services Facility, and repair and maintenance of elevators at the Main Office Building with a request to pay a percentage of the costs incurred.
- DWSD has provided a summary of costs related to these capital improvements for FY 2021 and FY 2022. DWSD is preparing the costs for FY 2023 and should have them in the next several weeks.
- Per the OPS-006 Shared Facilities Shared Services Agreement “Any capital improvements to the Randolph and Huber facilities...that exceed \$100,000 shall be approved by the Director and the CEO.”

FY 2021 Costs		DWSD	GLWA
HVAC (66% DWSD/33% GLWA)	2,527,305	1,693,294	834,011
Roof (66% DWSD/33% GLWA)	4,678,303	3,134,463	1,543,840
Elevator (50% DWSD/50% GLWA)	827,000	413,500	413,500
Totals	8,032,608	5,241,257	2,791,351

FY 2022 Costs		DWSD	GLWA
HVAC (66% DWSD/33% GLWA)	353,439	236,804	116,635
Roof (66% DWSD/33% GLWA)	204,127	136,765	67,362
Elevator (50% DWSD/50% GLWA)	935,688	467,844	467,844
Totals	1,493,254	841,413	651,841

Proposed Action: Receive and file this report.



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

GLWA's 2023 Vendor Outreach Event Agenda

On September 25, 2023 GLWA will host an in-person Vendor Outreach Event at Laurel Manor in Livonia, Michigan that will help both existing and new vendors learn more about doing business with GLWA. Registration is now open at the event's [Whova Registration page](#). See agenda below.

7:30 a.m. – 8:30 a.m. Registration & Breakfast

Vendors may come early to register, enjoy breakfast, network with other vendors, and visit our resources and networking room.

8:30 a.m. – 9:30 a.m. General Session #1

A welcome from GLWA CEO Suzanne Coffey will be followed by an overview of GLWA's Financial Outlook, Ethics in Public Procurement, and an Open Q&A session.

9:30 a.m. – 10:45 a.m. General Session #2

A presentation on what's new with our Procurement Group delivered by Sonya Collins, Procurement Director, will be followed by a panel discussion on ten things that every GLWA vendor should know and an open Q&A session.

11:05 a.m. - 12:00 p.m. Breakout Sessions

Vendors will have the opportunity to attend one of four concurrent breakout sessions for Consulting, Construction, Information Technology & Enterprise-Wide Services, and Vendor Networking. No formal presentations will be delivered during breakout sessions which are designed to facilitate Vendor discussion with GLWA Team Members as well as other vendor attendees to foster potential partnerships for future solicitations. GLWA encourages vendors to submit their questions in advance via the Whova event page (available to view after registration) and to preview other attendees with whom they may wish to meet during the Vendor networking session.

Resources and Networking Room

The resources and networking room will be available from 7:45 a.m. to 8:30 a.m. and from 11:05 a.m. to 12:30 p.m. Vendors visiting our resources and networking room will have the opportunity to talk one-on-one with members of the GLWA Procurement and Accounts Payable Teams as well as representatives from the Business Inclusion and Diversity (B.I.D.) Program, the Affordability & Assistance Program, Bonfire, and the Detroit Water & Sewage Department (DWSD) among others.

Any additional questions about GLWA's Vendor Outreach Event, or how to register, may be directed via email to [Michael Lasley](#) and [Megan Savage](#).

Virtual Vendor Introduction Meetings

If you are interested in learning more about doing business with GLWA, contact us at GLWAVendorOutreach@glwater.org to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to 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 August 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 September 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	\$90,000,000.00
Construction-Pre-Purchase	122004	96-Inch Water Transmission Main Relocation - Phase III-Pre-Purchase Pipe	\$2,300,000.00
Construction-Pre-Purchase	122004	96-Inch Water Transmission Main Relocation - Phase III-Pre-Purchase Valves	\$3,000,000.00
Construction	122016	Downriver Transmission Main Loop-Phase I	\$20,700,000.00
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
Construction	211007	Pump Station No. 2 Bar Racks Replacement and Grit Collection System Improvements	\$96,000,000
Design	270001	Pilot Netting and Disinfection Facilities at B03, B04, and B05	\$8,000,000
Water System (next three months)			
Professional Services	O&M	Valve Exercising Project for Field Services	\$7,500,000
Wastewater (next three months)			
Design-Bid-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Professional Services	N/A	800MHz Radio Assessment and Solution Implementation	\$3,500,000
Projects moved to Procurement Team (Preparing for solicitation on Bonfire)			
Professional Services	O&M	Accusonic Meter Maintenance for CSO Facilities	\$3,000,000
Professional Services	O&M	Overhead Door Preventative Maintenance and Repairs	\$892,000
Professional Services	O&M	Snow Removal and De-icing Services	\$2,158,106
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
Supplies	O&M	Polymer	\$4,158,000

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

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