



**Audit Committee Meeting**  
**Friday, April 28, 2023, at 8:00 a.m.**  
*www.glwater.org*

**[Join Zoom Meeting](#)**

Meeting ID: **861 5015 6690** Passcode: **677811**

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

**AGENDA**

*Note: Binders #1 and #2 were combined and the binder has been renumbered.*

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
  - A. March 24, 2023 (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
  - A. *Action Item:* Proposed Water Residential Assistance Program Service Delivery Partner Agreements (Page 8)
7. NEW BUSINESS
  - A. *Action Item:* Resolution Regarding Approval of Series Ordinance (Page 20) Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000
  - B. *Action Item:* Resolution for the Detroit, Dearborn, and Highland (Page 46) Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan
  - C. *Action Item:* Resolution to Adopt the Detroit Water and Sewerage (Page 56) Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan
  - D. Report: Third Quarter Budget Amendments (Page 117)
8. REPORTS
  - A. CFO Report (Page 118)
  - B. Monthly Financial Report for January 2023 (Page 121)
  - C. Business Inclusion and Diversity Program Update (Page 122)
  - D. Charges Outreach & Modeling Update (Page 126)
  - E. Affordability & Assistance Update (Page 130)
  - F. Gifts, Grants & Other Resources Report (Page 133)
  - G. Shared Services Update (Page 146)
  - H. Board Letter and Resolution Regarding Approval of FY 2024 (Page 150) through FY 2028 Capital Improvement Plan Board Item 2023-015
9. COMMUNICATIONS

A. *The Procurement Pipeline* for April 2023 (Page 154)

10. LOOK AHEAD

A. Next Audit Committee Meeting: May 26, 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

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Friday, March 24, 2023

8:00 AM

Zoom Telephonic Meeting

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#### Zoom Telephonic Meeting

Join Zoom Meeting:

<https://glwater.zoom.us/j/84300005016?pwd=WTJJK3A2NkFleEt3NGlIbzBjQUVmdz09>

Join By Telephone

US Toll-Free:

877 853 5247; or 888 788 0099

Meeting ID: 843 0000 5016

Passcode: 381452

#### 1. Call To Order

Chairperson Baker called the meeting to order at 8:00 a.m.

#### 2. Quorum Call

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

**Excused:** 1 - Jaye Quadrozzi

#### 3. Approval of Agenda

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to move item 8.F. (Economic Outlook Task Force) to Item 7.A.

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

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Approved as Amended

The motion carried by a unanimous vote.

#### 4. Approval of Minutes

**A.**     [2023-115](#)     Minutes of February 24, 2023

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [4A February 24, 2023 Audit Committee Meeting Minutes](#)

Chairperson Baker requested a Motion to Approve the Minutes of the February 24, 2023 Audit Committee Meeting.

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Approved

The motion carried by a unanimous vote.

**5. Public Comment**

There were no public comments.

**6. Old Business**

None

**7. New Business****A.**     [2023-131](#)     Update: Economic Outlook Task Force  
**(8.F.)**

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8F1 Audit Committee Memo - Economic Outlook Task Force 3.24.2023](#)  
[8F2 2023.03.24\\_EOTF Quarterly Update\\_Audit Committee](#)

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Received and Filed

The motion carried by a unanimous vote.

- B.**     [2023-116](#)     Municipal Advisor Annual Market Update
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [7A1 Municipal Advisor Update Cover Memo March 2023](#)  
                          [7A2 GLWA PFM Audit Committee Financing Update March 2023pw](#)
- Motion By:** Gary Brown  
          **Support By:** Brian Baker  
          **Action:** Received and Filed  
          The motion carried by a unanimous vote.
- C.**     [2023-073](#)     **Proposed Debt Management Policy Amendments**
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [7B1 AC Memo - Proposed Debt Management Policy Amendments](#)  
                          [7B3 Attachment 1 - Table of Proposed Debt Managment Policy](#)  
                          [Amendments](#)  
                          [7B4 Debt Management Policy Draft with Markup 3.22.2023](#)
- Motion By:** Gary Brown  
          **Support By:** Brian Baker  
          **Action:** Recommended for Approval to the Board of Directors  
          Agenda of April 26, 2023  
          The motion carried by a unanimous vote.
- D.**     [2023-117](#)     **Resolution Regarding Approval of First Supplemental Sale Order of Chief Executive Officer of the Great Lakes Water Authority Amending Sale Order of Finance Director of the City of Detroit with respect to \$370,000,000 City of Detroit Sewage Disposal System Revenue Refunding Senior Lien Bonds (Tax-Exempt Floating LIBOR Notes), Series 2006(D)**
- Sponsors:** Nicolette Bateson
- Indexes:** Finance
- Attachments:** [7C1 AC Memo - Approval of Amendment to 2006D \(LIBOR\) Notes](#)  
                          [Sale Order](#)  
                          [7C3 Resolution Approving Amendment to 2006D \(LIBOR\) Notes Sale](#)  
                          [Order](#)  
                          [7C4 U.S. Bank Letter Regarding 2006D Bonds V2](#)
- Motion By:** Gary Brown  
          **Support By:** Brian Baker  
          **Action:** Recommended for Approval to the Board of Directors  
          Agenda of April 26, 2023  
          The motion carried by a unanimous vote.

E. [2023-118](#) **Resolution to Adopt the City of Detroit Water and Sewerage Department (DWSD) Stormwater Improvements - FY 2024 Clean State Revolving Fund (CWSRF) Project Plan**

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7D1 AC Memo- Approval of DWSD DWSRF Project Plan](#)  
[7D3 Resolution for the FY 2024 CWSRF Project Plans - DWSD](#)  
[7D4 DWSD - CWSRF Draft Project Planning Document](#)

**Motion By:** Gary Brown  
**Support By:** Brian Baker  
**Action:** Recommended for Approval to the Board of Directors  
**Agenda of April 26, 2023**  
The motion carried by a unanimous vote.

F. [2023-119](#) **Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner - County of Macomb**

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7E1 AC Memo - Proposed WRAP Service Delivery Partner - County of Macomb](#)  
[7E3 Table 1 - FY24 WRAP Budget](#)

**Motion By:** Gary Brown  
**Support By:** Brian Baker  
**Action:** Recommended for Approval to the Board of Directors  
**Agenda of April 26, 2023**  
The motion carried by a unanimous vote.

G. [2023-120](#) **Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner - United Way for Southeastern Michigan**

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7F1 AC Memo - Approval of WRAP Service Delivery Partner - Oakland - United Way](#)  
[7F3 Table 1 - FY24 WRAP Budget](#)

**Motion By:** Gary Brown  
**Support By:** Brian Baker  
**Action:** Recommended for Approval to the Board of Directors  
**Agenda of April 26, 2023**  
The motion carried by a unanimous vote.

H. [2023-121](#) **Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner - Wayne Metropolitan Community Action Agency**

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7G1 AC Memo - Proposed WRAP Service Delivery Partner - Wayne Metro](#)  
[7G3 Table 1 - FY24 WRAP Budget](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Recommended for Approval to the Board of Directors**

**Agenda of April 26, 2023**

**The motion carried by a unanimous vote.**

## 8. Reports

A. [2023-125](#) Monthly Financial Report for December 2022

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8A December 2022 Financial Report Tagetik](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

B. [2023-126](#) Business Inclusion and Diversity Program Update

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8B Business Inclusion and Diversity Update](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

**C.**     [2023-127](#)     Charges Outreach & Modeling Update

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8C Charges Outreach and Modeling Update - 03.24.23](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

**D.**     [2023-128](#)     Affordability & Assistance Update

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8D1 Affordability and Assistance Update](#)  
[8D2 Attachment 1 - FY2023 Q2 WRAP Report](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

**E.**     [2023-129](#)     Quarterly CWIP Report

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8E Quarterly CWIP Report FY 2023 Q2](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

**G.**     [2023-132](#)     CFO Update

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8G CFO Report March 2023](#)

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Received and Filed**

**The motion carried by a unanimous vote.**

## 9. Communications

[2023-130](#) The Procurement Pipeline for March 2023

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

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

**No Action Taken**

## 10. Look Ahead

The next Audit Committee Meeting is scheduled for Friday, April 28, 2023 at 8:00 a.m.

## 11. Other Matters

**There were no other matters.**

## 12. Adjournment

**Chairperson Baker requested a Motion to Adjourn.**

**Motion By: Gary Brown**

**Support By: Brian Baker**

**Action: Approved**

**The motion carried by a unanimous vote.**

**There being no further business, the meeting was adjourned at 10:01 a.m.**



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

**From:** Madison Merzlyakov, Affordability & Assistance Manager

**Re:** Proposed Water Residential Assistance Program Service Delivery Partner Agreements

**Background & Analysis:** The Water Residential Assistance Program (WRAP) is administered through local Service Delivery Partners such as County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency. All three contracts are set to expire on June 30, 2023. New contracts are proposed which will provide continuity of WRAP Services for the region.

On March 24, 2023, the GLWA Audit Committee unanimously recommended these items to the GLWA Board for approval. Since that time, discussions with the WRAP Service Delivery Partners have prompted GLWA to reevaluate the fee for service cap, which was previously at 12 percent. In discussions with the service delivery partners that have smaller volume programs, a request for a higher cap was made given the fixed costs of marketing, outreach, and other program activities. An increase in cap will allow WRAP to be a sustainable program for the Service Delivery Partners (rather than a burden on their budget and other resources). The increased cap will allow for adequate compensation due to increased participation as a result of recent program improvements. The GLWA team will work with each specific Service Delivery Partner to determine the specifics of their contract, as each Service Delivery Partner is unique. The dedicated WRAP funding for the City of Detroit (Area 1) has also been included in the contract with Wayne Metro. See attached draft Great Lakes Water Authority ("GLWA") Board letters. All items that have been updated since March 24, 2023, have been highlighted in yellow that would address the better understanding that we now have in delivering the program.

**Proposed Action:** The GLWA Audit Committee recommends that the GLWA Board authorizes the CEO to enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget at its meeting on May 24, 2023, for the following items:

- WRAP Service Delivery Partner – County of Macomb
- WRAP Service Delivery Partner – United Way for Southeastern Michigan (Oakland County)
- WRAP Service Delivery Partner – Wayne Metropolitan Community Action Agency

DRAFT for Audit Committee Review Only

**..Title**

**Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – County of Macomb**

**..Body**

Agenda of: May 24, 2023

Item No.: **2023-119**

Amount: \$817,626

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – County of Macomb**

**MOTION**

Upon recommendation of Nicolette Bateson, Chief Financial Officer and Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget for Water Residential Assistance Program (WRAP) Service Delivery Partner – County of Macomb;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

The Water Residential Assistance Program (“WRAP”) provides assistance to qualifying low-income residents served by the Great Lakes Water Authority’s (“GLWA”) Member Partners through bill credits, arrearage payments and conservation measures such as minor plumbing repairs. The program is funded at an amount equal to one half of one percent (0.5%) of GLWA budgeted revenues with DWSD contributing additional local funding for the City of Detroit. WRAP is administered through local Service Delivery Partners such as County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency.

The Program serves the entire GLWA service area which consists of and is defined for purposes of this Contract as follows:

Area 1: City of Detroit

Area 2: City of Flint

Area 3: Wayne (not including Detroit), Washtenaw, and Monroe Counties

Area 4: Oakland County

Area 5: Macomb, St. Clair, and Lapeer Counties

## **JUSTIFICATION**

In March 2020, GLWA engaged Public Sector Consultants (PSC) to evaluate WRAP. One of the objectives identified was: “Codify decentralized program delivery model to expand direct assistance by community action agencies in Macomb and Oakland counties”. Since then, individual contracts with County of Macomb (which supports the Macomb Community Action agency), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency have been secured. All three contracts are set to expire on June 30, 2023. A new contract is proposed which will provide continuity of WRAP Services to Area 5, Macomb, St. Clair, and Lapeer Counties, serviced by the Macomb Community Action agency.

The new, proposed contract with County of Macomb for WRAP Service Delivery in “Area 5” (Macomb, St. Clair, and Lapeer Counties) is for an initial term of one-year and provides for an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget.

Because the WRAP amount available varies based on budgeted annual revenues, the proposed contract is structured with annual renewals in order to be able to update the dollar amount to align with GLWA's adopted budget.

Table 1 (attached) provides the FY24 WRAP Budget by Area. The budget includes both the service delivery partner fee (**not to exceed 18%**) as well as amounts for payment assistance and conservation efforts.

### **BUDGET IMPACT**

The funding of this contract is paid from the budgeted WRAP funds each year and does not impact the GLWA annual budget.

### **COMMITTEE REVIEW**

This matter was reviewed by the Audit Committee at its meeting on April 28, 2023. The Audit Committee [*insert action*] that the GLWA Board authorizes the CEO to enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget for Water Residential Assistance Program (WRAP) Service Delivery Partner – County of Macomb.

### **SHARED SERVICES IMPACT**

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

DRAFT for Audit Committee Review Only

**..Title**

**Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – United Way for Southeastern Michigan**

**..Body**

Agenda of: May 24, 2023

Item No.: **2023-120**

Amount: \$1,081,481

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – United Way for Southeastern Michigan**

**MOTION**

Upon recommendation of Nicolette Bateson, Chief Financial Officer and Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget contract for the Water Residential Assistance Program (WRAP) Service Delivery Partner – United Way for Southeastern Michigan;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

The Water Residential Assistance Program (“WRAP”) provides assistance to qualifying low-income residents served by the Great Lakes Water Authority’s (“GLWA”) Member Partners through bill credits, arrearage payments and conservation measures such as minor plumbing repairs. The program is funded at an amount equal to one half of one percent (0.5%) of GLWA budgeted revenues with DWSD contributing additional local funding for the City of Detroit. WRAP is administered through local Service Delivery Partners such as County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency.

The Program serves the entire GLWA service area which consists of and is defined for purposes of this Contract as follows:

Area 1: City of Detroit

Area 2: City of Flint

Area 3: Wayne (not including Detroit), Washtenaw, and Monroe Counties

Area 4: Oakland County

Area 5: Macomb, St. Clair, and Lapeer Counties

## **JUSTIFICATION**

In March 2020, GLWA engaged Public Sector Consultants (PSC) to evaluate WRAP. One of the objectives identified was: “Codify decentralized program delivery model to expand direct assistance by community action agencies in Macomb and Oakland counties”. Since then, individual contracts with County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency have been secured. All three contracts are set to expire on June 30, 2023. A new contract is proposed will provide continuity of WRAP Services to Area 4, Oakland County, service by United Way for Southeastern Michigan.

The new, proposed contract with United Way for Southeastern Michigan for WRAP Service Delivery in Area 4 is for an initial term of one-year and provides for an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget.

Because the WRAP amount available varies based on budgeted annual revenues, the proposed contract is structured with annual renewals in order to be able to update the dollar amount to align with GLWA’s adopted budget.

Table 1 (attached) provides the FY24 WRAP Budget by Area. The budget includes both the service delivery partner fee (**not to exceed 15%**) as well as amounts for payment assistance and conservation efforts.

### **BUDGET IMPACT**

The funding of this contract is paid from the budgeted WRAP funds each year and do not impact the annual budget.

### **COMMITTEE REVIEW**

This matter was reviewed by the Audit Committee at its meeting on April 28, 2023. The Audit Committee [*insert action*] that the GLWA Board authorizes the CEO to enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget contract for the Water Residential Assistance Program (WRAP) Service Delivery Partner – United Way for Southeastern Michigan.

### **SHARED SERVICES IMPACT**

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

## DRAFT for Audit Committee Review Only

..Title

**Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – Wayne Metropolitan Community Action Agency**

..Body

Agenda of: May 24, 2023

Item No.: **2023-121**

Amount: **\$7,983,565**

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Contract Approval for Water Residential Assistance Program (WRAP) Service Delivery Partner – Wayne Metropolitan Community Action Agency**

### MOTION

Upon recommendation of Nicolette Bateson, Chief Financial Officer and Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget for Water Residential Assistance Program (WRAP) Service Delivery Partner – Wayne Metropolitan Community Action Agency;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## **BACKGROUND**

The Water Residential Assistance Program (“WRAP”) provides assistance to qualifying low-income residents served by the Great Lakes Water Authority’s (“GLWA”) Member Partners through bill credits, arrearage payments and conservation measures such as minor plumbing repairs. The program is funded at an amount equal to one half of one percent (0.5%) of GLWA budgeted revenues with DWSD contributing additional local funding for the City of Detroit. WRAP is administered through local Service Delivery Partners such as County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency.

The Program serves the entire GLWA service area which consists of and is defined for purposes of this Contract as follows:

Area 1: City of Detroit

Area 2: City of Flint

Area 3: Wayne (not including Detroit), Washtenaw, and Monroe Counties

Area 4: Oakland County

Area 5: Macomb, St. Clair, and Lapeer Counties

## **JUSTIFICATION**

In March 2020, GLWA engaged Public Sector Consultants (PSC) to evaluate WRAP. One of the objectives identified was: “Codify decentralized program delivery model to expand direct assistance by community action agencies in Macomb and Oakland counties”. Since then, individual contracts with County of Macomb (Macomb Community Action), United Way for Southeastern Michigan and, Wayne Metropolitan Community Action Agency have been secured. All three contracts are set to expire on June 30, 2023. A new contract is proposed which will provide continuity of WRAP Services to **Area 1**, Area 2, and Area 3, Wayne, Washtenaw, and Monroe Counties and the City of Flint, serviced by Wayne Metropolitan Community Action Agency.

The new, proposed contract with Wayne Metropolitan Community Action Agency for WRAP Service Delivery in **Area 1**, Area 2, and Area 3 is for an initial term of one-year and provides for an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget.

Because the WRAP amount available varies based on budgeted annual revenues, the proposed contract is structured with annual renewals in order to be able to update the dollar amount to align with GLWA's adopted budget.

Table 1 (attached) provides the FY24 WRAP Budget by Area. The budget includes both the service delivery partner fee (not to exceed 15%) as well as amounts for payment assistance and conservation efforts. Note that the funds set aside for Area 1 (Detroit) are to be used in accordance with the DWSD Lifeline Policy and the contact between DWSD and Wayne Metro and are not constrained by the Administrative, Direct Assistance and Conservation breakdown of funding.

### **BUDGET IMPACT**

The funding of this contract is paid from the budgeted WRAP funds each year and do not impact the annual budget.

### **COMMITTEE REVIEW**

This matter was reviewed by the Audit Committee at its meeting on April 28, 2023. The Audit Committee [*insert action*] that the GLWA Board authorizes the CEO to enter into a one-year contract with an additional four (4) one-year options to renew the contract, at the same terms and conditions, to be exercised and approved by the CEO immediately following approval of the Budget for Water Residential Assistance Program (WRAP) Service Delivery Partner – Wayne Metropolitan Community Action Agency.

### **SHARED SERVICES IMPACT**

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

**Table 1 – FY 2024 WRAP Budget by Area**

<b>Community</b>	<b>Budgeted Direct Assistance</b>	<b>Budgeted Conservation Assistance</b>	<b>Budgeted Administration Costs</b>	<b>Total Budgeted Revenue</b>	<b>Allocation</b>
<b>CITY OF DETROIT</b>					
SHARE OF WHOLESALE FUNDING	N/A	N/A	N/A	\$1,144,172	26.27%
LOCAL WRAP FUNDING	N/A	N/A	N/A	2,191,900	
<b>TOTAL DETROIT</b>				\$3,336,072	26.27%
<b>WAYNE COUNTY</b>	732,643	183,161	161,612	1,077,416	24.74%
<b>OAKLAND COUNTY</b>	735,407	183,852	162,222	1,081,481	24.83%
<b>MACOMB COUNTY</b>	505,884	126,471	138,810	771,164	17.71%
<b>GENESEE COUNTY</b>	17,641	4,410	3,891	25,942	0.60%
<b>WASHTENAW COUNTY</b>	41,288	10,322	9,108	60,717	1.39%
<b>LAPEER COUNTY</b>	21,115	5,279	5,794	32,188	0.74%
<b>MONROE COUNTY</b>	100,195	25,049	22,102	147,346	3.38%
<b>ST. CLAIR COUNTY</b>	9,364	2,341	2,569	14,274	0.33%
<b>TOTAL</b>	<b>\$2,163,536</b>	<b>\$540,884</b>	<b>\$506,108</b>	<b>\$6,546,600</b>	<b>100.00%</b>



## Financial Services Audit Committee Communication

**Date:** April 28, 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 Bonds in an Aggregate Amount Not to Exceed \$71,000,000 (Ordinance 2023-02)

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

**Proposed Action:** The GLWA Audit Committee recommends that the Great Lakes Water Authority Board approve the resolution for the Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000 for Drinking Water State Revolving Fund Loan 7532-02 GLWA - 96-Inch Water Transmission Main Relocation – Phase 2.

DRAFT for Audit Committee Review Only

**..Title**

**Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000 (Ordinance 2023-02)**

**..Body**

Agenda of: May 24, 2023  
Item No.: **2023-057**  
Amount: Not to Exceed \$71,000,000

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000 (Ordinance 2023-02)**

**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 for Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000 as presented**, and authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

## DRAFT for Audit Committee Review Only

### **BACKGROUND**

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

#### *Financing Considerations*

The amount being financed with revenue bonds via the Drinking Water State Revolving Fund (DWSRF) Bonds is within authorized GLWA limits. On April 13, 2022, the Great Lakes Water Authority (“GLWA”) Board of Directors approved Resolution 2022-120, “Resolution of the Great Lakes Water Authority Authorizing Publication of Notice of Intent to Issue Water Supply System Revenue Bonds in a principal amount not to exceed \$400,000,000” (the “Notice of Intent”). This is the third series of water bonds from that Notice of Intent in the amount not to exceed \$71,000,000.

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

#### *Project Considerations*

Project Plan Approval - On June 23, 2021, the GLWA Board of Directors conducted a [public hearing](#) related to the 96-inch Water Transmission Main (WTM) Relocation Project - Drinking Water Revolving Fund (DWSRF) Project Plan. This public hearing was held on project #7532-01 as part of EGLE’s FY2022 application process. Subsequent to that public hearing, the Board adopted the [project plan](#). EGLE does not require a public hearing or project plan for subsequent financial segments.

Project Plan – It should be noted that the estimated costs for the project plan were approximately \$170.4 million for “Alternative 10” in the above referenced documents presented in June 2021. Due to economic factors impacting the construction industry projects costs continue to increase. Since the time the original project plan was adopted overall estimates for this project have reached \$222.7 million. There are limitations on

## DRAFT for Audit Committee Review Only

the amount of DWSRF monies available to fund projects annually and larger projects are often split into segments based on the timing of work and the available funding. As a result, this project has been split into two funding segments to date with one more that may follow in a future funding period.

The total cost estimate for this second segment of the 96-inch water main relocation project is \$137.0 million, however, only \$64.2 million has been approved for funding by EGLE under the FY 2024 DWSRF program. This series ordinance has been increased to allow for any further fluctuation in final contract amounts because although there is currently a limit of \$64.2 million to be awarded through the DWSRF program in FY 2024 for this project segment, there have been times in the past when EGLE has been able to make additional funds available. GLWA can only accept funding up to the amount approved within the series ordinance, therefore the amount requested in this ordinance (\$71.0 million) is slightly above the approved award amount (\$64.2 million) to allow for that possibility of additional funding.

### **JUSTIFICATION**

The bond series authorized by this ordinance will support a Regional Water System project involving the 96-inch water main relocation. Redundant supply features for the 96-inch water main are considered prudent for preserving its long-term viability.

The 2023 SRF-1 Junior Lien Bonds will be sold through the Michigan Finance Authority under the state of Michigan's DWSRF program (Project #7532-02). The current interest rates for the DWSRF program are 1.875% for 20-year and 2.125% for 30-year loans. Potential dollar savings are significant when compared to municipal bond interest rates in a market-based transaction. By way of example, the GLWA ten-year financial plan utilizes an estimated interest rate of 5.0% for future debt. Compared to that estimated rate of 5.0%, potential interest savings on a 20-year SRF loan would be \$28.1 million and savings on a 30-year loan would be \$41.8 million based on a DWSRF loan amount of \$71.0 million.

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

## DRAFT for Audit Committee Review Only

### **BUDGET IMPACT**

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

### **COMMITTEE REVIEW**

This matter was reviewed by the GLWA Audit Committee at its meeting on April 28, 2023. The Audit Committee [insert action] of the resolution Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000 as presented.

### **SHARED SERVICES IMPACT**

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

GREAT LAKES WATER AUTHORITY  
ORDINANCE NO. 2023-02

**SERIES ORDINANCE AUTHORIZING ISSUANCE AND SALE OF  
WATER SUPPLY SYSTEM REVENUE BONDS IN  
AN AMOUNT NOT TO EXCEED \$71,000,000**

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 to authorize at this time one or more Series of SRF Junior Lien Bonds (the “2023 SRF-1 Junior Lien Bonds”) to provide moneys to pay the costs of the hereinafter described repairs, extensions, enlargements and improvements to the Regional Water System identified in the Capital Improvement Program (the “2023 SRF-1 Project”).

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

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

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

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

(b) “2023 SRF-1 Project” means improvements to the Regional Water System consisting of all or part of the 96-inch Water Transmission Main Relocation project and is planned to include a new segment of the 96-inch transmission main that will connect to the existing system near the intersection of 24 Mile Road and the Macomb Orchard Trail on the north and near the intersection of Dequindre Road and Hamlin Road on the south.

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

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

(e) “Construction Fund, Series SRF 2023-1” means a subaccount or subaccounts of the Construction Fund established in accordance with Section 10 of this 2023 SRF-1 Series Ordinance relating to the construction of the 2023 SRF-1 Project to be paid with the proceeds of the 2023 SRF-1 Junior Lien Bonds.

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

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

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

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

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

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

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

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

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

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

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

Section 3. Approval of 2023 SRF-1 Project.

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

(b) Estimated Cost and Period of Usefulness of 2023 SRF-1 Project 1. The Project Costs are estimated by the Authority Board to be \$137,000,000 and the Project Costs are hereby approved and confirmed. The period of usefulness of the 2023 SRF-1 Project is estimated to be not less than 40 years.

Section 4. Authorization of 2023 SRF-1 Junior Lien Bonds.

(a) Authorization of Borrowing. The Authority may borrow an aggregate amount not in excess of \$71,000,000, as is finally determined in the Sale Order, and issue the 2023 SRF-1 Junior Lien Bonds in one or more Series, all to evidence such borrowing pursuant to Act 233, Act 94 and the Ordinance, as 2023 SRF-1 Junior Lien Bonds, all as finally determined in the Sale Order. The amount of the 2023 SRF-1 Junior Lien Bonds authorized in this Section 5(a)(i) shall include the amount of the net original issue premium, if any.

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

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

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

(e) Separate Series and Subseries. The 2023 SRF-1 Junior Lien Bonds are issuable at one or more times and as one or more separate subseries of Bonds in such amounts as determined in the Sale Order.

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

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

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

Section 5. 2023 SRF-1 Junior Lien Bond Details.

(a) Designation.

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

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

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

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

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

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

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

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

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

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

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

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

R-\_\_

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

REGISTERED OWNER: Michigan Finance Authority

PRINCIPAL AMOUNT: \$ \_\_\_\_\_

INTEREST RATE: \_\_\_\_\_%

ORIGINAL ISSUE DATE:

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

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

Interest on this Bond shall accrue from the Original Issue Date set forth above at the Interest Rate set forth above, only on that portion of installments of the Principal Amount which have been disbursed by the MFA, shall be payable on \_\_\_\_\_, 201\_ and semiannually on each April 1 and October 1 thereafter (each an “Interest Payment Date”).

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

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

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

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

This Bond is one of a series of bonds designated "Water Supply System Revenue Bonds, Series 2023-SRF-1" and is issued pursuant to the provisions of (i) Act 233, Public Acts of Michigan, 1955, as amended ("Act 233"), and Act 94, Public Acts of Michigan, 1933, as amended ("Act 94"), (ii) Master Bond Ordinance No. 2015-01 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 Bonds in an Amount Not to Exceed \$71,000,000, adopted by the Board on March 22, 2023 (the “Series Ordinance”), and (iv) a Sale Order of the Chief Executive Officer of the Issuer dated \_\_\_\_\_, 2023 (the “Sale Order,” and, collectively with the Bond Ordinance and the Series Ordinance, the “Ordinance”). This Bond is issued for the purposes set forth in the Series Ordinance and the Sale Order.

For the prompt payment of the principal of and interest on this Bond, and other bonds issued by the Issuer pursuant to the Bond Ordinance, the Issuer has irrevocably pledged the Pledged Assets (as defined in the Bond Ordinance), which includes the revenues of the 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 is hereby recognized and acknowledged. Such lien is a third lien, subject to obligations heretofore and hereafter issued or incurred under the Bond Ordinance secured by a first or second lien on the Pledged Assets. This Bond is of equal standing on a parity with all other obligations heretofore and hereafter issued or incurred under the Bond Ordinance and secured by a third lien on the Pledged Assets.

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

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

**THIS BOND IS ISSUED UNDER ACT 233 AND ACT 94. IT IS A SELF-LIQUIDATING BOND AND IS NOT A GENERAL OBLIGATION OF THE ISSUER AND DOES NOT CONSTITUTE AN INDEBTEDNESS OF THE ISSUER WITHIN ANY CONSTITUTIONAL OR STATUTORY LIMITATION, BUT IS PAYABLE, BOTH AS TO PRINCIPAL AND INTEREST SOLELY FROM THE PLEDGED ASSETS OF THE 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 for Bonds other than this Bond, 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 a facsimile of 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 the bond designated by the Issuer as “Water Supply System Revenue Bond, Series 2023-SRF-1”.

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

By: \_\_\_\_\_

Date of Authentication: \_\_\_\_\_, 2023

**ASSIGNMENT**

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

Dated: \_\_\_\_\_  
Signature \_\_\_\_\_

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

Schedule A

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

Date

Amount

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

END OF BOND FORM

Section 6. Concerning the Securities Depository.

(a) As used herein:

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

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

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

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

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

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

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

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

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

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

Section 7. Payment of 2023 SRF-1 Junior Lien Bonds; Confirmation of Statutory Lien.

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

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

Section 8. Funds and Accounts; Flow of Funds. Except as otherwise provided in this 2023 SRF-1 Series Ordinance, all of the provisions relative to funds and accounts, their maintenance, the flow of funds and other details relative thereto, shall remain as specifically set forth in the Ordinance.

Section 9. Disposition of Proceeds.

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

(b) Construction Fund. The balance of the proceeds of the 2023 SRF-1 Junior Lien Bonds shall be deposited in the Construction Fund and used to pay Project Costs as provided in Section 10.

Section 10. Construction Fund.

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

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

(1) Payments or reimbursement 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.

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

Section 11. Tax Covenant.

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

(b) The actions referred to in subsection (a), above include, but are not limited to actions relating to any required rebate of arbitrage earnings and the expenditure and investment of proceeds of Tax-Exempt 2023 SRF-1 Junior Lien Bonds and moneys deemed to be proceeds of

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

Section 12. Sale of 2023 SRF-1 Junior Lien Bonds; Purchase Contract; Expiration of Referendum Period.

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

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

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

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

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

Section 13. Delegation of Authority to and Authorization of Actions of Authorized Officers.

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

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

- (1) Such determination shall also include the redemption provisions for the 2023 SRF-1 Junior Lien Bonds.

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

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

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

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

Section 14. Advancement of Project Costs. At the direction of an Authorized Officer, the Authority may advance certain Project Costs from the Authority's funds prior to the issuance of the 2023 SRF-1 Junior Lien Bonds to the extent that such costs are expenditures appropriate for reimbursement under applicable law, including the Code in the case of Tax-Exempt 2023 SRF-1 Junior Lien Bonds. The Authority hereby declares its official intent to issue the 2023 SRF-1 Junior Lien Bonds to finance the Project Costs, and hereby declares that it reasonably expects to reimburse the Authority's advances of Project Costs as anticipated by this declaration.

Section 15. Ratification. All determinations and decisions of an Authorized Officer heretofore taken with respect to the issuance and sale of the 2023 SRF-1 Junior Lien Bonds as permitted or required by the Ordinance or law are hereby ratified, confirmed and approved.

Section 16. Additional Authorization. The Chief Executive Officer, the Chief Financial Officer, the Chief Administrative and Compliance Officer and the General Counsel of the Authority, any such officials acting in an interim or acting capacity to such officers, their deputies and staff, or any of them, are hereby authorized to execute and deliver such certificates, Supplemental Agreements, other agreements, documents, instruments, opinions and other papers as may be deemed necessary or appropriate to complete the sale, execution and delivery of the 2023 SRF-1 Junior Lien Bonds and otherwise give effect to the transactions contemplated by this 2023 SRF-1 Series Ordinance, as determined by such officials executing and delivering the foregoing items.

Section 17. 2023 SRF-1 Series Ordinance a Contract. The provisions of this 2023 SRF-1 Series Ordinance shall constitute a contract between the Authority and each registered owner of an outstanding 2023 SRF-1 Junior Lien Bond.

Section 18. Professional Services.

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

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

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

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

Section 19. Severability; Headings; and Conflict. If any section, paragraph, clause or provision of this 2023 SRF-1 Series Ordinance shall be held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this 2023 SRF-1 Series Ordinance. The section and paragraph headings in this 2023 SRF-1 Series Ordinance are furnished for convenience of reference only and shall not be considered to be part of this 2023 SRF-1 Series Ordinance.

Section 20. Publication and Recordation. This 2023 SRF-1 Series Ordinance shall be published in full in the Detroit Legal News, a newspaper of general circulation within the geographic boundaries of the Authority qualified under State law to publish legal notices, promptly after its adoption, and shall be maintained in the official records of the Authority and such recording authenticated by the signatures of the Chairperson and Secretary of the Authority Board.

Section 21. Repeal. All ordinances, resolutions, indentures or orders, or parts thereof, in conflict with the provisions of this 2023 SRF-1 Series Ordinance are, to the extent of such conflict, repealed.

Section 22. Effective Date. This 2023 SRF-1 Series Ordinance shall be effective upon adoption.

Adopted and signed on the \_\_\_\_ day of \_\_\_\_\_, 2023.

GREAT LAKES WATER AUTHORITY

Signed \_\_\_\_\_  
Chairperson

Signed \_\_\_\_\_  
Secretary

4858-3459-5401 v4 [63818-45]

**Great Lakes Water Authority**

**Resolution 2023-057**

**RE: Approval of Series Ordinance Authorizing Issuance and Sale of Water Supply System**

**Revenue Bonds in an Aggregate Amount Not to Exceed \$71,000,000**

**Ordinance 2023-02**

By Board Member: \_\_\_\_\_

**Whereas** There has been presented to the Board of Directors of the Great Lakes Water Authority (the “Authority”) an ordinance entitled “Series Ordinance Authorizing the Issuance and Sale of Water Supply System Revenue Bonds in an Aggregate Amount not to Exceed \$71,000,000” (the “2023 SRF-1 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.

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

**Now, Therefore Be It:**

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

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

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



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

**From:** Nick Fedewa, CPA, Acting Public Finance Manager

**Re:** Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan

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

**Proposed Action:** The GLWA Audit Committee recommends that the Great Lakes Water Authority Board of Directors approve the attached Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan at its regularly meeting on May 24, 2023.

## DRAFT for Audit Committee Review Only

**..Title**

**Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan**

**..Body**

Agenda of: May 24, 2023

Item No.: **2023-157**

Amount: N/A

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan**

### **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 attached Resolution to Adopt the Detroit, Dearborn, and Highland Park Transmission Water Metering Project FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan;** and authorizes the CEO to take such action as may be necessary to accomplish the intent of this vote.

### **BACKGROUND**

The Great Lakes Water Authority (the "GLWA") has identified one water supply system project for submittal to the Michigan Department of Environment, Great Lakes, and

## DRAFT for Audit Committee Review Only

Energy (EGLE) FY 2024 SRF financing program. The deadline for submitting all DWSRF project plans to EGLE is June 1, 2023. Prior to submitting the project plan, GLWA must hold a public hearing to present the project plan, which is scheduled for May 24, 2023, at 2:00 pm.

The FY 2024 DWSRF project plan and public hearing notice for the Detroit, Dearborn, and Highland Park Transmission Water Metering project will be posted on the [GLWA website](#). A summary of the project plan will be presented at the public hearing. After the public hearing is closed, a resolution for the project will be scheduled for action by the GLWA Board of Directors at its regularly scheduled meeting also on May 24, 2023. The resolution must be approved and signed to ensure the finalized project plan are assembled, printed, and submitted to the EGLE by the deadline of June 1, 2023.

### **The Project:**

*Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project* – The Great Lakes Water Authority (GLWA) provides potable water to approximately 3.9 million Member Partners across 127 municipalities in Southeast Michigan. Each potable water Member Partner has a metered connection which is used to establish the units of service and cost allocation, except for the cities of Detroit, Dearborn, and Highland Park, which are non-master metered communities. This project provides a means of accurately metering these cities. Water master meters are used to identify non-revenue water (NRW), wholesale water demand, help optimize water systems operations, and improve water and energy use efficiency. The total cost of this project this project is currently estimated at \$46.5 million.

### **JUSTIFICATION**

GLWA is seeking low interest loan assistance through the DWSRF program for this project. Although the EGLE interest rate for FY 2024 will not be determined until October 2023, the current year's interest rates are 1.875% for 20-year and 2.125% for 30-year loans. Potential dollar savings are significant when comparing to municipal bond interest rates in a market-based transaction. By way of example, the ten-year financial plan utilizes an estimated rate of 5.0% for future debt. Comparing to the plan, potential interest savings with a 20-year SRF loan would be \$18.4 million and savings on a 30-year loan would be \$27.4 million. Another advantage of SRF is that interest costs are only incurred on the amount drawn from the SRF loans as project expenditures are being incurred, resulting in additional debt service savings early in the term of the loan compared to market-based transactions. Also, use of SRF funding as junior lien does not impact GLWA debt reserve requirements.

## DRAFT for Audit Committee Review Only

### **BUDGET IMPACT**

Debt service interest payments on these projects would begin in the fall of FY 2025 and will be included as part of the FY 2025 financial plan.

### **COMMITTEE REVIEW**

This matter was presented to the GLWA Audit Committee at its April 28, 2023 meeting. The Audit Committee {insert action taken} that the Great Lakes Water Authority Board of Directors approve the attached Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan at its regularly scheduled meeting on May 24, 2023.

### **SHARED SERVICES IMPACT**

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

**Great Lakes Water Authority**  
**Resolution 2023-157**

**RE: Resolution for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project - FY2024 Drinking Water State Revolving Fund (DWSRF) Project Plan**

By Board Member: \_\_\_\_\_

**Whereas:** The Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project for the FY 2024 Drinking Water State Revolving Fund has been prepared by the GLWA;

**Whereas:** The project entails the construction of water metering facilities at twenty-five (25) locations along the Detroit, Dearborn, and Highland Park municipal boundaries;

**Whereas:** The project is required to measure the wholesale water demands of these cities;

**Whereas:** The data from the newly proposed instruments at the facilities will aid in water quality monitoring, understanding flows and pressures in the service area, the optimization of water system operations, and annual charges allocations for the cities;

**Whereas:** The FY 2024 DWSRF Project Plan has been placed on public notice and a Public Hearing was held May 24, 2023, at 2:00 p.m. where comments on the recommended project were solicited.

**Whereas:** It is the desire of the GLWA Board of Directors to secure low interest loan assistance through the DWSRF program; and

**Whereas:** Formal action by the GLWA Board of Directors is needed to adopt the recommended FY 2024 DWSRF Project Plan for the Detroit Dearborn, and Highland Park Transmission Main Water Metering Project, as a requirement for participation in the State of Michigan's DWSRF program.

**Now Therefore Be It:**

**Resolved** That this Board hereby accepts the FY 2024, Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project dated May 24, 2023, and as directs staff members of the GLWA to address all public comments, prepares the responsiveness summary, and publish the final Project Plan; and **Be It Further**

**Resolved** That the Chief Executive Officer (CEO) is authorized to transmit the final FY 2024 DWSRF Project Plans for the Detroit, Dearborn, and Highland Park Transmission Main Water Metering Project to the Michigan Department of Environment Great Lakes, and Energy on behalf of the GLWA Board of Directors and take all appropriate steps to secure approval of a low interest loan in accordance with the

Sate of Michigan's DWSRF procedures so that the projects can proceed expeditiously to construction.

