



## Audit Committee

Friday, November 20, 2020 at 8:00 a.m.

[www.GLWater.org](http://www.GLWater.org)

Join by Microsoft Teams

Dial-In: 313-771-3116 Conference ID: 868 434 344#

[GLWA Audit Committee Meeting](#)

\* Indicates items where Audit Committee action may result in forwarding to the Board of Directors

### AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
  - A. October 23, 2020 (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
  - A. FY 2020 Yearend Financial Audit Update (Page 7)
  - B. Water Residential Assistance Program Evaluation - Project Update (Page 9)
  - C. Shared Service Update (Page 13)
  - D. Business Inclusion & Diversity Plan – Continued Review of Procurement Policy Amendment & Work Plan (**Binder 2**)
7. NEW BUSINESS
  - A. Proposed Calendar Year 2021 Audit Committee Meeting Dates (Page 20)
8. REPORTS
  - A. CFO Report (**Binder 2**)
  - B. Monthly Financial Report for August 2020 (Page 22)
  - C. Quarterly Investment Report through September 20, 2020 (Page 23)
  - D. Quarterly Debt Report through September 30, 2020 (Page 56)
9. COMMUNICATIONS
  - A. *The Procurement Pipeline* for November 2020 (**Binder 2**)
10. LOOK AHEAD
  - A. Next Audit Committee Meeting: December 18, 2020 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, October 23, 2020

8:00 AM

Telephonic Meeting

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#### Telephonic Meeting

#### 1. Call To Order

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

#### 2. Quorum Call

**Present:** 3 - Chairperson Brian Baker, Director Gary Brown, and Director John J. Zech

Chairperson Baker attended the meeting from Clinton Township (Michigan).

Director Brown attended the meeting from Downtown Detroit (Michigan).

**Note:** Director Zech joined the meeting at 8:11 a.m. under Item 6B., Water Residential Assistance Program Evaluation Draft Report.

#### 3. Approval of Agenda

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to move Item 6.B., (Annual Financial Audit Update) to 6.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.**      [2020-367](#)      Approval of Minutes of September 25, 2020

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [4A Audit Committee Meeting Minutes - September 25, 2020](#)

Chairperson Baker requested a Motion to approve the September 25, 2020 Audit Committee Meeting Minutes.

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Approved

The motion carried by a unanimous vote.

**5. Public Comment**

There were no public comments.

**6. Old Business**

**B.**      [2020-372](#)      Annual Financial Audit Update

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [6B FY 2020 Annual Financial Audit Update Memo Oct 2020](#)  
[6B1 Baker Tilly Annual Financial Audit Update](#)

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Received and Filed

The motion carried by a unanimous vote.

A. [2020-370](#) Water Residential Assistance Program Evaluation Draft Report

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [6A1 Update WRAP Evaluation Draft Report](#)  
[6A2 PSC Presentation WRAP Evaluation Findings](#)  
[6A3 DRAFT WRAP Evaluation Report 10.21.2020](#)

Chairperson Baker requested a Motion to Receive and File the Report and forward it to the Board of Directors for additional feedback.

Motion By: Gary Brown  
Support By: John J. Zech  
Action: Received and Filed  
Forward to the Board of Directors  
Agenda of October 28, 2020  
The motion carried by a unanimous vote.

## 7. New Business

A. [2020-373](#) First Quarter FY 2021 Budget Amendments

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7A1 FY 2021 First Quarter Budget Amendment Report](#)  
[7A2 Addendum 1 FY 2021 First Quarter Budget Amendment Report cover](#)  
[7A3 Addendum 1 FY 2021 First Quarter Budget Amendment Report](#)  
[7A4 Addendum 2 FY 2021 First Quarter Budget Amendment Report](#)  
[7A5 Board Letter- Proposed FY 2021 First Quarter Budget Amendments](#)  
[7A6 FY 2021 First Quarter Budget Amendment Resolution](#)

Chairperson Baker requested a Motion to recommend that the Board of Directors approves the Adoption of the Proposed Budget Amendment Resolution for the First Quarter of FY 2021.

Motion By: Gary Brown  
Support By: John J. Zech  
Action: Recommended for Approval to the Board of Directors  
Agenda of October 28, 2020  
The motion carried by a unanimous vote.

**B.**     [2020-374](#)     Proposed Procurement Policy Amendment Related to Business Inclusion & Diversity (BID) Program

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7B1 Proposed Procurement Policy Amendment for Business Inclusion Diversity Program](#)  
[7B2 Proposed Procurement Policy Update for BID Presentation 10.23](#)  
[7B3 Procurement Policy Amendment Fall 2020 Working Draft 10.21.2020](#)

Chairperson Baker requested a Motion to refer the proposed Procurement Policy Amendment Related to a Business Inclusion & Diversity (BID) Program to the Board of Directors for review to initiate the approval of an amended Procurement Policy.

Motion By: John J. Zech

Support By: Gary Brown

Action: Referred to the Board of Directors

Agenda of October 28, 2020

The motion carried by a unanimous vote.

**C.**     [2020-375](#)     Proposed Change Order No. 4- CS-010 WRAP Administrator Contract

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [7C Proposed Change Order No. 4 Contract No. GLWA-CS-010 WRAP](#)

Chairperson Baker made a Motion, Supported by Director Brown, to recommend approval to the Board of Directors, subject to Wayne Metro's agreement to allow greater program administrative participation for Macomb and Oakland counties local community action agencies.

Motion By: Brian Baker

Support By: Gary Brown

Action: Recommended for Approval to the Board of Directors

Agenda of October 28, 2020

The motion carried by a unanimous vote.