Adopted by the Great Lakes Water Authority on: \_\_\_\_\_, 2023

# GREAT LAKES WATER AUTHORITY

## *DETROIT, DEARBORN, AND HIGHLAND PARK TRANSMISSION MAIN WATER METERING*

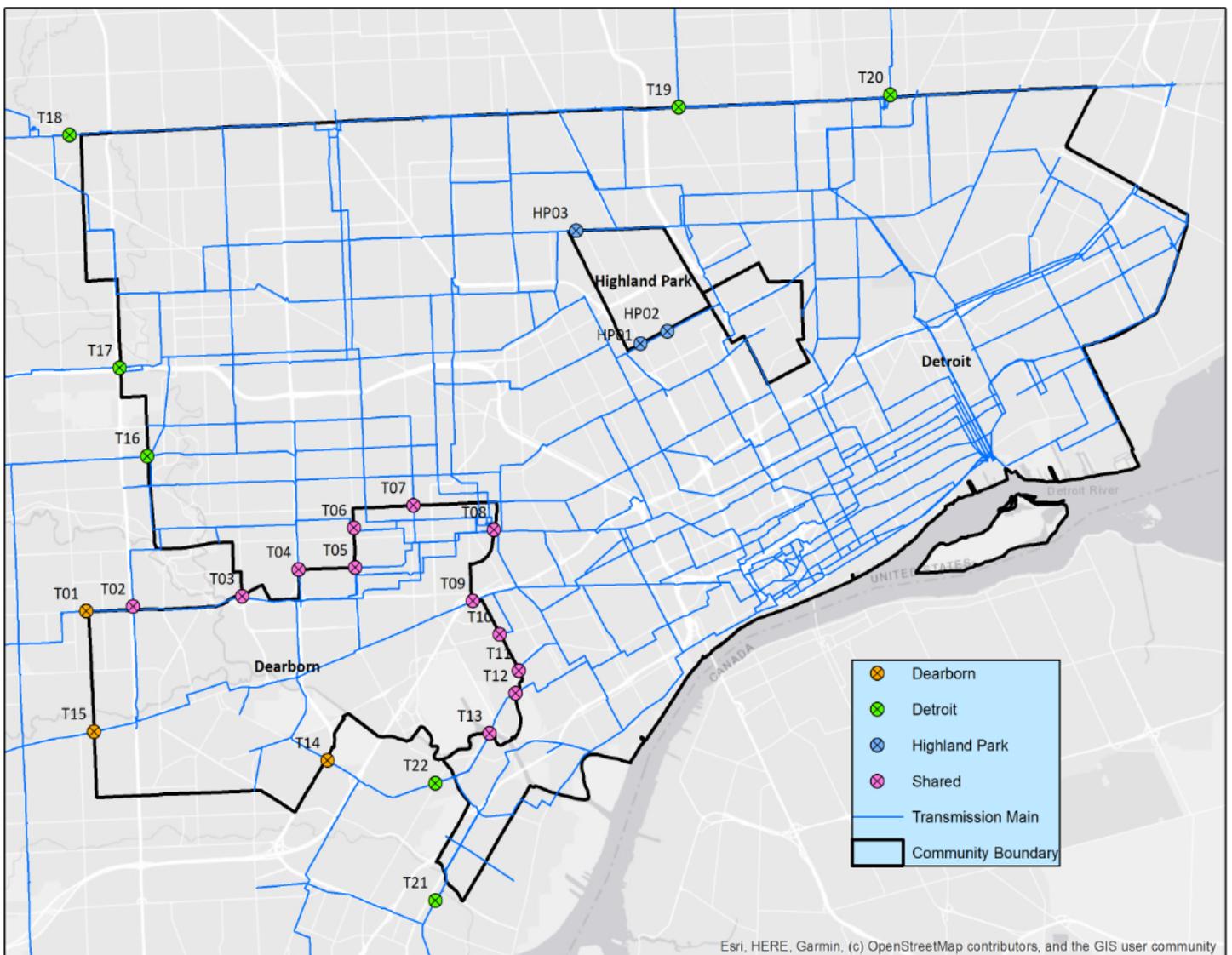
Project Plan  
April 13, 2023

PROPOSED IMPROVEMENTS

The Great Lakes Water Authority (GLWA) provides potable water to approximately 3.9 million Member Partners across 127 municipalities in Southeast Michigan. Each potable water Member Partner has a metered connection which is used to establish the units of service and cost allocation, except for the cities of Detroit, Dearborn, and Highland Park, which are non-master metered communities. This project provides a means of accurately metering these cities.

SUMMARY OF PROJECT NEED

This project is needed to accurately meter the communities of Detroit, Dearborn, and Highland Park. Water master meters are used to identify non-revenue water (NRW), wholesale water demand, help optimize water systems operations, and improve water and energy use efficiency.



Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

**ALTERNATIVES**

Five alternatives were considered for master metering Detroit, Dearborn, and Highland Park.

The proposed alternatives considered for implementation by GLWA include:

- Alternative 1: No action – keep current flow estimation procedure.
- Alternative 2: Full master metering – install meters on all applicable connection points.
- Alternative 3: Permanent district meter areas.
- Alternative 4-A: Transmission main metering – All Mag meters.
- Alternative 4-B: Transmission main metering – Hybrid Option.

Alternative 4 is the chosen alternative. Alternative 4-A and 4-B are still under technical review to determine which meter types will be used.

**MONETARY EVALUATION**

**COST EFFECTIVENESS ANALYSIS FOR ALTERNATIVES 1 THROUGH 4-B** (All monetary values shown below are presented in 2023 dollars):

Item	Alt. 1	Alt. 2	Alt. 3	Alt. 4-A	Alt. 4-B
Construction Period (Years)	0	10	8	5	5
Capital Cost*	\$0	\$363M	\$95M	\$46.55M	\$34.35M
O&M Cost (Annual)	\$0	\$3,744,000	\$1,430,000	\$325,000	\$325,000

\* Includes construction, engineering (design and construction), plus administrative costs (numbers rounded)

**ESTIMATED PROJECT COST**

**ESTIMATED COST FOR SELECTED ALTERNATIVE 4-A: TRANSMISSION MAIN METERING**

Item	Alternative 4-A
Estimated Cost of Construction	\$40,478,000
15% for Engineering & Administrative Costs	\$6,072,000
<b>Total</b>	<b>\$46,550,000</b>

**ESTIMATED COST FOR SELECTED ALTERNATIVE 4-B: TRANSMISSION MAIN METERING**

Item	Alternative 4-B
Estimated Cost of Construction	\$29,870,000
15% for Engineering & Administrative Costs	\$4,480,000
<b>Total</b>	<b>\$34,350,000</b>

**COST PER ENTITY FOR CHOSEN ALTERNATIVE**

**COST PER ENTITY FOR ALTERNATIVE 4-A**

Entity	Cost
Dearborn	\$3,320,000
Detroit	\$25,780,000
Highland Park	\$2,250,000
GLWA	\$15,200,000
<b>Total</b>	<b>\$46,550,000</b>

**COST PER ENTITY FOR ALTERNATIVE 4-B**

Entity	Cost
Dearborn	\$2,350,000
Detroit	\$16,950,000
Highland Park	\$2,250,000
GLWA	\$12,800,000
<b>Total</b>	<b>\$34,350,000</b>

**ENVIRONMENTAL EVALUATION**

- Impacts on environmental features will be minimal as the majority of work will take place on existing roadways, within right-of-ways and underground.
- Construction is not expected to have adverse effects on neighborhoods within the project area.
- This project will not adversely affect the water and air quality within the project area.
- Construction of these metering sites will create construction-related jobs. Local contractors will have an opportunity to bid contract work.

**USER COST IMPACT**

**USER COST FOR ALTERNATIVE 4-A**

Item	Improvements
Total Cost of Project	\$46,550,000
Annualized Cost of Project (assuming SRF interest rate of 1.875% over 20 years)	\$1,874,000
Project Area Population (2020 Census) (City of Detroit, Dearborn, and Highland Park)	809,166
Estimated User Cost	~ <b>\$2.32/user/year</b>

**USER COST FOR ALTERNATIVE 4-B**

Item	Improvements
Total Cost of Project	\$34,350,000
Annualized Cost of Project (assuming SRF interest rate of 1.875% over 20 years)	\$1,453,000
Project Area Population (2020 Census) (City of Detroit, Dearborn, and Highland Park)	809,166
Estimated User Cost	~ <b>\$1.80/user/year</b>

## IMPLEMENTATION SCHEDULE

Project Activity	Project Milestone
Post Draft SRF Project Plan and Public Hearing Notice	April 14, 2023
Public Hearing	May 24, 2023
Submit Project Plan to EGLE	June 1, 2023
Start of Construction	July 2024
Complete Construction/ Transition Period Starts	July 2029
Transition Period Ends	July 2031
Fully Implement Transmission Main Metering	July 2031



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## **Financial Services Audit Committee Communication**

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

**From:** Nick Fedewa, CPA, Acting Public Finance Manager

**Re:** Resolution to Adopt the City of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan

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

**Proposed Action:** The GLWA Audit Committee recommends that the Great Lakes Water Authority Board of Directors approve the attached Resolution to adopt the City of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan.

DRAFT for Audit Committee Review Only

**..Title**

**Resolution to Adopt the City of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan**

**..Body**

Agenda of: May 24, 2023  
Item No.: **2023-158**  
Amount: N/A

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** May 24, 2023

**RE: Resolution to Adopt the City of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan**

**MOTION**

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA) **approves the attached Resolution to adopt the city of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

## DRAFT for Audit Committee Review Only

### **BACKGROUND**

The Great Lakes Water Authority (GLWA) secures capital improvement financing for the of Detroit Water and Sewerage Department (DWSD) in accordance with foundational documents related to the establishment of GLWA. DWSD has identified one water main replacement project for submittal to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the DWSRF financing program for funding in the state's 2024 fiscal year. This project is described within one overall project plan for neighborhoods at various locations throughout Detroit. The deadline for submitting all DWSRF project plans to EGLE is June 1, 2023, but prior to submitting the project plans, a public hearing must be held for the affected area.

This project is comprised of replacing aging water mains at select locations in the neighborhoods of Midtown, Medical Center, Cultural Center and Barton-McFarland (Project A-WS-725); and Buffalo-Charles, Dexter-Linwood, and Davison (Project B-WS-TBD). Construction will include excavation of existing water mains, installation of new pipes, rehabilitation of pipes, replacement of Lead (Pb) water service lines of two inches diameter or less to connect the water main and the customer water meter, pressure testing, backfill of the excavation required for piping work, and restoration of each work site. All work to be performed within the existing road right-of-way. The impact of the project will be improved customer satisfaction and safe, reliable service delivery of potable water to customers. The temporary impact of construction activities will be minimized through mitigation measures specified in the contract documents. The estimated cost of this project is \$26,000,000.

The FY 2024 DWSRF Project Plan and public hearing for DWSD Water Main Replacement Project has been posted on the DWSD website and can be found at: [www.detroitmi.gov/dwspd](http://www.detroitmi.gov/dwspd). This project plan was presented at the DWSD public hearing on April 19, 2023.

### **JUSTIFICATION**

Pursuant to Section 7.2(b) of the Regional Water Supply System Lease between the City of Detroit and GLWA, the Authority shall cooperate fully with the City in the implementation of the Detroit Capital Improvement, including financing through the Authority. Therefore, GLWA will submit the local project plan as it will be the DWSRF loan applicant. Per notification, from EGLE, GLWA does not need to hold a separate public hearing on the local project, however, the GLWA Board of Directors will need to act on the included resolution at its regularly scheduled meeting on May 24, 2023. The resolution must be approved and signed to ensure that the finalized Project Plan is assembled, printed, and submitted to the EGLE by the deadline of June 1, 2023.

## DRAFT for Audit Committee Review Only

GLWA concurs with the DWSD Water Main Replacement Project adoption, and as the DWSRF applicant, is seeking low interest loan assistance from the SRF Program. Although the EGLE interest rate for FY 2024 will not be determined until October 2023, the current 30-year loan interest rate for an overburdened applicant, which is applicable for DWSD projects, is 1.875 percent. Compared to an estimated market-based rate of 5%, potential interest savings on a 30-year loan would be \$16.5 million based on a DWSRF loan amount of \$26.0 million.

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

### **BUDGET IMPACT**

GLWA will be the loan applicant on DWSRF loans issued on behalf of the DWSD, and DWSD will be the DWSRF loan recipient as determined by EGLE. All project costs financed by GLWA, on behalf of DWSD, through the DWSRF program bonds and resulting principal and interest payments on the bonds will be directly allocable to the DWSD local system. Debt service is anticipated to begin in FY 2027 for this project and will be included as part of the FY 2026 – FY 2027 biennial budget.

### **COMMITTEE REVIEW**

This matter was presented to the GLWA Audit Committee at its April 28, 2023 meeting. The Audit Committee [insert action] that the Great Lakes Water Authority Board of Director approve the attached Resolution to adopt the City of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2024 Drinking Water State Revolving Fund (DWSRF) Project Plan as presented.

### **SHARED SERVICES IMPACT**

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

**Great Lakes Water Authority**  
**Resolution 2023-158**

**RE: Resolution to Adopt the City of Detroit Water and Sewerage Department (DWSD)**  
**Water Main Replacement - FY 2024 Drinking Water State Revolving Fund (DWSRF)**  
**Project Plan**

By Board Member: \_\_\_\_\_

**Whereas:** The City of Detroit through its Detroit Water and Sewerage Department (DWSD), and the Great Lakes Water Authority (GLWA), both jointly recognize the need to make improvements to portions of the existing water supply system that are owned and operated by the City of Detroit and that are physically located within the city limits; and

**Whereas:** Pursuant to Section 7.2(b) of the Regional Water Supply System Lease between the City of Detroit and GLWA, the Authority shall cooperate fully with the City in the implementation of this Detroit capital improvement, including financing through the Authority; and

**Whereas:** The Water Main Replacement DWSRF Project Plan for the FY 2024 DWSRF has been prepared by DWSD; and

**Whereas:** The Water Main Replacement project is comprised of replacing aging water mains at select locations in the neighborhoods of Midtown, Medical Center, Cultural Center and Barton-McFarland (Project A-WS-725); and Buffalo-Charles, Dexter-Linwood, and Davison (Project B-WS-TBD). The DWSD prepared a Drinking Water State Revolving Fund (DWSRF) Project Plan, which recommends excavation of existing water mains, installation of new pipes, rehabilitation of pipes, replacement of Lead (Pb) water service lines of two inches diameter or less to connect the water main and the customer water meter, pressure testing, backfill of the excavation required for piping work, and restoration of each work site; and

**Whereas:** The Project Plan was presented by DWSD at a Public Hearing held on April 19, 2023, at 2:00 p.m. in the DWSD Board of Water Commissioners (BOWC) hearing room, and all public comments were considered and addressed; and

**Whereas:** The DWSD formally adopted said Project Plan and agreed to implement the identified selected water main replacement, as described in said document, as evidenced by the DWSD resolution; and

**Whereas:** It is the desire of the GLWA Board of Directors to secure low interest loan assistance through the DWSRF program.

**Now Therefore Be It:**

**Resolved** The GLWA Board hereby accepts and approves the DWSD Water Main Replacement DWSRF Project Plan as approved by the DWSD BOWC at its April 19, 2023, meeting; and Be It Further

**Resolved** The GLWA concurs with the DWSRF Project Plan adoption and agrees to serve as the DWSRF loan applicant on behalf of the City of Detroit, the loan recipient, for all activities required by DWSRF financing, and in accordance with local and state intergovernmental agreement; and Be It Further

**Resolved** The GLWA Resolution identifying Designated Representatives adopted on April 26, 2017 established the GLWA authorized representatives for all DWSRF program activities, and no updates to these designations are necessary at this time and **Be It Further**

**Resolved** That the Chief Executive Officer (CEO) is authorized to transmit the final FY 2024 DWSRF Project Plan for the Water Main Replacement project to the Michigan Department of Environment, Great Lakes, and Energy on behalf of the GLWA Board of Directors and take all appropriate steps to secure approval of a low interest loan in accordance with the State of Michigan's DWSRF procedures so that the project can proceed expeditiously to construction.

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

# **CITY OF DETROIT**

## **Water and Sewerage Department**



### **Water Main Replacement and Rehabilitation inclusive of Lead (Pb) Service Line Replacements in Neighborhoods at Various Locations Throught Detroit**

Project A, WS -725: Midtown, Cultural Center, Medical Center, and Barton-McFarland Neighborhoods of Detroit

Project B, WS -TBD: Dexter – Linwood, Davison and Buffalo-Charles Neighborhoods of Detroit

## **Planning Document**

### **April 03, 2023**

**Mike Duggan**  
**Mayor**

**Gary Brown**  
**Director**

**Michael Einheuser**  
**Chairperson**  
**Board of Water**  
**Commissioners**



**City of Detroit**  
**Mike Duggan, Mayor**

**Detroit City Council**

Mary Sheffield, President  
James Tate, President Pro-Tem  
Mary Waters  
Coleman A. Young II  
Angela Whitfield-Calloway  
Scott Benson  
Latisha Johnson  
Gabriela Santiago-Romero  
Fred Durhal III

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TRANSCRIPT, VISUAL AIDS
- D. Planning Document CORRESPONDENCE; USACE PERMIT; SHPO  
SUBMITTAL; MNFI REVIEW; USFWS REVIEW

## 1. EXECUTIVE SUMMARY

The City of Detroit is submitting the Planning Document for two projects in the limits of Detroit. This project is including replacement of Vintage Water Main at various neighborhoods of Detroit, which includes upgrading 6 inch water main to 8 inch and 10 inch water main to 12 inch. It is Detroit Water and Sewerage Department polices upgrading 6 inch water main to 8 inch and 10 inch water main to 12 inch, because 6 inch water main can not sufficiently supply fire flow according to Detroit Water and Sewerage Department hydraulic model and 10 inch water main are rarely available in the market. All work is in with the Public Right of Way. There is no upgrades/replacement within the existing treatment facility. This project is not only for lead service line replacement though it includes lead service line replacement as part of water mian replacement. Detroit Water and Sewerage Department visually confirms lead service lines with hydroexcavation and replaces it after upon visual confirmation. City of Detroit is feeding from surface water resources and dose not require any underground water systems.

The City of Detroit is a retail customer of the Great Lakes Water Authority (GLWA), for which GLWA provides potable water to the City of Detroit and neighboring southeastern Michigan communities throughout Wayne, Oakland, Macomb, St. Clair, Lapeer, Genesee, Washtenaw and Monroe Counties. The 1,079 square mile water service area, which includes Detroit and 127 suburban communities, makes up approximately 40% of the state's population.

The water distribution system servicing the City of Detroit is comprised of approximately 2,700 miles of various size pipes ranging mainly from 6 to 16 inches. Most of these pipes were installed in the late 19th century and first half of the 20th century. Due to the age of these pipes and the multi-seasonal stresses upon the network, water main breaks are a constant occurrence, and they constitute a drain on Detroit Water and Sewerage Department (DWSD) resources necessary to address these breaks, often during inclement weather conditions. Water main breaks can also increase the potential public health risk from cross-connection contamination (bacteriological and/or chemical) resulting from reduced pressure or depressurized water mains during the repair. DWSD has developed a process for the identification of water system improvements needed in neighborhoods across the City of Detroit.

The water mains with the highest risk are prioritized and selected using information from the fifth update (Autumn 2021) of the risk & criticality model. The risk model leverages asset and other data with level of service (LOS) objectives to assign a risk value to each water main. The risk model provides a data-driven quantitative framework for water assets to ensure that risk assessments are defensible, consistent, and repeatable. Figure 1 illustrates how different risk criteria are accounted for in an assets

overall risk.

The approach to analyzing the consequences of failure for the water risk model uses a quadruple-bottom-line assessment approach employing four criticality indices:

- Economic: This index reflects the potential impact in terms of the direct and indirect capital cost of asset failure. For example, remediation costs can be greatly increased in a heavily traveled area, whereas traffic management costs are high. The scoring ranges for the economic risk model indices are typically proportional to the sum of the direct and indirect cost of repair.
- Social: This index reflects the potential impact to the public in the event of the asset failure.
- Operational: This index reflects the potential impact to system operations in the event of the asset failure. This index generally considers both organizational and system impacts in terms of whether there is sufficient redundancy in the system to circumvent the failed asset for an extended period. In addition, the operational criteria consider the urgency and complexity of the remediation of a failure.
- Environmental: Remediation costs can be greatly increased in environmentally sensitive areas. This index reflects the potential impact to the environment in the event of asset failure.

The current framework probability of failure comprises the following aspects:

- Structural Failure: Typically, structural failure is due to material degradation and the pipe's inability to resist applied loads.
- Hydraulic Failure: Hydraulic failure occurs due to a loss of capacity resulting from either a change in demand objectives or a loss of conveyance capacity (e.g., increased roughness or entrapped air blockage).
- Water Quality Failure: Water quality is negatively affected by the presence of lead service connections and by long runs with low water turnover.

This Planning Document identifies the current condition of the existing pipes and presents alternatives for addressing the deteriorated conditions of these pipes. Evaluation of these alternatives was performed based on the Michigan Department of Environment, Great Lakes and Energy (MI-EGLE) guidelines for preparing a Drinking Water State Revolving Fund (DWSRF) Planning Document. The recommendation presented in this Planning Document consists primarily of replacing the aged water mains with new ones based on the results of hydraulic modeling and water main break history. Several of the water mains will be upsized where hydraulic capacity does not support a minimum of 20 psi under all flow conditions. In a limited number of streets, rehabilitating the existing main with a structural liner will be performed as opposed to

replacement. Full Lead Service Line Replacements (FLSLR) are also included in the project. It is a benefit to the public health and safety to replace the Lead (Pb) service lines. DWSD policy, in accordance with the Michigan Lead and Copper Rule, is that all Lead water services, as encountered, shall be replaced with copper from the proposed water main to the individual customer meters as part of its capital project work. Additionally, DWSD contractors are required to perform an excavation at every service connection to visually verify if the service is Lead or copper.

**Figure 1 Water Risk Model Overview**

	Category	Criteria / Information Used
<b>Consequence</b>	Economic 30%	<ol style="list-style-type: none"> <li>1. Pipe Size</li> <li>2. Traffic Level/Road Class</li> <li>3. Pipe Material</li> <li>4. Pressure</li> </ol>
	Operational 30%	<ol style="list-style-type: none"> <li>1. Critical Customer</li> <li>2. Pipe Size</li> <li>3. Redundancy</li> </ol>
	Social 25%	<ol style="list-style-type: none"> <li>1. Census Tract Population Density</li> <li>2. Employment</li> <li>3. Traffic Level/Road Class</li> <li>4. Critical Customer</li> </ol>
	Environmental 15%	<ol style="list-style-type: none"> <li>1. Pipe Size</li> <li>2. Proximity to ESA</li> </ol>
<b>Probability</b>	Condition 60%	<ol style="list-style-type: none"> <li>1. Break Rate Model</li> <li>2. Breaks per 1000ft</li> <li>3. Cave-Ins</li> <li>4. Service Line Density</li> </ol>
	Hydraulics 30%	<ol style="list-style-type: none"> <li>1. Hydrant AFF</li> <li>2. Headloss Gradient</li> </ol>
	Quality 10%	<ol style="list-style-type: none"> <li>1. Lead Service Line Density</li> <li>2. Water Age</li> </ol>

## 2. PROJECT OVERVIEW

### 2.1. PURPOSE

This document has been prepared in accordance with the planning guidelines adopted by MI-EGLE for the Drinking Water State Revolving Fund (DWSRF) low interest loan program. It is the intent of the DWSD to seek low interest loan assistance under the DWSRF program for the recommended work.

The purpose of this document is to describe the capital improvement project for water main replacement/rehabilitation, which DWSD is proposing to undertake with

DWSRF assistance to provide reliable water supply to its customers. This Planning Document provides information on the status of the current potable water system, a description of why the project is needed, an evaluation of alternatives, and a description of the recommended alternative and an assessment of environmental impacts. The Planning Document also serves as the basis for public review and comment on the proposed work in accordance with the public participation requirements of the DWSRF program. A reliability study/master plan that substantiates water supply needs and outlines deficiencies that warrant correction is in development by DWSD. DWSD does not have any waterborne disease outbreaks. Water treatment is conducted by GLWA. Watermain replacement greatly increases the water energy efficiencies as DWSD watermain are old, which has multiple breaks due to which a lot of water is wasted from DWSD watermains.

## 2.2. INTRODUCTION

### 2.2.1 WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-McFARLAND NEIGHBORHOODS OF DETROIT

DWSD has identified several project areas for pipe replacement and rehabilitation, in Midtown, Cultural Center, Medical Center, and Barton-McFarland Neighborhoods of Detroit. Neighborhoods are in urgent need of addressing due to risk analysis, which accounts for water main breaks, Fire Service Flows, Lead service lines, etc. as well as the results of hydraulic modeling. DWSD proposes to develop contract number WS-725 with a Project scope that includes replacing and rehabilitating approximately 30,877 linear feet of vintage cast iron water main of pipe size 6 through 12 inches in diameter for an estimated total project cost of 12,536,081 M. See table 5-1-A below.

Water main replacement (WS-725) through the DWSRF loan program is expected to increase by no more than 1.02% the cost of water to a typical City of Detroit customer due to the impact of construction cost. However, the impact may be less since it would be influenced by other factors such as the reduction in operating costs (chemicals, energy, etc.), reduced maintenance/repairs, and reduced water loss. Therefore, the actual rate determination would be based on factors that encompass the delivery of comprehensive services by DWSD to its customers. It should be recognized that the debt for distribution water main replacement work within the City of Detroit will be paid by Detroit customers only, not the entire GLWA service area.

The increase in rate as calculated above is based on repayment of the DWSRF loan over a 20-year period. As a disadvantaged community, the City of Detroit can request

a 30-year or 40-year financing period. DWSD will request a 30-year financing period.

### 2.2.2 WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION, DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT

DWSD has identified several project areas for pipe replacement and rehabilitation, in Dexter – Linwood, Davison and Buffalo-Charles Neighborhoods of Detroit that are in urgent need of addressing due to risk analysis, which accounts for water main breaks, Fire Service Flows, Lead service lines, etc. as well as the results of hydraulic modeling DWSD proposed to develop a contract number WS-TBD with a Project scope that includes replacing and rehabilitating approximately 31,912 linear feet of vintage cast iron water main of pipe size 6 through 12 inches in diameter for an estimated total project cost of \$13,265,188 See table 5-1-B below.

Water main replacement (WS-TBD) through the DWSRF loan program is expected to increase by no more than 1.08% the cost of water to a typical City of Detroit customer due to the impact of construction cost. However, the impact may be less since it would be influenced by other factors such as the reduction in operating costs (chemicals, energy, etc.), reduced maintenance/repairs, and reduced water loss. Therefore, the actual rate determination would be based on factors that encompass the delivery of comprehensive services by DWSD to its customers. It should be recognized that the debt for distribution water main replacement work within the City of Detroit will be paid by Detroit customers only, not the entire service area.

The increase in rate as calculated above is based on repayment of the DWSRF loan over a 20-year period. As a disadvantaged community, the City of Detroit can request a 30-year or 40-year financing period. DWSD will select a 30-year financing period.

Under the CIP, planning work to renew and rehabilitate the water infrastructure for WS-725 and WS-TBD were conducted and the following approach was typically used: 1) assessing the condition of the infrastructure by direct field assessment/inspection; 2) assessing the performance of the infrastructure, using hydraulic modeling and other analytical tools; 3) comparing condition and performance to level of service benchmarks/goals; 4) identifying capital improvement requirements and prioritizing them based on agreed-upon parameters and 5) developing a value-based CIP to identify prioritized needs. Work includes either rehabilitation or replacement of buried water infrastructure.

The City of Detroit has an estimated 80,000 lead water services active within the municipal water system. Given the potential negative health impacts to water

system customers, DWSD has been undertaking efforts to replace these services. Per EPA and MI-EGLE requirements, Lead services are replaced from the water main all the way to the customer meter within their property (residence, commercial space, other). While the Lead services are expected to be within the older portions of Detroit, realistically, they can be in any neighborhood. Across WS-725 and WS-TBD, approximately 933 lead services will be replaced which is included in the estimated total project cost of nearly \$25,801,269M (\$12,536,081 M and \$13,265,188 M respectively).

### 3. PROJECT BACKGROUND

#### 3.1. SUMMARY OF PROJECT NEED

##### **Project A, WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-McFARLAND NEIGHBORHOODS OF DETROIT**

Most of the water distribution system serving the City of Detroit was installed in the late 19th century or early 20th century. These water mains are unlined pit cast iron or spun cast iron pipe and have outlived their useful life of 50 years based on recorded number of water main breaks and field experience with the system. As the pipes start to exceed this life expectancy, problems arise such as: frequent breakage, loss of pipe wall thickness, exfiltration of treated water through leaks, cracks and corroded joints, hydraulic obstructions due to tuberculation on the interior pipe surfaces, increased pumping costs due to reduced hydraulic capacity, and in severe leaking cases, ponding of water on roadways or significant deterioration of the subsurface, causing sinkholes in the most severe cases.

Reduced or complete loss of pressure during these main breaks and subsequent repair can pose an increased risk to public health from potential chemical or bacteriological contamination by cross-connection. Loss of pressure in a public water supply is to be avoided whenever possible and maintaining minimum system pressure is imposed upon public water systems through the requirements of the Michigan Safe Drinking Water Act (PA 399, as amended).

The project will implement Full Lead Service Line Replacement (FLSLR) for Lead

service lines 2-inches in diameter and smaller from the public water main to the meter. Lead service lines 1.5-inches and 2-inches are replaced with in-kind diameters in copper; 1-inch and less are replaced with 1-inch copper. Service lines that are larger than two inches in diameter are rigid metal pipe of copper or iron per building code.

DWSD has established an asset management program with a goal to replace the aged water distribution system, which is approximately 2,700 miles of water main of various sizes (six to sixteen inches) over a 70-year period. This asset management replacement program started more than ten years ago. This goal would enable the distribution system to be replaced on a cycle consistent with the life expectancy of the pipe.

Historically, DWSD has tracked water maintenance activity and carefully logged the frequency of breaks and leaks in the system. DWSD now manages the water replacement program through the risk and criticality model which is updated annually with new condition assessment data. The projects identified are in areas of critical need based upon the risk and criticality analysis. For water main replacements, pipes of eight- and twelve-inch diameters will remain those sizes. Ten-inch pipe (not being a commercially produced pipe size) will be replaced with twelve-inch. Also, six-inch pipe is no longer a recommended minimum size for water main supply, thus 6-inch pipe will be replaced with eight-inch (except in those cases of a fire hydrant supply connection).

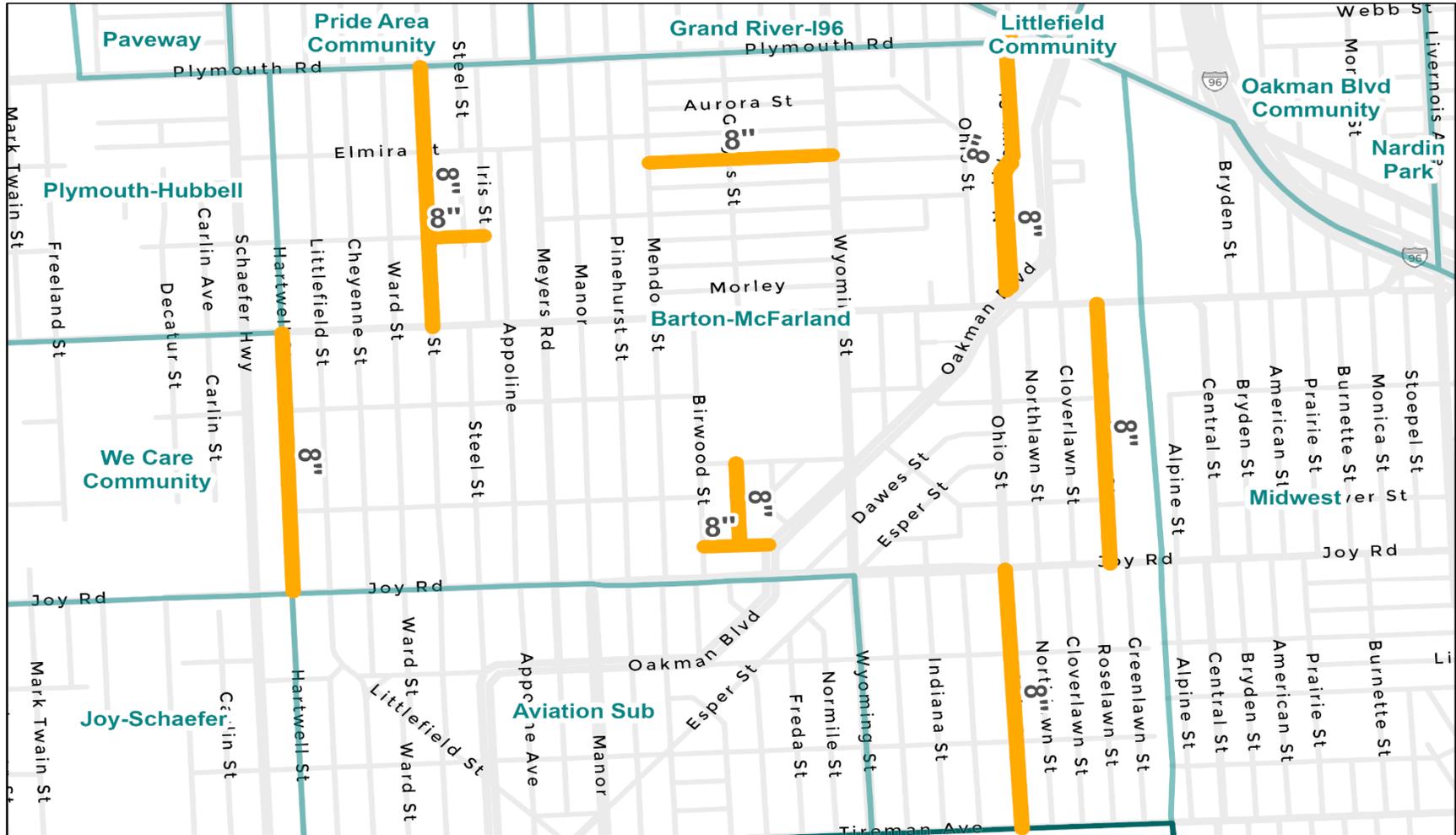
Several overview maps are included to identify project locations for WS-725 in **Figures 3-1-A** and **Table 3-1-A**.

Lead service lines are a public health threat. The replacement of the Lead service lines on private and public property are DWSRF eligible. DWSD policy is that all Lead water services, as encountered, shall be replaced with copper from the water main to the individual customer meters as part of its capital project work. Additionally, DWSD contractors are required to perform an excavation at the curb box of every service connection to visually verify if the service is Lead or copper. The project will replace Lead service lines of two inches in diameter and smaller from the public water main to the meter, defined here as Full Lead Service Line Replacement (FLSLR). Lead service lines of 1.5-inches and 2-inches are replaced with in-kind diameters in copper; 1-inch and less are replaced with 1-inch copper. Service lines that are larger than two inches in diameter are rigid metal pipe of copper or iron per building code.

Figure 3-1-A PROJECT LOCATION MAPS for Project A, WS-725



Detroit Core City - Council District 5 - Watermains on 2nd, 4th, 5th, Alexandrine, Canfield, Cass, Henry, John R, Selden, Willis,



Detroit Westside - Council District 7 - Watermains on Beechdale, Griggs, Hartwell, Kramer, Northlawn, Ohio, Orangelawn, Roselawn, Sorrento

Table 3-1-A DETAILED LIST OF WATER MAIN REPLACEMENT IN NEIGHBORHOOD WEST of LIVERNOIS UNDER WS-725

Neighborhood	Description	Length of Existing Pipe (Ft.) per Pipe Diameter (inch)							Section Map	Pipe Material	Intervention Suggested
		4"	6"	8"	10"	12"					
Barton-McFarland	Sorrento Ave, Plymouth Road to W Chicago		2730			35		14M	CI	HDD	
Barton-McFarland	Orangelawn St., Sorrento Ave to Iris St.		455					14M	CI	HDD	
Barton-McFarland	Beechdale Ave., Mendota to Wyoming Ave.			1565				14M	CI	HDD	
Barton-McFarland	NorthLawn St. (West Side), W Grand River to Oakman Blvd		2765					16M-16N	CI	HDD	
Barton-McFarland	NorthLawn St. (East Side), Marquette RR to Oakman Blvd		1268					16M	CI	HDD	
Barton-McFarland	Roselawn St., W Chicago to Joy Road		2532					16M	CI	HDD	
Barton-McFarland	Ohio St., Joy Road to Tireman Ave.		2565					16L	CI	HDD	
Barton-McFarland	Griggs Ave, Kramer St. to West Pointe Ave.		775					14M	CI	HDD	
Barton-McFarland	Kramer St., Birwood Ave. to Oakman Blvd.			535				14M	CI	HDD	

Barton-McFarland	Hartwell Ave., W Chicago to Joy Road		2185				14M	CI	HDD
Medical Center	E Willis St., Brush Street to John R St.		598				20K	CI	HDD
Medical Center	E. Alexandrine St., John R St. to E. Alexandrine St. Alley		245				20K	CI	HDD
Midtown	2nd Ave, W Canfield St. to Selden St.			45		1387	20K	CI	HDD
Midtown	Cass Ave., Selden Street to Forest Ave.		2480				20K-20I	CI	HDD
Midtown	Selden Street, Woodward Ave. To Cass Ave.			805			20K	CI	HDD
Midtown	4 <sup>th</sup> Ave., Selden Street to Calumet Street		1260				19J	CI	HDD
Midtown	Cass Ave., Martin Luther King Jr. Blvd. to I-75			240	2754		20K	CI	HDD
Midtown	5 <sup>th</sup> Ave., Henry Street to Temple Street.			1260			19J	CI	HDD
Midtown	Henry Street, 5 <sup>th</sup> Street to 4 <sup>th</sup> Street			440			19J	CI	HDD
Midtown	Henry St., Cass Ave. to Clifford Street			160			20K	CI	HDD

Cultural Center	John R Street, Kirby Street E to Ferry Street E		493				20L	CI	HDD
Midtown	Henry from GV that is West of Second to Tee at Cass			780			20 K		HDD
Midtown	Second from GV North of Henry to The GV at Service drive-I-75					448	20 K		HDD
Midtown	Extending Wm replacement along Cass from End of scope in proposal to GV East and West along service drive					82	20 K		HDD
	Subtotals:		20,351	5,830	2,754	1,952			
	Design total:		30,887			LFT			

## Project B, WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION, DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT

Most of the water distribution system serving the City of Detroit was installed in the late 19th century or early 20th century. These water mains are unlined pit cast iron or spun cast iron pipe and have outlived their useful life of 50 years based on recorded number of water main breaks and field experience with the system. As the pipes start to exceed this life expectancy, problems arise such as: frequent breakage, loss of pipe wall thickness, exfiltration of treated water through leaks, cracks and corroded joints, hydraulic obstructions due to tuberculation on the interior pipe surfaces, increased pumping costs due to reduced hydraulic capacity, and in severe leaking cases, ponding of water on roadways.

Reduced or complete loss of pressure during these main breaks and subsequent repair can pose an increased risk to public health from potential chemical or bacteriological contamination by cross-connection. Loss of pressure in a public water supply is to be avoided whenever possible and maintaining minimum system pressure is imposed upon public water systems through the requirements of the Michigan Safe Drinking Water Act (PA 399, as amended).

The project will replace Lead service lines of two inches in diameter and smaller from the public water main to the meter, as part of these projects, Full Lead Service Line Replacement (FLSLR). Lead service lines 1.5-inches and 2-inches are replaced with in-kind diameters in copper; 1-inch and less are replaced with 1-inch copper. Service lines that are larger than two inches in diameter are rigid metal pipe of copper or iron per building code.

DWSD has established an asset management program with a goal to replace the aged water distribution system, which is approximately 2,700 miles of water main of various sizes (six to sixteen inches) over a 70-year period. This asset management replacement program started more than ten years ago. This goal would enable the distribution system to be replaced on a cycle consistent with the life expectancy of the pipe.

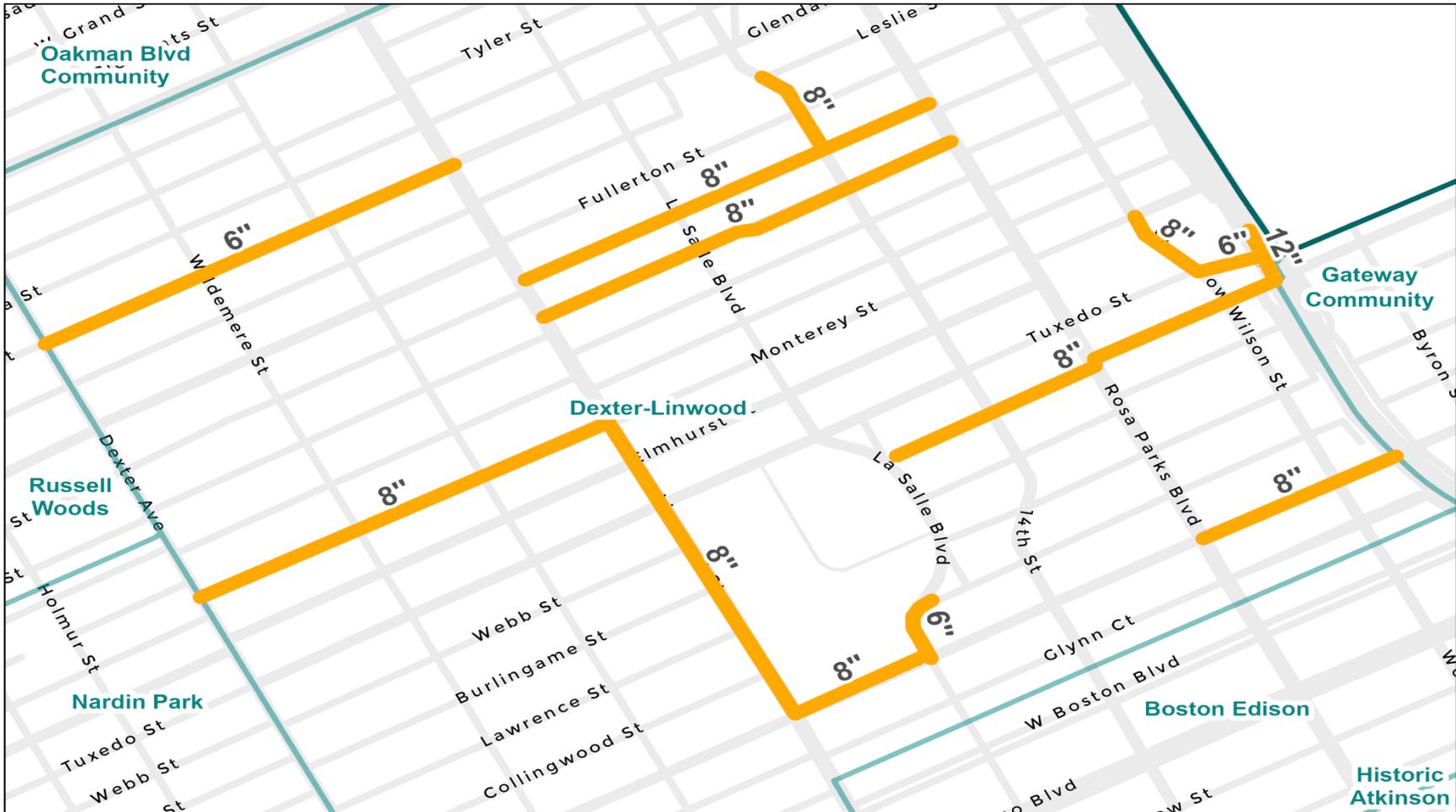
Historically, DWSD has tracked water maintenance activity and carefully logged the frequency of breaks and leaks in the system. DWSD now manages the water replacement program through the risk and criticality model which is updated annually with new condition assessment data. The projects identified are in areas of critical need based upon the risk and criticality analysis. For water main replacements, pipes of eight- and twelve-inch diameters will remain those sizes. Ten-inch pipe (not being a commercially produced pipe size) will be replaced with twelve-inch. Also, six-inch pipe is no longer a recommended minimum size for water main

supply, thus 6-inch pipe will be replaced with eight-inch (except in those cases of a fire hydrant supply connection).

Several overview maps are included to identify project locations for WS-TBD in **Figure 3-1-B** and **Table 3-1-B**.

Lead service lines are a public health threat. The replacement of the Lead service lines on private and public property are DWSRF eligible. DWSD policy is that all Lead water services, as encountered, shall be replaced with copper from the water main to the individual customer meters as part of its capital project work. Additionally, DWSD contractors are required to perform an excavation at the curb box of every service connection to visually verify if the service is Lead or copper. The project will replace Lead service lines of two inches in diameter and smaller from the public water main to the meter, defined here as Full Lead Service Line Replacement (FLSLR). Lead service lines of 1.5-inches and 2-inches are replaced with in-kind diameters in copper; 1-inch and less are replaced with 1-inch copper. Service lines that are larger than two inches in diameter are rigid metal pipe of copper or iron per building code.

Figure 3-1-B PROJECT LOCATION MAPS for Project B, WS-TBD Dexter Davison



Detroit Westside - Council District 5 - Watermains on 14th, Calvert, Glendale, Highland, John C Lodge, La Salle, Linwood, Monterey, Sturtevant, Tuxedo, Webb, and Woodrow Wilson.



Detroit Eastside - Council District 3 - Watermains on Bloom, Buffalo, Caldwell, Gable, Justine, McNichols, Moenart, Mound, and Phyllis.

Table 3-1-B DETAILED LIST OF WATER MAIN REPLACEMENT IN NEIGHBORHOOD OF DETROIT UNDER WS-TBD

Neighborhood	Description	Length of Existing Pipe (Ft.) per Pipe Diameter (inch)							
		4"	6"	8"	10"	12"	Section Map	Pipe Material	Intervention Suggested
Davison	Justine St., E Davison St. to Luce St		820				22P	CI	HDD
Buffalo Charles	Gable St., Charles St. to E McNichols Rd		2555				23P	CI	HDD
Dexter-Linwood	Glendale Ave., Dexter Ave. to Linwood St.		2696				18M	CI	HDD
Dexter-Linwood	Monterey St., Dexter Ave to Linwood St.		2690				18M	CI	HDD
Dexter-Linwood	Sturtevant St., Linwood St. to 12th St/Rosa Parks		2730				19N	CI	HDD
Dexter-Linwood	14 <sup>th</sup> Street, Sturtevant St. to Leslie Street	608					19N	CI	HDD
Dexter-Linwood	Highland St., Linwood St. to 12th St/Rosa Parks		704	2026			19N	CI	HDD
Dexter-Linwood	Linwood St., Monterey St. to Calvert Ave.			2600			18M	CI	HDD
Dexter-Linwood	Webb St., La Salle Blvd. to John C Lodge Freeway		1444	1116			19M	CI	HDD

Dexter-Linwood	John C Lodge Service, Webb St. to Tuxedo St.					300	19N	CI	HDD
Dexter-Linwood	Woodrow Wilson St., Elmhurst St. to Tuxedo St.		510				19N	CI	HDD
Dexter-Linwood	Calvert Ave., 12th St/Rosa Parks to John C Lodge Freeway		1200				19M	CI	HDD
Dexter-Linwood	Moenart St., Phyllis St. to E Davison St.		664				22Q	CI	HDD
Davison	Bloom St., Phyllis St. to E Davison St.			532			22Q	CI	HDD
Davison	Phyllis St., Moenart St. to Bloom St.			310			22Q	CI	HDD
Buffalo Charles	Caldwell St., E McNichols Rd to Charles St.		2600				22P	CI	HDD
Buffalo Charles	Buffalo St., E McNichols Rd to Charles St.		2610				22P	CI	HDD
Dexter-Linwood	Calvert Ave., Linwood St. to La Salle Blvd.		920				19M	CI	HDD
Dexter-Linwood	Tuxedo St., John C Lodge Service to Woodrow Wilson St.			360			19N	CI	HDD
Dexter-Linwood	La Salle Blvd, Calvert Ave. to Collingwood Street			327			19M	CI	HDD

Davison	McNichols Road, Gable Street to Mound Road			270			23Q	CI	HDD
Davison	Mound Rd, E Davison St. to E McNichols Rd		1320				22Q	CI	HDD
	Subtotals:	608	23,463	7541		300			
	Design total:	31,912				LFT			

## 3.2 STUDY AREA CHARACTERISTICS

### 3.2.1 STUDY AND SERVICE AREA

The general study area for this Planning Document is the portion of DWSD service area within the corporate limits of the City of Detroit. The study area encompasses approximately 88,876 acres with a population of approximately 632,589 people according to the 2020 Census, plus considerable commercial and industrial activity. The population served by WS-725 project is 21,188 (Estimated from [Detroitmi.gov/webapp/census-data-map](http://Detroitmi.gov/webapp/census-data-map)). The population served by Dexter and Davison project is 10,891 (Estimated from [Detroitmi.gov/webapp/census-data-map](http://Detroitmi.gov/webapp/census-data-map)). Cultural and Historic Resources will be supplied by design consultant. Air quality, wetlands, Great Lakes Shorelands, Coastal Zones, Coastal Management Area, Floodplains, Natural or Wild and Scenic Rivers, Major surface waters, agricultural Resources are not affected by this project. Topography is mostly flat. Geology and soil type of the City of Detroit is combination of natural sand, silt and glacial tills. Fauna and Flora Michigan Natural Features Inventory MNSI and US Fish Wild Life clearance will be supplied by design consultant.

### 3.2.2 LAND USE IN STUDY AREA

As shown in **Table 3.2**, the existing land use within the City of Detroit is comprised predominantly of residential, commercial, and industrial uses. Most of the land in the area is developed already, therefore, little opportunity for land use changes to occur except through redevelopment.

**Table 3-2. LAND USE IN DETROIT**

Land Use	Acreage	Percentage (%)
Residential	54,39	61%
Commercial	13,49	15%
Industrial	7,020	8%
Recreation/Open	9,497	11%
Other	4,475	5%

### 3.2.3 ECONOMIC CHARACTERISTICS

Detroit has had an unemployment rate considerably above regional and national averages. High unemployment rates have been a chronic problem in a ring surrounding the central business district. Compared to regional averages, Detroit has a relatively

low percentage of its population employed in professional occupations and has a higher-than-average incidence of unskilled workers. Prime employment categories include civil service, banking, real estate, and insurance. The median household income was listed as \$32,498 on the U.S. Census website along with an estimated persons in poverty at 33.2%<sup>1</sup>. Income levels in Detroit tend to be significantly below those levels reported in neighboring areas in Wayne, Oakland, and Macomb Counties.

### 3.3. POPULATION PROJECTION

The population projections presented in the 2015 Water Master Plan Update report prepared by CDM/Smith for DWSD indicate a forecasted decline in population for the City of Detroit. The City of Detroit population is expected to decrease from 713,777 (2010 Census) to 613,709 by the year 2035. The 2020 estimated population on the U.S. Census website is 639,111<sup>1</sup>. The SEMCOG July 2020 Projected Population is 642,508. DWSD is projecting flat demand of water for the next five years.

### 3.4. EXISTING FACILITIES

The Detroit Water Distribution System is defined as pipes that are sixteen inches and smaller in diameter with the majority of piping in diameters of six-inch and eight-inch. Most of the system is quite old. Many pipes are over 100 years old, and the average age of pipes in the entire city is approximately 85 years.

Most of the pipe in the Detroit Water Distribution System is comprised of older unlined pit cast and centrifugally spun cast iron pipe. Newer ductile iron pipe has been installed in the City ever since it became commonly available (generally after 1970), but ductile iron piping represents a very small percentage of the total length of pipe in the system. Additionally, there is some asbestos cement pipe in the system. DWSD installation of asbestos cement pipe ended in the mid-1980s.

**Table 3.3** summarizes the distribution of various pipe sizes in the system. It is noted that much of the six-inch and eight-inch pipes have low coefficients of friction (C factors) citywide, thereby increasing the energy required to maintain adequate pressure and transport capacity.

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<sup>1</sup> <https://data.census.gov/cedsci/profile?g=1600000US2622000> Census Data 2020

**Table 3-3. CITY-WIDE DISTRIBUTION SYSTEM PIPING SUMMARY**

Pipe Diameter	Linear Footage	% of System
6"	5,481,01	39%
8"	6,047,0	42%
10"	257,222	2%
12"	1,665,87	12%
16"	748,742	5%

**Table 3-4** shows the existing water main data by type and installation year and shows the distribution of various pipe types within the system.

**Table 3-4. SUMMARY OF DETROIT WATER MAIN DISTRIBUTION PIPES**

Type	Installation Period	% of System
Unlined cast iron pipes – Pit cast	Until 1923	40%
Unlined cast iron pipes – Class 150	1923-1940	38%
Unlined cast iron pipes – Class 250	After 1940	10%
Lined ductile iron	After 1970	7%
Asbestos cement	After 1980	5%

According to a 1977 report prepared by DWSD, cast iron pipes purchased and installed prior to 1923 were manufactured by the pit-cast process, which gave long trouble-free service. From 1923 to 1940, cast iron pipes (Class 150) made by a centrifugal process (spun cast) were purchased and installed in the Detroit system. The Department experienced serious trouble with spun cast pipes, and a lifespan of 35 to 40 years was suggested to this class of pipes based on the same report. Starting from 1940, DWSD began using Class 250 spun cast pipe for additional wall thickness for combating corrosion. DWSD officially adopted the standard use of Class 250 pipe in 1945. The AECOM has previously evaluated the current pipe class standard for the application and pressure duty required of the pipe replacements. Trench construction is generally proposing the use of Class 52 and 54 ductile iron pipe encased with a polyethylene wrap. For trenchless installation, such as pipe-bursting of existing cast iron pipe and horizontal directional drilling, pipe replacement will be with High Density Polyethylene (HDPE) pipe of type DR11 C906. These trenchless construction techniques are used around the country in urban areas and is a means to save time and construction cost, and minimize disruption to the right-of-way, other existing utilities, and the rate payers in Detroit.

The City of Detroit has an estimated 80,000 + Lead water services active within the municipal water system. Given the potential negative health impacts to water system customers, DWSD has been undertaking efforts in the replacement of these services. Per EPA and MI-EGLE requirements, Lead services are replaced from the water main all the way to the customer meter within their property (residence, commercial space, other). Lead replacements are integrated into water main replacement capital work.

#### 4. ANALYSIS OF ALTERNATIVES

In accordance with the MI-EGLE guidelines for preparing a DWSRF Planning Document, the potential alternatives to be analyzed include a No Action Alternative, Optimum Performance of Existing Facilities Alternative, and a Regional Alternative.

##### 4.1. IDENTIFICATION OF POTENTIAL ALTERNATIVES

**Project A, WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-MCFARLAND NEIGHBORHOODS OF DETROIT**

**Project B, WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT**

##### 4.1.1. “NO ACTION” – Alternative 1

As indicated in Section 3.1, the project is needed due to the aging water mains. The water mains included in this project have exceeded their useful life as evidenced by the frequent breaks that occur leading to disruption of water supply, potential increased risk to public health, and potential flooding issues for the residents, commercial, and industrial customers. A “No Action” alternative would simply worsen the conditions by leading to an increase in water main breaks, more frequent disruption to customer service and potential increased public health risk, and potential for loss of other utilities including sewers, gas, and roads; all the while, putting additional stress on an already resource challenged DWSD. Furthermore, the “No Action” alternative leaves unaddressed the higher energy loss associated with the pipe interior roughness. Therefore, a “No Action” alternative is not considered viable and is not pursued further.

##### 4.1.2 OPTIMUM PERFORMANCE OF EXISTING FACILITIES – Alternative 2

DWSD is currently operating the water distribution system within the constraints of an aging system. The aging system contains Lead service lines. It is a benefit to the public health and safety to remove and replace the Lead service lines. Water main breaks are handled through the assigned DWSD staff and supplemented with

contracted services as conditions may require. In 2014, DWSD embarked on a 20-Year Infrastructure Plan to address upgrading, maintaining or replacing the water mains depending on the severity of the problem. A water main leakage detection program is ongoing. The program used to be outsourced, but currently DWSD is self-performing leak detection efforts. The leak survey completed in 2014 was based on several studies conducted to qualitatively and quantitatively evaluate the water leaks in the City water distribution system. As mentioned in Section 1 of this plan, DWSD has engaged a Capital Improvement Plan Management Organization (CIPMO) for the purpose of targeting assets for condition assessment and accelerating the replacement of DWSD infrastructure. Through collaboration with DWSD and other City departments, the CIPMO team has developed a specific five-year CIP, targeting specific areas of Detroit for condition assessment of buried water and sewer infrastructure and development of rehabilitation or replacement strategies.

#### 4.1.3 REGIONAL ALTERNATIVE – Alternative 3

Under the Bifurcation Agreement, GLWA operates the water treatment plants, pump stations, and transmission mains that provide potable water to the City of Detroit and 127 additional municipal water supplies as a regional water system. The service area identified for water main replacement resides entirely within the City of Detroit.

The City of Detroit and all the surrounding communities, adjacent to the subject area, are serviced by GLWA. Therefore, a Regional Alternative in the context of this Planning Document is not applicable.

## 4.2 ANALYSIS OF PRINCIPAL ALTERNATIVES

### Project A, WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-McFARLAND NEIGHBORHOODS OF DETROIT

### Project B, WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT

#### 4.2.1 DESCRIPTION OF PRINCIPAL ALTERNATIVES

There are only two options for addressing the problems associated with aged water mains. DWSD can either do nothing and continue to repair the old pipes (Alternative 1), or replace or rehabilitate the old pipes with new ones (Alternative 2). As a part of Alternative 2, rehabilitation of a limited number of feet of water main will be incorporated.

#### A. Alternative 1 – Repair of Existing Water Mains

Water main repair is conducted throughout the system, particularly in those areas where problems have not escalated to the point which would warrant replacement as described in Section 3.1. Nevertheless, water main repairs are time consuming, costly, constitute a drain on DWSD resources needed to carry out the repairs, and pose a potential increase in public health risk. In addition, repairs often trigger additional breakage and/or leaks in the vicinity because of disturbances to the section of pipe being repaired. Water main repairs require shutting off potable water service to multiple customers while the source of the leak is confirmed, repaired and returned to service. Repair activities cannot be pre-scheduled, and field crews must respond on an “as needed” basis, often during the winter months when cold weather and freeze-thaw conditions trigger pipe breaks.

#### B. Alternative 2 – Water Main Replacement

Replacement of aged water main pipes is based on the replacement criteria discussed in Section 3.1. The replacement pipe is sized to meet the service area needs, including commercial, business and residential demographics. In all cases, 6-inch diameter water mains are being replaced with an 8-inch minimum diameter water main to facilitate maintaining pressures under all flow conditions. Full Lead Service Line Replacement (FLSLR) will be included in the scheduled replacement of aged water mains. It is a benefit to the public health and safety to replace the Lead service lines. DWSD policy is that all Lead water services, as encountered, shall be replaced with copper from the water main to the individual customer meter as part of its capital project work. Additionally, DWSD contractors are required to perform a hydroexcavation at every service connection to visually verify if the service is Lead or copper. The project will replace Lead service lines of two (2) inches in diameter and smaller from the public water main to the meter, herein defined as FLSLR. Lead service lines of 1.5-inches and 2-inches are replaced with in-kind diameters in copper; Lead services of 1-inch and less are replaced with 1-inch copper. Replacement of aged water mains also provides for the use of ductile iron or HDPE piping. Finally, some pipes are rehabilitated in place using a specialty lining process.

The cast iron pipes included in this project have surpassed their anticipated service life. The piping replacements call for a minimum eight-inch diameter water main, the minimum recommended size in a distribution system for communities who intend to provide fire flow protection, which is also supported by Recommended Standards for

Water Works.

#### 4.2.2. COST EFFECTIVENESS ANALYSIS

A monetary evaluation of the feasible alternatives was prepared using MI-EGLE guidelines for DWSRF Planning Document, including the present worth formulas and discount interest rate of (2.0%). Under this analysis, the useful life is assumed to be 50 years for pipelines. The salvage value of pipes at the end of the 20-year planning period was computed based on a straight-line depreciation over the useful life of the item. Therefore, the salvage value of the pipes at the end of the 20-year planning period is estimated to be 60% of the initial cost.  $(20/50)=0.6$

The present worth of salvage value was then computed by multiplying the salvage at the end of the 20 years by the conversion factor 0.6730 based on the following formula:  $1/(1+(2.0)/100)^{20}=0.6730$

$$PW = F * 1/(1 + i)^n$$

Where:

PW = Present Worth (Salvage)

F = Future Value (Salvage)

i = Discount Interest Rate (2.0%)

n = Number of Years (20)

$1/(1 + i)^n$  = Conversion Factor

Interest during the construction period was computed using the formula:  
 $(2.0)/100 * 0.5 * 2 * 16,547,627 = \$330,953$  Project A, WS-725 and,  
 $(2.0)/100 * 0.5 * 2 * 17,510,048 = \$350,201$  Project B, WS-TBD

$$I = i * 0.5 * P * C$$

Where:

I = Interest Value

i = Discount Interest Rate (2.0%)

P = Period of Construction in Years (assumed to be two years)

C = Capital Cost of the Project

The annual Operation and Maintenance (O&M) expenses associated with each alternative were estimated, and then converted into a Present Worth value by multiplying the annual cost by a conversion factor of 16.3514 using the following formula:  $[(1+(2.0)/100)^{20}-1] / 2.0/100(1+(2.0)/100)^{20}] = 16.3514$

$$PW = A * [((1 + i)^n - 1)/i(1 + i)^n]$$

Where:

PW = Present Worth (O&M)

A = Annual O&M Cost

i = Discount Interest Rate (2.0%)

n = Number of Years (20)

$$[((1 + i)^n - 1)/i(1 + i)^n] = \text{Conversion Factor}$$

For each alternative, the total Present Worth was computed from the estimated cost (including construction, engineering, and administrative costs), salvage value, interest during construction, and/or O&M costs. This equates to the amount which would be needed at the start of the project to cover construction costs and operating expenses over the 20-year planning period if interest were to accrue at the discount rate (2.0%) annually.

The Present Worth of each alternative was then converted to an Equivalent Annual Cost, which is the amount which would be paid uniformly over a 20-year period based on the Present Worth value. This amount was obtained by the using the following formula and capital recovery factor of 0.0612:

$$=[(2.0)/100(1+(2.0)/100)^{20}/((1+(2.0)/100)^{20} - 1)]= 0.0612$$

$$A = PW * [(i(1 + i)^n)/((1 + i)^n - 1)]$$

Where:

A = Equivalent Annual Cost

PW = Present Worth

i = Discount Interest Rate (2.0%) n = Number of Years (20)

$$[(i(1 + i)^n)/((1 + i)^n - 1)] = \text{Capital Recovery Factor}$$

The cost analysis for Alternatives 1 and 2 is presented in **Table 4-1-1 and 4-1-2**. Capital costs are based on a unit cost basis for the purpose of this analysis to show the estimated expenses for a typical 1,000-foot pipe length. The annual O&M cost is based on DWSD historical data in past reports.

Table 4-1-1 COST COMPARISON OF Project A, WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-McFARLAND NEIGHBORHOODS OF DETROIT

AVERAGE EQUIVALENT ANNUAL COST DETERMINATION  
PROJECT-A, WS-725

Project:	DWSD Project B								
System:	Water Main Replacement, Various Locations in Detroit East of Livernois Avenue								
Planning Period:	2024-2044	20	Years	Alternative 1		Alternative 2			
Construction Duration:		2	Year	NO ACTION		30,887	LINEAR FEET OF		
Inflation Rate (CPI):		2.000%					WATER MAIN REPLACEMENT		
Discount Rate:		2.000%							
Capital Costs (One Time Expenditures):			Salvage Value Factor			Present Worth Factor		Present Worth Factor	
50 Yr. Structures			0.6000	\$ -			\$ 12,536,081		
20 Yr. Process Equipment			0.0000	\$ -			\$ -		
10 Yr. Process Equipment			0.0000	\$ -		0.9980	\$ -		0.9980
15 Yr. Auxiliary Equipment			0.6667	\$ -		0.9970	\$ -		0.9970
10 Yr. Auxiliary Equipment			0.0000	\$ -		0.9980	\$ -		0.9980
Subtotal				\$ -			\$ 12,536,081		
Contingency			10%	\$ -			\$ 1,253,608		
Engineering, Legal, Admin., "Green" Provisions			20%	\$ -			\$ 2,757,938		
Total				\$ -			\$ 16,547,627		
10 Replacement Cost at Yr.			CPI Factor						
15 Replacement Cost at Yr.			1.2190	\$ -			\$ -		
20 Salvage Value at Yr.			1.3459	\$ -			\$ -		
				\$ -		0.6730	\$ 7,521,649		0.6730
OM&R Costs (Recurring Equal Expenditures)				2024	2044		2024	2044	
Repair & Maintenance				\$ 1,235,480	\$ 1,835,858		\$ -	\$ -	
Total O&M Costs				\$ 1,235,480	\$ 1,835,858		\$ -	\$ -	
Fixed O&M Costs				\$ 1,235,480	\$ 1,235,480		\$ -	\$ -	
Total Variable O&M Costs				\$ -	\$ 600,378		\$ -	\$ -	
Yearly Increase				\$ 30,019			\$ -		
Present worth (PW) of constant annual O&M cost:						16.3514			16.3514
PW of variable annual O&M cost (annual increase):						144.6003			144.6003
Capital Recovery Factor						0.0612			0.0612
<b>Assumptions</b>				<b>CALCULATIONS - PRESENT WORTH</b>			<b>CALCULATIONS - PRESENT WORTH</b>		
1) Based on an average of five breaks per year				1. Initial Cost	\$ -		1. Initial Cost	\$ 16,547,627	
2) Annual O&M cost does not include cost of restoration and cost of contracted services if needed				2a. Constant O&M	\$ 20,201,869		2a. Constant O&M	\$ -	
				2b. Variable O&M	\$ 4,340,745		2b. Variable O&M	\$ -	
				3. Replacement Cost	\$ -		3. Replacement Cost	\$ -	
				4. Salvage Value (minus)	\$ -		4. Salvage Value (minus)	\$ 5,061,854	
				5. Interest During Construction	\$ -		5. Interest During Construction	\$ 330,953	
				6. Total Present Worth	\$ 24,542,614		6. Total Present Worth	\$ 11,816,726	
<b>EQUIVALENT ANNUAL COST</b>						\$ 1,500,946			\$ 722,672

Table 4-1-2 COST COMPARISON OF Project B, WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT

AVERAGE EQUIVALENT ANNUAL COST DETERMINATION  
PROJECT-B, WS-7XX(Dexter-Davison)

Project:	DWSD Project B										
System:	Water Main Replacement, Various Locations in Detroit										
Planning Period:	2024-2044	20	Years	Alternative 1		Alternative 2					
Construction Duration:		2	Year	NO ACTION		31,912	LINEAR FEET OF				
Inflation Rate (CPI):		2.000%					WATER MAIN REPLACEMENT				
Discount Rate:		2.000%									
Capital Costs (One Time Expenditures):			Salvage Value Factor			Present Worth Factor			Present Worth Factor		
50 Yr. Structures			0.6000	\$ -			\$ 13,265,188				
20 Yr. Process Equipment			0.0000	\$ -			\$ -				
10 Yr. Process Equipment			0.0000	\$ -		0.9980	\$ -		0.9980		
15 Yr. Auxiliary Equipment			0.6667	\$ -		0.9970	\$ -		0.9970		
10 Yr. Auxiliary Equipment			0.0000	\$ -		0.9980	\$ -		0.9980		
Subtotal				\$ -			\$ 13,265,188				
Contingency			10%	\$ -			\$ 1,326,519				
Engineering, Legal, Admin., "Green" Provisions			20%	\$ -			\$ 2,918,341				
Total				\$ -			\$ 17,510,048				
			CPI Factor								
10 Replacement Cost at Yr.			1.2190	\$ -			\$ -				
15 Replacement Cost at Yr.			1.3459	\$ -			\$ -				
20 Salvage Value at Yr.				\$ -		0.6730	\$ 7,959,113		0.6730		
OM&R Costs (Recurring Equal Expenditures)				2024	2044	2024	2044				
Repair & Maintenance				\$ 1,276,480	\$ 1,896,782		\$ -	\$ -			
Total O&M Costs				\$ 1,276,480	\$ 1,896,782		\$ -	\$ -			
Fixed O&M Costs				\$ 1,276,480	\$ 1,276,480		\$ -	\$ -			
Total Variable O&M Costs				\$ -	\$ 620,302		\$ -	\$ -			
Yearly Increase				\$ 31,015			\$ -				
Present worth (PW) of constant annual O&M cost						16.3514			16.3514		
PW of variable annual O&M cost (annual increase):						144.6003			144.6003		
Capital Recovery Factor						0.0612			0.0612		
<b>Assumptions</b>				CALCULATIONS - PRESENT WORTH				CALCULATIONS - PRESENT WORTH			
1) Based on an average of five breaks per year				1. Initial Cost		\$ -		1. Initial Cost		\$ 17,510,048	
2) Annual O&M cost does not include cost of restoration and cost of contracted services if needed				2a. Constant O&M		\$ 20,872,278		2a. Constant O&M		\$ -	
				2b. Variable O&M		\$ 4,484,795		2b. Variable O&M		\$ -	
				3. Replacement Cost		\$ -		3. Replacement Cost		\$ -	
				4. Salvage Value (minus)		\$ -		4. Salvage Value (minus)		\$ 5,356,255	
				5. Interest During Construction		\$ -		5. Interest During Construction		\$ 350,201	
				6. Total Present Worth		\$ 25,357,072		6. Total Present Worth		\$ 12,503,994	
<b>EQUIVALENT ANNUAL COST</b>						<b>\$ 1,550,755</b>				<b>\$ 764,703</b>	

As shown in Tables 4-1-1 and 4-1-2 for WS-725 and WS-TBD the equivalent annual cost of option 2 (water main replacement) is significantly less than the Equivalent Annual Cost of ongoing repairs. Therefore, Alternative 2, Replacement of the water mains is the most cost efficient.

#### 4.2.3 ENVIRONMENTAL EVALUATION

The environmental impact of the pipe repair alternative is more severe when compared to the water main replacement alternative. Under the repair alternative, the environmental impact and disruption of service is experienced multiple times annually and will increase over the 20-year analysis period. The environmental impact of the water main replacement is related mostly to the one-time construction phase and is discussed in more detail in Section 6.0. Leakage from aged pipes results in wasted treated water and increased energy use by equipment required to treat the raw water and pump the finished water into the distribution system. Water leaking from aged pipes is referred to as non-revenue water since it is wasted and lost to the environment after having gone through the expense of treatment and pumping processes. The wasted water has an impact on the GLWA cost of treating and pumping potable water. That cost is borne by all GLWA customers including DWSD customers. Leakage (including water lost through leaking joints, as well as breaks and main flushing) based on past DWSD studies has been found to be significant, and above average when compared to other major cities nationwide. This lost water from leaks and broken water mains also has an impact on the regional wastewater treatment facilities because the wastewater collection system serving the City of Detroit. Therefore, additional energy used at interceptor lift stations and the raw and intermediate sewerage lift pumps at the Water Resource Recovery Facility to pump this additional flow from water main leakage has a negative environmental impact. This leakage would also contribute to combined sewer overflows during severe weather events in the City.

#### 4.2.4. IMPLEMENTABILITY AND PUBLIC PARTICIPATION

Both alternatives described in Section 4.2.1 can be implemented. The pipe repair alternative would be implemented primarily by the DWSD maintenance staff with occasional support from contracted services under emergency conditions when break occurrence is extensive, whereas the pipe replacement alternative would require DWSD to procure a contractor to implement the work through a contract agreement. As previously discussed, there is a benefit to the public health to replace the Lead service lines during a water main replacement

project. The public participation ensured through a public notice to allow local residents ample time to review the Planning Document and become familiar with the proposed project. A 10-day minimum advanced public notice of a hearing, and a public hearing was made to provide time for the local residents to provide input and express their concerns regarding the Planning Document and the selected alternative.

#### 4.2.5. TECHNICAL AND OTHER CONSIDERATIONS

Pipe replacement (Alternative 2) is substantially less burdensome from a staffing and resource management perspective, since new pipes constructed of modern materials require minimal maintenance over long periods of time. By contrast, repairing old pipe (Alternative 1) is very resource intensive and very difficult to plan. Furthermore, the work must be conducted on an emergency basis, often during extremely inclement weather. Pipe breaks adversely impact residents as they experience an interruption in their service, and they are exposed to a potential increase in public health risk due to the potential for contamination through backflow or back-pressure from a cross-connection. Many breaks occur during winter due to shifting soils from freeze/thaw cycles and result in roadways, sidewalks, and other areas encumbered with ice that can be very destructive to roads and vehicles and constitute a safety hazard. In addition, new pipes provide greater fire protection due to improved hydraulic capacity, since the old pipes often exhibit tuberculation on their interior surfaces. This tuberculation increases friction between the flowing water and the interior pipe wall, causing increased pressure loss and decreased flow.

## 5. SELECTED ALTERNATIVE

Alternative 2 is the alternative recommended for implementation based on both monetary and non-monetary evaluation. This alternative encompasses the installation of new water mains to replace aged pipes subject to excessive breaks. The work will include excavation of the existing mains and installation of new pipes. All pipes whether replaced by open excavation, Horizontal Directional Drilling and Pipe Bursting or lined will be subjected to pressure testing and disinfection, and then right-of-way restoration will be performed. The replacement or rehabilitation of the existing mains will include the replacement of Lead service lines as encountered during the water main replacement work. It is a benefit to the public health and safety to remove the Lead service lines. As previously mentioned, DWSD policy is that all Lead water services shall be replaced with copper from the water main to the individual customer meter as part of capital project work. Additionally, DWSD contractors are required to perform a hydroexcavation at every service connection to visually verify if the service is Lead or copper. The project will replace Lead service lines of two inches in diameter and smaller from the public water main to the meter (FLSLR). Lead service lines 1.5-inches and 2-inches are replaced with in-kind diameters in copper; 1-inch and less are replaced with 1-inch copper. Any disturbed areas adjacent to the pipes will be revegetated and restored to preproject conditions.

### 5.1 DESCRIPTION

#### Project A, WS-725 and Project B, WS-TBD

The specific streets where the new water mains for WS-725 will be installed are listed in **Table 3-1-A**, along with the pipe diameters, lengths and general location within the project. For WS-TBD, the streets and pipe breakdowns are shown in **Table 3-1-B**. Figures 3-1-A and 3-1-B are the map sets showing the piping work.

#### 5.1.1. COSTS

#### Project A, WS-725 and Project B, WS-TBD

The estimated cost for the proposed water main project consists of: construction costs plus costs to cover engineering (design and construction) and administrative tasks. The estimated total cost for the Water Main Replacement for all the listed Neighborhoods in Detroit is provided in **Appendix A-2**.

Cost is summarized below in Tables 5-1-A and 5-1-B.

**Table 5-1-A Project A, WS-725: WATER MAIN REPLACEMENT AND REHABILITATION AT MIDTOWN, CULTURAL CENTER, MEDICAL CENTER, AND BARTON-McFARLAND NEIGHBORHOODS OF DETROIT**

Planning Period:	2024-2044	20 Years	<b>PROJECT A WS-725</b>
Construction Duration:		2 Years	<b>30,877 LINEAR FEET OF WATER MAIN REPLACEMENT</b>
Inflation Rate (CPI):		2.000%	
Discount Rate:		2.000%	
Capital Costs (One Time Expenditures):			
50 Yr. Structures			\$ 12,536,081
Contingency		10%	\$ 1,253,608
Engineering, Legal, Admin., "Green" Provisions		20%	\$ 2,757,938
<b>Total</b>			<b>\$ 16,547,627</b>

**Table 5-1-B Project B, WS-TBD: WATER MAIN REPLACEMENT AND REHABILITATION DEXTER – LINWOOD, DAVISON AND BUFFALO-CHARLES NEIGHBORHOODS OF DETROIT**

Planning Period:	2024-2044	20 Years	<b>PROJECT B WS-TBD</b>
Construction Duration:		2 Years	<b>31,912 LINEAR FEET OF WATER MAIN REPLACEMENT</b>
Inflation Rate (CPI):		2.000%	
Discount Rate:		2.000%	
Capital Costs (One Time Expenditures):			
50 Yr. Structures			\$ 13,265,188
Contingency		10%	\$ 1,326,519
Engineering, Legal, Admin., "Green" Provisions		20%	\$ 2,918,341
<b>Total</b>			<b>\$17,510,048</b>

The estimated cost for the full water main replacements are included in **Appendix A**

### 5.1.2. IMPLEMENTATION SCHEDULE

The recommended Water Main Replacement project is scheduled to be completed in accordance with the following schedule.

**Table 5-2 PROJECT MILESTONE SCHEDULES**

Project Activity	Project WS-725	Project WS-TBD
Advertise for Public Hearing	April 5 , 2023	April 5 , 2023
Public Hearing on Draft Planning Document	April 19, 2023	April 19, 2023
Complete and Submit Final Planning Document	June 1, 2023	June 1, 2023
Complete Plans and Specifications	September, 2023	December, 2023
Advertise for Bids	January, 2024	January, 2024
Receive Bids	Febuary, 2024	Febuary, 2024
Award Construction Contract	March, 2024	March, 2024
Start of Construction	April, 2024	April, 2024
Complete Construction	April, 2026	April, 2026

### 5.1.3. USER COST

The water main replacement recommended in this Planning Document is targeted for low interest loan assistance through the DWSRF program. The availability of loan funds is dependent on annual appropriations and the placement of the project on the Priority List prepared annually by MI-EGLE.

Repayment of the DWSRF loan through annual debt retirement payments will impact the residential customer rates resulting in increased user costs. This impact to customer rates is generally determined by dividing the additional expenses among the users in the service area as summarized in **Table 5-3-1 and 5-3-2**. The annualized cost of the project was calculated using the capital recovery factor 0.0516 and the following formula:

$$A = PW * [(i(1 + i)^n)/((1 + i)^n - 1)]$$

Where:

A = Equivalent Annual Cost

PW = Present Worth

i = Interest Rate through DWSRF Loan (2.0%)

n = Number of Years (20)

$[(i(1+i)^n)/((1+i)^n - 1)] = \text{Capital Recovery Factor}$

Table 5-3-1 USER COST IMPACT FOR PROJECT A, WS-725

Item	Water Main Replacement
Total Cost of Project	\$16,547,627
Annualized Cost of Project (assuming DWRF interest rate of 2.0% over 20 years)	\$722,672
Number of User Accounts (households) in City of Detroit	240,000
Average Water Consumption per Household (industry average)	7,333 gallons/month (approximately 980 ft <sup>3</sup> /month)
Current DWSD Water Supply Rate for 0.6 mCF usage	\$25.04 per 1,000 ft <sup>3</sup>
Current Monthly DWSD Water Supply Rate per Household	\$24.54
Current Annual DWSD Water Supply Rate per Household	\$294.47
Increase in Cost per Household (Year 1)	\$3.01
Proposed Annual DWSD Water Supply Rate per Household (Year 1)	\$297.48
Proposed Percent Increase in Cost per Household per Year	1.02%

Table 5-3-2 USER COST IMPACT FOR PROJECT B, WS-TBD

Item	Water Main Replacement
Total Cost of Project	\$17,510,048
Annualized Cost of Project (assuming DWRF interest rate of 2.0% over 20 years)	\$764,703
Number of User Accounts (households) in City of Detroit	240,000
Average Water Consumption per Household (industry average)	7,333 gallons/month (approximately 980 ft <sup>3</sup> /month)
Current DWSD Water Supply Rate for 0.6 mCF usage	\$25.04 per 1,000 ft <sup>3</sup>
Current Monthly DWSD Water Supply Rate per Household	\$24.54
Current Annual DWSD Water Supply Rate per Household	\$294.47
Increase in Cost per Household (Year 1)	\$3.19
Proposed Annual DWSD Water Supply Rate per Household (Year 1)	\$297.66
Proposed Percent Increase in Cost per Household per Year	1.08%

The theoretical impact of financing the WS-725 and WS-TBD water main replacement through the DWSRF loan program is expected to increase by no more than 1.02% due to WS-725 and 1.08% due to WS-TBD the cost of water to a typical user. This anticipated increase is due to the impact of construction cost. However, the impact would be less since it would be influenced by other factors such as the reduction in operating costs (chemicals, energy, etc.), less water loss through breaks, and reduced maintenance/repairs. Therefore, the actual rate determination would be based on factors that encompass the delivery of comprehensive services by DWSD to its customers. It should be recognized that the debt for distribution water main replacement work within the City of Detroit will be paid by Detroit customers only, not the entire service area.

If DWSRF loans are not available, DWSD will need to finance the cost of the water main replacement as part of its Capital Improvement Program (CIP) through revenue bonds.

#### 5.1.4. ABILITY TO IMPLEMENT THE SELECTED ALTERNATIVE

DWSD is a City-owned utility with broad statutory authority. Prior to GLWA assuming responsibility for operating and maintaining the regional water supply through the Bifurcation Agreement, DWSD had entered into contracts with its suburban customers, which established the terms and conditions for providing water, and overseeing the operation and maintenance of the regional system. The Department has substantial experience in the financing of capital improvements under a variety of programs. It has a proven track record for using system revenues to retire its debt on new facilities.

The Great Lakes Water Authority (GLWA) will be the loan applicant on behalf of the City of Detroit Water and Sewerage Department (DWSD), the loan recipient.

#### 5.1.5. DISADVANTAGED COMMUNITY STATUS

The DWSRF program includes provisions for qualifying the applicant community as a disadvantaged community. The benefits for communities with a population of 10,000 or more that qualify for the disadvantaged community status consist of:

- Award of 30 additional priority points.
- Possible extension of the loan term to 30 years or the useful life of the components funded, whichever is earlier. The estimated useful life of the new water mains is 50 years. DWSD is aware that the DWSRF program offers 20, 30 and 40 year loan terms and will evaluate which term is the most appropriate for DWSD and its customers. DWSD has indicated they will select a 30-year loan term.

MI-EGLE requires submittal of a Disadvantaged Community Status Determination Worksheet to determine if the community qualifies for this status. A completed worksheet is included in **Appendix B**.

*Reference;*<sup>1</sup> <https://www.census.gov/quickfacts/fact/table/detroitcitymichigan/IPE120216#viewtop>  
*Under Criterion 1, Detroit qualifies for Disadvantaged Community Status based on approximately 37.9% of families in Detroit below the poverty level.*

#### 5.1.6. SURFACE WATER INTAKE PROTECTION PROGRAM

Protection of surface water intakes for the system is the responsibility of GLWA as a part of the bifurcation agreement. Prior to that agreement, three (3) grants were received to develop plans for a Surface Water Intake Protection program. These grants are for the three raw water intakes now maintained by GLWA. Two intakes are located in the Detroit River at Fighting Island and Belle Isle; the third intake is located in Lake Huron adjacent to Burtchville Township, located north of the City of Port Huron. The plans were prepared as part of the 2015 Water Master Plan Update. The applicable box in the Planning Document Submittal Form will be checked for State approval of the Surface Water Intake Protection Program.

## 6. EVALUATION OF ENVIRONMENTAL IMPACTS

### 6.1. GENERAL

The anticipated environmental impacts resulting from implementing the recommendations of this Planning Document include beneficial and adverse; short and long-term; and irreversible and irretrievable. The following is a brief discussion of the anticipated environmental impacts of the selected alternative.

#### 6.1.1. BENEFICIAL AND ADVERSE

The proposed project will significantly improve DWSD capability to provide reliable, high quality potable water (at the required service volume and pressure) to its residents in the City of Detroit. The project will also generate construction-related jobs, and local contractors would have an opportunity to bid the contracts.

Noise and dust will be generated during construction of the proposed Projects. The contractors will be required to implement efforts to minimize noise, dust and related temporary construction byproducts. Some street congestion and disruption of vehicular movement may occur for short periods of time, and areas targeted for water main replacement will require a short (2-4 hour) service interruption for the switchover from the old pipes to the new ones. Residents will need to flush their lines after the switchover is made. Spoils from open trenches will be subject to erosion; the contractors will thereby be required to implement a Soil Erosion and Sedimentation Control (SESC) Program as described and regulated under Michigan's Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act (NREPA). Wayne County considers DWSD an Authorized Public Agency regarding SESC. Underground utility services (water, electric, gas, etc.) may be interrupted occasionally for short periods of time. The aesthetics of the area will be temporarily affected until restoration is complete. Resources will be lost in the production of materials used in construction, and fossil fuels will also be utilized during construction activities. All construction will be in the existing City of Detroit road right-of-way (ROW). Replacement of Lead water service lines will occur on private property as permitted by a written agreement with the resident.

#### 6.1.2. SHORT AND LONG-TERM

The short-term adverse impacts associated with construction activities will be minimal and will be mitigated in comparison to the resulting long-term beneficial impacts. Short-term adverse impacts include traffic disruption, dust, noise, and site aesthetics. No adverse long-term impacts are anticipated. Additionally, there will be

no change to the visible landscape at the completion of this project.

### 6.1.3. IRREVERSIBLE OR IRRETRIEVABLE

The impact of the proposed project on irreversible and irretrievable commitment of resources includes materials utilized during construction and fossil fuels utilized to implement project construction.

## 6.2. ANALYSIS OF IMPACTS

### 6.2.1. DIRECT IMPACTS

Construction of the proposed project is not expected to have an adverse effect on historical, archaeological, geographic or cultural areas, as the construction activities will occur within extensively urbanized areas which have previously been disturbed by prior development and existing road rights-of-way. Additionally, there will be no change to the visible landscape at the completion of this project.

The proposed project will not detrimentally affect the water quality of the area, air quality, wetlands, endangered species, wild and scenic rivers, or unique agricultural lands.

### 6.2.2. INDIRECT IMPACTS

It is not anticipated that DWSD's proposed projects will alter the ongoing pattern of growth and development in the study area. Growth patterns in the service area are subject to local use and zoning plans, thus providing further opportunity to minimize indirect impacts.

### 6.2.3. CUMULATIVE IMPACTS

Improved customer satisfaction and reliable service delivery of potable water to customers are the primary cumulative beneficial impacts anticipated from the construction of the proposed water mains.