## 8. Reports

**A.**     [2020-376](#)     CFO Report

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8A CFO Update October 2020](#)

[8A1 Process and Calendar FY 2022 and FY 2023 Biennial Budget  
-Draft-10.21.2020](#)

**Motion By:** Gary Brown

**Support By:** John J. Zech

**Action:** Received and Filed

The motion carried by a unanimous vote.

**B.**     [2020-377](#)     Monthly Financial Report for July 2020

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8B July 2020 Financial Report - Tagetik](#)

**Motion By:** Gary Brown

**Support By:** John J. Zech

**Action:** Received and Filed

The motion carried by a unanimous vote.

**C.**     [2020-378](#)     FY 2022 Charges Rollout Schedule

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8C FY 2022 Charges Rollout Update](#)

**Motion By:** Gary Brown

**Support By:** John J. Zech

**Action:** Received and Filed

The motion carried by a unanimous vote.

**D.**     [2020-379](#)     System Max Day Report for 2020

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8D GLWA 2020 System Max Day](#)

[8D1 Water Contract Annual Notice of Exceedances 2020](#)

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Received and Filed

The motion carried by a unanimous vote.

E. [2020-380](#) Quarterly Construction Work In Progress (CWIP) Report for FY 2020 Q4

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [8E Quarterly CWIP Report FY 2020 Q4](#)

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Received and Filed

The motion carried by a unanimous vote.

## 9. Communications

A. [2020-381](#) The Procurement Pipeline for October 2020

**Sponsors:** Nicolette Bateson

**Indexes:** Finance

**Attachments:** [9A October 2020 Procurement Pipeline](#)

**Motion By:** Gary Brown

**Support By:** Brian Baker

**Action:** Received and Filed

The motion carried by a unanimous vote.

## 10. Look Ahead

The next Audit Committee Meeting is scheduled for Friday, November 20, 2020 at 8:00 a.m.

## 11. Other Matters

None

## 12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

**Motion By:** Gary Brown

**Support By:** John J. Zech

**Action:** Approved

The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 10:19 a.m.



## Financial Services Audit Committee Communication

**Date:** November 20, 2020

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

**From:** Steve Hoover, CPA, Financial Reporting Manager

**Re:** FY 2020 Yearend Financial Audit Update

**Background:** Annually, the Great Lakes Water Authority (GLWA) prepares a Comprehensive Annual Financial Report (CAFR) and Schedule of Expenditures of Federal Awards (SEFA) in accordance with financial accounting standards and federal guidelines. Baker Tilly Virchow Krause LLP (Baker Tilly) has been engaged to perform the GLWA annual financial audit and issue an opinion as to whether the financial statements are fairly stated in accordance with accounting standards. Baker Tilly's appointment as GLWA's auditors includes the fiscal years ending in 2019, 2020 and 2021.

**Analysis:** Fieldwork for the FY 2020 GLWA audit has been completed and a draft financial report is nearly complete. The year-end close and audit were completed entirely remote and have gone very smoothly. The audit continues to remain on target to file the audit in December 2020 as referenced in the attached memo from Baker Tilly. Next steps are as follows:

- November 24, 2020                      Preliminary FY 2020 draft CAFR, SEFA and related reports sent to Audit Committee.
- December 1, 2020                      Final FY 2020 CAFR, SEFA and related reports sent to Audit Committee.
- December 4, 2020                      Special Audit Committee  
  (Proposed)
- December 9, 2020                      Board Members receive FY 2020 CAFR, SEFA and related Reports for review
- December 17, 2020                      Presentation of final CAFR, SEFA and related reports to Board of Directors with proposed recommendation to file.
- December 18, 2020                      Issue and file approved statements and reports

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



# Memo

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To: Great Lakes Water Authority Audit Committee

From: Gwen Zech, Manager (Baker Tilly)

c.c. Jodi Dobson, Partner (Baker Tilly), Dustin Kratcha, Senior Associate (Baker Tilly)

Date: Updated November 12, 2020

Subject: Great Lakes Water Authority Audit Status and Comprehensive Annual Financial Report (CAFR)

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We have prepared this memo to communicate to the audit committee our expectations regarding the timing of fieldwork, review, draft reports and issuance of the CAFR. The schedule below summarizes expected milestone dates to meet a deadline of issuance on December 18, 2020.

**Due Date**  
**Friday, December 18, 2020**

**Completed items:**

All audit workpapers uploaded to portal for audit

**Friday, October 2, 2020**

End of Fieldwork (Including first review)

**Friday, October 16, 2020**

Manager level financial statement review

**Friday, October 23, 2020**

Draft to Jodi Dobson, Partner

**Monday, October 26, 2020**

Draft to concurring partner for technical review

**Monday, October 26, 2020**

Comments returned from GLWA management to Baker Tilly

**Friday, November 6, 2020**

Draft back from detail check by Baker Tilly

**Wednesday, November 11, 2020**

**Remaining items on track:**

Preparation of separate CAFRs'

**Tuesday, December 1, 2020**

Presentation of draft to Audit Committee (Proposed Date)

**Friday, December 4, 2020**

Presentation of draft to full Board of Directors

**Thursday, December 17, 2020**

Issuance of the CAFRs'

**Friday, December 18, 2020**

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## Financial Services Audit Committee Communication

**Date:** November 20, 2020

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

**From:** Jon Wheatley, Public Finance Manager

**Re:** Water Residential Assistance Program Evaluation - Project Update

**Background:** The Great Lakes Water Authority (GLWA) engaged Public Sector Consultants (PSC) to serve as the WRAP Advisor to evaluate the current Water Residential Assistance Program (WRAP). PSC is an objective, nonpartisan research and consulting firm based in Lansing and Detroit. They have been conducting program evaluations for more than 20 years and are well versed in a variety of process and impact evaluation methods, including developing theories of change and logic models, qualitative and quantitative data collection using tools such as focus groups and multimode surveys, in-depth informant interviews, cost-effectiveness analyses, and comprehensive data analyses to yield deep insights and actionable findings.