## 7. MITIGATION

### 7.1. GENERAL

Where adverse impacts cannot be avoided, mitigation methods will be implemented. Mitigation measures for the project such as soil erosion control will be utilized as necessary and in accordance with applicable laws. Details will be further specified in the construction contract documents used for the projects.

### 7.2. MITIGATION OF SHORT-TERM IMPACTS

Short-term impacts due to construction activities such as noise, dust and street congestion cannot be avoided. However, efforts will be made to minimize the adverse impacts by use of thorough design and well-planned construction sequencing. To the extent possible, water mains will be in rights-of-way to minimize adverse impacts on private property and routings will be selected to avoid major street and ornamental vegetation whenever possible. Established tree removals in the public right-of-way will also be avoided where possible. Where tree removals cannot be avoided, replacement saplings will be planted as a part of the restoration after construction. Access to properties will be maintained throughout the construction period for the water main replacement work. Site restoration will minimize the adverse impacts of construction, and adherence to the Soil Erosion and Sedimentation Act will minimize the impacts due to disturbance of the soil structure. Specific techniques will be illustrated in the construction contract documents.

Open trenches will be protected to minimize the hazards to citizens. Construction will not normally take place in residential areas at night or on weekends to minimize disruption of normal living patterns.

### 7.3. MITIGATION OF LONG-TERM IMPACTS

Careful restoration of street pavement, sidewalks and driveways will be required to ensure that they perform satisfactorily in the future. The aesthetic impacts of construction will be mitigated by site restoration.

### 7.4. MITIGATION OF INDIRECT IMPACTS

In general, it is not anticipated that mitigation measures to address indirect impacts will be necessary for the recommended improvements addressed in

this Planning Document. The proposed project is not located in undeveloped areas, nor is it to promote growth in areas not currently served by DWSD. In addition, the local land use plan and zoning ordinance further regulate and control development. For these reasons, indirect impacts are not likely to be a concern for this project.

## 8. PUBLIC PARTICIPATION

### 8.1. PUBLIC HEARING

#### 8.1.1. PUBLIC HEARING ADVERTISEMENT AND NOTICE

A Public Hearing Notice was published 10 days in advance of the hearing date to alert parties interested in this Planning Document and request input prior to its adoption (see **Appendix C**). This direct mail notice (mailed and emailed on March 30, 2023) included an invitation to comment. The public hearing was scheduled for a regular DWSD Board of Water Commissioners meeting at the Fifth Floor Board Room of 735 Randolph, Detroit on April 19, 2023.

#### 8.1.2. PUBLIC HEARING TRANSCRIPT

A formal public hearing on the draft Planning Document was held before the DWSD Board of Water Commissioners on April 19, 2023. The hearing included a presentation on the project, as well as an opportunity for public comment and questions. The official hearing transcript and a copy of the visual aids (handout) used during the presentation is included in **Appendix C**.

#### 8.1.3. PUBLIC HEARING COMMENTS RECEIVED AND ANSWERED

There were no comments or responses from the public resulting from the public hearing.

#### 8.1.4. ADOPTION OF THE PLANNING DOCUMENT

The Planning Document was approved by the DWSD Board of Water Commissioners at the public hearing on April 19, 2023, and the GLWA Board of Directors at their regular meeting conducted on June 24, 2023, and resolutions were adopted, ultimately authorizing GLWA to proceed with official filing of the Planning Document for purposes of securing low interest loan assistance under the DWSRF Program. Executed copies of the DWSD Board of Water Commissioners and the GLWA Board of Directors Resolutions approving the Planning Document are included in **Appendix B** of this document. Miscellaneous correspondence applicable to the Planning Document are also included in **Appendix D** of this document.

# APPENDIX A-1 and A-2

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*Table A-1 and A-2 Cost Estimate for Full Lead service Line Replacement  
Water Main Replacement at select locations in Detroit Neighborhoods*

		Engineer's Cost Estimate for WS-725 Water main replacement/Rehabilitation in the Neighborhood of Detroit				
Bid Item	Description	Quantity	Unit	Average Unit Rate from WS-720	Amount	Remarks
<b>Section-1</b>						
1	Mobilization/Demobilization	1	LS		\$ 596,003.87	
<b>Section-2</b>						
2	Restoration and Final clean up, Residential street, Within the Pavement	1,885	LFT.	\$ 201.52	\$ 379,845.15	
3	Restoration and Final clean up, Residential street, Outside the Pavement	5,366	LFT.	\$ 87.64	\$ 470,299.91	
4	ADA Ramp, w/ Curb	650	SYD	\$ 163.00	\$ 105,950.00	Approximate qty.
5	Tree, Remove, 6 inch to 18 inch Diameter	7	EA	\$ 2,796.00	\$ 19,572.00	Approximate qty.
6	Tree, Install	7	EA	\$ 1,207.00	\$ 8,449.00	Approximate qty.
<b>Section-3</b>						
7	Fire Hydrant Assembly, Remove	67	EA	\$ 585.34	\$ 39,031.12	
8	Fire Hydrant Assembly, Install, W/Restoration	83	EA	\$ 7,739.09	\$ 639,423.83	
9	Gate Valve and Well, Removal	47	EA	\$ 1,142.49	\$ 53,617.28	
10	Gate Valve in Box	58	EA	\$ 3,714.35	\$ 214,931.88	
11	Gate Valve	14	EA	\$ 3,507.76	\$ 50,177.96	
12	Gate Well	25	EA	\$ 7,321.82	\$ 180,392.01	
13	Water Main, Abandon, Pump with Flowable Fill	13,899	LFT	\$ 9.06	\$ 125,905.75	
14	Water Main, Open Cut, Ductile Iron	7,104	LFT	\$ 177.38	\$ 1,260,102.68	
15	Water Main, Direction Drill, HDPE	13,899	LFT	\$ 132.03	\$ 1,835,162.67	
16	Pipe Bursting	6,177	LFT	\$ 136.76	\$ 844,820.73	
17	Water main Lining	3,706	LFT	\$ 157.43	\$ 583,520.29	
18	Water Main, Temporary	16,988	LFT	\$ 21.36	\$ 362,779.06	
19	Water Service, Replace Lead Service to Copper Service, on Public Side, W/ Restoration	458	EA	\$ 2,591.93	\$ 1,188,366.41	
20	Water Service, Replace Lead Service to Copper Service, on Private side, W/ Restoration	458	EA	\$ 2,603.77	\$ 1,193,797.20	
21	Water Service, Replace Copper Service, up to two-inches (2") diameter, Short/ Long on Public Side, W/ Restoration	154	EA	\$ 4,447.19	\$ 685,453.02	
22	Water Service, Remove and Replace Curb Box	613	EA	\$ 551.07	\$ 337,597.86	
23	Water Service, Remove and Replace Curb Stop	613	EA	\$ 674.68	\$ 413,324.05	
24	Water Service, Hydro-Vac	613	EA	\$ 642.93	\$ 393,868.18	
25	Electrical Grounding System	546	EA	\$ 492.40	\$ 268,816.80	
26	Pitcher Style Filters and Refill Filter Cartridges	613	EA	\$ 168.89	\$ 103,466.68	
27	Water Main, Hydrostatic Pressure Test	30,887	LFT	\$ 2.78	\$ 85,855.45	
28	Water Main, Chlorination and Flushing	30,887	LFT	\$ 2.45	\$ 75,550.38	
<b>Subtotal</b>					<b>11,920,077</b>	
<b>Mobilization +Subtotal</b>					<b>12,516,081</b>	
<b>Section-4</b>						
29	Contaminated Material Allowance	1	LS	\$ 20,000.00	\$ 20,000.00	
30	Provisional Allowance	1	LS	\$ 1,000,000.00	\$ 1,000,000.00	
<b>TOTAL ESTIMATED CONSTRUCTION COST:</b>					<b>\$13,536,081.23</b>	

	<b>Engineer's Cost Estimate for WS-7XX</b> <b>Water main replacement/Rehabilitation in the Neighborhood of Detroit</b>						
	Bid Item	Description	Quantity	Unit	Average Unit Rate from WS-720	Amount	Remarks
<b>Section-1</b>							
1	Mobilization/Demobilization	1	LS		\$ 630,723.22		
<b>Section-2</b>							
2	Restoration and Final clean up, Residential street, Within the Pavement	1,885	LFT.	\$ 201.52	\$ 379,865.20		
3	Restoration and Final clean up, Residential street, Outside the Pavement	5,366	LFT.	\$ 87.64	\$ 470,276.24		
4	ADA Ramp, w/ Curb	650	SYD	\$ 163.00	\$ 105,950.00	Approximate qty.	
5	Tree, Remove, 6 inch to 18 inch Diameter	7	EA	\$ 2,796.00	\$ 19,572.00	Approximate qty.	
6	Tree, Install	7	EA	\$ 1,207.00	\$ 8,449.00	Approximate qty.	
<b>Section-3</b>							
7	Fire Hydrant Assembly, Remove	69	EA	\$ 585.34	\$ 40,388.46		
8	Fire Hydrant Assembly, Install, W/Restoration	86	EA	\$ 7,739.09	\$ 665,561.74		
9	Gate Valve and Well, Removal	49	EA	\$ 1,142.49	\$ 55,982.01		
10	Gate Valve in Box	60	EA	\$ 3,714.35	\$ 222,266.70		
11	Gate Valve	15	EA	\$ 3,507.76	\$ 51,634.23		
12	Gate Well	26	EA	\$ 7,321.82	\$ 187,438.59		
13	Water Main, Abandon, Pump with Flowable Fill	14,916	LFT	\$ 9.06	\$ 135,143.31		
14	Water Main, Open Cut, Ductile Iron	8,291	LFT	\$ 177.38	\$ 1,470,636.29		
15	Water Main, Direction Drill, HDPE	14,916	LFT	\$ 132.03	\$ 1,969,422.85		
16	Pipe Bursting	7,105	LFT	\$ 136.76	\$ 971,718.09		
17	Water main Lining	3,374	LFT	\$ 157.43	\$ 531,245.85		
18	Water Main, Temporary	18,771	LFT	\$ 21.36	\$ 400,939.16		
19	Water Service, Replace Lead Service to Copper Service, on Public Side, W/ Restoration	475	EA	\$ 2,591.93	\$ 1,231,189.46		
20	Water Service, Replace Lead Service to Copper Service, on Private side, W/ Restoration	475	EA	\$ 2,603.77	\$ 1,236,478.30		
21	Water Service, Replace Copper Service, up to two-inches (2") diameter, Short/ Long on Public Side, W/ Restoration	160	EA	\$ 4,447.19	\$ 711,550.40		
22	Water Service, Remove and Replace Curb Box	635	EA	\$ 551.07	\$ 349,934.28		
23	Water Service, Remove and Replace Curb Stop	635	EA	\$ 674.68	\$ 428,427.71		
24	Water Service, Hydro-Vac	635	EA	\$ 642.93	\$ 408,266.18		
25	Electrical Grounding System	566	EA	\$ 492.40	\$ 278,698.40		
26	Pitcher Style Filters and Refill Filter Cartridges	635	EA	\$ 168.89	\$ 107,246.63		
27	Water Main, Hydrostatic Pressure Test	33,687	LFT	\$ 2.78	\$ 93,649.97		
28	Water Main, Chlorination and Flushing	33,687	LFT	\$ 2.45	\$ 82,533.25		
		<b>Subtotal</b>				\$ 12,614,464.32	
		<b>Mobilization +Subtotal</b>				\$ 13,245,187.53	
<b>Section-4</b>							
29	Contaminated Material Allowance	1	LS	\$ 20,000.00	\$ 20,000.00		
30	Provisional Allowance	1	LS	\$ 1,000,000.00	\$ 1,000,000.00		
<b>TOTAL ESTIMATED CONSTRUCTION COST:</b>						<b>\$14,265,187.53</b>	

# APPENDIX B

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*SUBMITTAL FORM, DISADVANTAGED COMMUNITY STATUS  
DETERMINATION WORKSHEET, BOARD RESOLUTIONS*

# APPENDIX C

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*PUBLIC HEARING NOTICE, MAILING LIST FOR PUBLIC HEARING, PUBLIC HEARING  
TRANSCRIPT, VISUAL AIDS*

# APPENDIX D

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*PLANNING DOCUMENT CORRESPONDENCE; USACE PERMIT; SHPO  
SUBMITTAL; MNFI REVIEW; USFWS REVIEW*



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

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

**Re:** FY 2023 Third Quarter Budget Amendments through March 31, 2023

**Background:** In accordance with the budget amendment policy adopted by the Board of Directors on June 24, 2020 as well as the Articles of Incorporation and By-laws for the Great Lakes Water Authority, a budget amendments are reported no less than quarterly for review by the Audit Committee. When budget amendments are required at the appropriation level as defined by the corresponding fiscal year budget adoption resolution, the Audit Committee reviews the proposed budget amendments and forward to the Board of Directors with a recommendation.

**Analysis:** Based on a review of activity through February 28, 2023, it has been determined that budget amendments will not be required at the appropriation levels for the third quarter of FY 2023 ending March 31, 2023. The appropriation levels include the following.

1. Revenue Requirement – Water and Sewer Systems
2. Debt Service – Water and Sewer Systems
3. Improvement & Extension Fund – Water and Sewer Systems
4. Construction Fund – Water and Sewer Systems

Activity will continue to be closely monitored and it is anticipated that budget amendments will be required for the fourth quarter of FY 2023.

**Proposed Action:** Receive and file this report.



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

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

**Re:** CFO Update

### Emerging Topics in Utility Finance

*Grants Management* - This past several Financial Services Area team members were engaged in professional development activities to position GLWA in addressing emerging topics. A cross-functional team from Grants Management, Procurement, and General Counsel attended the three-day annual National Grants Management Association (NGMA) that was attended by over 1,200 grants management professionals and featured over 40 breakout sessions. NGMA provides comprehensive full lifecycle grants management training, professional certification, continuing professional education, tools and resources, and a forum for networking with grants industry professionals. They serve all levels of government (federal, state, local, tribal), nonprofit organizations, institutions of higher education, and affiliated private sector organizations.

*American Water Works Association* - This month I was a panelist at the *AWWA Water 2023: Legal, Financial, and Executive Challenges & Opportunities workshop*. Topics at the event included:

- Water Infrastructure Policy and Funding: The View from Washington
- The Bipartisan Infrastructure Law (BIL) - Legal, Financial and Executive Challenges and Opportunities in a Rising Interest Rate Environment
- The Build America, Buy America Act (BABA): Successfully Managing the Legal, Regulatory, and Financial Challenges of This Evolving Program
- Green Financing and ESG in the Water Space: The DC Water Experience
- Hot Topics in Water Finance 2023

*Annual Chief Financial Officer (CFO) Forum* - This event brings together 50+/- CFOs from the largest public water utilities in the U.S. At that event I was able to present the topic of Affordability & Assistance programs. Being at this event, and connecting with colleagues, is always beneficial. As it relates to the topic presented, the experience reinforced the leadership demonstrated in our region on this critical topic.

## **Environmental, Social, and Governance (ESG) Framework for GLWA**

GLWA has been selected for a pilot with the firm of Plante & Moran to develop an ESG framework for a water utility. GLWA's ESG efforts are often explained as it relates to individual initiatives but not through a more comprehensive lens. Establishing a framework provides a) a way to better tell the story of what we do, b) focus on how future initiatives align with a framework, and c) supports measurable progress. The project began with forming a cross-functional team to lead the effort as well as a presentation to Executive Leadership team. Presently we are identifying focus groups with internal and external stakeholders, finalizing stakeholder engagement invitations, and a related survey. A further report

## **Debt Management Activities**

*Board Action - State Revolving Fund* - At the Board of Directors meeting on April 26, 2023 the following resolution was adopted which was not previously presented to the Audit Committee: 2023-143 - Resolution to Adopt the project plan for the Pump Station No. 2 Variable Frequency Drive (VFD) Replacement project for FY 2024 Clean Water State Revolving Fund (CWSRF) (\$12 million)

*New State Revolving Fund Loan Guidance* - [Public Act 132 of 2022](#) changed the term "disadvantaged" community to "overburdened community" and adds the new term "significantly overburdened community". In the latter half of 2022, the state of Michigan Department of Environment, Great lakes, and Environment (EGLE) released guidance related to new definitions for the state revolving fund loan program. The GLWA team is working with EGLE representatives on the application of this criteria as to how "community" relates to a regional water authority. Deadlines for the submittals are May 1, 2023 for the Clean Water SRF program and June 1, 2023 for Drinking Water SRF. GLWA's internal target date for submittal is one month in advance of those dates. As a point of understanding, below are the new definitions from EGLE's [website](#).

### ***What does "Overburdened Communities" mean?***

*(1) "Overburdened community" means a municipality in which all of the following conditions are met:*

*(a) Users within the area served by a proposed drinking water project, sewage treatment works project, or stormwater treatment project are directly assessed for the costs of construction.*

*(b) The median household income of the area served by a proposed drinking water, sewage treatment works project or stormwater treatment project does not exceed 100% of the statewide median annual household income for this state.*

*(c) The municipality demonstrates at least one of the following:*

*(i) The taxable value per capita of the area served by a project falls into the communities representing the lowest 20% of Michigan's population within that category. **For FY24, the value is \$22,920 per capita.***

*(ii) The annual user costs for the corresponding portion of the water system (sewage and stormwater treatment or drinking water) exceed 1% of the median annual household income of the area served by the proposed project.*

*(2) A community which qualifies as a significantly overburdened community would also be considered an overburdened community. However, any potential benefits may only be applied under one designation or the other.*

### ***Significantly Overburdened Communities***

*(3) "Significantly overburdened community" means a municipality in which all of the following conditions are met:*

*(a) Users within the area served by a proposed drinking water project, sewage treatment works project, or stormwater treatment project are directly assessed for the costs of construction.*

*(b) The municipality demonstrates at least one of the following:*

*(i) The median annual household income of the area served by a proposed project is less than 125% of the federal poverty guidelines for a family of four in the 48 contiguous United States. In determining the median annual household income of the area served by the proposed sewage treatment works project or stormwater treatment project under this sub-paragraph, the municipality shall utilize the most recently published statistics from the United States Census Bureau, updated to reflect current dollars, for the community that most closely approximates the area being served by the project. As used in this sub-paragraph, "federal poverty guidelines" means the poverty guidelines published annually in the Federal Register by the United States Department of Health and Human Services under its authority to revise the poverty line under 42 U.S.C. 9902. **For FY24, the 125% level would be an annual household income of less than \$37,500.***

*(ii) The taxable value per capita of the area served by a project falls into the communities representing the lowest 10% of Michigan's population within that category. **For FY24, that value is less than \$15,170 per capita.***

**GLWA**

*Great Lakes Water Authority*



# **Monthly Financial Report Binder**

**January 2023**

**Presented to the  
Great Lakes Water Authority  
Audit Committee on April 28, 2023**

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**Key Financial Metrics**

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

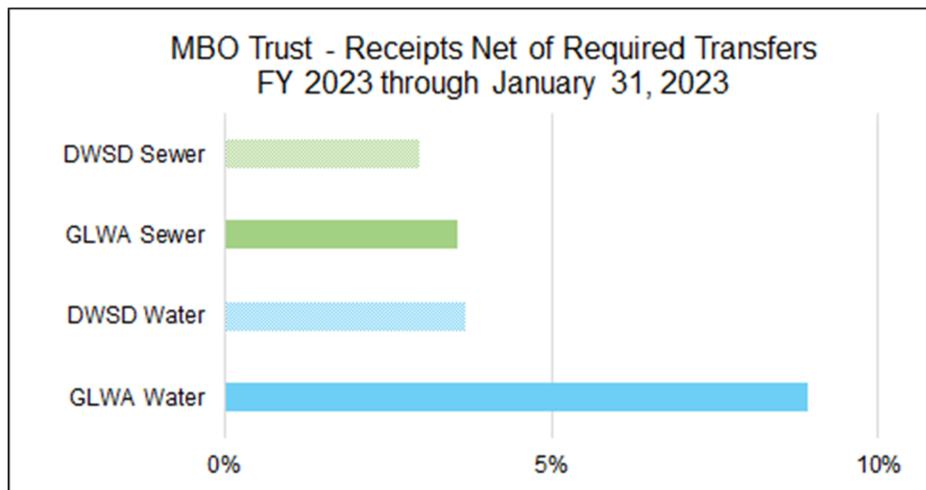
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information. This report reflects second quarter budget amendments recommended to the GLWA Board of Directors by the GLWA Audit Committee on February 24, 2023, reviewed by the GLWA Board of Directors at their March 24, 2023 Board of Directors meeting, and currently scheduled for approval on the April 26, 2023 GLWA Board of Directors meeting consent agenda.

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

Metric	As of January 31, 2023			Variance from Financial Plan	Report Page Reference
	FY 2023 Budget	FY 2023 Amended Budget	FY 2023 Actual		
Wholesale Water Billed Revenue (\$M)	\$201.0	\$201.0	\$202.7	1%	47
Wholesale Water Billed Usage (mcf)	8,206,000	8,206,000	8,323,000	1%	
Wholesale Sewer Billed Revenue (\$M)	\$160.2	\$160.2	\$160.2	0%	49
Wholesale Water Operations & Maintenance (\$M)	\$84.5	\$87.0	\$89.5	3%	5
Wholesale Sewer Operations & Maintenance (\$M)	\$107.4	\$118.5	\$114.9	-3%	
Investment Income (\$M)	\$1.3	\$19.0	\$14.8	-22%	36
Water Prorated Capital Spend w/SRA* (\$M)	\$90.7	\$131.7	\$117.4	-11%	28
Sewer Prorated Capital Spend w/SRA* (\$M)	\$73.5	\$81.3	\$53.8	-34%	29

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

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



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

subsequent year(s). DWSD Water reports a surplus of \$2.6 million and DWSD Sewer reports a surplus of \$5.1 million of net receipts over disbursements through January 2023.

### **Budget to Actual Analysis (page 3)**

- FY 2023 information includes the second quarter budget amendments which were presented at the February 24, 2023, Audit Committee meeting and further recommended to the GLWA Board for adoption.
- The total Revenue Requirements are on target through January 2023.
- The total overall Operations & Maintenance expenses are at 58.0% of budget through January 2023 which is slightly below the pro-rata benchmark of 58.3%. This positive variance equates to a dollar amount of \$1.1 million.

### **Basic Financial Statements (page 9)**

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for January 2023 is \$49.9 million for the Water fund (23.1% of total revenues) and \$65.7 million for the Sewer fund (23.5 % of total revenues).
- Water Net Position increased by \$ 13.3 million, and Sewage Disposal Net Position increased by \$ 16.5 million for the year to date through January 2023.

### **Capital Improvement Plan Financial Summary (page 28)**

- The Water system exceeds the amended 116.2% Capital Spend Ratio assumption.
- The Sewer system falls short of the amended 110.7% Capital Spend Ratio assumption.

### **Master Bond Ordinance Transfers (page 31)**

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

### **Cash Balances & Investment Income (page 37)**

- Total cash & investments are \$535 million for Water and \$619 million in the Sewer fund.
- Total, combined, cumulative, FY 2023 investment income through January is \$14.8 million.

### **DWSD Retail Revenues, Receivables & Collections (page 41)**

- Water usage through January 31, 2023 is 109.84% and revenues are 106.20% of budget.
- Sewer usage through January 31, 2023 is 105.11% and revenues are 101.52% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$55.4 million over the prior year.
- Past dues over 180 days make up of 68.5% the total accounts receivable balance. The current bad debt allowance covers 96.2% of past dues over 60 days.

### **GLWA Wholesale Billing, Receivables & Collections (page 47)**

- GLWA accounts receivable past due balance net of Highland Park is 16.50% of the total accounts receivable balance, with the majority of that balance related to one water account dispute currently under discussion.
- The Highland Park past due balance is \$54.3 million. It includes \$40.8 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.7 million for water supply services. Highland Park made a catch-up payment of \$1.7 million on June 3, 2022 and has continued to make additional, monthly payments since that time totaling \$3.0 million as of January 31, 2023.

**Questions?** Contact the Office of the Chief Financial Officer at [CFO@glwater.org](mailto:CFO@glwater.org).



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

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

The FY 2023 information presented in these sections includes the second quarter FY 2023 budget amendments presented at the February 24, 2023, Audit Committee meeting and further recommended to the GLWA Board of Directors for adoption.

## Revenue Requirements Budget Basis Analysis

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

**Table 1A – Water Revenue Requirements Budget** and **Table 1B – Sewer Revenue Requirements Budget** presents a year-over-year budget to actual performance report. The revenue requirements budget is accounted for in the operations and maintenance fund for each system. Since this report is for January 2023, the pro-rata benchmark is 58.3% (7 of 12 months of the fiscal year).

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

1. **Revenues:** For FY 2023, the *water* system, at 59.4%, is slightly above the pro-rata benchmark for total revenues while the *sewer* system, at 57.9%, is slightly below the target. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the [Flint Water Agreement](#). Through January 31, 2023, these payments total \$3.8 million for FY 2023.

2. **Investment Earnings:** For both systems, investment earnings are below the pro-rata benchmark for FY 2023; the *water* system is at 35.3%; while the *sewer* system is at 36.9%. Detailed analysis of investment earnings activity to date can be found in the *Cash & Investment Income* section of this financial report binder.
3. **Other Revenues:** These are one-time and unusual items that do not fit an established revenue category. Both the *water* and *sewer* systems actual amount will vary from budget due to the nature of the items recorded in this category.
4. **Operations & Maintenance Expense:** Actual expenses<sup>1</sup> for *both* systems have variances from the pro-rata benchmark. The *water* system is slightly above the pro-rata benchmark for FY 2023 at 60.0%. The *sewer* system O&M expenses, at 56.6%, is slightly below the pro-rata benchmark.
5. **Debt Service:** For FY 2023, both systems are slightly above the pro-rata benchmark for debt service; the *water* system is at 59.5% while the *sewer* system is at 58.4%. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. **Operating Reserve Deposit:** GLWA has established a target balance in the O&M Fund of 45 days of operating expense which works in tandem with the I&E Funds to provide liquidity to the utility. Adequate funding is in place to meet this requirement; therefore, it is expected that additional transfers to this reserve will not be required in FY 2023.
7. **DWSD Budget Shortfall Pending:** To the extent that the local (DWSD) system experiences budgetary shortfalls as defined by the Water & Sewer Services Agreement, the GLWA budget is impacted.<sup>2</sup> Steps to proactively detect, and ideally prevent, this shortfall scenario were put into place with the 2018 Memorandum of Understanding (dated June 27, 2018). For FY 2022, DWSD management successfully implemented a formal plan to end the year with positive net cash flows for both the DWSD *water* system and the DWSD *sewer* system. For FY 2023, neither the DWSD *water* system nor the DWSD *sewer* system have a budgetary shortfall through January 31, 2023. GLWA and DWSD staff meet regularly to discuss steps to mitigate shortfalls, when they occur, as outlined in the 2018 MOU.
8. **Improvement & Extension (I&E) Fund Transfer Pending:** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the *water* and *sewer* systems.
9. **Other Revenue Requirements:** The remaining revenue requirements for *both* systems are funded on a 1/12<sup>th</sup> basis each month in accordance with the Master Bond Ordinance.
10. **Overall:** Total revenue requirements for *both* systems are in line with the benchmark.

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

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

*All amounts are unaudited unless otherwise noted.*

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

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 1/31/2022	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 1/31/2023	Percent Year-to- Date
<b>Water System</b>							
<b>Revenues</b>							
Suburban Wholesale Customer Charges	\$ 315,011	\$ 188,150	59.7%	\$ 331,962	\$ 330,856	\$ 198,927	60.1%
Retail Service Charges	21,697	12,657	58.3%	22,986	22,834	13,341	58.4%
Investment Earnings	1,924	1,204	62.6%	949	9,670	3,412	35.3%
Other Revenues	684	321	46.9%	175	875	836	95.5%
<b>Total Revenues</b>	<b>\$ 339,316</b>	<b>\$ 202,331</b>	<b>59.6%</b>	<b>\$ 356,072</b>	<b>\$ 364,236</b>	<b>\$ 216,515</b>	<b>59.4%</b>
<b>Revenue Requirements</b>							
Operations & Maintenance Expense	\$ 143,934	\$ 77,166	53.6%	\$ 144,848	\$ 149,148	\$ 89,494	60.0%
General Retirement System Legacy Pension	6,048	3,528	58.3%	6,048	6,048	3,528	58.3%
Debt Service	135,121	79,060	58.5%	150,337	150,055	89,242	59.5%
General Retirement System Accelerated Pension	6,268	3,657	58.3%	6,268	6,268	3,657	58.3%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,706	995	58.3%	1,771	1,771	1,033	58.3%
Regional System Lease	22,500	13,125	58.3%	22,500	22,500	13,125	58.3%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	-	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,740	15,911	67.0%	24,300	28,446	16,610	58.4%
<b>Total Revenue Requirements</b>	<b>\$ 339,316</b>	<b>\$ 193,442</b>	<b>57.0%</b>	<b>\$ 356,072</b>	<b>\$ 364,236</b>	<b>\$ 216,688</b>	<b>59.5%</b>
<b>Net Difference</b>		<b>\$ 8,889</b>				<b>\$ (173)</b>	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 4,396				\$ 4,044	
Revenue Requirement Variance		4,493				(4,217)	
Overall Variance		<b>\$ 8,889</b>				<b>\$ (173)</b>	

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

	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 1/31/2022	Percent Year-to- Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 1/31/2023	Percent Year-to- Date
<b>Sewer System</b>							
<b>Revenues</b>							
Suburban Wholesale Customer Charges	\$ 268,130	\$ 158,838	59.2%	\$ 275,404	\$ 274,407	\$ 160,616	58.5%
Retail Service Charges	188,662	110,053	58.3%	191,042	191,042	111,441	58.3%
Industrial Waste Control Charges	8,325	4,843	58.2%	8,420	8,420	4,878	57.9%
Pollutant Surcharges	5,089	2,910	57.2%	4,951	4,951	2,766	55.9%
Investment Earnings	1,876	957	51.0%	1,156	13,532	4,997	36.9%
Other Revenues	538	311	57.8%	400	1,170	983	84.0%
<b>Total Revenues</b>	<b>\$ 472,620</b>	<b>\$ 277,911</b>	<b>58.8%</b>	<b>\$ 481,372</b>	<b>\$ 493,522</b>	<b>\$ 285,680</b>	<b>57.9%</b>
<b>Revenue Requirements</b>							
Operations & Maintenance Expense	\$ 191,909	\$ 104,134	54.3%	\$ 184,053	\$ 203,223	\$ 114,931	56.6%
General Retirement System Legacy Pension	10,824	6,314	58.3%	10,824	10,824	6,314	58.3%
Debt Service	204,985	120,516	58.8%	205,638	212,509	124,154	58.4%
General Retirement System Accelerated Pension	11,621	6,779	58.3%	11,621	11,621	6,779	58.3%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,358	1,376	58.3%	2,394	2,394	1,397	58.3%
Regional System Lease	27,500	16,042	58.3%	27,500	27,500	16,042	58.3%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	2,349	0.0%	-	-	-	0.0%
Improvement & Extension Fund Transfer Pending	23,424	19,611	83.7%	39,343	25,452	16,377	64.3%
<b>Total Revenue Requirements</b>	<b>\$ 472,620</b>	<b>\$ 277,120</b>	<b>58.6%</b>	<b>\$ 481,372</b>	<b>\$ 493,522</b>	<b>\$ 285,993</b>	<b>57.9%</b>
<b>Net Difference</b>		<b>\$ 792</b>				<b>\$ (312)</b>	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 2,216				\$ (2,208)	
Revenue Requirement Variance		(1,425)				1,895	
Overall Variance		<b>\$ 792</b>				<b>\$ (312)</b>	

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of January 31, 2023, is 58.3% (seven months). When comparing FY 2023 to FY 2022 in **Table 2 – Operations & Maintenance Budget – Major Budget Categories**, the overall spending is higher in FY 2023.

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

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

Major Budget Categories	FY 2022			FY 2023			Percent Year-to-Date
	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 1/31/2022	Percent Year-to-Date	FY 2023 BOARD ADOPTED BUDGET	FY 2023 AMENDED BUDGET	FY 2023 ACTIVITY THRU 12/31/2022	
Water	\$ 76,422	\$ 44,624	58.4%	\$ 76,518	\$ 80,818	\$ 50,092	62.0%
Sewer	120,971	65,985	54.5%	113,198	132,367	78,439	59.3%
Centralized	103,846	52,005	50.1%	104,503	104,503	57,112	54.7%
Administrative	34,603	18,686	54.0%	34,682	34,682	18,805	54.2%
Employee Benefits	-	-	0.0%	-	-	(23)	0.0%
<b>Total O&amp;M Budget</b>	<b>\$ 335,843</b>	<b>\$ 181,300</b>	<b>54.0%</b>	<b>\$ 328,900</b>	<b>\$ 352,370</b>	<b>\$ 204,425</b>	<b>58.0%</b>

*Totals may be off due to rounding*

## Alignment of Operations & Maintenance Budget Priorities – Expense Variance Analysis

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

**Total:** In total, the overall O&M expenses are at 58.0% which is slightly below the pro-rata benchmark of 58.3%. This positive variance equates to a dollar amount of \$1.1 million. The expense category commentary is provided below for items highlighted on Table 3.

**Personnel Costs:** The overall category is slightly under the pro-rata benchmark; coming in at 57.2% through January 2023.

**Utilities:** The overall category is above the pro-rata benchmark; coming in at 65.5% through January 2023. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is higher than the pro-rata benchmark, coming in at 62.5%. The FY 2023 budget was adjusted for the increase to the charge for kWh, however, an additional budget amendment was processed for the second quarter FY 2023. It should be noted that variances are not unexpected as usage varies throughout the year. The first three months of GLWA's fiscal year (July, August, and September) are typically peak months for the usage of electricity. June, the last month of GLWA's fiscal year, is typically a peak month as well.
- **Gas** is coming in at 92.0% which is higher than the benchmark of 58.3%. Variances within this category are not unexpected as usage varies throughout the year. The FY 2023 budget was adjusted for the increase in both usage as well as for the cost of natural gas MMBTU. Further review of this category is being conducted.
- **Sewage service** is slightly higher than the benchmark, coming in at 59.0%. Increased usage has been reported at the WRRF (in part due to bills being received for actual meter readings when in the past the bills had been estimated), the Biosolids Dryer Facility (BDF), and the Southwest Water Plant. A second quarter FY 2023 budget amendment was processed for this service and this category continues to be closely monitored.
- **Water service** is slightly lower than the benchmark, coming in at 58.1%. As meters have been repaired or replaced at the WRRF, the billings that previously reported estimated readings have been replaced with actual readings. The actual readings have been coming in higher than the estimated billings. In addition, a new water billing structure was implemented in early FY 2023 which has resulted in an increase in the water billing rate. A second quarter FY 2023 budget amendment was processed for this is service and this category continues to be closely monitored.

**Chemicals:** This category is slightly higher than the pro-rate benchmark; coming in at 60.7% through January 2023. The FY 2023 budget has been amended for both systems to adjust for the rising chemical costs and this category continues to be closely monitored.

**Supplies & Other:** This category is lower than the benchmark; coming in at 52.1% through January 2023. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, variances are not unexpected. A review of this category is being conducted.

**Contractual Services:** The overall category is slightly lower than the pro-rata benchmark; coming in at 56.4% through January 2023. Variances in this category, when they occur, are not unexpected as the usage of contracts varies throughout the year (projects scheduled to begin during the latter half of the year as well as contracts that are on an as needed basis). Budget amendments will be processed for those projects in which the actual start dates have been delayed from that in which they were budgeted.

**Capital Program Allocation:** This category is lower than the benchmark; coming in at 30.0% through January 2023. The amount in the Capital Program Allocation account is shown as negative as this is a “contra” account which represents an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget. A review of this category is being conducted.

**Shared Services:** This category is lower than the benchmark; coming in at 51.5% through January 2023. The shared services reimbursement is comprised of both labor (tracked via BigTime) and expenses, such as annual fees for software licensing. Staff from both GLWA and DWSD have been working together to evaluate and refine the budget for the shared services agreements. Based on these evaluations, adjustments have been made to both the billings and accounting accruals to reflect the forecasted activity more accurately for FY 2023. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount and activity includes true-up billings from prior years.

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

Expense Categories	FY 2022 AMENDED BUDGET	FY 2022 ACTIVITY THRU 1/31/2022	Percent Year-to- Date at 1/31/2022	FY 2022 ACTIVITY THRU 6/30/2022	Percent Year-to- Date at 6/30/2022	FY 2023		FY 2023 ACTIVITY THRU 1/31/2023	Percent Year-to- Date 1/31/2023	FY 2023
						FY 2023 AMENDED BUDGET	PRORATED AMENDED BUDGET (7 MONTHS)			BUDGET LESS FY 2023 ACTIVITY
<b>Entity-wide</b>										
Salaries & Wages	\$ 66,113	\$ 38,198	57.8%	\$ 63,901	59.8%	\$ 71,755	\$ 41,857	\$ 42,264	58.9%	\$ (407)
Workforce Development	869	446	51.3%	844	52.8%	1,342	783	737	54.9%	46
Overtime	8,126	4,689	57.7%	8,113	57.8%	7,007	4,087	4,981	71.1%	(894)
Employee Benefits	25,956	14,709	56.7%	24,206	60.8%	27,869	16,257	14,508	52.1%	1,749
Transition Services	10,805	5,852	54.2%	9,990	58.6%	11,030	6,434	5,560	50.4%	874
Employee Benefits Fund	-	-	0.0%	-	0.0%	-	-	(23)	0.0%	23
<b>Personnel Costs</b>	<b>111,869</b>	<b>63,894</b>	<b>57.1%</b>	<b>107,053</b>	<b>59.7%</b>	<b>119,002</b>	<b>69,418</b>	<b>68,026</b>	<b>57.2%</b>	<b>1,392</b>
Electric	43,950	25,795	58.7%	43,755	59.0%	43,314	25,267	27,075	62.5%	(1,808)
Gas	7,081	3,791	53.5%	8,665	43.7%	8,553	4,989	7,869	92.0%	(2,879)
Sewage Service	2,510	1,421	56.6%	2,568	55.3%	2,596	1,514	1,533	59.0%	(18)
Water Service	5,841	1,409	24.1%	4,669	30.2%	11,052	6,447	6,418	58.1%	29
<b>Utilities</b>	<b>59,383</b>	<b>32,416</b>	<b>54.6%</b>	<b>59,656</b>	<b>54.3%</b>	<b>65,515</b>	<b>38,217</b>	<b>42,894</b>	<b>65.5%</b>	<b>(4,677)</b>
Chemicals	19,842	11,156	56.2%	20,382	54.7%	28,476	16,611	17,280	60.7%	(669)
Supplies & Other	35,034	17,126	48.9%	29,711	57.6%	35,122	20,488	18,294	52.1%	2,194
Contractual Services	111,198	59,898	53.9%	107,527	55.7%	105,978	61,821	59,795	56.4%	2,026
Capital Program Allocation	(2,684)	(1,591)	59.3%	(2,632)	60.4%	(3,636)	(2,121)	(1,092)	30.0%	(1,029)
Shared Services	(3,202)	(1,598)	49.9%	(2,398)	66.6%	(1,501)	(876)	(773)	51.5%	(103)
Unallocated Reserve	4,402	-	0.0%	-	0.0%	3,414	1,992	-	0.0%	1,992
<b>Total Expenses</b>	<b>\$ 335,843</b>	<b>\$ 181,300</b>	<b>54.0%</b>	<b>\$ 319,300</b>	<b>56.8%</b>	<b>\$ 352,370</b>	<b>\$ 205,549</b>	<b>\$ 204,425</b>	<b>58.0%</b>	<b>\$ 1,125</b>

Totals may be off due to rounding



The Basic Financial Statements report includes the following four tables.

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

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

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

## Statement of Net Position – All Funds Combined

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

**Table 1 – Statement of Net Position - All Funds Combined  
As of January 31, 2023  
(\$000)**

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2022
<b>Assets</b>				
Cash - unrestricted (a)	\$ 171,139	\$ 211,256	\$ 382,394	\$ 347,655
Cash - restricted (a)	70,438	44,342	114,780	113,378
Investments - unrestricted (a)	73,741	81,528	155,270	185,209
Investments - restricted (a)	200,334	293,316	493,650	144,445
Accounts Receivable	90,771	65,302	156,073	175,133
Due from (to) Other Funds (b)	5,876	(5,876)	-	-
Other Assets (c)	675,736	410,643	1,086,379	1,077,698
Cash held FBO DWSD Advance	-	-	-	-
Capital Assets, net of Depreciation	1,231,810	2,043,596	3,275,406	3,432,437
Land	293,617	126,816	420,433	420,750
Construction Work in Process (e)	380,862	246,215	627,077	467,190
<b>Total assets</b>	<b>3,194,323</b>	<b>3,517,138</b>	<b>6,711,461</b>	<b>6,363,896</b>
<b>Deferred Outflows (f)</b>	<b>46,730</b>	<b>116,928</b>	<b>163,658</b>	<b>182,497</b>
<b>Liabilities</b>				
Liabilities - Liabilities-ST	127,367	152,260	279,628	354,055
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	1,842	4,849	6,691	7,500
Cash Held FBO DWSD (d)	17,565	17,170	34,735	20,470
Liabilities - Long-Term (i)	3,144,273	3,514,748	6,659,021	6,263,510
<b>Total liabilities</b>	<b>3,291,047</b>	<b>3,689,028</b>	<b>6,980,075</b>	<b>6,645,535</b>
<b>Deferred Inflows (f)</b>	<b>45,922</b>	<b>38,537</b>	<b>84,459</b>	<b>120,157</b>
<b>Total net position (j)</b>	<b>\$ (95,917)</b>	<b>\$ (93,499)</b>	<b>\$ (189,415)</b>	<b>\$ (219,299)</b>

*Totals may be off due to rounding*

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

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

### Footnotes to Statement of Net Position

- a. *Cash and Investments* are reported at market value. Investments at June 30, 2022 are also reported at market value. The January 31, 2023 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
- b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
- c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
- d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
- e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
- f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
- g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
- h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
- i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
- j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

## Statement of Revenues, Expenses and Changes in Net Position

### – All Funds Combined

This statement, shown in Table 2, is presented in summary format. The accrual basis of revenues and operations and maintenance expense vary from the revenue requirement basis presented in the *Budget to Actual Analysis* and the *Wholesale Billings, Receivables & Collections* sections of the January 2023 Financial Report Binder. Prior year ending balances are provided in the June 30, 2022 column as a reference for comparative purposes. Explanatory notes follow this statement.

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

**Table 2 – Statement of Revenues, Expenses and Changes in Net Position**  
**– All Funds Combined**  
**For the Seven Months ended January 31, 2023**  
**(\$000)**

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2022
<b>Revenue</b>						
Wholesale customer charges	\$ 202,684	93.7%	\$ 160,616	57.4%	\$ 363,299	\$ 591,840
Local system charges	13,341	6.2%	111,441	39.8%	124,782	210,360
Industrial waste charges		0.0%	4,878	1.7%	4,878	8,300
Pollutant surcharges		0.0%	2,766	1.0%	2,766	5,182
Other revenues	233	0.1%	320	0.1%	553	664
<b>Total Revenues</b>	<b>216,258</b>	<b>100.0%</b>	<b>280,021</b>	<b>100.0%</b>	<b>496,278</b>	<b>816,345</b>
<b>Operating expenses</b>						
Operations and Maintenance	90,285	41.7%	118,195	42.2%	208,480	324,735
Depreciation	73,950	34.2%	95,826	34.2%	169,777	281,210
Amortization of intangible assets	2,081	1.0%	256	0.1%	2,337	4,006
<b>Total operating expenses</b>	<b>166,316</b>	<b>76.9%</b>	<b>214,278</b>	<b>76.5%</b>	<b>380,594</b>	<b>609,951</b>
<b>Operating Income</b>	<b>49,942</b>	<b>23.1%</b>	<b>65,742</b>	<b>23.5%</b>	<b>115,684</b>	<b>206,394</b>
<b>Total Nonoperating (revenue) expense</b>	<b>36,593</b>	<b>16.9%</b>	<b>49,208</b>	<b>17.6%</b>	<b>85,801</b>	<b>215,561</b>
Increase/(Decrease) in Net Position	<b>13,349</b>	<b>6.2%</b>	<b>16,535</b>	<b>5.9%</b>	<b>29,884</b>	<b>(9,167)</b>
Net Position (deficit), beginning of year	(109,266)		(110,033)		(219,299)	(210,132)
<b>Net position (deficit), end of year</b>	<b>\$ (95,917)</b>		<b>\$ (93,499)</b>		<b>\$ (189,415)</b>	<b>\$ (219,299)</b>

*Totals may be off due to rounding*

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## Water Fund

- ✓ The increase in Water Fund Net Position is \$13.3 million.
- ✓ Wholesale water customer charges of \$202.7 million account for 93.7% of Water System revenues.
- ✓ Operating expenses of \$166.3 million represent 76.9% of total operating revenue. Depreciation is the largest operating expense at \$74.0 million or 44.5% of operating expense.
- ✓ Amortization of intangible assets represents activity for raw water rights.
- ✓ Operating income after operating expenses (including depreciation) equals \$49.9 million or 23.1% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$48.1 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

## Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is \$16.5 million.
- ✓ Wholesale customer charges of \$160.6 million account for 57.4% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average “share” of each customer’s historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of \$111.4 million account for 39.8% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$214.3 million represent 76.5% of total operating revenue. Depreciation is the largest operating expense at \$95.8 million or 44.7% of total operating expense.
- ✓ Amortization of intangible assets represents activity for a warehouse lease.
- ✓ Operating income after operating expenses (including depreciation) equals \$65.7 million or 23.5% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$56.2 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

## Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined

This Supplemental Schedule of Operations & Maintenance Expenses (O&M) schedule is shown below in Table 3. This accrual basis of operations and maintenance expense may vary from the revenue requirement basis presented in the *Budget to Actual Analysis* section of the January 2023 Financial Report Binder. Explanatory notes follow this schedule.

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

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
<b>Operating Expenses</b>						
<b>Personnel</b>						
Salaries & Wages	15,556	17.2%	33,004	27.9%	48,560	23.3%
Overtime	3,113	3.4%	1,868	1.6%	4,981	2.4%
Benefits	10,171	11.3%	4,314	3.6%	14,485	6.9%
<b>Total Personnel</b>	<b>\$ 28,841</b>	<b>31.9%</b>	<b>\$ 39,185</b>	<b>33.2%</b>	<b>\$ 68,026</b>	<b>32.6%</b>
<b>Utilities</b>						
Electric	17,982	19.9%	9,093	7.7%	27,074	13.0%
Gas	1,018	1.1%	6,851	5.8%	7,869	3.8%
Sewage	312	0.3%	1,220	1.0%	1,533	0.7%
Water	4	0.0%	6,414	5.4%	6,418	3.1%
<b>Total Utilities</b>	<b>\$ 19,316</b>	<b>21.4%</b>	<b>\$ 23,578</b>	<b>19.9%</b>	<b>\$ 42,894</b>	<b>20.6%</b>
Chemicals	7,636	8.5%	9,644	8.2%	17,280	8.3%
Supplies and other	6,277	7.0%	11,733	9.9%	18,010	8.6%
Contractual services	29,305	32.5%	34,950	29.6%	64,256	30.8%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(578)	-0.6%	(514)	-0.4%	(1,092)	-0.5%
Intergovernmental Agreement	-	0.0%	(120)	-0.1%	(120)	-0.1%
Shared services allocation	(511)	-0.6%	(262)	-0.2%	(773)	-0.4%
<b>Operations and Maintenance Expenses</b>	<b>\$ 90,285</b>	<b>100.0%</b>	<b>\$ 118,195</b>	<b>100.0%</b>	<b>\$ 208,480</b>	<b>100.0%</b>

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (20.6% of total O&M expenses) and chemicals (8.3% of total O&M expenses).
- ✓ Personnel costs (32.6% of total O&M expenses) include all salaries, wages, and benefits for employees as well as staff augmentation contracts that fill a vacant position (contractual transition services).
- ✓ Contractual services (30.8%) includes:
  - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$2.2 million);
  - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$9.5 million); and
  - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.
- ✓ The Capital Program Allocation, Intergovernmental Agreement and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offsets to associated costs in other Operations and Maintenance expense categories.

## Supplemental Schedule of Nonoperating Expenses – All Funds Combined

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

**Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined  
For the Seven Months ended January 31, 2023  
(\$000)**

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2022
<b>Nonoperating (Revenue)/Expense</b>				
Interest income contractual obligation	\$ (14,344)	\$ (9,563)	\$ (23,907)	\$ (42,120)
Interest income DWSD Shortfall	-	-	-	(145)
Investment earnings	(6,716)	(8,565)	(15,280)	(3,735)
Net (incr) decr in fair value of invstmt	(2,534)	(3,667)	(6,201)	9,119
Other nonoperating revenue	(603)	(663)	(1,265)	(476)
Interest Expense				
Bonded debt	62,476	65,778	128,255	212,284
Lease obligation	9,825	12,008	21,834	37,836
Other obligations	2,502	954	3,456	6,077
Total interest expense	74,804	78,741	153,545	256,197
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	-	-	(6,991)
Amortization, issuance costs, debt	(7,856)	2,112	(5,744)	(13,318)
(Gain) loss on disposal of capital assets	461	3,017	3,478	322
Loss on impairment of capital assets	-	-	-	-
Water Residential Assistance Program	825	1,116	1,941	2,793
Legacy pension expense	(7,444)	(13,322)	(20,765)	13,915
<b>Total Nonoperating (Revenue)/Expense</b>	<b>\$ 36,593</b>	<b>\$ 49,208</b>	<b>\$ 85,801</b>	<b>\$ 215,561</b>

*Totals may be off due to rounding*

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

- ✓ Net (increase) decrease in fair value of investments consists of market value of investments and realized gain/loss on sale of investments. FY 2021 market value adjustments for Water and Sewer total \$1.5 million and \$1.0 million, respectively. FY 2022 market value adjustments for Water and Sewer total \$2.8 million and \$3.9 million, respectively. Any difference is due to realized gain or loss on investments.
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
  - Bonded debt;
  - Lease obligation for the regional assets from the City of Detroit; and
  - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.
- ✓ The FY 2022 capital contribution in Nonoperating (revenue) expense represents \$7.0 million from the Oakland Macomb Interceptor Drainage District for assets placed in service during FY 2022.
- ✓ FY 2023 loss on disposal of capital assets includes sale of McKinstry warehouse.
- ✓ For FY 2023, GLWA is recognizing non-operating pension revenue rather than expense as a result of improved investment earnings for the plan.

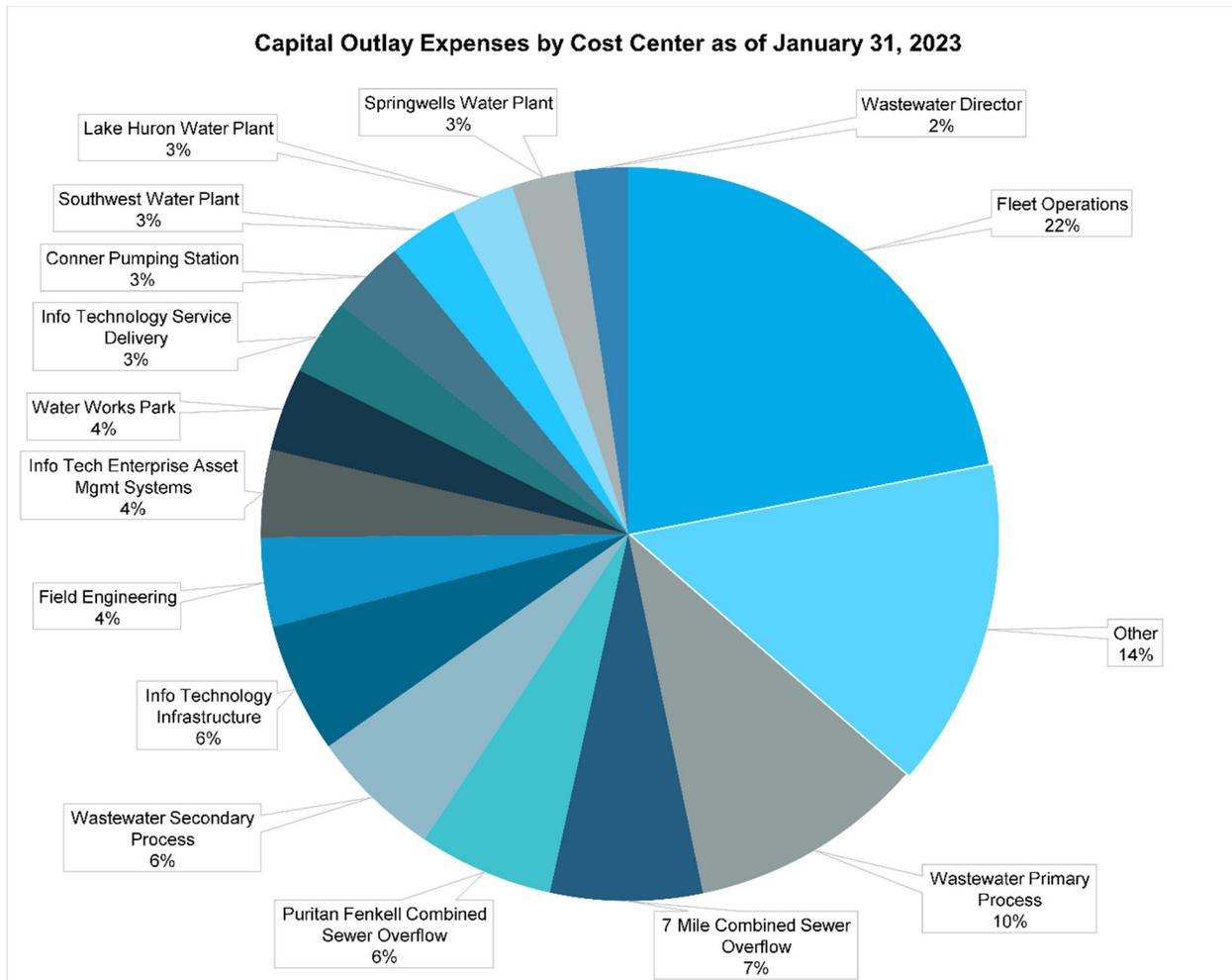


## Financial Activity Charts

### Chart 1 – Capital Outlay – Water and Sewer System Combined

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

Through January 31, 2023, total capital outlay spend is \$7.2 million. Following this chart is a sample list of projects and purchases from the total spend of \$7.2 million:



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

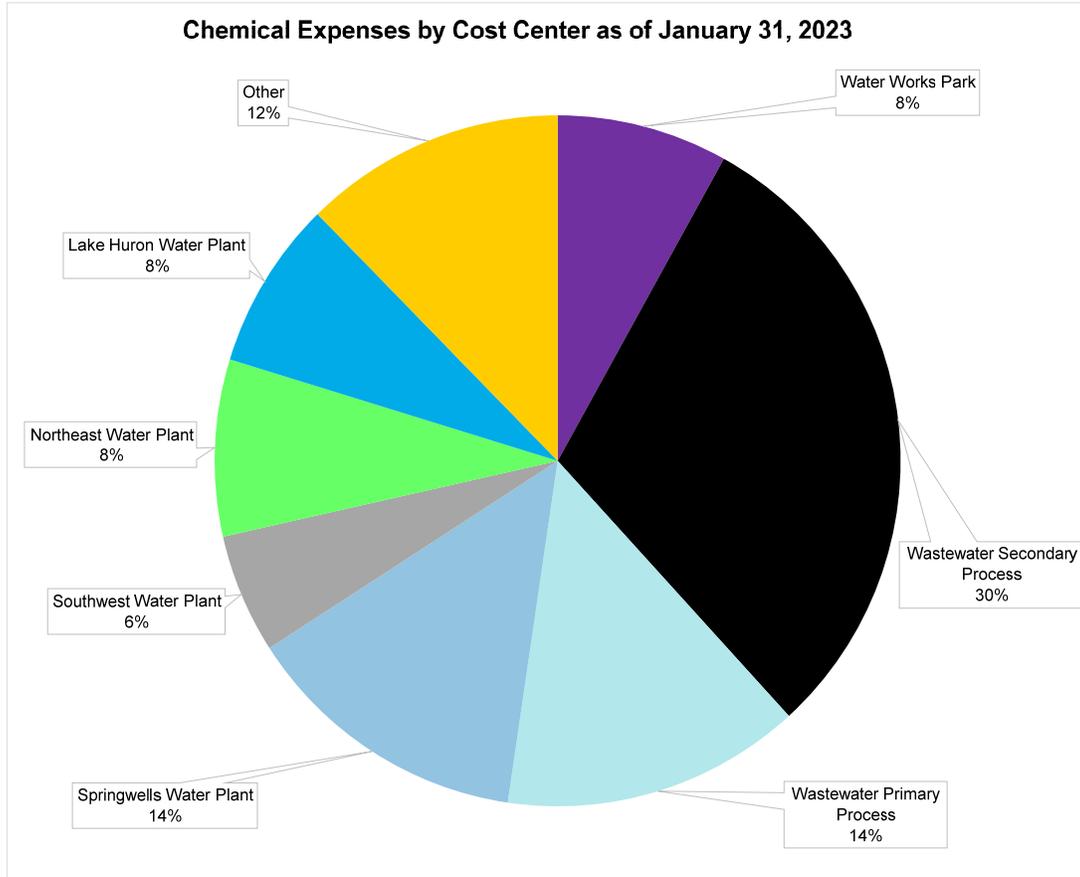
**Water Operations:** Furniture for multiple sites (\$177k); overhead door repair (\$160k); EDS Dashboard (\$86k); metering pump repairs (\$57k); pumps (\$49k); composite cylinders (\$45k) and motor (\$41k).

**Wastewater Operations:** CSO actuator replacement (\$793k); Water intake improvements (\$372k); VFD Replacement (\$199k); Rotork replacements (\$188k); WRRF Electrical Buildings project (\$163k); Scum hopper (\$153k); WRRF Actuator (\$132k); Pulsafeeders (\$121k); Gas detection unit (\$121k); Complex A pump replacement (\$110k); Water Champ (\$97k); Terrain litter vacuum (\$95k); Puritan-Fenkell courtyard accessibility improvements (\$84k); Flygt Mixer (\$73k); CSO PQM Meters (\$73k); Wastewater pumps (\$71k); Gate valve actuators (\$50k); Electric actuator (\$50k) and Rotork units (\$42k).

**Centralized & Administrative Facilities:** Trucks and vehicles (\$1.5m); Software (\$331k); Cloud Backup Project (\$322k); Computer hardware (\$205k) and Pressure transmitter (\$87k).

### ***Chart 2 – Chemical Expenses – Water and Sewer System Combined***

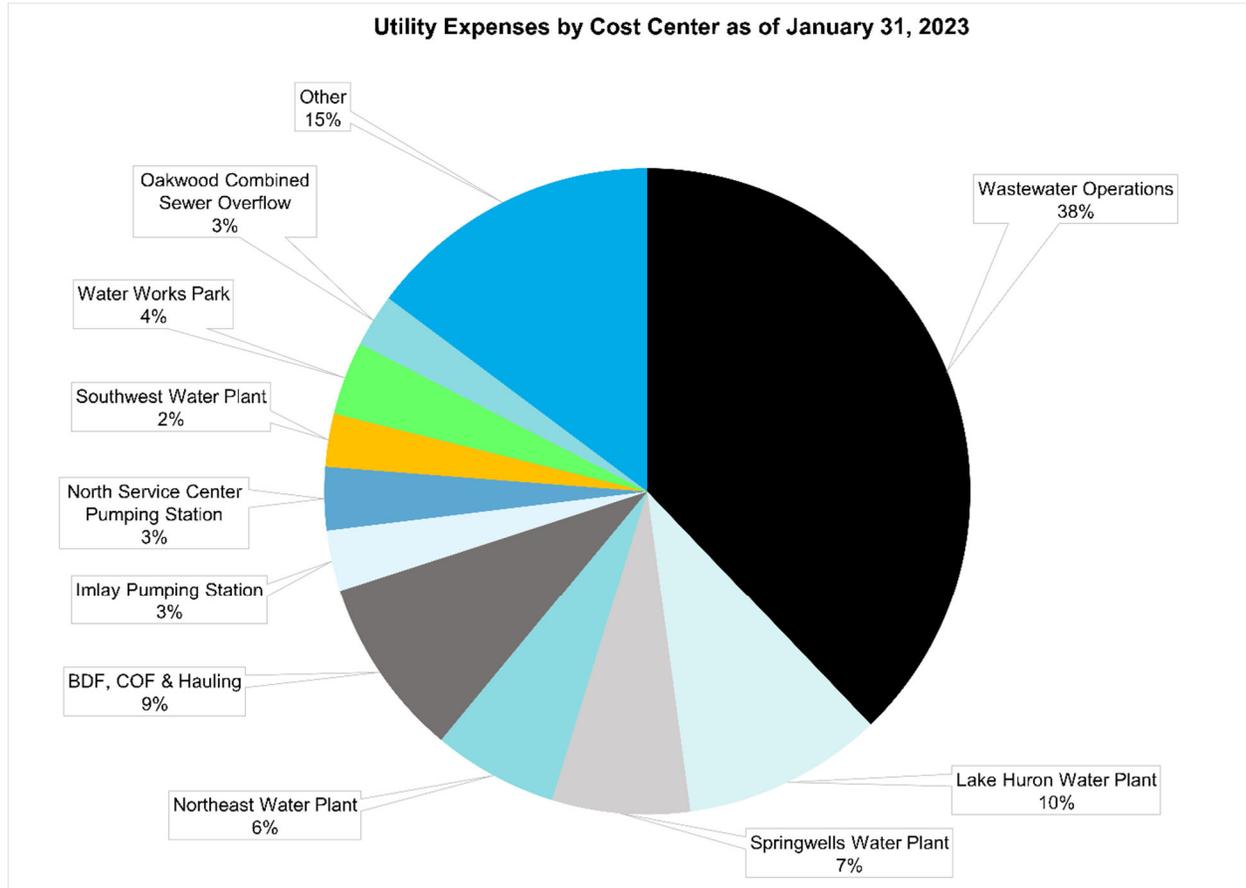
Chemical expenses are \$17.3 million through January 31, 2023. The allocation is shown in the chart below and remains consistent with prior periods.



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

**Chart 3 – Utility Expenses – Water and Sewer System Combined**

Utility expenses are \$42.9 million through January 31, 2023. The allocation is shown in the chart below and consistent with prior periods.



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

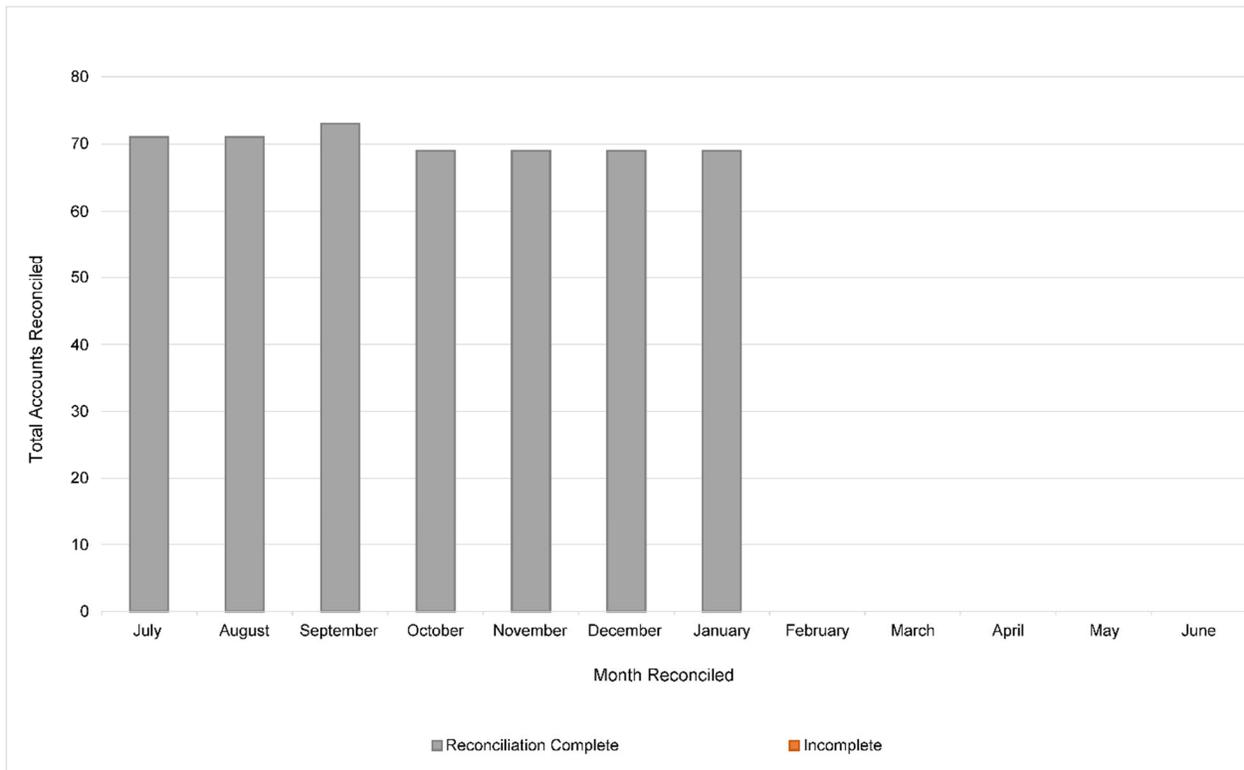


### Financial Operations KPI

This key performance indicator shown in **Chart 1 – Bank Reconciliation Completion Status** below provides a measure of the progress made in the month-end close process which includes bank reconciliations with a completed status at month end. Through January 31, 2023 all reconciliations are up-to-date and complete.

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

**Chart 1 – Bank Reconciliation Completion Status**



**Table 1 – Fiscal Year 2023 GL Cash Account Rollforward**

Total GL Cash accounts as of July 1, 2022	72
New GL Cash accounts	2
Inactivated GL Cash accounts	(5)
Total GL Cash accounts as of January 31, 2023	69

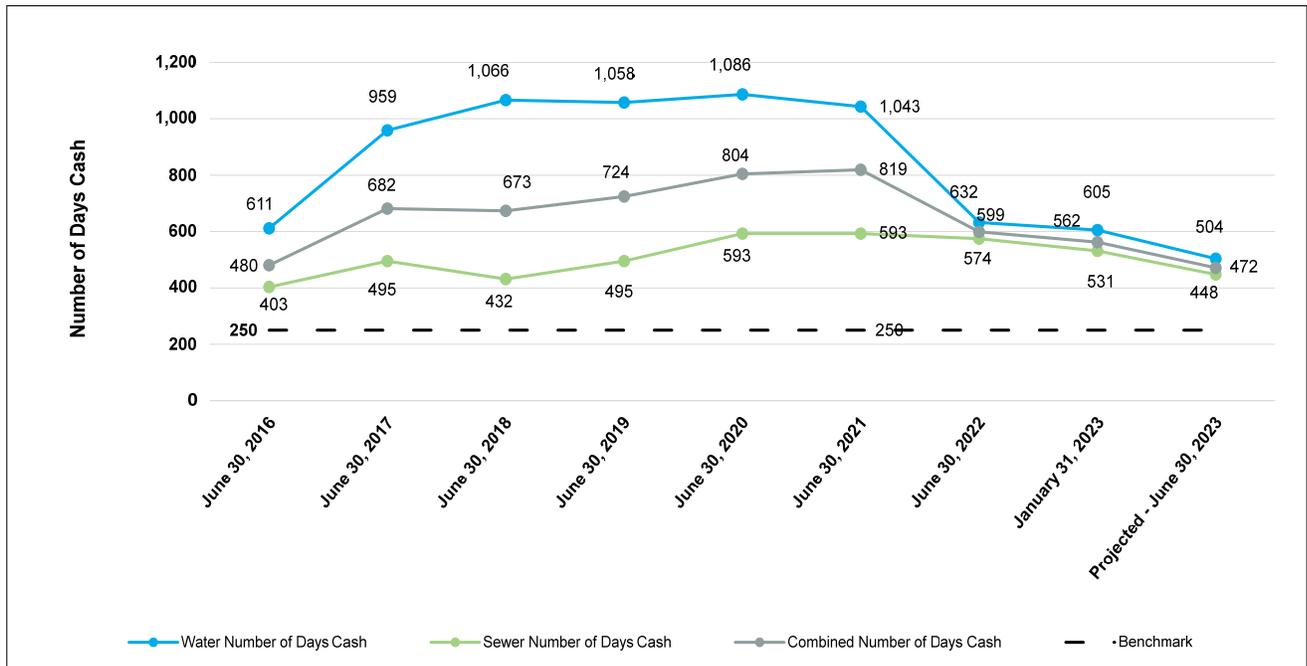


### Financial Operations KPI - Liquidity

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

Both GLWA Water and Sewer funds continue to exceed this target with Water at 605 and Sewer at 531 days cash on hand as of January 31, 2023. These balances remain strong for the regional system but did decrease in FY 2022 as I&E funds were used as planned to fund capital improvement projects. A September 2022 revenue bond transaction has replenished the construction bond fund and reduced the emphasis on I&E funding. The FY 2023 projection is calculated based on values from the GLWA FY 2023 – 2027 Budget & Five-Year Plan.

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



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

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

	<u>June 30, 2022</u>	<u>January 31, 2023</u>	<u>Projected June 30, 2023</u>
<b>Water Fund</b>			
Cash and Investments - Unrestricted	\$ 238,691,000	\$ 244,880,000	\$ 205,800,000
<b>Operating Expense</b>			
Operating Expense (a)	\$ 264,579,000	\$ 168,008,000	\$ 288,014,000
Less: Depreciation (a)	(123,196,000)	(78,925,000)	(135,300,000)
Less: Amortization of Intangible Asset (a)	(3,567,000)	(2,081,000)	(3,567,000)
Net Operating Expense	<u>\$ 137,816,000</u>	<u>\$ 87,003,000</u>	<u>\$ 149,148,000</u>
<b>Operating Expense per Day</b>	<u>\$ 378,000</u>	<u>\$ 405,000</u>	<u>\$ 409,000</u>
<b>Days Cash</b>			
Number of Days Cash	<u>632</u>	<u>605</u>	<u>504</u>
<b>Sewage Disposal Fund</b>			
Cash and Investments - Unrestricted	\$ 294,174,000	\$ 292,784,000	\$ 249,400,000
<b>Operating Expense</b>			
Operating Expense (a)	\$ 345,372,000	\$ 212,930,000	\$ 365,023,000
Less: Depreciation (a)	(158,014,000)	(94,383,000)	(161,800,000)
Less: Amortization of Intangible Asset (a)	(440,000)	-	-
Net Operating Expense	<u>\$ 186,919,000</u>	<u>\$ 118,546,000</u>	<u>\$ 203,223,000</u>
<b>Operating Expense per Day</b>	<u>\$ 512,000</u>	<u>\$ 551,000</u>	<u>\$ 557,000</u>
<b>Days Cash</b>			
Number of Days Cash	<u>574</u>	<u>531</u>	<u>448</u>
<b>Combined</b>			
Cash and Investments - Unrestricted	\$ 532,865,000	\$ 537,664,000	\$ 455,200,000
<b>Operating Expense</b>			
Operating Expense (a)	\$ 609,951,000	\$ 380,938,000	\$ 653,037,000
Less: Depreciation (a)	(281,210,000)	(173,308,000)	(297,100,000)
Less: Amortization of Intangible Asset (a)	(4,006,000)	(2,081,000)	(3,567,000)
Net Operating Expense	<u>\$ 324,735,000</u>	<u>\$ 205,549,000</u>	<u>\$ 352,370,000</u>
<b>Operating Expense per Day</b>	<u>\$ 890,000</u>	<u>\$ 956,000</u>	<u>\$ 965,000</u>
<b>Days Cash</b>			
Number of Days Cash	<u>599</u>	<u>562</u>	<u>472</u>
<i>Totals may be off due to rounding</i>			

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



The monthly Budget to Financial Statements Crosswalk includes the following.

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

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

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

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

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

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

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

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

**Table 1 – Crosswalk Budget Basis to Financial Reporting Basis (\$000)  
For the Four Months Ended January 31, 2023**

	Water	Sewer	Total
	\$	\$	\$
<b>Net Revenue Requirement Budget Variance (a)</b>	(173)	(312)	(485)
<b>Budgetary categories adjustments to financial reporting basis</b>			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	6,674	11,944	18,618
Prior year pension contribution accounted for in current year (d)	7,444	13,322	20,766
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	41,110	67,939	109,049
Accelerated pension B&C notes obligation portion (g)	119	268	387
Regional System lease (h)	3,300	4,034	7,334
Right to use lease - warehouse (h)		211	211
WRAP (i)	208	281	489
DWSD short term allocation (j)	-	-	-
Improvement & Extension Fund transfers (j)	16,610	16,377	32,987
<b>Nonbudgeted financial reporting categories adjustments</b>			
Depreciation and amortization (k)	(76,031)	(96,082)	(172,113)
Amortization - debt related (k)	7,856	(2,112)	5,744
Other nonoperating income (k)	-	-	-
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	(461)	(3,017)	(3,478)
Subscription Based Information Tech Arrangements (k)	-	-	-
Raw water rights obligation (l)	1,646	-	1,646
Investment earnings for construction fund (m)	2,994	3,370	6,364
Interest on DWSD note receivable (n)	-	-	-
Investment earnings unrealized gain/loss (o)	2,844	3,860	6,704
Improvement & extension fund operating expenses (p)	(792)	(3,548)	(4,339)
<b>Net Position Increase/(Decrease) per Financial Statements (b)</b>	<b>\$ 13,349</b>	<b>\$ 16,535</b>	<b>\$ 29,884</b>

**Table 2 - Explanatory Notes for Crosswalk**

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

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

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



The Monthly Capital Improvement Plan Financial Summary includes the following.

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

## Capital Improvement Plan Financial Summary

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

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

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

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

An additional amendment is currently recommended for approval to the GLWA Board of Directors at their April 26, 2023 meeting. This recommended amendment for the second quarter of FY 2023 brings the current capital spend rate adjustment from 100% to 116.2% for the water fund and from 100% to 110.7% for the sewer fund.

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

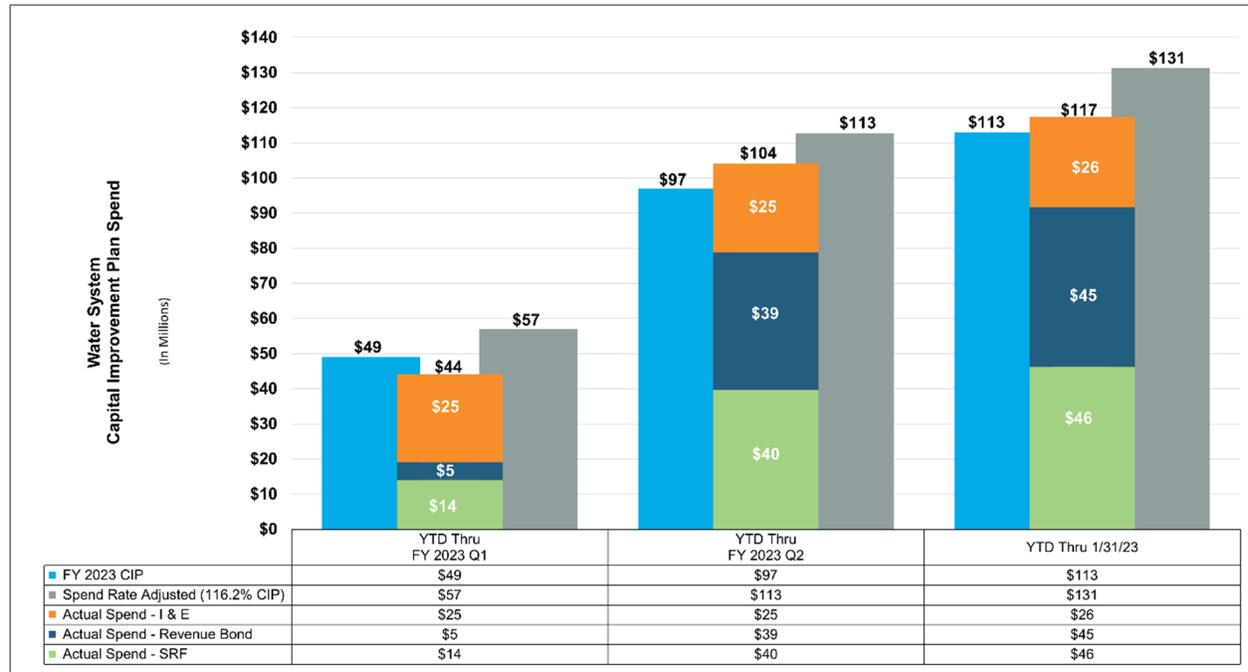
### Chart 1 – Water System Capital Improvement Plan Spend Incurred to Date

As of January 2023, the water system incurred over \$117 million of construction costs to date. This spend represents 130% of the original, Board-approved spend rate assumption on the FY 2023 CIP.

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

As of February 24, 2023, the Audit Committee recommended a spend rate adjustment to the GLWA Board of Directors for the water system from 100% to 116.2%. This change was reviewed by the GLWA Board of Directors on March 24, 2023 and is currently recommended for approval as part of the April 26, 2023 GLWA Board of Directors meeting consent agenda. Current water system spend represents 104% of that Board-reviewed spend rate adjustment.

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



All amounts are unaudited unless otherwise noted.

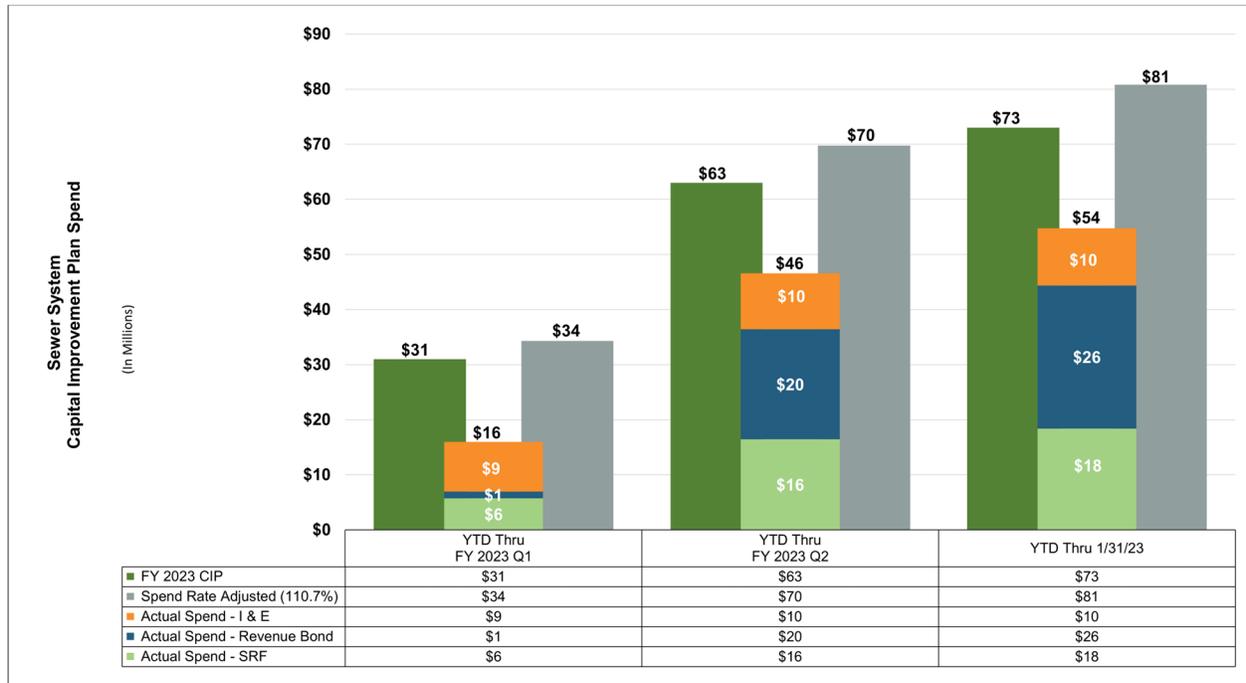
### Chart 2 – Sewer System Capital Improvement Plan Spend Incurred to Date

As of January 2023, the Sewer system incurred nearly \$54 million of construction costs to date. This spend represents 98% of the original, Board-approved spend rate assumption on the FY 2023 CIP.

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

As of February 24, 2023, the Audit Committee recommended a spend rate adjustment to the GLWA Board of Directors for the sewer system from 100% to 110.7%. This change was reviewed by the GLWA Board of Directors on March 24, 2023 and is currently recommended for approval as part of the April 26, 2023 GLWA Board of Directors meeting consent agenda. Current sewer system spend represents 74% of that Board-reviewed spend rate adjustment.

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





This report includes the following.

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

## **MBO Transfers to Accounts Held by GLWA**

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

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

**Table 1 – GLWA FY 2023 Water MBO Transfers** reflects the required transfers for FY 2023 completed through January 2023. MBO transfers for water totaling \$95.8 million have been transferred to GLWA accounts.

**Table 2 – GLWA FY 2023 Sewer MBO Transfers** reflects the required transfers for FY 2023 completed through January 2023. MBO transfers for sewer totaling \$129.2 million have been transferred to GLWA accounts.

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

**Table 1 – GLWA FY 2023 Water MBO Transfers**

	WATER						
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
<b>FY 2023</b>							
July 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	\$13,666,925
August 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
September 2022	\$ 12,070,642	\$504,000	\$891,308	\$200,975	-	-	13,666,925
October 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
November 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
December 2022	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
January 2023	\$ 12,070,642	\$504,000	\$891,308	\$223,209	-	-	13,689,159
<b>Total FY 2023</b>	<b>\$ 84,494,494</b>	<b>\$ 3,528,000</b>	<b>\$ 6,239,156</b>	<b>\$ 1,495,761</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$95,757,411</b>

**Table 2 – GLWA FY 2023 Sewer MBO Transfers**

	SEWER						
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
<b>FY 2023</b>							
July 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	\$17,785,592
August 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
September 2022	\$ 15,337,717	\$902,000	\$1,223,950	\$321,925	-	-	17,785,592
October 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
November 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
December 2022	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
January 2023	\$ 16,534,372	\$902,000	\$1,223,950	\$300,892	-	-	18,961,214
<b>Total FY 2023</b>	<b>\$ 112,150,639</b>	<b>\$6,314,000</b>	<b>\$8,567,650</b>	<b>\$2,169,343</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$129,201,632</b>

**Table 3 – GLWA MBO Transfer History**

	GLWA MBO Transfer History						
	WATER						
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
Total FY 2016	\$71,052,000	\$6,037,100	\$10,297,200	\$1,983,300	\$2,326,900	\$606,000	\$92,302,500
Total FY 2017	111,879,600	6,037,200	10,297,200	2,077,200	360,000	-	130,651,200
Total FY 2018	121,562,604	6,048,000	10,695,696	2,159,400	-	-	140,465,700
Total FY 2019	121,562,604	6,048,000	10,695,696	2,061,000	-	-	140,367,300
Total FY 2020	126,840,204	6,048,000	10,695,683	1,980,804	-	-	145,564,691
Total FY 2021	134,127,300	6,048,000	10,695,700	2,324,200	-	-	153,195,200
Total FY 2022	143,933,800	6,048,000	10,695,700	2,376,600	-	-	163,054,100
Total FY 2023 (7 months)	84,494,494	3,528,000	6,239,156	1,495,761	-	-	95,757,411
<b>Life to Date</b>	<b>\$915,452,606</b>	<b>\$45,842,300</b>	<b>\$80,312,031</b>	<b>\$16,458,265</b>	<b>\$2,686,900</b>	<b>\$606,000</b>	<b>\$1,061,358,102</b>
	SEWER						
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
Total FY 2016	\$100,865,600	\$10,838,400	\$14,025,800	\$2,523,400	\$5,591,700	\$779,600	\$134,624,500
Total FY 2017	175,858,800	10,838,400	14,026,800	2,654,400	2,654,400	-	206,032,800
Total FY 2018	191,079,396	10,824,000	14,687,496	2,760,804	-	-	219,351,696
Total FY 2019	191,079,396	10,824,000	14,687,496	2,870,992	-	-	219,461,884
Total FY 2020	181,925,800	10,824,000	14,687,517	2,887,300	-	-	210,324,617
Total FY 2021	182,296,000	10,824,000	14,687,500	3,764,300	-	-	211,571,800
Total FY 2022	191,908,600	10,824,000	14,687,400	3,868,700	-	-	221,288,700
Total FY 2023 (7 months)	112,150,639	6,314,000	8,567,650	2,169,343	-	-	129,201,632
<b>Life to Date</b>	<b>\$1,327,164,231</b>	<b>\$82,110,800</b>	<b>\$110,057,659</b>	<b>\$23,499,239</b>	<b>\$8,246,100</b>	<b>\$779,600</b>	<b>\$1,551,857,629</b>

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## MBO Required and Lease Payment Transfers to DWSD

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

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

**Table 4 – DWSD FY 2023 Water MBO Transfers** reflects the required transfers for FY 2023 completed through January 2023. MBO transfers for Water totaling \$36.3 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$2,922,100 of the lease payment be utilized to offset a portion of debt service.