PSC began work on July 6, 2020 and since that time has completed meetings with GLWA's Chief Financial Officer and Finance staff, Detroit Water and Sewerage Department's (DWSD) Chief Financial Officer and Finance staff, Wayne Metro, GLWA's Chief Executive Officer and DWSD's Director and their General Counsel, individual GLWA Board Members and a focus group for GLWA Member Partners. These meetings, and the feedback gathered, were the basis for PSC's report and recommendations which was presented at the October 23, 2020 Audit Committee meeting and to the GLWA Board on October 28, 2020.

The PSC report included fourteen recommended program changes that should be considered by GLWA to improve the delivery and reporting of WRAP. Over the next several months, GLWA will coordinate with Wayne Metro and the other community action agencies that help administer WRAP, to implement the recommended changes.

**Analysis:** GLWA extended its engagement with PSC to help support the implementation of the recommended program changes through June 2021. Included with this memorandum is the November 4, 2020 PSC proposal to provide this support. A driver of this added resource is to facilitate quick wins to foster expanded utilization of WRAP funds in the current fiscal year throughout areas where funds have traditionally been under-utilized, namely Oakland, Macomb, and Wayne County outside of the City of Detroit.

As outlined in its proposal, PSC will provide support with three critical tasks 1) prioritizing the recommended WRAP changes; 2) developing an implementation plan; and 3) providing implementation support through June 2021. The not to exceed budget for this support service is \$56,305 and will be billed hourly.

Based on preliminary discussions, it is anticipated that the full implementation of all recommendations may take at least twelve months, depending on the final priority list and feedback from the community action agencies. A report on the prioritization of the recommended changes and proposed implementation plan will be provided to the GLWA Audit Committee at its December 18, 2020 meeting.

**Budget Impact:** None.

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



## Memo

**TO** Nicolette Bateson and Jonathan Wheatley, Great Lakes Water Authority

**FROM** Maggie Pallone and Eric Pardini, Public Sector Consultants

**DATE** Wednesday, November 4, 2020

**SUBJECT** Contract Extension Request—Water Residential Assistance Program Advisor

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The Great Lakes Water Authority (GLWA) engaged Public Sector Consultants (PSC) as a third-party consultant to assist with the Water Residential Assistance Program (WRAP) evaluation. PSC presented its evaluation report to the GLWA Board of Directors on October 28, 2020. The board provided feedback on the evaluation report and highlighted the desire to begin implementing recommendations to improve WRAP over the coming months. At GLWA's request, PSC has developed the following scope of work to support implementing desired program changes.

## Proposed Scope of Work

### Task One: Prioritize WRAP Recommendations

Based on the evaluation report recommendations, the GLWA Board of Directors identified a number of potential changes they would like to see made to WRAP. While the board's discussion has provided some insight into the immediate priorities for improving WRAP, there is more to be done to confirm the priorities for the coming months and develop a plan for implementing recommendations. PSC proposes working with the GLWA finance team to review the board's feedback and prioritize recommendations for WRAP based on the level of importance and ease of implementation. Additionally, PSC will determine who is responsible for implementation and the time period in which implementation could occur (over the short [zero to four months], mid [five to eight months], and long term [nine or more months]). This exercise will enable GLWA to codify priorities for the program that can be done easily and in the short term, and demonstrate to the board of directors that efforts are underway to implement desired changes that may require additional board support or contract changes.

### Task Two: Develop Implementation Plan

Using the outcomes of the prioritization exercise, PSC will develop a plan for implementing recommendations. PSC will expand on the details provided in the evaluation report to fully define the necessary next steps for implementing each recommendation. In some cases, the recommended changes will be straightforward and implementation activities can begin without delay. Other recommendations will be more complex and require additional efforts to be implemented successfully, such as additional research or further discussion with key stakeholders. PSC will document the next steps for each recommendation, entities to be involved in implementation, the proposed timeline for roll out, key metrics, and a plan for monitoring success.

### Task Three: Provide Implementation Support

The implementation plan will provide essential project management functions that will enable PSC and GLWA to oversee changes to WRAP actively and accurately. Specific implementation activities will vary based on the priorities identified. To support the implementation process, PSC proposes to serve as a facilitator among the community action agencies, member partner communities, and GLWA. This will streamline communication and outreach efforts and allow a single entity to work with GLWA in developing, testing, and implementing program changes in a systematic manner. Throughout the process, PSC will continue to have regular project team meetings with GLWA's finance team every other week to review deliverables and troubleshoot project management issues as they arise. Prior to each meeting, PSC will provide an update to the implementation plan that documents activities underway, accomplishments, and potential challenges the team will need to overcome. Over the course of the implementation process there will likely be a need to coordinate with external stakeholders, such as member partner communities or community action agencies. PSC will coordinate with GLWA on outreach to other stakeholders. In addition to implementing recommendations during the current program year, PSC will support GLWA in the development of a new program solicitation, expected in June 2021.

### Proposed Project Budget

PSC will begin work upon the acceptance of this proposal. The project will be completed by June 2021. Total staff time is estimated at 350 hours, which equals \$56,305. A breakdown of the proposed budget is provided in the following table.

Task	Timeline	Budget
Task one: Prioritize WRAP recommendations	November–December	\$8,875
Task two: Develop implementation plan	November–December	\$15,630
Task three: Provide implementation support	December–June	\$31,800
<b>Total</b>		<b>\$56,305</b>

Given that the implementation portion of work will involve a number of tasks that are not fully defined, PSC is proposing this scope of work be billed on a time-and-materials basis, not to exceed the total contract amount. PSC will provide a monthly invoice that details tasks completed in the month and total hours for each staff person.