**Table 5 – DWSD FY 2023 Sewer MBO Transfers** reflects the required transfers for FY 2023 completed through January 2023. MBO transfers for Sewer totaling \$47.4 million have been transferred to accounts held by DWSD. For FY 2023, DWSD has requested that \$4,388,300 of the lease payment be utilized to offset a portion of debt service.

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

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

**Table 4 – DWSD FY 2023 Water MBO Transfers**

WATER				
	<u>Operations &amp; Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&amp;E Fund)</u>	<u>Total Water</u>
FY 2023				
July 2022	\$2,540,833	\$356,000	\$1,150,750	\$4,047,583
August 2022	2,540,833	356,000	1,150,750	4,047,583
September 2022	2,540,833	356,000	1,150,750	4,047,583
October 2022	3,884,345	356,000	1,791,739	6,032,084
November 2022	3,884,345	356,000	1,791,739	6,032,084
December 2022	3,884,345	356,000	1,791,739	6,032,084
January 2023	3,884,345	356,000	1,791,739	6,032,084
Total FY 2023	\$23,159,879	\$2,492,000	\$10,619,206	\$36,271,085

**Table 5 – DWSD FY 2023 Sewer MBO Transfers**

SEWER				
	<u>Operations &amp; Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&amp;E Fund)</u>	<u>Total Sewer</u>
FY 2023				
July 2022	\$5,282,500	\$238,000	\$2,291,667	\$7,812,167
August 2022	5,282,500	238,000	2,291,667	7,812,167
September 2022	5,282,500	238,000	2,291,667	7,812,167
October 2022	3,949,878	238,000	1,804,078	5,991,956
November 2022	3,949,878	238,000	1,804,078	5,991,956
December 2022	3,949,878	238,000	1,804,078	5,991,956
January 2023	3,949,878	238,000	1,804,078	5,991,956
Total FY 2023	\$31,647,012	\$1,666,000	\$14,091,313	\$47,404,325

**Table 6 – DWSD Water MBO and Lease Payment Transfer History**  
**Transfers to DWSD**

	<b>WATER</b>			
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
<b>FY 2016 *</b>				
MBO/Lease Requirement	\$26,185,600	\$4,262,700	\$22,500,000	\$52,948,300
Offset to Debt Service	-	-	(2,326,900)	(2,326,900)
Net MBO Transfer	26,185,600	4,262,700	20,173,100	50,621,400
<b>FY 2017</b>				
MBO/Lease Requirement	33,596,400	4,262,400	22,500,000	60,358,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	33,596,400	4,262,400	22,500,000	60,358,800
<b>FY 2018</b>				
MBO/Lease Requirement	35,059,704	4,272,000	22,500,000	61,831,704
Offset to Debt Service	-	-	(1,875,000)	(1,875,000)
Net MBO Transfer	35,059,704	4,272,000	20,625,000	59,956,704
<b>FY 2019</b>				
MBO/Lease Requirement	35,484,300	4,272,000	22,500,000	62,256,300
Offset to Debt Service	-	-	(3,972,200)	(3,972,200)
Net MBO Transfer	35,484,300	4,272,000	18,527,800	58,284,100
<b>FY 2020</b>				
MBO/Lease Requirement	34,662,400	4,272,000	22,500,000	61,434,400
Offset to Debt Service	-	-	(3,548,000)	(3,548,000)
Net MBO Transfer	34,662,400	4,272,000	18,952,000	57,886,400
<b>FY 2021</b>				
MBO/Lease Requirement	35,833,900	4,272,000	22,500,000	62,605,900
Offset to Debt Service	-	-	(8,278,300)	(8,278,300)
Net MBO Transfer	35,833,900	4,272,000	14,221,700	54,327,600
<b>FY 2022</b>				
MBO/Lease Requirement	29,989,000	4,272,000	22,500,000	56,761,000
Offset to Debt Service	-	-	(8,925,400)	(8,925,400)
Net MBO Transfer	29,989,000	4,272,000	13,574,600	47,835,600
<b>FY 2023 (7 months)</b>				
MBO/Lease Requirement	23,159,879	2,492,000	13,125,000	38,776,879
Offset to Debt Service	-	-	(2,505,794)	(2,505,794)
Net MBO Transfer	23,159,879	2,492,000	10,619,206	36,271,085
<b>Life-to-Date</b>				
MBO/Lease Requirement	253,971,183	32,377,100	170,625,000	456,973,283
Offsets	-	-	(31,431,594)	(31,431,594)
<b>Total Water</b>	<b>253,971,183</b>	<b>32,377,100</b>	<b>139,193,406</b>	<b>425,541,689</b>

**Table 7 – DWSD Sewer MBO and Lease Payment Transfer History**

	SEWER			
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Sewer
<b>FY 2016 *</b>				
MBO/Lease Requirement	\$19,774,300	\$2,861,800	\$27,500,000	\$50,136,100
Offset to Debt Service	-	-	(19,991,500)	(19,991,500)
<b>Total MBO Transfer</b>	19,774,300	2,861,800	7,508,500	30,144,600
<b>FY 2017</b>				
MBO/Lease Requirement	41,535,600	2,862,000	27,500,000	71,897,600
Offset to Debt Service	-	-	-	-
<b>Total MBO Transfer</b>	41,535,600	2,862,000	27,500,000	71,897,600
<b>FY 2018</b>				
MBO/Lease Requirement	60,517,992	2,856,000	27,500,000	90,873,992
Offset to Debt Service	-	-	(9,166,664)	(9,166,664)
<b>Total MBO Transfer</b>	60,517,992	2,856,000	18,333,336	81,707,328
<b>FY 2019</b>				
MBO/Lease Requirement	56,767,920	2,856,000	27,500,000	87,123,920
Offset to Debt Service	-	-	(4,415,000)	(4,415,000)
<b>Total MBO Transfer</b>	56,767,920	2,856,000	23,085,000	82,708,920
<b>FY 2020</b>				
MBO/Lease Requirement	62,343,500	2,856,000	27,500,000	92,699,500
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(5,032,700)	(5,032,700)
<b>Total MBO Transfer</b>	55,243,500	2,856,000	22,467,300	80,566,800
<b>FY 2021</b>				
MBO/Lease Requirement	69,915,700	2,856,000	27,500,000	100,271,700
Offset to Debt Service	-	-	(3,257,200)	(3,257,200)
<b>Total MBO Transfer</b>	69,915,700	2,856,000	24,242,800	97,014,500
<b>FY 2022</b>				
MBO/Lease Requirement	61,301,000	2,856,000	27,500,000	90,735,453
Offset to Debt Service	-	-	(5,529,297)	(4,607,750)
<b>Total MBO Transfer</b>	61,301,000	2,856,000	21,970,703	86,127,703
<b>FY 2023 (7 months)</b>				
MBO/Lease Requirement	31,647,012	1,666,000	16,041,667	49,354,679
Offset to Debt Service	-	-	(1,950,354)	(1,950,354)
<b>Total MBO Transfer</b>	31,647,012	1,666,000	14,091,313	47,404,325
<b>Life-to-Date</b>				
MBO/Lease Requirement	403,803,024	21,669,800	208,541,667	633,092,944
Offsets	(7,100,000)	-	(49,342,715)	(55,521,168)
<b>Total Sewer</b>	396,703,024	21,669,800	159,198,952	577,571,776

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



This report includes the following:

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

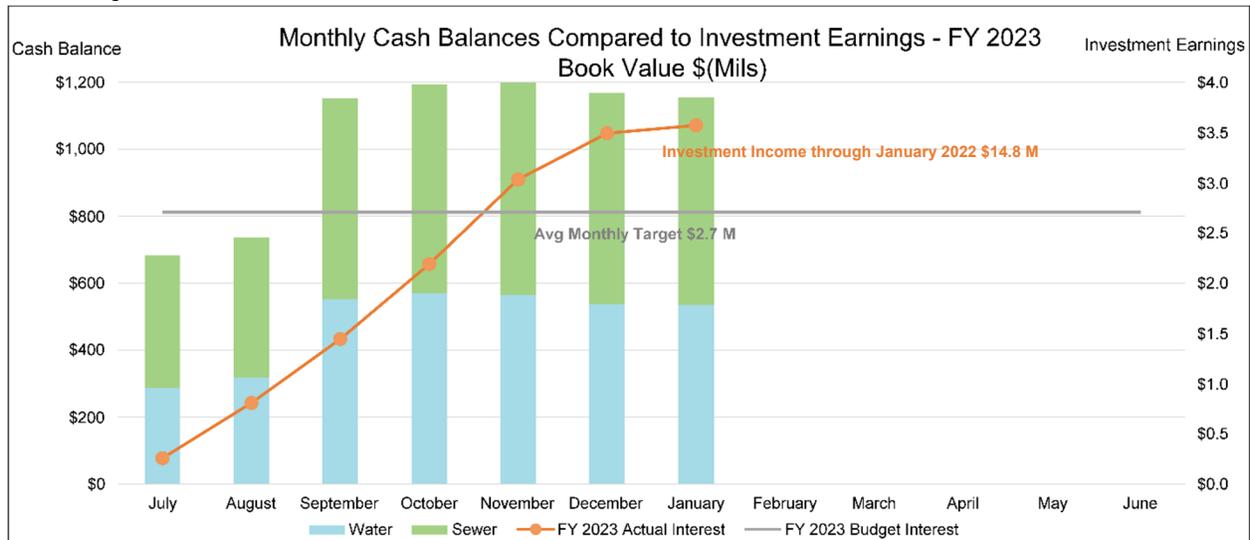
## Monthly Cash Balances Compared to Investment Income

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

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of January 2023, GLWA earned investment income of \$3.6 million and cumulative FY 2023 earnings through January 2023 of \$14.8 million. Total investment income reported includes earnings from revenue requirement funds as well as construction bond funds.

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

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



\$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	\$287	\$318	553	570	564	538	535	-	-	-	-	-
Sewer	\$397	\$418	599	624	654	631	619	-	-	-	-	-
Total	\$684	\$737	1,152	1,194	1,219	1,169	1,154	-	-	-	-	-
Investment Income	\$0.3	\$0.8	\$1.4	\$2.2	\$3.0	\$3.5	\$3.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

## Cash Balance Detail

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

### ***Funds Held Within Trust:***

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

### ***Funds Held Outside Trust:***

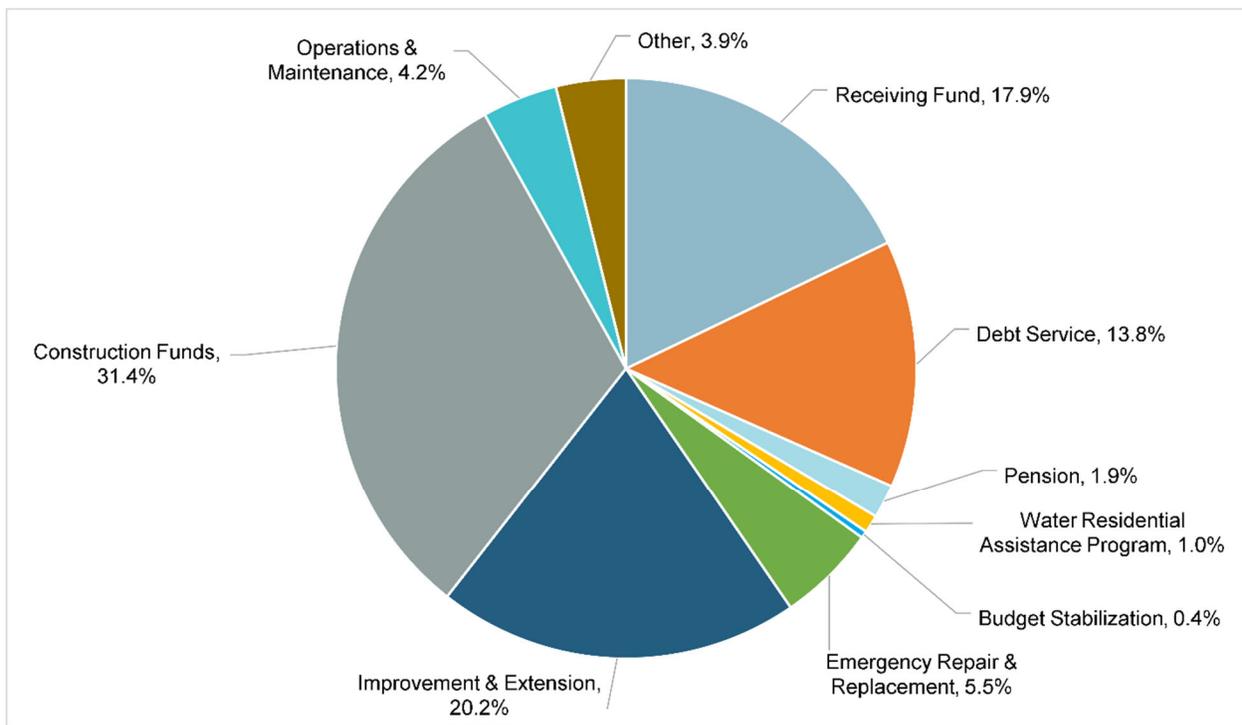
- Bond Proceeds – funds raised from debt issuance used for costs of repairs, construction, and improvements of the regional system
- Operations & Maintenance (O&M) – funds used to meet the operational and maintenance requirements of the regional system
- Other – retainage funds held on behalf of contractors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

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

**Chart 2 – Cash Balances - Water Funds as of January 2023** - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of January 31, 2023 is \$535 million. The allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA’s commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

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

**Chart 2 – Cash Balances - Water Funds as of January 2023**

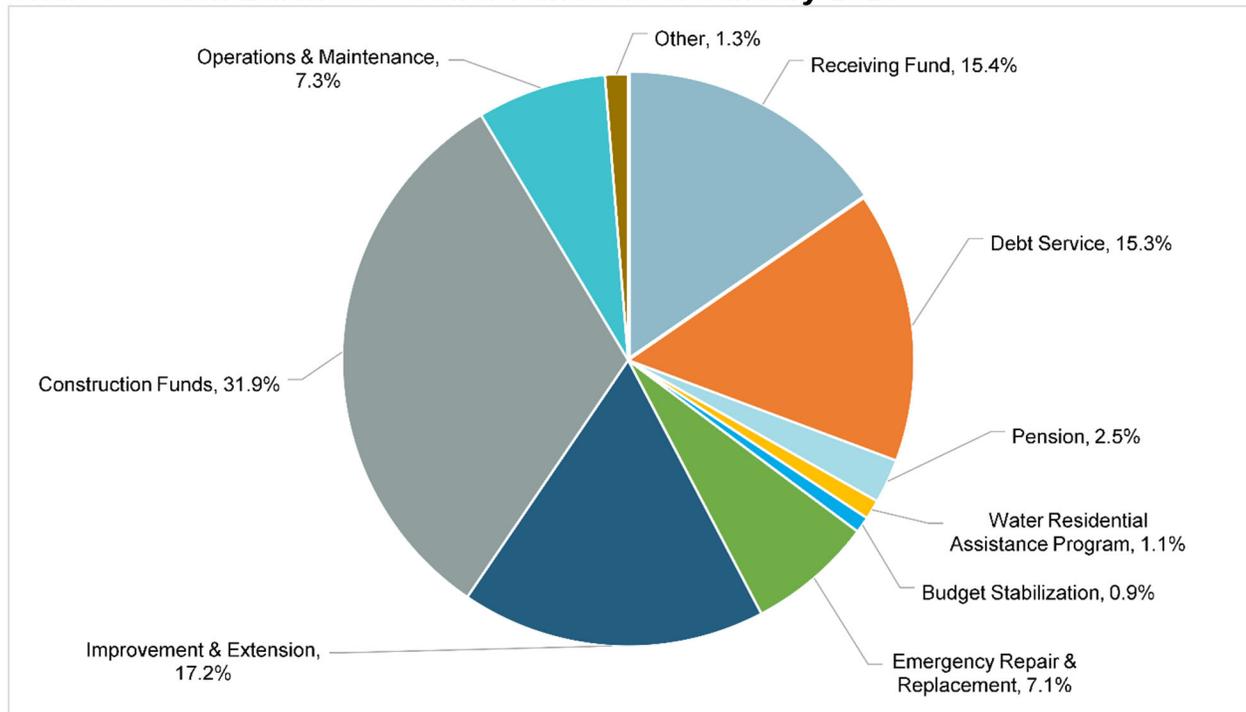


**Note:** Due to rounding totals may not equal 100%.

**Chart 3 – Cash Balances - Sewer Funds as of January 2023** - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of January 31, 2023 is \$619 million. Like the Water Funds, the allocation of balances among the I&E, bond proceeds, and debt service reserve funds reflects GLWA’s commitment to funding capital improvements and meeting debt reserve requirements while simultaneously increasing I&E resources to fund pay-as-you-go capital funding to reduce long-term debt in the future.

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

**Chart 3 – Cash Balances - Sewer Funds as of January 2023**



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



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

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

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

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

## DWSD Retail Water Billings and Collections

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

**Table 1 - DWSD Retail Billings** shows the FY 2023 water usage and billed revenue which are provided by DWSD staff. As of January 31, 2023, the DWSD usage was at 109.84% of the budget and billed revenue was at 106.20% of budget.

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

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

**Table 1 – DWSD Retail Water Billing**

RETAIL WATER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	257,000	11,956,000	244,749	9,490,589	(12,251)	(2,465,411)	266,704	10,064,683
August	248,900	11,711,000	277,313	13,301,941	28,413	1,590,941	264,644	9,994,589
September	218,600	10,776,000	234,806	11,591,601	16,206	815,601	232,348	9,169,300
October	198,900	10,184,900	239,062	11,730,809	40,162	1,545,909	204,290	8,422,092
November	194,500	9,954,500	212,663	10,706,519	18,163	752,019	209,830	8,544,611
December	193,700	9,902,000	222,502	11,073,513	28,802	1,171,513	204,072	8,442,152
January	198,600	10,050,700	227,748	11,257,742	29,148	1,207,042	221,369	8,819,430
February	190,400	9,842,000					204,489	8,438,300
March	204,900	10,276,600					233,190	9,221,716
April	192,400	9,922,800					192,495	8,305,331
May	214,500	10,567,000					245,471	9,530,928
June	245,700	11,523,800					272,811	10,281,954
<b>Total</b>	<b>2,558,100</b>	<b>126,667,300</b>	<b>1,658,843</b>	<b>79,152,714</b>	<b>148,643</b>	<b>4,617,614</b>	<b>2,751,713</b>	<b>109,235,086</b>
Subtotals ytd	1,510,200	74,535,100	1,658,843	79,152,714	148,643	4,617,614		
Achievement of Budget			109.84%	106.20%				

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

(2) Retail Revenues include Miscellaneous Revenues and Penalties

**Table 2 – DWSD Retail Water Collections**

Water				
Month	Current Year	Prior Year	Variance	Ratio
February	10,156,126	6,426,553	3,729,573	58.03%
March	11,093,125	8,458,827	2,634,298	31.14%
April	7,431,900	7,536,272	(104,372)	-1.38%
May	7,660,852	7,365,204	295,648	4.01%
June	9,123,179	8,917,831	205,348	2.30%
July	8,518,373	8,387,705	130,668	1.56%
August	9,636,219	8,588,507	1,047,712	12.20%
September	5,082,383	8,041,683	(2,959,300)	-36.80%
October	13,082,745	8,512,614	4,570,131	53.69%
November	10,270,582	7,926,331	2,344,251	29.58%
December	11,630,994	8,121,586	3,509,408	43.21%
January	8,857,268	6,919,040	1,938,228	28.01%
<b>Rolling, 12-Month Total</b>	<b>112,543,746</b>	<b>95,202,153</b>		
<b>Rolling, 12-Month Average</b>	<b>9,378,646</b>	<b>7,933,513</b>		

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## DWSD Retail Sewer Billings and Collections

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

**Table 3 - DWSD Retail Sewer Billings** shows the FY 2023 sewer billed revenue which are provided by DWSD staff. As of January 31, 2023, the DWSD usage was at 105.11% of the budget and billed revenue was at 101.52% of budget.

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

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

**Table 3 - DWSD Retail Sewer Billings**

RETAIL SEWER CUSTOMERS								
Month (1)	FY 2023 - Original Budget		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	211,900	27,858,000	223,661	29,297,748	11,761	1,439,748	219,791	29,462,804
August	217,600	28,027,300	231,809	29,640,202	14,209	1,612,902	249,522	31,231,624
September	188,400	27,285,000	197,455	27,523,933	9,055	238,933	215,748	29,401,234
October	182,400	27,102,800	194,154	27,375,180	11,754	272,380	190,483	27,936,280
November	167,500	26,696,800	172,579	26,525,064	5,079	(171,736)	194,135	28,032,939
December	166,500	26,780,100	174,896	26,676,360	8,396	(103,740)	189,283	27,836,982
January	169,200	26,797,900	175,562	26,403,544	6,362	(394,356)	203,526	28,493,782
February	166,100	26,702,400					189,525	27,837,984
March	176,100	26,994,800					212,176	29,032,277
April	166,400	26,761,800					179,291	27,196,557
May	182,100	27,166,400					220,082	29,382,758
June	210,600	27,861,300					242,746	30,704,517
<b>Total</b>	<b>2,204,800</b>	<b>326,034,600</b>	<b>1,370,116</b>	<b>193,442,031</b>	<b>66,616</b>	<b>2,894,131</b>	<b>2,506,308</b>	<b>346,549,738</b>
Subtotals ytd	1,303,500	190,547,900	1,370,116	193,442,031		2,894,131		
Achievement of Budget/Goal			105.11%	101.52%				

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

(2) Retail Revenues include Miscellaneous Revenues and Penalties

**Table 4 – DWSD Retail Sewer Collections**

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
February	24,495,922	22,777,467	1,718,455	7.54%
March	29,410,086	25,002,508	4,407,578	17.63%
April	22,115,076	21,196,170	918,906	4.34%
May	20,952,592	21,888,687	(936,095)	-4.28%
June	25,922,279	32,508,249	(6,585,970)	-20.26%
July	30,935,343	24,185,252	6,750,091	27.91%
August	26,064,896	25,036,198	1,028,698	4.11%
September	15,261,467	22,635,796	(7,374,329)	-32.58%
October	28,182,933	25,119,240	3,063,693	12.20%
November	21,994,899	23,505,249	(1,510,350)	-6.43%
December	23,756,153	24,880,743	(1,124,590)	-4.52%
January	23,760,629	23,020,491	740,138	3.22%
<b>Rolling 12-Month Total</b>	<b>292,852,275</b>	<b>291,756,050</b>		
<b>Rolling, 12-Month Average</b>	<b>24,404,356</b>	<b>24,313,004</b>		

## DWSD Retail Water and Sewer Accounts Receivable Aging Report

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

**Table 5** is a summary of the monthly sales, total receivables, bad debt allowance and net Water and Sewer receivables as of January 31, 2023 with comparative totals from June 30, 2022, June 30, 2021 and June 30, 2020. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The table provides a comparison of days in accounts receivable calculated as net receivables divided by daily sales and confirms that over time days in AR is held in check overall due to a consistent practice of adjusting the allowance for doubtful accounts monthly. To the extent this allowance is adjusted, and bad debt expense is recognized in the DWSD budget, it does not impact GLWA.

**Table 6** is a summary of the total, current and non-current Water and Sewer receivables by category as of January 31, 2023 with comparative totals from January 31, 2022. This table does not include past due accounts that have been transferred to the City of Detroit for collection as tax liens.

The Total Balance and Total Bad Debt Allowance as of January 31, 2023 are reflective of the values in both the Table 5 Summary and Table 6 breakdown.

**Table 5 – DWSD Retail Accounts Receivable Aging Report – Summary**

Summary						
Period Ending	Monthly Sales	Receivables			Days in AR (1)	
		Total	Allowance	Net		
June 30, 2020	\$ 33,061,000	\$ 213,846,000	\$ (142,882,000)	\$ 70,964,000	64	
June 30, 2021	\$ 36,335,000	\$ 248,055,000	\$ (200,146,000)	\$ 47,909,000	40	
June 30, 2022	\$ 39,022,000	\$ 300,346,000	\$ (253,924,000)	\$ 46,422,000	36	
January 31, 2023	\$ 39,496,000	\$ 320,806,000	\$ (258,731,000)	\$ 62,075,000	47	

*Totals may be off due to rounding*

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

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

Sales Class	# of Accounts	Avg. Balance	Current	> 30 Days	> 60 Days	> 180 Days	A/R Balance
Residential	197,776	\$ 880.90	\$ 13,557,000 7.8%	\$ 8,317,000 4.8%	\$ 30,426,000 17.5%	\$ 121,921,000 70.0%	\$ 174,220,000 100.0%
Commercial	20,973	1,317.84	8,822,000 31.9%	2,596,000 9.4%	4,484,000 16.2%	11,738,000 42.5%	27,639,000 100.0%
Industrial	3,590	4,420.45	5,089,000 32.1%	2,067,000 13.0%	2,487,000 15.7%	6,226,000 39.2%	15,869,000 100.0%
Tax Exempt	3,828	779.96	573,000 19.2%	222,000 7.4%	493,000 16.5%	1,697,000 56.8%	2,986,000 100.0%
Government	78,207	424.83	3,800,000 11.4%	2,779,000 8.4%	6,719,000 20.2%	19,927,000 60.0%	33,225,000 100.0%
Drainage	32,617	839.06	2,530,000 9.2%	1,475,000 5.4%	4,255,000 15.5%	19,108,000 69.8%	27,368,000 100.0%
<b>Subtotal - Active Accounts</b>	<b>336,991</b>	<b>\$ 834.76</b>	<b>\$ 34,370,000</b> 12.2%	<b>\$ 17,456,000</b> 6.2%	<b>\$ 48,863,000</b> 17.4%	<b>\$ 180,618,000</b> 64.2%	<b>\$ 281,307,000</b> 100.0%
Inactive Accounts	323,428	122.13	57,000 0.1%	62,000 0.2%	265,000 0.7%	39,115,000 99.0%	39,499,000 100.0%
<b>Total</b>	<b>660,419</b>	<b>\$ 485.76</b>	<b>\$ 34,426,000</b> 10.7%	<b>\$ 17,518,000</b> 5.5%	<b>\$ 49,128,000</b> 15.3%	<b>\$ 219,733,000</b> 68.5%	<b>\$ 320,806,000</b> 100.0%
<i>% of Total A/R</i>							
Water Fund	248,595	261.40	\$ 9,608,000	\$ 3,448,000	\$ 9,640,000	\$ 42,286,000	\$ 64,983,000
Sewer Fund	287,182	890.80	\$ 24,818,000	\$ 14,070,000	\$ 39,488,000	\$ 177,447,000	\$ 255,823,000
<b>Total January 31, 2023 (a)</b>	<b>660,419</b>	<b>485.76</b>	<b>\$ 34,426,000</b>	<b>\$ 17,518,000</b>	<b>\$ 49,128,000</b>	<b>\$ 219,733,000</b>	<b>\$ 320,806,000</b>
Water Fund- Allowance							\$ (50,117,000)
Sewer Fund- Allowance							\$ (208,614,000)
<b>Total Bad Debt Allowance</b>							<b>\$ (258,731,000)</b>
Comparative - January 2022 (b)	641,258	413.81	\$ 31,510,000	\$ 14,232,000	\$ 44,750,000	\$ 174,869,000	\$ 265,360,000
<b>Difference (a) - (b)</b>	<b>19,161</b>		<b>\$ 2,917,000</b>	<b>\$ 3,286,000</b>	<b>\$ 4,378,000</b>	<b>\$ 44,864,000</b>	<b>\$ 55,445,000</b>

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023



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

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

## Wholesale Water Billings and Collections

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

### Service Arrangement Type

Model Contract	84
Emergency	1
Older Contracts	2
Total	87

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

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

**Table 1 - Wholesale Water Billings** shows the FY 2023 water billed usage and revenues. As of January 31, 2023, the billed usage was at 101.43% of the original plan and billed revenue at 100.85% of the original plan. Billings and usage from the City of Flint are included as they were assumed in the FY 2023 Budget.

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

**Table 2 - Wholesale Water Collections** shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods. Current year collections are trending above with the prior year for the twelve-month period ending January 31, 2023.

**Table 1 – FY 2023 Wholesale Water Billings Report**

WHOLESALE WATER CHARGES								
Month (1)	FY 2023 Charges (3)		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	1,565,900	33,114,500	1,664,936	34,349,872	99,036	1,235,372	1,342,686	29,642,785
August	1,513,500	32,632,400	1,418,347	31,555,444	(95,153)	(1,076,956)	1,417,142	30,604,230
September	1,271,200	29,674,600	1,308,481	30,306,713	37,281	632,113	1,298,750	29,065,588
October	1,033,200	27,094,600	1,055,245	27,391,089	22,045	296,489	1,006,217	26,123,483
November	901,100	25,815,700	906,669	25,911,801	5,569	96,101	905,525	25,117,181
December	966,900	26,357,900	990,177	26,652,607	23,277	294,707	958,879	25,542,432
January	954,300	26,296,700	979,573	26,536,118	25,273	239,418	979,803	25,791,405
February	877,900	25,580,400					875,553	24,800,493
March	965,300	26,359,200					963,825	25,592,186
April	907,300	25,855,100					912,124	25,139,078
May	1,086,000	27,886,200					1,094,002	27,116,529
June	1,470,200	32,090,900					1,385,287	30,301,351
<b>Total</b>	<b>13,512,800</b>	<b>338,758,200</b>	<b>8,323,428</b>	<b>202,703,643</b>	<b>117,328</b>	<b>1,717,243</b>	<b>13,139,793</b>	<b>324,836,740</b>
Subtotals ytd	8,206,100	200,986,400	8,323,428	202,703,643	117,328	1,717,243		
Achievement of Original Plan			101.43%	100.85%				
Billing Adjustments (4)			3,998	(158,333)				
			8,327,426	202,545,310				
			101.48%	100.78%				

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

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

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

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

**Table 2 - Wholesale Water Collections**

Water				
Month	Current Year	Prior Year	Variance	Ratio
February	24,919,847	25,694,176	(25,694,176)	-100.00%
March	22,123,572	20,854,506	1,269,066	6.09%
April	21,726,941	23,545,123	(1,818,182)	-7.72%
May	27,717,969	24,878,479	2,839,490	11.41%
June	26,379,503	25,403,968	975,535	3.84%
July	14,435,092	23,709,847	(9,274,755)	-39.12%
August	41,154,992	31,668,492	9,486,500	29.96%
September	21,887,632	23,849,618	(1,961,986)	-8.23%
October	38,029,648	29,212,277	8,817,371	30.18%
November	30,903,329	25,265,770	5,637,559	22.31%
December	34,298,469	25,302,369	8,996,100	35.55%
January	19,182,054	31,280,599	(12,098,545)	-38.68%
<b>Rolling 12-Month Total</b>	<b>322,759,047</b>	<b>310,665,224</b>		
<b>Rolling, 12-Month Average</b>	<b>26,896,587</b>	<b>25,888,769</b>		

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## Wholesale Sewer Billings and Collections

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

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

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

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

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

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

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

The shift in wholesale sewer collection patterns is largely attributable to the timing of payments received. There are several large accounts whose payments swing between the end of the current month and the beginning of the next month. Current year collections are trending in line with the twelve-month period ending January 31, 2023.

**Table 3 – FY 2023 Wholesale Sewer Billings Report**

WHOLESALE SEWER CHARGES								
Month (1)	FY 2023 Charges		FY 2023 - Actual		FY 2023 - Variance		FY 2022 - Actuals	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
August	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
September	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
October	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
November	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
December	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
January	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
February	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
March	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
April	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
May	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
June	N/A	22,888,100	N/A	22,888,100	N/A	-	N/A	22,615,000
<b>Total</b>		274,657,200		160,216,700		-		271,380,000
Subtotals ytd		160,216,700		160,216,700		-		
Achievement of Budget				100.00%				

(1) Figures are stated as "Service Months"; that is, July figures represent bills issued in August, etc.  
 (2) Not tracked as part of the wholesale sewer charges.

**Table 4 - Wholesale Sewer Collections**

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
February	23,937,258	25,968,849	(2,031,591)	-7.82%
March	24,713,158	16,872,900	7,840,258	46.47%
April	19,937,558	22,368,124	(2,430,566)	-10.87%
May	10,226,700	28,128,933	(17,902,233)	-63.64%
June	29,659,245	15,972,800	13,686,445	85.69%
July	28,223,515	28,523,650	(300,135)	-1.05%
August	21,036,661	21,842,125	(805,464)	-3.69%
September	22,244,437	22,191,725	52,712	0.24%
October	24,707,249	26,706,558	(1,999,309)	-7.49%
November	19,882,939	16,534,758	3,348,181	20.25%
December	18,314,222	21,765,958	(3,451,736)	-15.86%
January	17,636,972	26,436,258	(8,799,286)	-33.28%
<b>Rolling 12-Month Total</b>	260,519,914	273,312,638		
<b>Rolling, 12-Month Average</b>	21,709,993	22,776,053		

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## City of Highland Park Billings and Collections

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

As of January 31, 2023, Highland Park had a delinquent balance of \$54.3 million, including \$40.8 million for wastewater treatment services, \$1.8 million for industrial waste control services, and \$11.7 million for water supply services.

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

**Table 5 - City of Highland Park Billings and Collections**

	Water	Sewer	IWC	Total
February 28, 2022 Balance	10,549,441	40,634,275	1,802,065	52,985,781
March 2022 Billing	96,540	446,400	4,000	546,940
March 2022 Payments	-	-	-	-
March 31, 2022 Balance	10,645,981	41,080,675	1,806,065	53,532,721
April 2022 Billing	98,395	446,400	4,009	548,804
April 2022 Payments	-	-	-	-
April 30, 2022 Balance	10,744,376	41,527,075	1,810,074	54,081,525
May 2022 Billing	96,254	446,400	4,009	546,663
May 2022 Payments	-	-	-	-
May 31, 2022 Balance	10,840,630	41,973,475	1,814,083	54,628,188
June 2022 Billing	100,820	446,400	4,002	551,222
June 2022 Payments	-	(1,788,828)	-	(1,788,828)
June 30, 2022 Balance	10,941,450	40,631,047	1,818,085	53,390,582
July 2022 Billing	104,262	446,400	4,002	554,664
July 2022 Payments	-	(126,056)	-	(126,056)
July 31, 2022 Balance	11,045,712	40,951,391	1,822,087	53,819,190
August 2022 Billing	112,017	451,700	4,082	567,799
August 2022 Payments	-	(117,079)	-	(117,079)
August 31, 2022 Balance	11,157,729	41,286,012	1,826,169	54,269,910
September 2022 Billing	113,427	451,700	4,025	569,152
September 2022 Payments	-	(144,837)	-	(144,837)
September 30, 2022 Balance	11,271,156	41,592,875	1,830,194	54,694,225
October 2022 Billing	106,220	451,700	4,026	561,946
October 2022 Payments	-	(133,899)	-	(133,899)
October 31, 2022 Balance	11,377,376	41,910,676	1,834,220	55,122,272
November 2022 Billing	106,221	451,700	4,026	561,947
November 2022 Payments	-	(492,789)	-	(492,789)
November 30, 2022 Balance	11,483,597	41,869,587	1,838,246	55,191,430
December 2022 Billing	103,645	451,700	4,025	559,370
December 2022 Payments	-	(641,773)	-	(641,773)
December 31, 2022 Balance	11,587,242	41,679,514	1,842,271	55,109,027
January 2023 Billing	99,260	451,700	3,997	554,957
January 2023 Payments	-	(1,341,522)	-	(1,341,522)
January 31, 2023 Balance	11,686,502	40,789,692	1,846,268	54,322,462

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## Wholesale Water & Sewer Accounts Receivable Aging Report

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

**Table 6 - Wholesale Accounts Receivable Aging Report Summary** is a summary of the total, current and non-current receivables by category as of January 31, 2023.

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

**Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and Dearborn** is the same summary *without* the past due balances for the City of Highland Park and Dearborn. One past due Water account totaling \$11 thousand dollars relates to a staff transition and will be paid. All Sewer past due balances were paid in full in March.

One past due IWC account in the amount of \$3 thousand dollars was paid in full in March. The pollutant surcharge past due balance consists of smaller account holders that GLWA staff continue to communicate with.

**Table 6 - Wholesale Accounts Receivable Aging Report Summary**

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 56,990,478.51	\$ 39,669,690.23	\$ 1,387,292.74	\$ 1,283,880.73	\$ 14,649,614.81
Sewer	\$ 69,844,204.69	\$ 18,542,062.03	\$ 11,415,850.22	\$ 451,700.00	\$ 39,434,592.44
IWC	\$ 2,410,170.29	\$ 568,773.18	\$ 7,177.12	\$ -	\$ 1,834,219.99
Pollutant Surcharge	\$ 612,790.36	\$ 606,538.86	\$ 1,374.41	\$ 2,325.50	\$ 2,551.59
<b>Total</b>	<b>\$ 129,857,643.85</b>	<b>\$ 59,387,064.30</b>	<b>\$ 12,811,694.49</b>	<b>\$ 1,737,906.23</b>	<b>\$ 55,920,978.83</b>
	100.00%	45.73%	9.87%	1.34%	43.06%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 45,303,976.98	\$ 39,466,785.37	\$ 1,281,072.31	\$ 1,177,660.30	\$ 3,378,459.00
Sewer	\$ 29,054,512.25	\$ 18,090,362.03	\$ 10,964,150.22	\$ -	\$ -
IWC	\$ 563,901.81	\$ 560,750.40	\$ 3,151.41	\$ -	\$ -
Pollutant Surcharge	\$ 612,790.36	\$ 606,538.86	\$ 1,374.41	\$ 2,325.50	\$ 2,551.59
<b>Total</b>	<b>\$ 75,535,181.40</b>	<b>\$ 58,724,436.66</b>	<b>\$ 12,249,748.35</b>	<b>\$ 1,179,985.80</b>	<b>\$ 3,381,010.59</b>
	100.00%	77.74%	16.22%	1.56%	4.48%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 38,077,937.27	\$ 37,778,241.64	\$ 288,970.46	\$ 10,725.17	\$ -
Sewer	\$ 29,054,512.25	\$ 18,090,362.03	\$ 10,964,150.22	\$ -	\$ -
IWC	\$ 563,901.81	\$ 560,750.40	\$ 3,151.41	\$ -	\$ -
Pollutant Surcharge	\$ 612,790.36	\$ 606,538.86	\$ 1,374.41	\$ 2,325.50	\$ 2,551.59
<b>Total</b>	<b>\$ 68,309,141.69</b>	<b>\$ 57,035,892.93</b>	<b>\$ 11,257,646.50</b>	<b>\$ 13,050.67</b>	<b>\$ 2,551.59</b>
	100.00%	83.50%	16.48%	0.02%	0.00%

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



The Monthly Trust Receipts & Disbursements Report includes the following.

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

## GLWA Trust Receipts & Disbursements

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

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

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

Water fund receipts exceeded required disbursements by 10% through January 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 11% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 4% through January 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 7% since July 1, 2018.

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

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

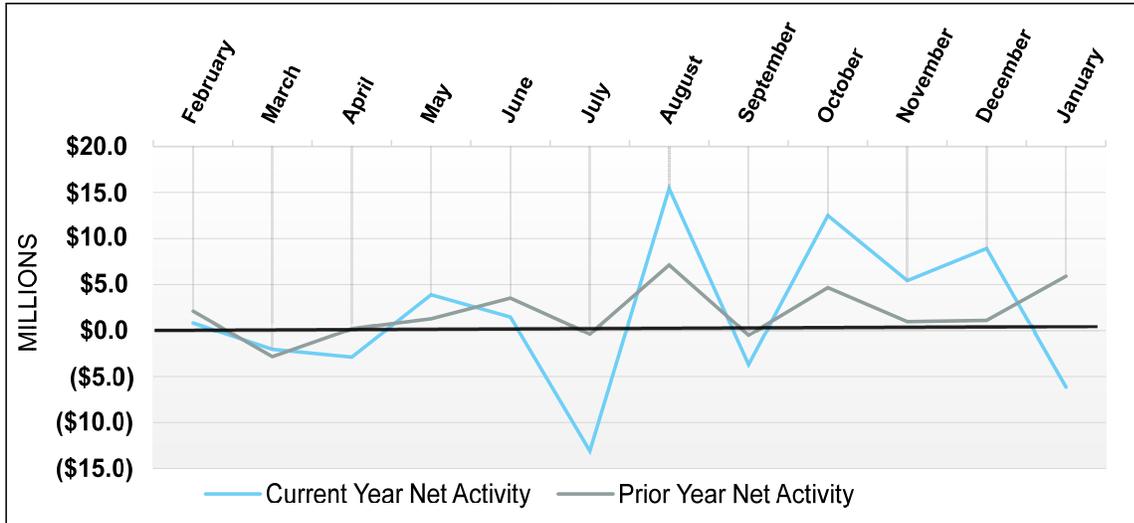
**Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Jan 31
<b>Water</b>					
1 Receipts	\$ 336,594,234	\$ 332,606,196	\$ 336,642,021	\$ 338,117,694	\$ 216,411,315
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	336,594,234	332,606,196	336,642,021	338,117,694	216,411,315
4 Disbursements	(289,230,481)	(296,190,425)	(308,713,407)	(316,495,360)	(197,078,962)
5 Receipts Net of Required Transfers	47,363,753	36,415,771	27,928,614	21,622,334	19,332,353
6 I&E Transfer	(47,695,000)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (331,247)	\$ 10,696,020	\$ (4,063,073)	\$ (5,000,528)	\$ 10,630,136
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	116%	112%	109%	107%	110%
<b>Sewer</b>					
9 Receipts	\$ 467,743,744	\$ 490,461,356	\$ 472,871,853	\$ 471,979,297	\$ 276,666,454
10 MOU Adjustments	-	-	-	-	-
11 Adjusted Receipts	467,743,744	490,461,356	472,871,853	471,979,297	276,666,454
12 Disbursements	(453,406,636)	(445,604,952)	(436,600,883)	(450,701,751)	(266,835,362)
13 Receipts Net of Required Transfers	14,337,108	44,856,404	36,270,970	21,277,546	9,831,092
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 DWSD Shortfall Advance	0	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ 1,156,763	\$ 43,302,873	\$ 13,972,674	\$ (8,077,664)	\$ 4,622,559
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	103%	110%	108%	105%	104%
<b>Combined</b>					
19 Receipts	\$ 804,337,978	\$ 823,067,552	\$ 809,513,874	\$ 810,096,991	\$ 493,077,769
20 MOU Adjustments	-	-	-	-	-
21 Adjusted Receipts	804,337,978	823,067,552	809,513,874	810,096,991	493,077,769
22 Disbursements	(742,637,117)	(741,795,377)	(745,314,290)	(767,197,111)	(463,914,324)
23 Receipts Net of Required Transfers	61,700,861	81,272,175	64,199,584	42,899,880	29,163,445
24 I&E Transfer	(70,242,700)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	0	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	0
27 Net Receipts	\$ 825,516	\$ 53,998,893	\$ 9,909,601	\$ (13,078,192)	\$ 15,252,695
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	108%	111%	109%	106%	106%

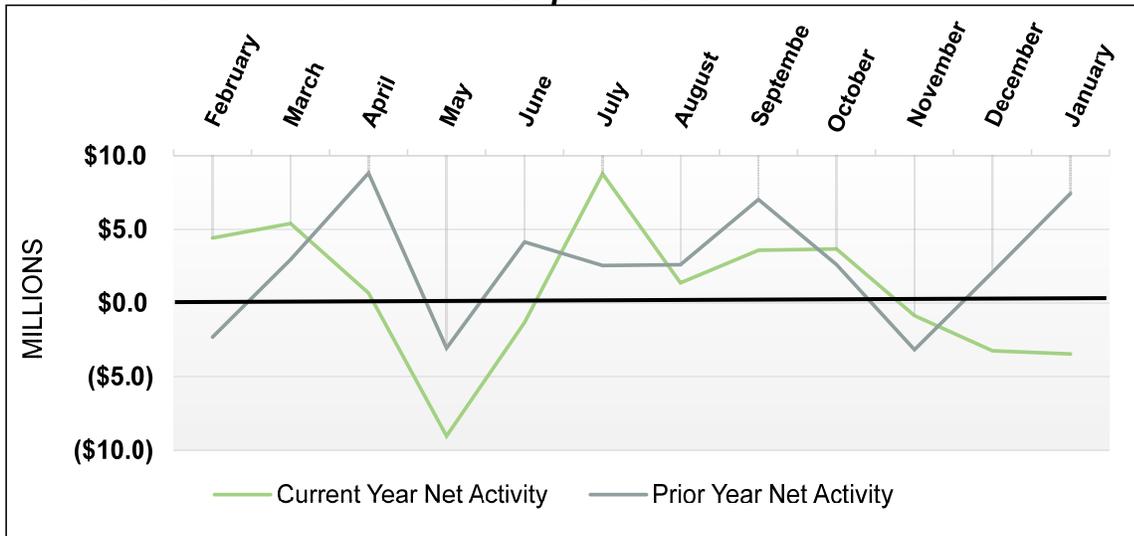
All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

**Chart 1 – GLWA 12-Month Net Receipts – Water**



**Chart 2 – GLWA 12-Month Net Receipts – Sewer**



## DWSD Trust Receipts & Disbursements

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

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

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

Water fund receipts exceeded required disbursements by 4% through January 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 3% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 3% through January 31, 2023 compared to the four-year historical average of required receipts exceeding disbursements by 1% since July 1, 2018.

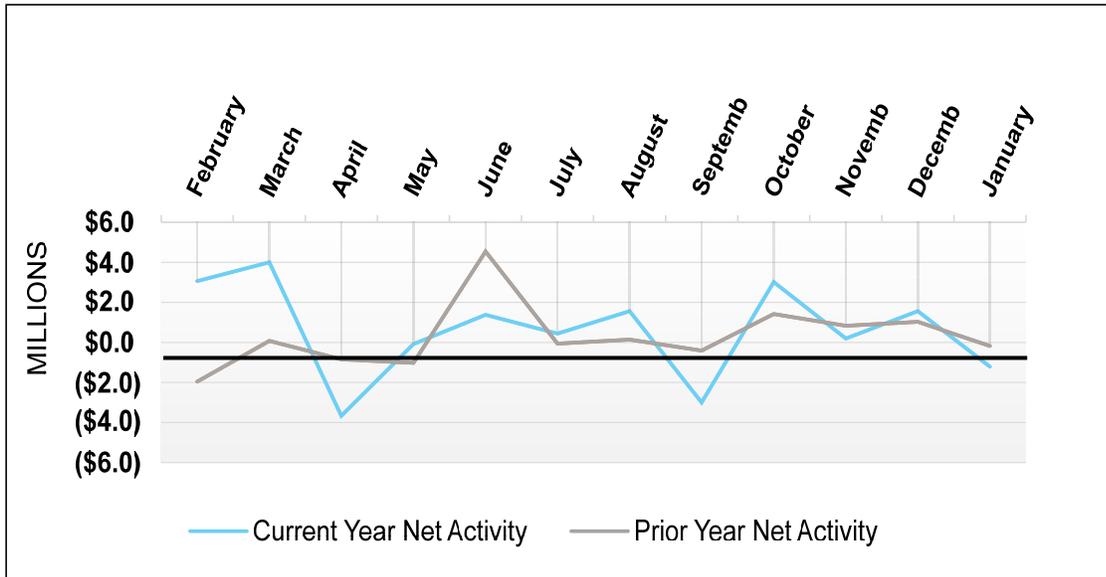
**Table 2 – DWSD Net Cash Flows from Trust Receipts & Disbursements**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Jan 31
<b>Water</b>					
1 Receipts	\$ 99,868,219	\$ 96,885,723	\$ 102,067,423	\$ 101,964,963	\$ 69,608,391
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	99,868,219	96,885,723	102,067,423	101,964,963	69,608,391
4 Disbursements	(97,694,600)	(97,823,097)	(100,707,200)	(94,495,601)	(67,043,518)
5 Receipts Net of Required Transfers	2,173,619	(937,374)	1,360,223	7,469,362	2,564,873
6 I&E Transfer	(8,407,080)	-	-	-	-
7 Net Receipts	\$ (6,233,461)	\$ (937,374)	\$ 1,360,223	\$ 7,469,362	\$ 2,564,873
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	102%	99%	101%	108%	104%
<b>Sewer</b>					
9 Receipts	\$ 265,339,797	\$ 264,689,559	\$ 308,210,767	\$ 291,280,896	\$ 172,013,771
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	271,866,997	264,689,559	308,210,767	291,280,896	172,013,771
12 Disbursements	(271,018,306)	(275,507,374)	(295,100,771)	(285,256,000)	(166,876,871)
13 Receipts Net of Required Transfers	848,691	(10,817,815)	13,109,996	6,024,896	5,136,900
14 I&E Transfer	-	-	-	-	-
15 Shortfall Advance from GLWA	-	-	-	-	-
16 Net Receipts	\$ 848,691	\$ (10,817,815)	\$ 13,109,996	\$ 6,024,896	\$ 5,136,900
17 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	100%	96%	104%	102%	103%
<b>Combined</b>					
18 Receipts	\$ 365,208,016	\$ 361,575,282	\$ 410,278,190	\$ 393,245,859	\$ 241,622,162
19 MOU Adjustments	6,527,200	-	-	-	-
20 Adjusted Receipts	371,735,216	361,575,282	410,278,190	393,245,859	241,622,162
21 Disbursements	(368,712,906)	(373,330,471)	(395,807,971)	(379,751,601)	(233,920,389)
22 Receipts Net of Required Transfers	3,022,310	(11,755,189)	14,470,219	13,494,258	7,701,773
23 I&E Transfer	(8,407,080)	-	-	-	-
24 Shortfall Advance from GLWA	-	-	-	-	-
25 Net Receipts	\$ (5,384,770)	\$ (11,755,189)	\$ 14,470,219	\$ 13,494,258	\$ 7,701,773
26 <i>Ratio of Receipts to Required Disbursements (Line 20/Line 21)</i>	101%	97%	104%	104%	103%

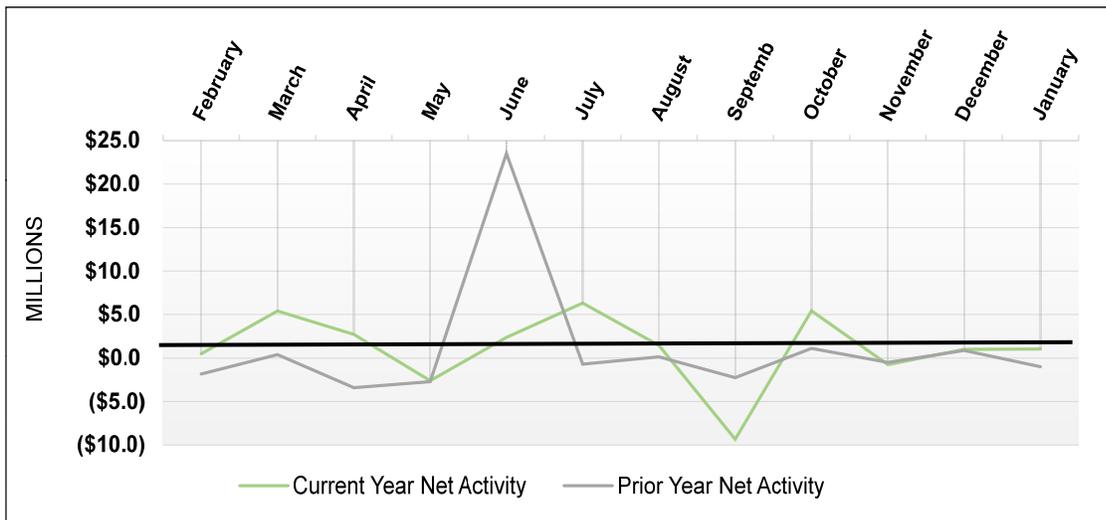
**Chart 3 – DWSD 12-Month Net Receipts – Water** outlines monthly activity trends across two points of reference for the local water system—current year and prior year. The black line at the zero highlights the breakeven goal for net receipts.

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

**Chart 3 – DWSD 12-Month Net Receipts – Water**



**Chart 4 – DWSD 12-Month Net Receipts – Sewer**



## Combined System Trust Receipts & Disbursements

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

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

Water fund net receipts exceeded required disbursements by 8% through January 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 9% since July 1, 2018.

Sewer fund receipts exceeded required disbursements by 3% through January 31, 2023 compared to the four-year historical average ratio of required receipts exceeding disbursements by 4% since July 1, 2018.

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

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 Thru Jan 31
<b>Water</b>					
1 Receipts	\$ 436,462,453	\$ 429,491,919	\$ 438,709,444	\$ 440,082,657	\$ 286,019,706
2 MOU Adjustments	-	-	-	-	-
3 Adjusted Receipts	436,462,453	429,491,919	438,709,444	440,082,657	286,019,706
4 Disbursements	(386,925,081)	(394,013,522)	(409,420,607)	(410,990,961)	(264,122,480)
5 Receipts Net of Required Transfers	49,537,372	35,478,397	29,288,837	29,091,696	21,897,226
6 I&E Transfer	(56,102,080)	(25,719,751)	(31,991,687)	(26,622,862)	(8,702,217)
7 Net Receipts	\$ (6,564,708)	\$ 9,758,646	\$ (2,702,850)	\$ 2,468,834	\$ 13,195,009
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	113%	109%	107%	107%	108%
<b>Sewer</b>					
9 Receipts	\$ 733,083,541	\$ 755,150,915	\$ 781,082,620	\$ 763,260,193	\$ 448,680,225
10 MOU Adjustments	6,527,200	-	-	-	-
11 Adjusted Receipts	739,610,741	755,150,915	781,082,620	763,260,193	448,680,225
12 Disbursements	(724,424,942)	(721,112,326)	(731,701,654)	(735,957,751)	(433,712,233)
13 Receipts Net of Required Transfers	15,185,799	34,038,589	49,380,966	27,302,442	14,967,992
14 I&E Transfer	(22,547,700)	(19,096,200)	(40,504,727)	(37,651,788)	(5,208,533)
15 Shortfall Advance	-	-	-	-	-
16 Shortfall Repayment (principal)	9,367,355	17,542,669	18,206,431	8,296,578	-
17 Net Receipts	\$ (7,361,901)	\$ 32,485,058	\$ 27,082,670	\$ (2,052,768)	\$ 9,759,459
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	102%	105%	107%	104%	103%
<b>Combined</b>					
19 Receipts	\$ 1,169,545,994	\$ 1,184,642,834	\$ 1,219,792,064	\$ 1,203,342,850	\$ 734,699,931
20 MOU Adjustments	6,527,200	-	-	-	-
21 Adjusted Receipts	1,176,073,194	1,184,642,834	1,219,792,064	1,203,342,850	734,699,931
22 Disbursements	(1,111,350,023)	(1,115,125,848)	(1,141,122,261)	(1,146,948,712)	(697,834,713)
23 Receipts Net of Required Transfers	64,723,171	69,516,986	78,669,803	56,394,138	36,865,218
24 I&E Transfer	(78,649,780)	(44,815,951)	(72,496,414)	(64,274,650)	(13,910,750)
25 Shortfall Advance	-	-	-	-	-
26 Shortfall Repayment	9,367,355	17,542,669	18,206,431	8,296,578	-
27 Net Receipts	\$ (4,559,254)	\$ 42,243,704	\$ 24,379,820	\$ 416,066	\$ 22,954,468
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	106%	106%	107%	105%	105%

All amounts are unaudited unless otherwise noted.

GLWA Audit Committee April 28, 2023

## APPENDIX

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$205,886.81	\$205,886.81	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$20,702.99	\$20,702.99	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$71,752.66	\$71,752.66	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$28,706.31	\$28,706.31	\$0.00	\$0.00	\$0.00
BERLIN TOWNSHIP	\$63,409.04	\$63,409.04	\$0.00	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$310,680.72	\$310,680.72	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$ (1,886.50)	\$ (1,886.50)	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$28,576.70	\$28,576.70	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$912,194.22	\$912,194.22	\$0.00	\$0.00	\$0.00
CENTER LINE	\$83,677.37	\$83,677.37	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$370,560.21	\$370,560.21	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$652,368.76	\$652,368.76	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$582,979.80	\$582,979.80	\$0.00	\$0.00	\$0.00
DEARBORN	\$7,226,039.71	\$1,688,543.73	\$992,101.85	\$1,166,935.13	\$3,378,459.00
DEARBORN HEIGHTS	\$666,798.28	\$666,798.28	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$283,261.44	\$283,261.44	\$0.00	\$0.00	\$0.00
ECORSE	\$116,016.22	\$116,016.22	\$0.00	\$0.00	\$0.00
FARMINGTON	\$86,151.93	\$86,151.93	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$1,471,398.00	\$1,471,398.00	\$0.00	\$0.00	\$0.00
FERNDALE	\$88,071.98	\$88,071.98	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$224,004.42	\$224,004.42	\$0.00	\$0.00	\$0.00
FLINT	\$369,399.60	\$369,399.60	\$0.00	\$0.00	\$0.00
FRASER	\$103,662.62	\$103,662.62	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$138,634.57	\$138,634.57	\$0.00	\$0.00	\$0.00
GENESEE COUNTY DRAIN COMM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$29,304.50	\$29,304.50	\$0.00	\$0.00	\$0.00
GREATER LAPEER CUA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREENWOOD TWP. (DTE)	\$94,051.93	\$94,051.93	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$111,435.18	\$111,435.18	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$107,702.80	\$107,702.80	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$49,852.34	\$49,852.34	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$106,087.36	\$106,087.36	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$230,565.61	\$146,852.93	\$72,987.51	\$10,725.17	\$0.00
HARPER WOODS	\$75,134.22	\$75,134.22	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$143,102.24	\$143,102.24	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$64,922.04	\$64,922.04	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$11,686,501.53	\$202,904.86	\$106,220.43	\$106,220.43	\$11,271,155.81
HURON TOWNSHIP	\$330,736.88	\$326,811.28	\$3,925.60	\$0.00	\$0.00
IMLAY CITY	\$123,422.64	\$123,422.64	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP (CHAMPION BUS	\$854.44	\$854.44	\$0.00	\$0.00	\$0.00
INKSTER	\$230,034.52	\$230,034.52	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$52,480.81	\$52,480.81	\$0.00	\$0.00	\$0.00
LAPEER	\$130,660.22	\$130,660.22	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$27,400.80	\$27,400.80	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LINCOLN PARK	\$220,943.01	\$220,943.01	\$0.00	\$0.00	\$0.00
LIVONIA	\$1,859,783.77	\$1,859,783.77	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$2,085,226.40	\$2,085,226.40	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$183,743.53	\$183,743.53	\$0.00	\$0.00	\$0.00
MAYFIELD TOWNSHIP (KAMAX)	\$3,455.55	\$3,455.55	\$0.00	\$0.00	\$0.00
MELVINDALE	\$125,871.81	\$125,871.81	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$34,795.33	\$34,795.33	\$0.00	\$0.00	\$0.00
NOCWA	\$1,858,454.12	\$1,858,454.12	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$130,644.14	\$129,744.14	\$900.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$449,379.42	\$449,379.42	\$0.00	\$0.00	\$0.00
NOVI	\$1,494,910.85	\$1,494,910.85	\$0.00	\$0.00	\$0.00
OAK PARK	\$243,880.93	\$243,880.93	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$10,894.02	\$10,894.02	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$90,800.74	\$90,800.74	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$370,857.76	\$370,857.76	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$556,072.99	\$556,072.99	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$57,542.02	\$57,542.02	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$80,366.95	\$80,366.95	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$24,812.97	\$24,812.97	\$0.00	\$0.00	\$0.00
ROMEO	\$40,392.35	\$40,392.35	\$0.00	\$0.00	\$0.00
ROMULUS	\$704,690.08	\$704,690.08	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$232,340.43	\$232,340.43	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$33,340.45	\$33,340.45	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$2,285,118.58	\$2,285,118.58	\$0.00	\$0.00	\$0.00
SOCWA	\$3,847,253.29	\$3,847,253.29	\$0.00	\$0.00	\$0.00
SOUTH ROCKWOOD	\$10,381.72	\$10,381.72	\$0.00	\$0.00	\$0.00
SOUTHGATE	\$196,978.00	\$196,978.00	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$563,406.31	\$563,406.31	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$1,269,235.91	\$1,269,235.91	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$186,100.64	\$122,567.21	\$63,533.43	\$0.00	\$0.00
SYLVAN LAKE	\$20,311.83	\$20,311.83	\$0.00	\$0.00	\$0.00
TAYLOR	\$432,951.86	\$432,951.86	\$0.00	\$0.00	\$0.00
TRENTON	\$439,686.23	\$292,062.31	\$147,623.92	\$0.00	\$0.00
TROY (SEOC)	\$1,096,193.25	\$1,096,193.25	\$0.00	\$0.00	\$0.00
UTICA	\$48,349.35	\$48,349.35	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$588,620.51	\$588,620.51	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$133,541.38	\$133,541.38	\$0.00	\$0.00	\$0.00
WARREN	\$1,785,775.81	\$1,785,775.81	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$189,523.70	\$189,523.70	\$0.00	\$0.00	\$0.00
WAYNE	\$282,477.12	\$282,477.12	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$1,771,665.68	\$1,771,665.68	\$0.00	\$0.00	\$0.00
WESTLAND	\$1,112,285.46	\$1,112,285.46	\$0.00	\$0.00	\$0.00
WIXOM	\$203,163.11	\$203,163.11	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$140,193.87	\$140,193.87	\$0.00	\$0.00	\$0.00
YCUA	\$1,796,767.36	\$1,796,767.36	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL WATER ACCOUNTS	\$56,990,478.51	\$39,669,690.23	\$1,387,292.74	\$1,283,880.73	\$14,649,614.81

## GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CENTER LINE	\$86,899.50	\$86,899.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$3,016,300.00	\$3,016,300.00	\$0.00	\$0.00	\$0.00
FARMINGTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$673,600.00	\$336,800.00	\$336,800.00	\$0.00	\$0.00
HARPER WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$40,789,692.44	\$451,700.00	\$451,700.00	\$451,700.00	\$39,434,592.44
MELVINDALE	\$131,200.00	\$131,200.00	\$0.00	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,864,800.00	\$3,864,800.00	\$0.00	\$0.00	\$0.00
OMID	\$11,905,912.75	\$5,966,462.53	\$5,939,450.22	\$0.00	\$0.00
REDFORD TOWNSHIP	\$45,200.00	\$22,600.00	\$22,600.00	\$0.00	\$0.00
ROUGE VALLEY	\$9,321,800.00	\$4,660,900.00	\$4,660,900.00	\$0.00	\$0.00
SOUTH MACOMB SANITATION DIST	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY-AREA #3	\$8,800.00	\$4,400.00	\$4,400.00	\$0.00	\$0.00
<b>TOTAL SEWER ACCOUNTS</b>	<b>\$69,844,204.69</b>	<b>\$18,542,062.03</b>	<b>\$11,415,850.22</b>	<b>\$451,700.00</b>	<b>\$39,434,592.44</b>

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$1,623.53	\$1,623.53	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O)	\$11,550.87	\$11,550.87	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O) ADMIN	\$1,959.24	\$1,959.24	\$0.00	\$0.00	\$0.00
AUBURN HILLS (E-F)	\$397.38	\$397.38	\$0.00	\$0.00	\$0.00
BERKLEY	\$3,182.62	\$3,182.62	\$0.00	\$0.00	\$0.00
BEVERLY HILLS	\$1,005.98	\$1,005.98	\$0.00	\$0.00	\$0.00
BINGHAM FARMS	\$2,176.64	\$2,176.64	\$0.00	\$0.00	\$0.00
BIRMINGHAM (E-F)	\$2,446.93	\$2,446.93	\$0.00	\$0.00	\$0.00
BIRMINGHAM (SEOC)	\$5,704.73	\$5,704.73	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$3,429.64	\$3,401.00	\$28.64	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$85.92	\$85.92	\$0.00	\$0.00	\$0.00
CENTER LINE	\$5,481.47	\$5,480.98	\$0.49	\$0.00	\$0.00
CHARTER TOWNSHIP OF INDEPENI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$12,905.90	\$12,905.90	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$202.27	\$202.27	\$0.00	\$0.00	\$0.00
CITY OF FERNDALE	\$8,967.90	\$8,967.90	\$0.00	\$0.00	\$0.00
CITY OF ROCHESTER	\$3,750.05	\$3,750.05	\$0.00	\$0.00	\$0.00
CLARKSTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$69.78	\$69.78	\$0.00	\$0.00	\$0.00
CLAWSON	\$9,428.45	\$6,306.17	\$3,122.28	\$0.00	\$0.00
CLINTON TOWNSHIP	\$27,446.07	\$27,446.07	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
DEARBORN HEIGHTS	\$19,405.39	\$19,405.39	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$107.40	\$107.40	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$12,998.98	\$12,998.98	\$0.00	\$0.00	\$0.00
FARMINGTON	\$4,065.09	\$4,065.09	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$50,578.24	\$50,578.24	\$0.00	\$0.00	\$0.00
FRASER	\$4,994.10	\$4,994.10	\$0.00	\$0.00	\$0.00
GARDEN CITY	\$6,179.08	\$6,179.08	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$1,591.31	\$1,591.31	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$2,103.25	\$2,103.25	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,190.35	\$1,190.35	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$343.68	\$343.68	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$2,996.46	\$2,996.46	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$8,405.84	\$8,405.84	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,918.88	\$1,918.88	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$436.76	\$436.76	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$3,408.16	\$3,408.16	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,846,268.48	\$8,022.78	\$4,025.71	\$0.00	\$1,834,219.99
HUNTINGTON WOODS	\$288.19	\$288.19	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$2,568.26	\$2,568.26	\$0.00	\$0.00	\$0.00
INKSTER	\$5,599.12	\$5,599.12	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$1,421.26	\$1,421.26	\$0.00	\$0.00	\$0.00
LAKE ORION	\$809.08	\$809.08	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LATHRUP	\$1,415.89	\$1,415.89	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$655.14	\$655.14	\$0.00	\$0.00	\$0.00
LIVONIA	\$41,091.24	\$41,091.24	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$207.64	\$207.64	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,540.62	\$3,540.62	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$619.34	\$619.34	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$2,357.43	\$2,357.43	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NOVI	\$17,882.10	\$17,882.10	\$0.00	\$0.00	\$0.00
OAK PARK	\$7,283.51	\$7,283.51	\$0.00	\$0.00	\$0.00
OAKLAND TOWNSHIP	\$916.48	\$916.48	\$0.00	\$0.00	\$0.00
ORCHARD LAKE VILLAGE	\$703.47	\$703.47	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O)	\$4,498.27	\$4,498.27	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$499.80	\$499.80	\$0.00	\$0.00	\$0.00
OXFORD TOWNSHIP	\$1,079.37	\$1,079.37	\$0.00	\$0.00	\$0.00
OXFORD VILLAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PLEASANT RIDGE	\$275.66	\$275.66	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$3,927.26	\$3,927.26	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$12,642.77	\$12,642.77	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$18,882.71	\$18,882.71	\$0.00	\$0.00	\$0.00
ROMULUS	\$787.60	\$787.60	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROSEVILLE	\$14,781.82	\$14,781.82	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$13,863.55	\$13,863.55	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$1,850.86	\$1,850.86	\$0.00	\$0.00	\$0.00
SHELBY TOWNSHIP	\$15,138.03	\$15,138.03	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$28,865.54	\$28,865.54	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$3,361.62	\$3,361.62	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$12,218.54	\$12,218.54	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$32,334.56	\$32,334.56	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$386.64	\$386.64	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$38,246.93	\$38,246.93	\$0.00	\$0.00	\$0.00
UTICA	\$3,075.22	\$3,075.22	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$2,409.34	\$2,409.34	\$0.00	\$0.00	\$0.00
VILLAGE OF FRANKLIN	\$132.46	\$132.46	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADMI	\$3,189.05	\$3,189.05	\$0.00	\$0.00	\$0.00
WAYNE	\$5,053.17	\$5,053.17	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (E-F)	\$12,920.68	\$12,920.68	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP. (C-O) A	\$492.25	\$492.25	\$0.00	\$0.00	\$0.00
WESTLAND	\$23,091.00	\$23,091.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL IWC ACCOUNTS	\$2,410,170.29	\$568,773.18	\$7,177.12	\$0.00	\$1,834,219.99

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY (MINNESOTA MINING	\$988.02	\$988.02	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$1,098.85	\$1,098.85	\$0.00	\$0.00	\$0.00
AACTRON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACADEMY PACKING CO.	\$143.57	\$143.57	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$ (32.00)	\$0.00	\$ (32.00)	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$119.78	\$119.78	\$0.00	\$0.00	\$0.00
ADVANCE ENGINEERING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$242.99	\$242.99	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$164.74	\$164.74	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$2,642.31	\$2,642.31	\$0.00	\$0.00	\$0.00
APPLIED TECHNOLOGY INDUSTRIE	\$1,012.33	\$1,012.33	\$0.00	\$0.00	\$0.00
ATWATER IN THE PARK	\$5.33	\$5.33	\$0.00	\$0.00	\$0.00
AUTOMOTIVE FINISH	\$4.20	\$4.20	\$0.00	\$0.00	\$0.00
AXLE BREWING COMPANY, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. NEKTAR MEADERY	\$7.69	\$7.69	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$137.26	\$137.26	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$531.43	\$531.43	\$0.00	\$0.00	\$0.00
BARTZ BAKERY	\$44.85	\$44.85	\$0.00	\$0.00	\$0.00
BASTONE BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BATCH BREWING COMPANY	\$55.66	\$55.66	\$0.00	\$0.00	\$0.00
BAYS MICHIGAN CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BEIRUT BAKERY, INC.	\$37.00	\$0.00	\$0.00	\$0.00	\$37.00
BETTER MADE SNACK FOOD	\$26,513.86	\$26,513.86	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$60.92	\$60.92	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$4,843.21	\$4,843.21	\$0.00	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$69.26	\$69.26	\$0.00	\$0.00	\$0.00
BROWN IRON BREWHOUSE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CADILLAC STRAITS BREWING CO.	\$27.09	\$27.09	\$0.00	\$0.00	\$0.00
CANTON BREW WORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL REPRODUCTIONS	\$34.64	\$4.10	\$4.47	\$0.00	\$26.07
CF BURGER CREAMERY	\$10,820.19	\$10,820.19	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$91.88	\$26.45	\$25.30	\$9.20	\$30.93
CINTAS CORP. - MACOMB TWP.	\$21,271.53	\$21,271.53	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$9,516.66	\$9,516.66	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$8,278.59	\$8,278.59	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$3.01	\$3.01	\$0.00	\$0.00	\$0.00
CLASSIC CONTAINER CORP.	\$14.43	\$14.43	\$0.00	\$0.00	\$0.00
CLEAN EARTH OF MICHIGAN, LLC	\$47.09	\$47.09	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COSTCO WHOLESALE STORE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COUNTRY FRESH DAIRY CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CROSS CHEMICAL COMPANY, INC.	\$285.76	\$285.76	\$0.00	\$0.00	\$0.00
DANA CONTAINER, INC.	\$1,229.35	\$1,229.35	\$0.00	\$0.00	\$0.00
DARLING INGREDIENTS, INC.	\$6,367.55	\$6,367.55	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$288.09	\$288.09	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$51.28	\$18.85	\$0.00	\$17.87	\$14.56
DEARBORN SAUSAGE	\$9,024.57	\$9,024.57	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE CO., INC.	\$11,880.87	\$11,880.87	\$0.00	\$0.00	\$0.00
DETROIT BEER CO.	\$71.65	\$71.65	\$0.00	\$0.00	\$0.00
DETROIT LINEN SERVICE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT RIVERTOWN BREWERY CC	\$681.01	\$681.01	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$ (2.24)	\$0.00	\$ (2.24)	\$0.00	\$0.00
DETRONIC INDUSTRIES, INC.	\$73.65	\$73.65	\$0.00	\$0.00	\$0.00
DIFCO LABORATORIES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DIVERSIFIED CHEM TECH. INC.	\$92.36	\$92.36	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$2,251.68	\$2,251.68	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$2,518.55	\$2,518.55	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$32.07	\$32.07	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
E & E MANUFACTURING CO, PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E & E MANUFACTURING CO, PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$4,298.25	\$4,298.25	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP	\$23.74	\$23.74	\$0.00	\$0.00	\$0.00
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$724.55	\$724.55	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$2,835.89	\$2,835.89	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$ (0.59)	\$0.00	\$0.00	\$0.00	\$ (0.59)
EQ DETROIT, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLA	\$1,583.93	\$1,583.93	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$158.66	\$158.66	\$0.00	\$0.00	\$0.00
EXTRUDEHODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON BREWING COMPANY	\$1.66	\$1.66	\$0.00	\$0.00	\$0.00
FAYGO BEVERAGES, INC.	\$4,176.58	\$4,176.58	\$0.00	\$0.00	\$0.00
FITZGERALD FINISHING LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FIVES CINETIC CORP.	\$1,714.55	\$1,714.55	\$0.00	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$25.29	\$12.68	\$0.00	\$12.61	\$0.00
FRESH-PAK	\$203.59	\$203.59	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$3,250.63	\$3,250.63	\$0.00	\$0.00	\$0.00
GENERAL MOTORS, LLC ROMULUS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$25.87	\$25.87	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$15.00	\$15.00	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$163.17	\$74.59	\$0.00	\$88.58	\$0.00
HACIENDA MEXICAN FOODS	\$3,047.72	\$968.56	\$618.05	\$613.91	\$847.20
HENKEL CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HENRY FORD MACOMB HOSPITAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HOME STYLE FOOD INC.	\$626.08	\$626.08	\$0.00	\$0.00	\$0.00
HEMIGROWN BREWING COMPANY	\$42.74	\$42.74	\$0.00	\$0.00	\$0.00
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$248.65	\$42.31	\$47.23	\$30.50	\$128.61
HOUGHTON INTERNATIONAL INC.	\$172.04	\$39.36	\$33.46	\$27.55	\$71.67
HOUGHTON INTERNATIONAL INC.	\$3,375.79	\$1,956.23	\$545.15	\$529.40	\$345.01
HUNTINGTON CLEANERS	\$176.68	\$176.68	\$0.00	\$0.00	\$0.00
IDP, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDUSTRIAL METAL COATING	\$501.62	\$501.62	\$0.00	\$0.00	\$0.00
INTRASTATE DISTRIBUTORS	\$713.96	\$713.96	\$0.00	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$355.32	\$355.32	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
JAMEX BREWING CO.	\$46.62	\$22.64	\$0.00	\$23.98	\$0.00
JELD-WEN, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KAR NUT PRODUCTS	\$1,458.51	\$1,458.51	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
KOWALSKI SAUSAGES, CO.	\$706.71	\$706.71	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$514.37	\$514.37	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$85.03	\$85.03	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$1,310.80	\$1,310.80	\$0.00	\$0.00	\$0.00
LIBERTY STREET PROD. BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LILY'S SEAFOOD GRILL & BREWE	\$36.63	\$36.63	\$0.00	\$0.00	\$0.00
LIQUID ENVIRONMENTAL SOLUTIC	\$428.71	\$428.71	\$0.00	\$0.00	\$0.00
MACDERMID, INC.	\$865.28	\$865.28	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$513.85	\$513.85	\$0.00	\$0.00	\$0.00
MCNICHOLS POLISHING & ANODIZ	\$31.54	\$31.54	\$0.00	\$0.00	\$0.00
MELLO MEATS INC, - KUBISCH S	\$134.25	\$111.88	\$22.37	\$0.00	\$0.00
METROPOLITAN BAKERY	\$419.95	\$419.95	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN DAIRY	\$102,370.02	\$102,370.02	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$2,044.40	\$2,044.40	\$0.00	\$0.00	\$0.00
MICHIGAN SOY PRODUCTS CO.	\$41.48	\$41.48	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$746.53	\$746.53	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$1,069.04	\$1,069.04	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$ (15.03)	\$0.00	\$0.00	\$0.00	\$ (15.03)

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MOTOR CITY BREWING WORKS	\$13.81	\$13.81	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NEAPCO DRIVELINES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTH CENTER BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHERN LAKES SEAFOOD & MEAT	\$19.13	\$19.13	\$0.00	\$0.00	\$0.00
OAKWOOD BAKERY	\$90.79	\$90.79	\$0.00	\$0.00	\$0.00
OLIVER HATCH CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SONS	\$116.35	\$61.67	\$0.00	\$54.68	\$0.00
PELLERITO FOODS INC.	\$20.39	\$20.39	\$0.00	\$0.00	\$0.00
PEPSI COLA, INC.	\$28,178.98	\$28,178.98	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$24,419.35	\$24,419.35	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$15,387.37	\$15,387.37	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$1,576.62	\$1,576.62	\$0.00	\$0.00	\$0.00
PERSONAL UNIFORM SERVICE, INC.	\$48.98	\$30.79	\$18.19	\$0.00	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$18,090.94	\$18,090.94	\$0.00	\$0.00	\$0.00
PLATING SPEC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
POWER VAC OF MICHIGAN, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PREMIER PLATING, LLC	\$2,079.37	\$2,079.37	\$0.00	\$0.00	\$0.00
PRODUCTION SPRING, LLC.	\$234.43	\$234.43	\$0.00	\$0.00	\$0.00
QUALA SERVICES, LLC	\$51.43	\$51.43	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
RAY'S ICE CREAM CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RED SPOT PAINT #409139	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RIVER ROUGE BREWING COMPANY	\$440.60	\$0.00	\$0.00	\$0.00	\$440.60
ROAK BREWING CO. LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS BEER COMPANY	\$138.62	\$138.62	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS PROD BREWERY	\$2,048.01	\$1,181.66	\$0.00	\$866.35	\$0.00
ROYAL OAK BREWERY	\$79.12	\$79.12	\$0.00	\$0.00	\$0.00
RTT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SEAFARE FOODS, INC.	\$93.33	\$93.33	\$0.00	\$0.00	\$0.00
SECOND NATURE (SANDERS)	\$10,797.04	\$10,797.04	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$29.14	\$29.14	\$0.00	\$0.00	\$0.00
SMITH-WATKINS, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SPRAYTEK, INC.	\$14.52	\$0.00	\$0.00	\$0.00	\$14.52
SUPERNATURAL SPIRITS & BREWI	\$46.62	\$46.62	\$0.00	\$0.00	\$0.00
SWEETHEART BAKERY, INC.	\$442.36	\$109.01	\$57.10	\$50.87	\$225.38
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
THERMO FISHER SCIENTIFIC	\$12,825.88	\$12,825.88	\$0.00	\$0.00	\$0.00
TOM LAUNDRY CLEANERS	\$0.56	\$0.56	\$0.00	\$0.00	\$0.00
TRAFFIC JAM & SNUG	\$(31.16)	\$0.00	\$0.00	\$0.00	\$(31.16)
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$177,958.46	\$177,958.46	\$0.00	\$0.00	\$0.00
U-METCO, INC.	\$555.44	\$555.44	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
UNCLE RAYS SNACKS, LLC	\$27,151.51	\$27,151.51	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$1,209.84	\$1,209.84	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$0.45	\$0.45	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$123.41	\$123.41	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$69.93	\$69.93	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$443.98	\$443.98	\$0.00	\$0.00	\$0.00
US ECOLOGY ROMULUS, INC.	\$4,008.01	\$4,008.01	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$1,189.97	\$1,189.97	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$473.67	\$473.67	\$0.00	\$0.00	\$0.00
VALICOR ENVIRONMENTAL SERVIC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VAUGHAN INDUSTRIES, INC.	\$36.50	\$36.50	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$5,732.56	\$5,732.56	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$4,230.84	\$4,230.84	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$95.41	\$58.08	\$37.33	\$0.00	\$0.00
WIGLEY'S MEAT PROCESS	\$476.59	\$476.59	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$872.63	\$872.63	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$165.58	\$165.58	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO	\$3,180.52	\$3,180.52	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$2,233.03	\$2,233.03	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$144.24	\$0.00	\$0.00	\$0.00	\$144.24

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 01/31/23

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOTAL POLLUTANT SURCHARGE ACCOUNTS	\$612,790.36	\$606,538.86	\$1,374.41	\$2,325.50	\$2,551.59

## City of Highland Park Billings and Collections

	<u>Water</u>	<u>Sewer</u>	<u>IWC</u>	<u>Cumulative Total</u>
June 30, 2012 Balance	\$ -	\$ 10,207,956	\$ 852,987	\$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	<u>(65,652)</u>	<u>(2,206,211)</u>	<u>-</u>	<u>(2,271,863)</u>
				-
June 30, 2013 Balance	\$ 420,235	\$ 12,989,380	\$ 1,007,431	\$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	<u>-</u>	<u>(1,612,633)</u>	<u>-</u>	<u>(1,612,633)</u>
				-
June 30, 2014 Balance	\$ 1,424,592	\$ 18,357,189	\$ 1,169,382	\$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	<u>-</u>	<u>(1,444,623)</u>	<u>-</u>	<u>(1,444,623)</u>
				-
June 30, 2015 Balance	\$ 2,432,625	\$ 22,465,689	\$ 1,335,121	\$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	<u>-</u>	<u>(2,022,335)</u>	<u>-</u>	<u>(2,022,335)</u>
				-
June 30, 2016 Balance	\$ 3,589,803	\$ 26,055,521	\$ 1,441,551	\$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	<u>-</u>	<u>(2,309,186)</u>	<u>-</u>	<u>(2,309,186)</u>
				-
June 30, 2017 Balance	\$ 4,835,070	\$ 29,548,335	\$ 1,543,550	\$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	<u>-</u>	<u>(4,108,108)</u>	<u>-</u>	<u>(4,108,108)</u>
				-
June 30, 2018 Balance	\$ 6,112,248	\$ 31,097,327	\$ 1,624,022	\$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	<u>-</u>	<u>(5,241,583)</u>	<u>-</u>	<u>(5,241,583)</u>
				-
June 30, 2019 Balance	\$ 7,351,045	\$ 31,472,844	\$ 1,675,243	\$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	<u>-</u>	<u>(3,026,117)</u>	<u>-</u>	<u>(3,026,117)</u>
				-
June 30, 2020 Balance	\$ 8,533,684	\$ 34,112,127	\$ 1,722,340	\$ 44,368,151
FY 2021 Billings	1,185,506	5,702,000	47,423	6,934,929
FY 2021 Payments	<u>-</u>	<u>(2,783,552)</u>	<u>-</u>	<u>(2,783,552)</u>
				-
June 30, 2021 Balance	9,719,190	37,030,575	1,769,763	48,519,528
FY 2022 Billings	1,222,260	5,389,300	48,322	6,659,882
FY 2022 Payments	<u>-</u>	<u>(1,788,828)</u>	<u>-</u>	<u>(1,788,828)</u>
				-
June 30, 2022 Balance	\$ 10,941,450	\$ 40,631,047	\$ 1,818,085	\$ 53,390,582
FY 2023 Billings (7 Months)	745,052	3,156,600	28,183	3,929,835
FY 2023 Payments (7 Months)	<u>-</u>	<u>(2,997,955)</u>	<u>-</u>	<u>(2,997,955)</u>
				-
<b>Balance as of January 31, 2023</b>	<b><u>\$ 11,686,502</u></b>	<b><u>\$ 40,789,692</u></b>	<b><u>\$ 1,846,268</u></b>	<b><u>\$ 54,322,462</u></b>



## Financial Services Audit Committee Communication

**Date:** April 28, 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 March 31, 2023 for procurements budgeted to exceed \$1 million.