## Financial Services Audit Committee Communication

**Date:** November 20, 2020

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

**From:** Alicia Haskin, Management Professional – Intergovernmental Relations

**Re:** Fiscal Year 2018 Shared Services True-Up Update, FY 2019 and Beyond

**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:** The following is a summary of billings and payments to date as well as an update on the FY 2018 True-Up, FY 2019 True-Up Analysis, and activity beyond that point.

### Summary of Shared Services Billings and Payments

GLWA and DWSD have been exchanging invoices for services since January 1, 2016, the start of the Agreement. A history of this activity and applicable payments is summarized in two tables. **Table 1 – GLWA as a Service Provider** reflects activity in which GLWA is the provider and is billing DWSD for services and **Table 2 – DWSD as a Service Provider** reflects activity in which DWSD is the provider and is billing GLWA for services.

In FY 2021 DWSD and GLWA are going to begin making monthly payments to one another. At this time there have been no payments made but in the next several weeks both sides hope to have the process in place to complete the first payments.

**Table 1 – GLWA as Service Provider (FY 2021 Billings through September 30, 2020)**

Year	Total Billings	True Up Amount Actual/Potential	Total Payments	Unpaid Amount
FY2016	\$ 4,781,194	\$ 3,311,838	\$ 8,093,032	\$ -
FY2017	\$ 9,378,922	\$ 3,076,854	\$ 12,455,776	\$ -
FY2018*	\$ 7,477,571	\$ 399,512	\$ 1,997,286	\$ 5,879,797
FY2019**	\$ 8,933,462	\$ (2,363,150)	\$ 298,445	\$ 6,271,867
FY2020***	\$ 5,012,664	\$ -	\$ 158,789	\$ 4,853,875
FY2021	\$ 1,133,126	\$ -	\$ -	\$ 1,133,126
<b>Subtotals</b>	<b>\$ 36,716,940</b>	<b>\$ 4,425,054</b>	<b>\$ 23,003,329</b>	<b>\$ 18,138,666</b>

\* All True Up calculations have been provided to DWSD and the True Up Amount is indicated.

\*\* There is one True Up calculation that is not complete representing less than 1% of the total True Up amount.

\*\*\* True Up not complete at this time.

**Table 2 – DWSD as Service Provider (FY 2021 Billings through September 30, 2020)**

Year	Total Billings	True Up Amount Actual/Potential	Total Payments	Unpaid Amount
FY2016	\$ 2,543,735	\$ 5,003,644	\$ 7,547,379	\$ -
FY2017	\$ 4,722,364	\$ (1,077,584)	\$ 3,644,780	\$ -
FY2018	\$ 5,308,539	\$ -	\$ -	\$ 5,308,539
FY2019	\$ 4,175,695	\$ -	\$ -	\$ 4,175,695
FY2020	\$ 4,677,356	\$ -	\$ -	\$ 4,677,356
FY2021	\$ 510,000	\$ -	\$ -	\$ 510,000
<b>Subtotals</b>	<b>\$ 21,937,689</b>	<b>\$ 3,926,060</b>	<b>\$ 11,192,159</b>	<b>\$ 14,671,590</b>

### FY 2018 True-Up Status Update

The FY 2018 True-Up process has begun for both GLWA and DWSD Shared Services teams. GLWA has prepared and provided DWSD a True-Up for each Shared Service that GLWA provides. DWSD has provided GLWA two True-Ups.

**Table 3 – FY 2018 GLWA as a Service Provider** lists the status of each Shared Service based upon GLWA's staff analysis. True-Ups are provided to DWSD as they are completed.

The update in **Table 3** represents the progress that GLWA has made on the True-Ups related to GLWA-provided services. DWSD and GLWA Shared Service Teams will continue to meet and work on a timeline for the completion of the FY 2018 True-Up. Meetings are held regularly to discuss the status of the completion and resolution of the True-Ups.

**Table 4 – FY 2018 DWSD as a Service Provider** lists the status of each Shared Service based upon information GLWA has received from DWSD.

**Table 3 – FY 2018 GLWA as a Service Provider**

<b>GLWA Provider Shared Service Description</b>	<b>GLWA progress (1-3)</b>	<b>DWSD progress (4-7)</b>	<b>Date sent to DWSD OR expected date to be sent to DWSD</b>
<b>OPS-004 Water Quality</b>	3	9	8/9/2019
<b>OPS-005 Security</b>	3	7	8/5/2019
<b>OPS-005 Security Training</b>	3	7	8/5/2019
<b>OPS-008 Systems Control Center</b>	3	8	11/15/2019
<b>ITS-001 Retail AMR</b>	3	9	10/29/2019
<b>ITS-002 Customer Service Tech Suite</b>	3	9	10/29/2019
<b>ITS-003 See Click Fix</b>	3	9	10/29/2019
<b>ITS-004 WAM</b>	3	6	10/29/2019
<b>ITS-005 Mobile Work Force</b>	3	9	11/6/2019
<b>ITS-006 ESRI-GIS</b>	3	9	10/29/2019
<b>ITS-007 DADS</b>	3	9	10/29/2019
<b>ITS-008 TIBCO</b>	3	9	10/29/2019
<b>ITS-009 IT Infrastructure</b>	3	6	11/6/2019
<b>LS-001-A Joint Litigation and Defense, LS-001-B Environment, LS-002 Environment, LS-003 Contract Drafting</b>	3	9	8/9/2019
<b>Other items to bill not a defined shared service code</b>			
DWSD-R Staff Training by GLWA	3	9	11/6/2019
Bank Fees	3	9	8/9/2019
Public Finance	3	9	11/4/2019