### Table 1: B.I.D. Eligible Procurements as March 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	62	7	8	77
Total Number of Diversity Plans Submitted	163	24	n/a	187

### 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	94%	\$612.5
Member Partner Service Area	89%	\$570.3
Disadvantaged Service Area	55%	\$307.2

**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)
City of Detroit	33	\$289.6
City of Auburn Hills	5	\$76.9
City of Novi	3	\$94.4
City of Livonia	3	\$59.6
City of Taylor	1	\$12.6
City of Troy	2	\$11.9
City of Southfield	2	\$6.3
City of Madison Heights	1	\$6.0
City of Warren	1	\$3.6
City of Farmington Hills	2	\$6.5
City of Riverview	1	\$1.9
Harrison Township	1	\$1.0
Total	55	\$570.3

**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	33	\$289.6

**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	38%	\$292.5

**Table 6: Diversity Certification Percentages**

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

	SBE	DBE	MBE	WBE
Percentage of Awarded Procurements to SBE, DBE, MBE, and WBE	10%	79%	31%	8%
Total Contract Amount (in millions)	\$18.5	\$333.6	\$78.4	\$65.2

**Table 7: Overall Contracts Awarded**

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

	Total Contract Count	Total Contract Amount (in millions)
Eligible Procurements	62	\$760.7
Firms that met the certification criteria (non-scored criteria)	29	\$292.5
Firms that met the three geographic criteria (scored criteria)	34	\$307.2

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

- Preparing materials for participation in the Michigan Public Purchasing Officer's Association (MPPOA) Reverse Trade Fair on April 28, 2023 in Lansing, MI.
- Working with Bonfire to develop options for tracking and reporting on GLWA's efforts to update our vendor database to include information on diversity certifications. These options are contingent upon pending software enhancements required by Bonfire.
- Continued attendance of the B.I.D. Program Liaison at all Pre-Bid and Pre-Proposal solicitation meetings to overview B.I.D. Program requirements and answer any questions from vendors/contractors.

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

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

**Proposed Action:** Receive and file this report.



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee

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

**Re:** Charges Outreach & Modeling Update

**Background:** The Charges Outreach & Modeling (CO&M) Team was established in Fiscal Year 2023 as part of the Financial Management & Planning Group to facilitate internal communication and external outreach with GLWA Member Partners as it relates to the charge methodology and charge-related financial matters. This team also serves as liaison between GLWA and third-party consultants in the development, maintenance and review of the annual water and sewer charges.

**Analysis:** This month we present an update on the initiatives CO&M has been focused on, including charges rollout, work group meetings, and ongoing outreach efforts.

1. FY 2023 Charge Modifications: As of this date, there have been no charge modifications. There were no exceedances identified resulting from the 2022 Max Day/Peak Hour calculations.
2. FY 2024 Charges Rollout Update: Great Lakes Water Authority cross-functional teams have **completed** the Fiscal Year 2024 Charges Rollout Schedule.
3. Contract Alignment Update: The Contract Alignment Process (CAP) has **concluded**.
4. Professional Development/Outreach Activities: I recently completed the Accounting and Rate Setting course through the Institute of Public Utilities at Michigan State University. This was attended by finance staff from utilities and public service commissions from across the country and provided an opportunity to network with peers and identify differences and similarity between utility types.
5. Additional CO&M updates include the following:
  - a. Over the last month, Charges Outreach and Modeling (CO&M) has facilitated member partner check-in meetings with both the City of Flint and the City of Utica. We also continue to connect with member partners at GLWA-sponsored meetings and events, including the Flood Mitigation and Resiliency Planning Meeting at Madonna University in Livonia, Water Analytical Work Group held at UofM-Detroit Center. CO&M has also been actively engaged in the Water Charges Methodology Review Subgroup meetings.

**Look Ahead:**

1. Charges Work Group

- a. This group is made up of Member Partners and staff from GLWA. It was established to review water and sewer charge methodology and to make recommendations regarding potential changes.
  - i. The overall Charges Work Group met Tuesday, April 25 via Zoom for an update on the work of the Water Charges Methodology Review Subgroup. We are also working to schedule a second Charges Work Group meeting to discuss Wastewater matters on Tuesday, May 9 via Zoom.
  - ii. Water Charges Methodology Review Subgroup (Subgroup) made up of interested volunteer Member Partners convened to work closely with GLWA on the technical analysis and provide input on charges scenarios. The Subgroup meets twice per month and reports its findings and updates to the Charges Work Group as-needed. We received valuable feedback from Member Partners at-large during the Charges Rollout process that will help guide future discussions for this subgroup. A summary report of activity to-date, prepared by Bridgeport Consulting, is attached to this update.
  - iii. The Water Charges Third-Party Rate Consulting Firm has made multiple presentations regarding their work including Member Partner interviews and peer reviews. They will be making a presentation to the overall Charges Work Group on Tuesday, April 25<sup>th</sup>.
  - iv. The most recent in-person meeting of the subgroup was held on March 3, 2023 at the City of Sterling Heights Department of Public Works.
  - v. Virtual subgroup meetings were also held March 17, 2023 and March 31, 2023 via Zoom.
  - vi. The next in-person Water Charges Methodology Review Subgroup Meeting is scheduled for May 5, 2023 at the Dearborn Center for the Performing Arts.

2. One Water Partnership Meetings

- a. The most recent OWP was held in-person on March 23, 2023, at the Michigan First Conference Center (The Mint) in Lathrup Village.
- b. The next OWP meeting will be scheduled and published by Member Outreach.

**Proposed Action:** Receive and file this report.



**Water Charge Methodology Review**  
**Subgroup Status**  
*Prepared March 21, 2023*

The Water Charge Methodology Review Subgroup is charged with reviewing the current methodology and developing recommended changes to the current methodology for consideration by water Member Partners and the GLWA Board of Directors. The goal is to implement any changes as part of GLWA's fiscal year 2025.

The Subgroup has been meeting approximately twice monthly since June 2022 to:

- Build their understanding of the current water charge methodology,
- Develop guiding principles for the review, and
- Identify and analyze potential methodology changes.

The Subgroup articulated the following guiding principles to serve as decision-making filters for consideration of possible changes:

- **Stable:** We know what to expect, year over year
- **Simple:** We can explain it to our stakeholders
- **Impartial:** We pay based on data that reasonably aligns with our system use
- **Sustainable:** We grow the system to benefit members and the region broadly

The following potential methodology changes are currently **under discussion**:

1. Allocating power costs to better align with how the system uses power
2. Eliminating the smallest cost pools to reduce complexity
3. Potentially modifying the use of distance and elevation in allocating transmission costs, including possibly:
  - a. Measuring from the water intakes instead of the Water Treatment Plants
  - b. Dividing the system into two delivery zones
  - c. Adjusting elevation to recognize hydraulic grade line (HGL) and its impact on pumping costs
  - d. Other creative approaches, including creating an adjustment factor to account for transmission costs that represents the current distance and elevation measures
4. Possible approaches for uniquely situated members who pay significantly more on a per unit basis than the average

The following topics have been discussed and ultimately **discarded**:

1. Reallocating costs using a base-extra capacity approach rather than the current commodity-demand approach
2. Eliminating distance and elevation
3. Eliminating Northeast Water Treatment Plant from the distance and elevation calculation

4. Measuring distance and elevation from the plant closest to a community, rather than from the centroid of the five water treatment plants
5. Measuring distance and elevation for a community from the plant that most routinely serves that community, rather than from the centroid of the five water treatment plants
6. Replacing distance and elevation with pressure or HGL districts

The Subgroup has also agreed that changes to GLWA's optimization framework<sup>1</sup>, water model contract, and the contract negotiation process are **out of scope** for this review. This means that the following ideas will not be included in the review:

- Creating incentives for good operational processes by member communities and/or in coordination with GLWA for the benefit of the regional system
- Expanding or changing the exclusionary period
- Reducing or changing the exceedance penalty or process
- Timing of units of service updates

The Subgroup will begin consideration of water charge methodology alternatives this Spring. One factor in considering alternatives will be the impact to individual Member Partner charges.

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<sup>1</sup> The framework that allows GLWA to negotiate costs for local and regional system improvements that benefit the respective systems



## Financial Services Audit Committee Communication

**Date:** April 28, 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. In October 2022, the WRAP improvements approved by the GLWA Board of Directors in June 2022 took effect. These improvements included the following.

- Providing WRAP as a core service, thereby removing the need for communities to opt-in or out
- Determining bill credits that are based on household income and amount of the water and sewer bill, referred to as the WRAP Income Based Plan (IBP)
- Emphasizing case management and direct client assistance

**Analysis:** This month we present an update on the initiatives the Affordability & Assistance team have been focused on, including outreach on available assistance programs, a summary of the WRAP balance rollforward, and efforts related to sustainable water assistance funding.

### Outreach Initiatives

The Affordability & Assistance team continues to coordinate with GLWA's Public Affairs team to develop additional WRAP materials to expand outreach efforts such as a new [flyer](#) focusing on the minor plumbing repairs offered through WRAP that has been created.

GLWA encouraged Member Partner participation in the program via an email communication on Monday, April 17, 2023, following discussions regarding the Low-Income Household Water Assistance Program (LIHWAP) at the March 23, 2023, One Water Partnership meeting. LIHWAP is a temporary emergency program administered through the State of Michigan with services delivered by local community action agencies, such as Macomb Community Action, Wayne Metropolitan Community Action Agency, and Oakland Livingston Human Services Agency. GLWA will continue efforts to alert Member Partners of funding available to them through this program.

*WRAP Balance Rollforward*

The Affordability & Assistance team has been working diligently to capture and summarize all WRAP allocations, board-approved reallocations, and funds used (spent) through June 30, 2022. The summary report following this update details the WRAP Balance Rollforward through FY 2022. Because carryforward balances as of June 30, 2022 are sufficient to support each area agency the Affordability and Assistance team will not be recommending a reallocation for FY 2022. In the coming months we will share an updated summary reflecting FY 2023 activity.

*Sustainable Water Assistance Funding*

GLWA continues to engage with various stakeholders throughout the state to support efforts to secure sustainable funding for water assistance. GLWA is an active participant of multiple work groups as well as groups hosted by the Michigan Section of the American Water Works Association (MI-AWWA). The Affordability & Assistance team will update the Audit Committee as this important work progresses.

**Proposed Action:** Receive and file this report.

**Great Lakes Water Authority**  
**WRAP Balance Rollforward**  
**as of June 30, 2022**

	Detroit	Flint	Wayne, Washtenaw & Monroe	Oakland	Macomb, St. Clair, Lapeer	
	Area 1	Area 2	Area 3	Area 4	Area 5	Total
<b>INFLOWS/BUDGET</b>						
FY 2016	\$ 1,728,596	\$ 89,081	\$ 1,101,208	\$ 1,032,849	\$ 548,266	4,500,000
FY 2017	1,787,572	92,340	1,189,370	1,083,681	578,037	4,731,000
FY 2018	1,834,728	40,375	1,260,779	1,165,210	622,208	4,923,300
FY 2019	1,941,442	22,915	1,192,801	1,154,065	620,776	4,931,999
FY 2020	1,968,243	23,663	1,022,068	1,114,023	740,103	4,868,100
FY 2021*	3,090,509	24,488	1,057,797	1,149,643	766,064	6,088,501
FY 2022	3,243,669	23,399	1,091,278	1,133,060	753,895	6,245,300
Total Annual Inflows	\$ 15,594,759	\$ 316,261	\$ 7,915,301	\$ 7,832,531	\$ 4,629,349	\$ 36,288,200
<b>REALLOCATIONS</b>						
FY 2016	\$ 1,664,832	\$ 53,643	\$ (758,864)	\$ (591,164)	\$ (368,447)	-
FY 2017	786,981	425,635	(599,000)	(330,198)	(283,418)	-
FY 2018	794,400	392,392	(441,153)	(429,264)	(316,375)	-
FY 2019	1,182,593	493,311	(494,672)	(807,449)	(373,783)	-
FY2020 & FY 2021**	2,815,194	1,515,874	(777,608)	(2,206,602)	(1,346,858)	-
Annual Reallocations	\$ 7,244,000	\$ 2,880,855	\$ (3,071,297)	\$ (4,364,677)	\$ (2,688,881)	\$ -
<b>USES</b>						
Services Provided (incl Admin Costs) Thru FY 2019	\$ 6,082,728	\$ 244,506	\$ 1,367,305	\$ 1,548,136	\$ 699,218	9,941,893
FY 2020	3,013,646	352,790	646,836	320,264	132,474	4,466,009
FY 2021	3,771,245	259,307	756,121	349,446	252,992	5,389,110
FY 2022	3,780,040	393,203	952,356	410,387	539,919	5,175,878
Total Annual Uses	\$ 16,647,659	\$ 1,249,805	\$ 3,722,618	\$ 2,628,232	\$ 1,624,602	\$ 25,872,917
<b>Balance Available 6/30/22</b>	<b>\$ 6,191,100</b>	<b>\$ 1,947,311</b>	<b>\$ 1,121,386</b>	<b>\$ 839,622</b>	<b>\$ 315,866</b>	<b>\$ 10,415,284</b>

\*The local system began contributing 1% of budgeted revenues to the WRAP program as of July 1, 2020.

\*\* These funds were added to FY23 Funding



## Financial Services Audit Committee Communication

**Date:** April 28, 2022

**To:** Great Lakes Water Authority Audit Committee

**From:** Alicia Schwartz, Grants & Intergovernmental Relations Manager

**Re:** Grants, Gifts, and Other Resources Report through March 31, 2023

**Background:** The Great Lakes Water Authority (GLWA) delegated authority to the Chief Executive Officer to oversee and report on activities identified in the GLWA Articles of Incorporation related to solicitation and receipt of grants, gifts, and other resources as stated in Article 4 – Powers, Section B (4):

(4) Solicit, receive, and accept gifts, grants, labor, loans, contributions of money, property, or other things of value, and other aid or payment from any federal, state, local, or intergovernmental government agency or from any other person or entity, public or private, upon terms and conditions acceptable to the Authority, or participate in any other way in a federal, state, local, or intergovernmental government program.

Other resources in this context refer to labor, contributions of money, property, or other things of value from any other person or entity, public or private with the exception for loans, subject to provisions of the GLWA Board Debt Management Policy, and Intergovernmental agreements and other activities that are addressed in the GLWA Board Procurement Policy.

Participation in any other way in a federal, state local, or intergovernmental government program includes participation in research projects at universities.

Refer to the Grants, Gifts, and Other Resources Delegation Policy at [Grants, Gifts, and Other Resources Delegation Policy - GLWA \(glwater.org\)](#).

**Analysis:** To ensure transparency and timely communication, this report is provided to the Board, no less than quarterly, documenting activities subject to the policy. The report will, at a minimum, include description, type of activity, dollar amount, compliance and/or performance requirements, if any, and status including, at a minimum, solicitation, acceptance, and close-out.

**Bolded items** in the attached tables reflect changes from the prior report.

Highlights of this month's report includes the following.

- ✓ FY 2022 Michigan Clean Diesel Program – GLWA applied for a \$375,960 grant through Department of Environment, Great Lakes, and Energy (EGLE). This grant would fund a portion of the costs to replace seven fleet vehicles with new clean diesel engines vehicles. The grant focuses on priority areas to reduce greenhouse gases, including all GLWA service areas.
- ✓ Department of Energy (DOE) Grant Approved – GLWA was awarded \$1,375,000 on March 28, 2023, for a Renewable Energy Research and Development Grant focusing on converting organic wet waste to transportation fuels on.

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

**Table 1 – Pre-Award Programs** reflects open FY 2020, FY 2021, FY 2022 submissions, and FY 2023 submissions through March 31, 2023. The summarized activity provided identifies four programs with six grant reimbursement request submissions, one new application, and two EPA Community Grant applications in process.

**Table 2 - Awarded Programs** reflects open FY 2020, FY 2021, FY 2022 projects, and FY 2023 project submissions through March 31, 2023. The summarized activity provided identifies 19 projects with GLWA as a contributor and/or participant with efforts being conducted by a university or government program.

**Table 3 – Post-Award Programs** reflects 12 programs with 18 reimbursement requests and receipts in FY 2021, FY 2022, and FY 2023 through March 31, 2023.

**Proposed Action:** Receive and file this report.



## Financial Services Audit Committee Communication

**Table 1 – Pre-Award Programs** reflects open FY 2020, FY 2021, FY 2022, and FY 2023 submissions to date. The summarized activity provided identifies four programs with six grant reimbursement request submissions, one new application, and two EPA Community Grant applications in process.

**Table 1 – Pre-Award Programs**

Reference Number	Request Date	Program Description	Type of Activity	Amount Requested	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-002a	09/15/2020	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 144208	Federal Grant (Reimbursement Basis)	\$1,858,713	Federal Audit Requirements (add to existing audit program)	State is reviewing payment	Kathy Smith-Roy
2022-005	03/25/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 553713	Federal Grant (Reimbursement Basis)	\$573,325	Federal Audit Requirements (add to existing audit program)	State is reviewing payment	Kathy Smith-Roy
2022-006	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 149797-Amended	Federal Grant (Reimbursement Basis)	\$19,348	Federal Audit Requirements (add to existing audit program)	State is reviewing payment	Kathy Smith-Roy
2022-008	06/23/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 676268	Federal Grant (Reimbursement Basis)	\$470,475	Federal Audit Requirements (add to existing audit program)	State is reviewing payment	Kathy Smith-Roy
2022-002	01/06/2022	Federal Emergency Management Agency (FEMA), June 25-26 Flood, DR-4607 11 projects under development including two mitigation projects	Federal Grant (Reimbursement Basis)	\$1,070,000	Federal Audit Requirements (add to existing audit program)	<b>State is reviewing 7 projects currently</b>	Dana Bierer

Reference Number	Request Date	Program Description	Type of Activity	Amount Requested	Compliance and/or Performance Requirements	Status	Team Member Contact
2023-004	12/19/22	Federal Emergency Management Agency (FEMA) activity related to COVID-19 Project 697073	Federal Grant (Reimbursement Basis)	\$334,193	Federal Audit Requirements (add to existing audit program)	State is reviewing payment	Kathy Smith-Roy
2023-001	03/31/2023	FY 2022 MI Clean Diesel Grant	EGLE	\$375,960	Federal Audit Requirements (add to existing audit program)	Submitted Application 3/31/23	Alicia Schwartz
2023-002		FY2022 EPA Community Grant – Detroit River Interceptor	Environmental Protection Agency	\$2,000,000 (20% Cost Share)	Federal Audit Requirements (add to existing audit program)	Earmark	Alicia Schwartz
2023-003		FY2023 EPA Community Grant – PFAS Compounds remediations project	Environmental Protection Agency	\$3,452,972 (20% Cost Share)	Federal Audit Requirements (add to existing audit program)	Earmark	Alicia Schwartz

**Table 2 Awarded Programs** reflects all open FY 2020, FY 2021, FY 2022 projects, and FY 2023 projects to date. The summarized activity provided identifies 19 projects with GLWA as a contributor and/or participant in research being conducted by a university or government program.

**Table 2 – Awarded Programs**

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-004	Pre-FY 2019	Phosphorus & Oxygen Control; Collection System Optimization Contract 1900169	Multiple Projects with University of Michigan	<b>\$221,993</b> (Life to date through FY 2022) \$246,822 (Contract amount)	None	Ongoing	John Norton
2020-005	FY2020	PFAS Health & Ecological Impacts Contract 1902151	Wayne State University Project	<b>\$180,527</b> (Life to date through FY 2022) \$192,153 (Contract amount)	None	Ongoing	John Norton
2020-007	FY2020	Transport/Fate of Nutrients in Biosolids Contract 1902059	Michigan State University Project	<b>\$265,943</b> (Life to date through FY 2022) \$277,470 (Amended contract amount)	None	Ongoing	John Norton
2020-009	07/22/2020	Implementation of LTCP modeling Contract 2001434	University of Michigan Project	<b>\$624,882</b> (Life to date through FY 2022) \$636,702 (Contract amount)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-010	08/01/2020	Microplastics and Human Health Contract 1904710	Wayne State University Project	<b>\$151,134</b> (Life to date through FY 2023) \$195,000 (Contract amount)		Ongoing	John Norton
2020-008, 2020-013	08/01/2020	Surveillance of Covid-19 in Southeast MI Wastewater- Expanded project scope- Phase 1, Phase 2, Phase 3, Phase 4  Contract 2001402	State of Michigan/ CDM Smith and Michigan State University	<b>\$264,238</b> (Life to date through FY 2022)  GLWA receiving samples and analytics.  \$267,457 (Contract amount) (Project worth \$3,200,000)	None	Ongoing	John Norton
2020-014	12/29/2020	Assessing biosolid treatment processes on pollutant environmental fate on plant uptake  Contract 2103714	US Environmental Protection Agency (EPA)/ Michigan State, Colorado State, and University of Georgia	\$100,000 and in-kind labor for program participation (Contract amount) (Project worth \$1,498,000)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-004	03/17/2021	Project GREEN-Accumulation of Per- and Polyfluoroalkyl Substances in Historically Archived Corn and Wheat Grains  Contract 2103224	Michigan State University Project	\$20,000 (Contract amount) (Project worth \$69,999)	None	Ongoing	John Norton
2021-005	05/04/2021	Department of Energy Renewable Energy Research and Development Hydro liquification – Converting Bio-hazards into Diesel fuel	Department of Energy (DOE)/ Pacific Northwest National Labs (PNNL)	\$1,000,000 (\$375,000 Cost Share)	Federal Audit Requirements (add to existing audit program)	Ongoing	John Norton
2021-008	07/12/2021	Method Development for Detection of Human Sources of Fecal Contamination in the Watershed Contract 2100771	Wayne State University Project	\$140,0749 (Life to date through FY 2022)  \$297,299 (Contract amount)	None	Ongoing	John Norton
2021-009	03/30/2021	Life cycle assessment Contract 2001595	University of Michigan Project	\$147,977 (Life to date through FY 2022)  \$234,726 (Contract amount)	None	Ongoing	John Norton

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2022-011	10/05/2021	Volatile Fatty Acid Analysis Contract 2102174	Wayne State University Project	<b>\$35,359</b> (Life to date through FY 2022)  \$62,600 (Contract amount)	None	Ongoing	John Norton
2021-011	04/29/21	Integrated biochemical electrochemical technologies (IBET)	University of Michigan Project	\$312,500 and in-kind labor and facility for program participation (Contract amount; Project worth \$6,790,983)	None	Ongoing	John Norton
2022-012	01/26/2022	Data Driven Decision Making Framework Contract 2102864	University of Michigan Project	<b>\$142,691</b> (Life to date through FY 2022)  \$590,179 (Contract amount)	None	Ongoing	John Norton
2022-013	06/10/2022	Create Workforce and Laboratory of the Future at Water Works Park Contract 2104064	Wayne State University Project	<b>\$43,174</b> (Life to date through FY 2022)  \$584,114 (Contract amount)	None	Ongoing	John Norton
2022-004	02/23/2022	Water Technician Registered Apprenticeship Program- \$2,225 per apprentice, 25 apprentices	Macomb Community College Tuition	\$55,625	None	\$4,208 received \$4,414 received Ongoing	Patricia Butler

Reference Number	Start Date	Program Description	Type of Activity	Amount to be Provided	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-012	09/21/2021	Michigan Industrial Cluster Approach (MICA 3.0) Apprenticeship Program- \$1,000 per apprentice, 45 apprentices	Focus Hope	\$45,000	None	<b>\$4,000</b> received 2/6/2023  Ongoing	Patricia Butler
2022-015	04/04/22	Evaluation of Flow Cytometry for Drinking Water Applications	Wayne State University	28,252 (Life to Date through 03/31/2023) 35,315 (Contract Amount)	None	Ongoing	John Norton
2022-014	04/03/23	<b>Modeling Impacts of Loss of Power System Resilience on the GLWA System</b>  <b>Contract 2202737</b>	<b>University of Michigan</b>	<b>291,203</b>  <b>(Contract Amount)</b>	None	<b>New</b>	<b>John Norton</b>

**Table 3 Post Award Programs** 12 programs with 18 reimbursement requests and receipts in FY 2021, FY 2022, and FY 2023 through March 31, 2023.

**Table 3 – Post Award Programs**

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-001	08/31/2020; 09/23/2020; 10/26/2020; 11/23/2020	Wage Incentive used for qualified apprentices	MOU with DESC (Detroit Employment Solutions Corporation) and SER-Metro Detroit	\$12,000 (\$3,000 per month)	Minimum wage and monthly work hour requirements	\$12,000 received	Patricia Butler
2020-002b	11/11/2020	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 149797	Federal Grant  (Reimbursement Basis)	\$84,244	Federal Audit Requirements (add to existing audit program)	\$84,244 received 10/14/2021	Kathy Smith-Roy
2020-002c/ 2022-007	02/09/2021	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 149800	Federal Grant  (Reimbursement Basis)	\$16,123	Federal Audit Requirements (add to existing audit program)	\$16,123 received 10/14/2021	Kathy Smith-Roy
2020-003	Pre-FY 2019	Anaerobic Digestion Project CS-217	Michigan State University Project	\$355,742 (Life to date through FY2022) \$355,800 (Contract amount)	None	Completed	John Norton
2020-006	FY2020	Lake Huron to Lake Erie Monitoring Platform; Photocatalytic UV materials	Multiple Projects with Wayne State University	\$1,284,500 (Contract amount)	None	Program not initiated; no resources provided	John Norton

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2020-011	Pre-FY2020	Smart Pipes Contract 1900902	University of Michigan Project	\$356,460 (Life to date through FY2022) \$356,610 (Contract amount)	None	Completed	John Norton
2020-012	Pre-FY2020	Phosphorus and Oxygen Control; Collection System Optimization Contract 1900169	Multiple Projects with University of Michigan	\$250,000 (Contract amount)	None	Program incorporated into similar 2020-004 program	John Norton
2021-001	01/01/2021	The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Drinking Water Asset Management (DWAM) Grant CS-198	State Grant (Reimbursement Basis)	\$998,047	None	Not received	Jody Caldwell
2021-002	02/01/2021	Southeast Michigan Council of Governments (SEMCOG) Infrastructure Asset Management Program	Organization of Local Governments (Reimbursement Basis)	\$29,951	None	\$29,951 received 02/18/2021	Jody Caldwell
2021-003	02/18/2021	The Michigan Department of Environment, Great Lakes, and Energy (EGLE) Watershed Council Support Program	State Grant (Reimbursement Basis)	\$40,000	Quarterly Progress Reports	\$4,050 received 06/27/2022; \$18,190 received 09/16/2022; \$17,759 received 10/17/2022	Dan Gold

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2021-006	06/21/2021	Improving Arrested Anaerobic Digestion Using Vacuum-Based IntensiCarb Reactors	DOE, Office of Energy Efficiency and Renewable Energy/ University of California Irvine	In-kind labor for program participation (Project worth \$3,875,000)	None	Program not initiated; no resources provided	John Norton
2021-007	06/23/2021	United States Environmental Protection Agency - EGGLE Surface Water Intake Protection Program (SWIPP)	Federal Grant (Reimbursement Basis)	\$50,000	Quarterly Progress Reports Match \$50,000	\$7,106 received 08/09/2022; \$920 received 10/13/2022	Mary Lynn Semegen and Terry Daniel
2021-013	12/28/2021	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 552205	Federal Grant (Reimbursement Basis)	\$36,014	Federal Audit Requirements (add to existing audit program)	\$36,014 received 06/27/2022	Kathy Smith-Roy
2022-001a	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 435200	Federal Grant (Reimbursement Basis)	\$92,033	Federal Audit Requirements (add to existing audit program)	\$92,033 received 06/27/2022	Kathy Smith-Roy
2022-001b	03/03/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 553382	Federal Grant (Reimbursement Basis)	\$63,842	Federal Audit Requirements (add to existing audit program)	\$63,842 received 06/27/2022	Kathy Smith-Roy

Reference Number	Request Date	Program Description	Type of Activity	Amount	Compliance and/or Performance Requirements	Status	Team Member Contact
2022-003	01/20/2022	Federal Emergency Management Agency (FEMA), Building Resilient Infrastructure and Communities (BRIC)  Northwest Interceptor Diversion Tunnel	Federal Grant (Reimbursement Basis)	\$39,611,007	Federal Audit Requirements (add to existing audit program)  Match \$13,203,669	Not received	Jody Caldwell
2021-010	02/11/2021	Prestressed concrete cylinder pipe (PCCP) Study on Loss of Preload Contract 2101210	Tarrant Regional Water District	\$20,000 (Contract amount) (Project worth \$20,000)	None	\$20,000 Received	John Norton
2022-009	06/26/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 676489	Federal Grant Reimbursement Basis	\$79,557	Federal Audit Requirements (add to existing audit program)	\$79,557 Received on 2/28/23	Kathy Smith-Roy
2022-010	07/01/2022	Federal Emergency Management Agency (FEMA) activity related to COVID-19  Project 677321	Federal Grant Reimbursement Basis	\$70,039	Federal Audit Requirements (add to existing audit program)	\$70,039 Received on 2/28/23	Kathy Smith-Roy



## Financial Services Audit Committee Communication

**Date:** April 28, 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.

### OPS-005 Security – Ongoing

- The Security Shared Service provided to DWSD by GLWA includes remote monitoring and perimeter security for all facilities in the system. The Security center is located at the Water Board Building and staffed 24 hours a day, 7 days a week. The Security team also manages all badge access for DWSD staff and facilities.
- DWSD has paid for services rendered in FY 2020 and FY 2021. GLWA and DWSD agree on FY 2022 OPS-005 final costs of service, resulting in a small overpayment based on estimated FY 2022 payments made to date. This overpayment will be resolved as part of ongoing discussions.

	FY 2020	FY 2021	FY 2022	Total
<b>Final Cost of Service</b>	200,326	194,297	160,354	554,977
<b>Payments</b>	(200,326)	(194,297)	(197,794)	(592,416)
<b>Amount Due From DWSD</b>	-	-	(37,440)	(37,440)

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 is preparing a proposal representing final cost of service to DWSD for FY 2020, FY 2021, and FY 2022. This will include an analysis of costs associated with the Systems Control Center in a more streamlined manner than provided in previous years.

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Total</b>
<b>Final Cost of Service</b>	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 4,500,000
<b>Payments</b>	-	(712,682)	(751,561)	(1,464,243)
<b>Amount Due From DWSD</b>	\$ 1,500,000	\$ 787,318	\$ 748,439	\$ 3,035,757

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 reviewing the final cost of service for FY 2020 previously provided by GLWA. The GLWA Shared Services team is currently working to finalize the FY 2021 final cost of service and anticipate this analysis will be complete by end of March 2023 to share with DWSD.

	<b>FY 2021</b>	<b>Total</b>
<b>Final Cost of Service</b>	\$ 2,400,000	\$ 2,400,000
<b>Payments</b>	(2,069,384)	(2,069,384)
<b>Amount Due From DWSD</b>	\$ 330,616	\$ 330,616

Public Finance – Ongoing

- The Public Finance Shared Service includes GLWA providing DWSD with 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 is preparing a final cost of service proposal for DWSD covering FY 2020, FY 2021, and FY 2022. This will include an analysis of costs associated with the Public Finance in a more streamlined manner than that provided in previous years.

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Total</b>
<b>Final Cost of Service</b>	\$ 15,000	\$ 18,400	\$ 17,000	\$ 50,400
<b>Payments</b>	-	(16,550)	(17,666)	(34,216)
<b>Amount Due From DWSD</b>	\$ 15,000	\$ 1,850	\$ (666)	\$ 16,184

OPS-001 Fleet – Ended June 30, 2020

- The Fleet Shared Service provided by DWSD to GLWA was associated with the management and maintenance of all fleet and equipment for GLWA. This included passenger vehicles, dump trunks, combination loaders and vacuum trucks, and heavy equipment.
- The DWSD Shared Services Team is preparing a final cost of service proposal for GLWA covering FY 2019 and FY 2020. This will include an analysis of costs associated with the Fleet services in a more in a more streamlined manner than that provided in previous years.

	<b>FY 2019</b>	<b>FY 2020</b>	<b>Total</b>
<b>Final Cost of Service</b>	1,200,000	1,200,000	2,400,000
<b>Payments</b>	(750,000)	(750,000)	(1,500,000)
<b>Amount Due To DWSD</b>	450,000	450,000	900,000

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 proposal for GLWA covering FY 2021. The DWSD Shared Services team will be working on preparing the final cost of service for FY 2022 in the upcoming months.

	<b>FY 2021</b>	<b>FY 2022</b>	<b>Total</b>
<b>Final Cost of Service</b>	\$ 2,500,000	\$ 2,600,000	\$ 5,100,000
<b>Payments</b>	(1,980,000)	(1,980,000)	(3,960,000)
<b>Amount Due To DWSD</b>	\$ 520,000	\$ 620,000	\$ 1,140,000

**Proposed Action:** Receive and file this report.



## Financial Services Audit Committee Communication

**Date:** April 28, 2023

**To:** Great Lakes Water Authority Audit Committee  
Capital Planning Committee

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

**Re:** Board Letter and Resolution Regarding Approval of FY 2024 through FY 2028  
Capital Improvement Plan Board Item 2023-015 – Clerical Error

**Background:** A public hearing was held on February 22, 2023, in which the Capital Improvement Plan (CIP) for FY 2024 through FY 2028 was presented, along with the board letter and resolution regarding the approval of the CIP (Board item 2023-015). The resolution was passed by the Board of Directors during this meeting.

**Analysis:** While reviewing the documents that will be incorporated in the final FY 2024 and FY 2025 Biennial Budget & Five-Year Financial Plan FY 2024 through FY 2028 document, it was discovered that both the Board letter and the resolution regarding approval of the FY 2024 through FY 2028 Capital Improvement Plan contained a clerical error. Both stated that the water system capital improvements were \$798.2 Million and the sewer system capital improvements were \$986.6 Million. These amounts were reversed. The correct amounts are as follows.

- \$986.6 Million of water system improvements
- \$798.2 Million of sewer system improvements

The corrected board letter and resolution related to this clerical follow this communication.

The CIP 2024-2028 document, presented at the February 22, 2023, public hearing, contained the correct amounts for both the water system and sewer system.

**Proposed Action:** Receive and file this report.



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Resolution Regarding Approval of FY 2024 through FY 2028 Capital Improvement Plan**

**..Body**

Agenda of: January 25, 2023, February 22, 2023

Item No.: 2023-015

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** January 20, 2023

**RE: Resolution Regarding Approval of FY 2024 through FY 2028  
Capital Improvement Plan**

**MOTION**

Upon recommendation of Jody Caldwell, Chief Planning Officer, The Board of Directors for the Great Lakes Water Authority (GLWA), **adopts the resolution supporting the Capital Improvement Plan (CIP) for Fiscal Years 2024 through 2028, and authorizes the Chief Executive Officer to approve the five year Capital Improvement Plan (CIP) for Fiscal Years 2024 through 2028, including the ten year outlook, noting an affirmative vote of at least five (5) Board Members is necessary for approval of this Motion;** and also authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

## **JUSTIFICATION**

A capital improvement plan addresses the following objectives.

1. Identifies an organization's priorities within available resources over a multiple year period.
2. Communicates the scope, funding, and timing to stakeholders, coordinating agencies, investors, and the public.
3. Encompasses stakeholder engagement in its development.
4. Aligns with strategic objectives of the organization, including effective capital delivery and regulatory compliance at the lowest cost of capital investment.

## **BUDGET IMPACT**

The FY 2024 through FY 2028 Capital Improvement Plan identifies \$986.6 Million of water system capital improvements and \$798.2 Million of sewer system improvements. Giving that GLWA adopts a two-year budget, it is recommended that FY 2024 and FY 2025 be designated as a two-year capital budget for purposes of carrying out the CIP that coincides with GLWA adopted biennial operating budget (also referenced as the revenue requirement budget).

## **COMMITTEE REVIEW**

The Capital Planning Committee reviewed Preliminary Drafts of the CIP on October 19, 2022, and January 18, 2023. The Capital Planning Committee at its meeting on January 18, 2023, unanimously recommended that the GLWA Board adopt the Resolution and approve the FY 2024 through FY 2028 Capital Improvement Plan.

## **APPROVAL REQUIRED**

The Articles of Incorporation of the Great Lakes Water Authority requires an affirmative vote of at least five (5) members to approve the 5-year Capital Improvement Plan.

**Great Lakes Water Authority  
Resolution 2023-015  
Resolution Adopting the FY 2024 through FY 2028 Capital Improvement Plan**

- Whereas The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the regional water and sewer systems on January 1, 2016 (the Effective Date”) pursuant to the Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and
- Whereas During the term of the Lease Agreements, the Authority shall be entitled to make such rehabilitation of and replacements and improvements to the Leased Water and Sewer Facilities as it determines to be necessary to keep the Leased Facilities in compliance with performance standards; and
- Whereas In connection with the terms of the Lease Agreements, the Authority shall for each Fiscal Year prepare and approve a Capital Improvement Plan, which shall set forth the improvements to the Leased Sewer Facilities that the Authority proposes to undertake during the next five (5) Fiscal Years; and
- Whereas The GLWA Planning Services staff facilitated the preparation of the FY 2024 through FY 2028 Capital Improvement Plan which encompassed engineering and operating unit personnel, business case evaluation preparation, scoring by the Capital Improvement Plan Development Review Committee members for each system, customer engagement, and review by the GLWA Board Capital Planning Committee on October 19, 2022 and January 18, 2023; and
- Whereas The FY 2024 through FY 2028 Capital Improvement Plan and the related financial plan have been prepared within the boundaries established by the GLWA’s long-term financial strategy emphasizing effective capital delivery at the lowest cost of capital; and
- Whereas The FY 2024 through FY 2028 Capital Improvement Plan identifies \$986.6 Million of water system capital improvements and \$798.2 Million of sewer system improvements; and
- Whereas An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution



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

### **Procurement Tip of the Month: What to Expect from a Solicitation Debriefing Meeting**

Vendors not selected for award may elect to request a solicitation debrief meeting with GLWA Procurement. The purpose of solicitation debriefing meetings is for Procurement to provide Evaluation Team feedback on the Vendor's response so that they may gain insight for improving future solicitation responses.

Debriefing meetings include GLWA Procurement Team member(s) as well as Vendor attendees. During the meeting, Vendors may expect to receive the following.

- ✓ An explanation of GLWA's evaluation and award process;
- ✓ An assessment of their proposal in relation to the solicitation's evaluation criteria, including feedback on suggested improvements as well as areas in which the Vendor's response met or exceeded expectations;
- ✓ A general understanding of the basis of the award decision; and
- ✓ The rationale for not moving forward in the evaluation process.

Debriefing meetings are reserved for Request for Proposal (RFP) solicitations, including those where a Qualification Based Selection (QBS) method was used. This means that vendors were selected for award based on their qualifications and competence in relation to the scope and needs of a particular project, rather than based on price alone.

To protect the integrity of GLWA's procurement process, solicitation debriefing meetings can only be conducted **after** the solicitation contract and/or purchase order has been executed and only if you responded to the solicitation. Feedback from vendors who have participated in this process has been very positive. Please note that buyers cannot discuss responses from other Vendors.

If you have any additional questions on this matter or are interested to schedule a solicitation debriefing meeting, please contact the Buyer of Record for the solicitation.

### **Virtual Vendor Introduction Meetings**

If you are interested in learning more about doing business with GLWA, contact us at [GLWAVendorOutreach@glwater.org](mailto:GLWAVendorOutreach@glwater.org) to schedule a virtual vendor introduction meeting. Topics include information on submitting a competitive bid or proposal to any GLWA solicitation.

### **Where to Meet GLWA**

GLWA attends vendor outreach events throughout southeastern Michigan. We welcome you to visit us at the following upcoming events.

- Michigan Public Purchasing Officers Association (MPPOA) Reverse Trade Fair. April 28. The Lansing Center, Lansing MI. 10:30am-3pm. Registration details [here](#).
- Michigan Minority Supplier Development Council (MMSDC) 2023 Michigan Minority Procurement Conference. May 2-4. Huntington Center, Detroit. Register [here](#).

### **Keeping up with GLWA**

Our Chief Executive Officer (CEO) Monthly Report provides a wealth of information and news about important initiatives within GLWA's service territory that impact GLWA, its member partners, and the public. To read the March 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](http://www.glwater.org) or contact us via email at [procurement@glwater.org](mailto:procurement@glwater.org).

## Upcoming Solicitations April 2023

Category	CIP #	Description/Project Title	Budget Estimate
<b>Water System (next four to nine months)</b>			
N/A			
<b>Wastewater Systems (next four to nine months)</b>			
Construction	211005.2	WRRF Pump Station 2 VFD Replacements	\$7,000,000
Construction	232002	Freud & Connor Creek Pump Station Improvements	\$75,000,000
Design-Bid-Build	261001	WRRF Rehabilitation of Secondary Clarifiers	\$6,000,000
Construction	211007	Pump Station No. 2 Bar Racks Replacement and Grit Collection System Improvements	\$82,000,000
<b>Water System (next three months)</b>			
Construction	170802	Reservoir Rehabilitation Construction Services Phase II at Waterworks Park, Northeast, and Booster Stations.	\$35,972,000
<b>Wastewater (next three months)</b>			
Construction	260209	Emergency and Urgent Sewer Repair II	\$12,400,000
Construction	211005.3	WRRF Pump Station 2 Mag Meter Replacements	\$1,000,000
Construction	260802	WRRF Roofing Improvements	\$4,300,000
<b>Projects moved to Procurement Team (Preparing for solicitation on Bonfire)</b>			
Professional Services	O&M	CSO Facility Accusonic Meter Maintenance	\$3,000,000
Professional Services	O&M	Engineering Staff Augmentation	\$7,000,000
Professional Services	O&M	Property and Casualty Insurance Brokerage and Ancillary Services	\$1,250,000
Professional Services	O&M	Grounds Maintenance Services	\$4,600,000
Professional Services	O&M	Motor Repair Contract	\$1,800,000
Professional Services	O&M	Pump Repair Contract	\$1,650,000
Professional Services	O&M	Instrumentation and Controls Contract	\$3,011,840
Professional Services	O&M	Electrical Maintenance Services	\$4,127,300.00
Professional Services	O&M	Overhead Door Preventative Maintenance and Repairs	\$980,000.00

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

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