**Table 4 – FY 2018 DWSD as Service Provider**

DWSD/City of Detroit Provider Shared Service Description	DWSD progress (1-3)	GLWA Progress (4-7)	Date sent to GLWA OR expected date to be sent to GLWA
OPS-001 Fleet	3	8	9/24/2020
OPS-002 Miss Dig	3a		TBD
OPS-003 As Needed Field Services	3a		TBD
OPS-006 Facilities	1		TBD
DoIT-001 Financial Information Services	N/A	N/A	
DoIT-002 Radios	N/A	N/A	
DoIT-003 Customer Service Technology Suite	3a		TBD
<b>Other items to bill not a defined shared service code</b>			
Fuel	3a		TBD
WAM Invoices	3	8	10/30/2020

<b>Provider status:</b>	
True up calculation not completed by Shared Services team.	1
True up calculation completed by Shared Services team; under review by Executive Leadership team.	2
True up calculation provided to subscriber.	3
Low value - Methodology to be agreed upon to determine costs.	3a
<b>Subscriber status:</b>	
True up not yet reviewed by Shared Services team.	4
True up being reviewed by Shared Services Team.	5
True up reviewed by Shared Services team; questions sent to provider.	6
True up needs to be escalated due to differing opinions.	7
True up review completed by Shared Services team; under review by Executive Leadership team.	8
True up completed and amount agreed upon or agreed upon difference.	9
Shared Service not active at this time.	N/A

**Fiscal Year 2019 and Beyond Update**

The FY 2019 True-Up process is almost complete for the GLWA Shared Services team. GLWA has prepared and provided DWSD a True-Up for each Shared Service that GLWA provides. Although the True-Ups are provided as they are completed GLWA recognizes that the FY 2018 negotiations may impact the FY 2019 True-Ups. If this does happen, GLWA will make the appropriate changes to the FY 2019 True-Ups. DWSD has not provided any True-Ups for FY 2019 to date.

**Table 5 – FY 2019 GLWA as a Service Provider** lists the status of each Shared Service based upon GLWA’s staff analysis. True-Ups are provided to DWSD as they are completed.

The update in **Table 5** represents the progress that GLWA as made on the True-Ups related to GLWA-provided services. DWSD and GLWA Shared Service Teams will continue to meet and work on a timeline for the completion of the FY 2019 True-Up. Meetings are held regularly to discuss the status of the completion and resolution of the True-Ups.

**Table 6 – FY 2018 DWSD as a Service Provider** lists the status of each Shared Service based upon information GLWA has received from DWSD.

**Table 5 – FY 2019 GLWA as Service Provider**

GLWA Provider Shared Service Description	GLWA progress (1-3)	DWSD progress (4-9)	Date sent to DWSD OR expected date to be sent to DWSD
OPS-004 Water Quality	3	4	8/9/2019
OPS-005 Security	3	4	8/5/2019
OPS-005 Security Training	3	4	8/5/2019
OPS-008 Systems Control Center	2		11/15/2020
ITS-001 Retail AMR	3	4	10/29/2019
ITS-002 Customer Service Tech Suite	3	4	10/29/2019
ITS-003 See Click Fix	3	4	10/29/2019
ITS-004 WAM	3	4	10/29/2019
ITS-005 Mobile Work Force	3	4	11/6/2019
ITS-006 ESRI-GIS	3	4	10/29/2019
ITS-007 DADS	3	4	10/29/2019
ITS-008 TIBCO	3	4	10/29/2019
ITS-009 IT Infrastructure	2		11/15/2020
LS-001-A Joint Litigation and Defense, LS-001-B Environment, LS-002 Environment, LS-003 Contract Drafting	N/A		
<b>Other items to bill not a defined shared service code</b>			
DWSD-R Staff Training by GLWA	3	4	11/6/2019
Bank Fees	3	9	8/9/2019
Public Finance	3	4	11/4/2019

**Table 6 – FY 2019 DWSD as Service Provider**

<b>DWSD/City of Detroit Provider Shared Service Description</b>	<b>DWSD progress (1-3)</b>	<b>GLWA Progress (4-7)</b>	<b>Date sent to DWSD OR expected date to be sent to DWSD</b>
OPS-001 Fleet	1		1/15/2021
OPS-002 Miss Dig	3a		TBD
OPS-003 As Needed Field Services	3a		TBD
OPS-006 Facilities	1		1/15/2021
DoIT-001 Financial Information Services	N/A	N/A	
DoIT-002 Radios	N/A	N/A	
DoIT-003 Customer Service Technology Suite	3a		TBD
<b>Other items to bill not a defined shared service</b>			
Fuel	1		11/6/2020
WAM Invoices	1		10/30/2020

**Table 7 – Shared Services Terminations and Updated Scope of Service** lists the scope of each Shared Service based upon GLWA's analysis. There have been five Shared Services terminated and another five for which GLWA awaiting termination notices.

**Table 7 – Shared Service Terminations and Updated Scope of Service**

Shared Service	Description	Provider	Scope of Service
ITS-004	WAM	GLWA	**Termination TBD
ITS-005	Mobile Workforce Management	GLWA	**Termination TBD
ITS-007	DADS	GLWA	**Termination TBD
ITS-008	Tibco	GLWA	**Termination TBD
ITS-009	Infrastructure	GLWA	**Partial 3/1/19; Final TBD
OPS-005	Security and Integrity	GLWA	*Badging and Fusion Center
OPS-002	MISS DIG	DWSD	To terminate on 6/30/2021
OPS-003	As Needed Field Service	DWSD	No changes
OPS-006	Facilities	DWSD	No changes
OPS-008	Systems Control	GLWA	No changes
DoIT-001	Financial Information System	City of Detroit	No changes
DoIT-002	Radios	City of Detroit	No changes
DoIT-003	Customer Service Tech Suite	City of Detroit	No changes
Training	Training	GLWA	No changes
LS-001 - LS-003	Legal Services	Both	No changes
<del>ITS-002</del>	<del>Customer Service Tech Suite</del>	<del>GLWA</del>	<del>Terminated on 10/1/18</del>
<del>ITS-001</del>	<del>Retail AMR</del>	<del>GLWA</del>	<del>Terminated on 6/30/19</del>
<del>ITS-003</del>	<del>See Click Fix</del>	<del>GLWA</del>	<del>Terminated on 12/31/18</del>
<del>ITS-006</del>	<del>ESRI-GIS</del>	<del>GLWA</del>	<del>Terminated on 6/30/19</del>
<del>OPS-004</del>	<del>Water Quality</del>	<del>GLWA</del>	<del>Terminated on 6/30/19</del>
<del>OPS-001</del>	<del>Fleet</del>	<del>DWSD</del>	<del>Terminated on 6/30/2020</del>
<del>OPS-007</del>	<del>WWTP IWC Underground Storage Tank</del>	N/A – not needed	
<del>PRO-001</del>	<del>Applications Analyst</del>	N/A – not needed	

\*OPS-005 Terminated on 6/30/17. However, Badging and Fusion Center costs continue to be provided.

\*\*Formal termination notice has not been received.

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



## Financial Services Audit Committee Communication

**Date:** November 20, 2020

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

**From:** Nicolette Bateson, CPA  
Chief Financial Officer/Treasurer

**Re:** Proposed Calendar Year 2021 Audit Committee Meeting Dates

**Background:** In planning for calendar year 2021, it is time to establish the meeting calendar for the Great Lakes Water Authority Audit Committee.

**Analysis:** Listed below are the proposed 2021 Audit Committee meeting dates introducing a change to the *fourth* Friday of each month with some exception as noted below. We request this change to allow for better integration with the Financial Services Area reporting cycles. The only exceptions are for a) January to occur between charges rollout meetings #3 and #4 and b) November and December due to the Thanksgiving and Christmas holidays for which we recommend the third Friday.

The proposed meeting time is 8:00 a.m. and the meetings will be held at the Water Board Building, 735 Randolph, 5<sup>th</sup> floor, Detroit, MI 48226 or, in accordance with Governor Gretchen Whitmer's orders issued on October 14, 2020, which enacted certain amendments to Michigan's Open Meetings Act (SB1108), allowing remote telephonic and electronic participation in public meetings and hearings for public bodies subject to the Open Meetings Act during certain state or local emergencies. At this time, the State of Michigan, Department of Health and Human Services, as well as other local health departments within the GLWA Service area have declared emergencies related to the risk of infection associated with the COVID-19 pandemic. In accordance with SB1108, all meetings of the GLWA Board of Directors will be held telephonically and through electronic conferencing, until further notice.

January 15, 2021	May 21, 2021	September 24, 2021
February 26, 2021	June 25, 2021	October 22, 2021
March 26, 2021	July 23, 2021	November 19, 2021
April 23, 2021	August 27, 2021	December 17, 2021

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



## Financial Services Audit Committee Communication

### AUDIT COMMITTEE ANNUAL MEETING SCHEDULE

**(As of November 20, 2020 – Subject to Change)**

Meetings begin at 8:00 a.m. on the fourth Friday of the month (unless noted otherwise) and are held at the Water Board Building, 735 Randolph, 5<sup>th</sup> floor, Detroit, MI 48226 or, in accordance with Governor Gretchen Whitmer’s orders issued on October 14, 2020, which enacted certain amendments to Michigan’s Open Meetings Act (SB1108), allowing remote telephonic and electronic participation in public meetings and hearings for public bodies subject to the Open Meetings Act during certain state or local emergencies. At this time, the State of Michigan, Department of Health and Human Services, as well as other local health departments within the GLWA Service area have declared emergencies related to the risk of infection associated with the COVID-19 pandemic. In accordance with SB1108, all meetings of the GLWA Board of Directors will be held telephonically and through electronic conferencing, until further notice.

January 15, 2021 (*third Friday*)

July 23, 2021

February 26, 2021

August 27, 2021

March 26, 2021

September 24, 2021

April 23, 2021

October 22, 2021

May 21, 2021

November 19, 2021 (*third Friday*)

June 25, 2021

December 17, 2021 (*third Friday*)

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

Any questions regarding this meeting notice or Audit Committee agendas may be directed to Office of the Chief Financial Officer at 313.999.4149 or to Ms. Phyllis Walsh at [phyllis.walsh@glwater.org](mailto:phyllis.walsh@glwater.org).

**GLWA**

*Great Lakes Water Authority*



# **Monthly Financial Report Binder**

**August 2020**

**Presented to the  
Great Lakes Water Authority  
Audit Committee on November 20, 2020**

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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)

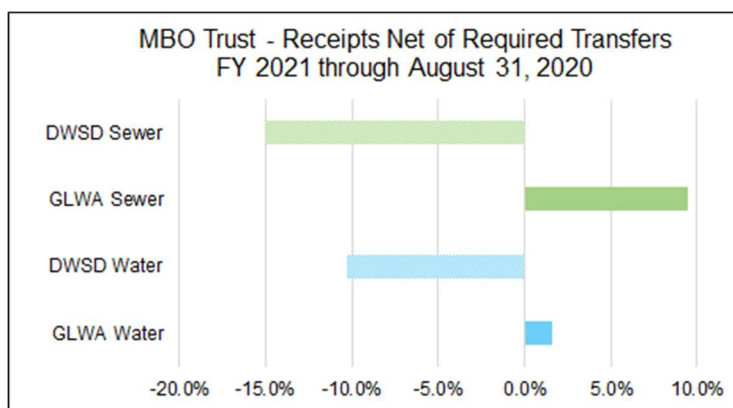
Each variance is monitored by the Great Lakes Water Authority (GLWA) management and, where appropriate, operating and/or budget priorities are re-evaluated. Budget amendments are prepared and presented quarterly based on most current information.

As of August 31, 2020				
Metric	FY 2021 Budget	FY 2021 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$61.0	\$64.8	6%	45
Wholesale Water Billed Usage (mcf)	3,130,000	3,485,000	11%	
Wholesale Sewer Billed Revenue (\$M)	\$44.6	\$44.6	0%	47
Wholesale Water Operations & Maintenance (\$M)	\$22.9	\$21.6	-5%	6
Wholesale Sewer Operations & Maintenance (\$M)	\$30.8	\$27.3	-11%	
Investment Income (\$M)	\$1.7	\$1.6	-8%	35
Water Prorated Capital Spend w/SRA* (\$M)	\$18.0	\$17.0	-6%	27
Sewer Prorated Capital Spend w/SRA* (\$M)	\$14.0	\$10.0	-29%	28

\*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 50)

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 to date – and that positive cash flow is available for additional capital program funding in subsequent year(s). DWSD Water and Sewer net receipt shortfalls are \$1.7 million and \$6.5 million



respectively through August 2020 attributed to the impact of the COVID-19 pandemic. GLWA and DWSD staff meet regularly to discuss steps to mitigate this shortfall as outlined in the 2018 MOU. Looking ahead, DWSD Management a) expects a material distribution of state of Michigan CARES Act funding to support these past due balances; b) will be implementing tax liens on commercial and industrial properties; c) anticipates a positive operating budget variance.

The current DWSD loan receivable balance for fiscal years 2017 and 2018 is \$23.5 million. Monthly payments to GLWA continue to be made timely and in accordance with the agreed upon amortization schedule.

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

- FY 2021 information reflects the budget as it was approved by the GLWA Board on March 11, 2020. The first quarter budget amendments that were approved by the GLWA Board on October 28, 2020 will be shown in the September 2020 Budget to Actual report.
- The total Revenue Requirements are on target through August 2020.
- The total Operations & Maintenance expenses are at 15.2% of budget through August 2020 which is reasonably within the pro-rata benchmark of 16.7%.

### **Basic Financial Statements (page 10)**

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for August 2020 is \$26.4 million for the Water fund (38.4% of total revenues) and \$25.8 million for the Sewer fund (32.8% of total revenues).
- Water Net Position increased \$6.1 million and Sewer Net Position increased \$4.1 million for the year to date through August 2020.

### **Construction Work in Progress Summary (page 26)**

- Both the Water and Wastewater systems fall within the 75% Capital Spend Ratio.

### **Master Bond Ordinance Transfers (page 29)**

- Transfers of \$12.7 million and \$17.6 million were completed for the GLWA Water and Sewer funds, respectively.
- Transfers of \$4.5 million and \$8.2 million were completed for the DWSD Water and Sewer funds, respectively.

### **Cash Balances & Investment Income (page 35)**

- Total cash & investments are \$473 million in the Water fund and \$431 million in the Sewer fund.
- The total combined investment income for FY 2021 through August was \$1.6 million.

### **DWSD Retail Revenues, Receivables & Collections (page 39)**

- Water usage through August 31, 2020 is at 96.11% of budget and revenues at 95.97% of budget.
- Sewer usage through August 31, 2020 is at 97.57% of budget and revenues at 99.71% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$34 million over the prior year.
- Past dues over 180 days make up 63.9% of the total accounts receivable balance. The current bad debt allowance covers 100% of past dues over 180 days.

### **GLWA Wholesale Billing, Receivables & Collections (page 44)**

- GLWA accounts receivable past due balances in total (net of Highland Park) are less than one percent of the total balance due.
- The Highland Park past due balance is \$44.0 million, includes \$33.6 million for wastewater treatment services, \$1.7 million for industrial waste control services, and \$8.7 million for water supply services. Looking ahead, Highland Park has made three payments totaling \$1.8 million in FY 2021 as of September 2020.

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

The FY 2021 information presented in these sections reflects the budget as it was approved by the GLWA Board on March 11, 2020. The first quarter budget amendments, approved by the GLWA Board on October 28, 2020, are not reflected in this report. The budget amendment will be shown in the September 2020 Budget to Actual Analysis report.

The FY 2020 columns of the tables in the Budget to Actual Analysis report are presented in a draft format. Any adjustments related to the fiscal year end 2020 audit will affect the data presented.

## Revenue Requirement Budget Basis Analysis

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

**Table 1A – Water Revenue Requirement Budget** and **Table 1B – Sewer Revenue Requirement Budget** presents a year-over-year budget to actual performance report. The revenue requirement budget is accounted for in the operations and maintenance fund for each system. Since this report is for August 2020, the pro-rata benchmark is 16.7% (2 of 12 months of the fiscal year).

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

1. **Revenues:** For *both* systems, FY 2021 revenues are either at or above target. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.

Water revenues presented in Table 1A differ from those presented in *Table 2 – Statement of Revenues, Expenses and Changes in Net Position* found in the *Basic Financial Statement* section of this report. Water Revenues presented in Table 1A for revenue requirement purposes are reduced by the monthly payment to the City of Flint for a license to raw water rights under the Flint Raw Water Contract as documented in Appendix A-2 of the [Flint Water Agreement](#). Through August 31, 2020 these payments total \$1.1 million for FY 2021.

2. **Investment Earnings:** Investment earnings for *both* systems have variances from the pro-rata benchmark for FY 2021. The *water* system is above the pro-rata benchmark for FY 2021 at 19.5%. The *sewer* system, at 11.5%, is less than the pro-rata benchmark. The market adjustment, previously reported in this section in FY 2020, has been removed. These annual entries are recorded for financial reporting purposes and are not a part of the revenue requirements reporting. 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 under the pro-rata benchmark for FY 2021 at 15.7%. The *sewer* system O&M expenses, at 14.8%, is less than the pro-rata benchmark.
5. **Debt Service:** *Both* systems are on target with the pro-rata benchmark for FY 2021; the *water* system is at 16.0%; while the *sewer* system is at 16.1%. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down.
6. **Operating Reserve Deposit:** GLWA is required by the Master Bond Ordinance (“MBO”) to maintain at least 60 days of budgeted O&M expenditures in the O&M fund. GLWA has established a target balance in the O&M Fund of 120 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 2021. The approved FY 2021 first quarter budget amendment removes the budgeted amount of \$877 thousand for the *water* system for this line item.
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 2020, DWSD *sewer* ended the year with a budgetary shortfall through June 30, 2020, of \$10.8 million. The DWSD *water* system experienced a \$937 thousand budgetary shortfall through June 30, 2020. For FY 2021, the DWSD *water* system has a budgetary shortfall of \$1.7 million and the DWSD *sewer* system has a budgetary shortfall of \$6.5 million through August 31, 2020. GLWA and DWSD staff are meeting regularly to discuss steps to mitigate this shortfall as outlined in the 2018 MOU.

<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.

8. **Improvement & Extension (I&E) Fund Transfer Pending:** The contribution to the I&E Fund is for improvements, enlargements, extensions, or betterment of the Water System. Final, yearend transfers are held until yearend balancing is complete. The final, budgeted I&E transfers for FY 2020 were completed in August 2020.
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.

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

	FY2020 AMENDED BUDGET	FY 2020 THRU 8/31/2019	Percent Year-to- Date	FY 2021 BOARD ADOPTED BUDGET	FY 2021 AMENDED BUDGET	FY 2021 THRU 8/31/2020	Percent Year-to- Date
<b>Water System</b>							
<b>Revenues</b>							
Suburban Wholesale Customer Charges	\$ 304,634	\$ 59,653	19.6%	\$ 314,252	\$ 314,252	\$ 63,749	20.3%
Retail Service Charges	21,296	3,549	16.7%	22,555	22,555	3,707	16.4%
Investment Earnings	8,084	1,638	20.3%	4,834	4,834	940	19.5%
Other Revenues	2	-	0.0%	-	-	3	0.0%
<b>Total Revenues</b>	<b>\$ 334,016</b>	<b>\$ 64,841</b>	<b>19.4%</b>	<b>\$ 341,642</b>	<b>\$ 341,642</b>	<b>\$ 68,399</b>	<b>20.0%</b>
<b>Revenue Requirements</b>							
Operations & Maintenance Expense	\$ 126,840	\$ 22,058	17.4%	\$ 137,127	\$ 137,127	\$ 21,566	15.7%
General Retirement System Legacy Pension	6,048	1,008	16.7%	6,048	6,048	1,008	16.7%
Debt Service	135,999	19,214	14.1%	143,190	143,190	22,957	16.0%
General Retirement System Accelerated Pension	6,268	1,045	16.7%	6,268	6,268	1,045	16.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,698	283	16.7%	1,669	1,669	276	16.5%
Lease Payment	22,500	3,750	16.7%	22,500	22,500	3,750	16.7%
Operating Reserve Deposit	3,976	-	0.0%	877	877	-	0.0%
DWSD Budget Shortfall/(Surplus) Pending Improvement & Extension Fund Transfer Pending	1,230	(353)	-28.7%	-	-	1,715	0.0%
	29,456	4,909	16.7%	23,963	23,963	3,994	16.7%
<b>Total Revenue Requirements</b>	<b>\$ 334,016</b>	<b>\$ 51,914</b>	<b>15.5%</b>	<b>\$ 341,642</b>	<b>\$ 341,642</b>	<b>\$ 56,311</b>	<b>16.5%</b>
<b>Net Difference</b>		<b>\$ 12,927</b>				<b>\$ 12,088</b>	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 9,172				\$ 11,459	
Revenue Requirement Variance		3,756				630	
Overall Variance		<b>\$ 12,927</b>				<b>\$ 12,088</b>	

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

	FY 2020 AMENDED BUDGET	FY 2020 THRU 8/31/2019	Percent Year-to- Date	FY 2021 BOARD ADOPTED BUDGET	FY 2021 AMENDED BUDGET	FY 2021 THRU 8/31/2020	Percent Year-to- Date
<b>Sewer System</b>							
<b>Revenues</b>							
Suburban Wholesale Customer Charges	\$ 272,324	\$ 45,765	16.8%	\$ 277,012	\$ 277,012	\$ 44,770	16.2%
Retail Service Charges	185,807	30,968	16.7%	190,112	190,112	31,506	16.6%
Industrial Waste Control Charges	7,834	1,386	17.7%	8,775	8,775	1,310	14.9%
Pollutant Surcharges	5,910	936	15.8%	5,263	5,263	866	16.5%
Investment Earnings	7,731	1,360	17.6%	5,589	5,589	644	11.5%
Other Revenues	400	77	19.3%	-	-	114	0.0%
<b>Total Revenues</b>	<b>\$ 480,005</b>	<b>\$ 80,492</b>	<b>16.8%</b>	<b>\$ 486,751</b>	<b>\$ 486,751</b>	<b>\$ 79,209</b>	<b>16.3%</b>
<b>Revenue Requirements</b>							
Operations & Maintenance Expense	\$ 181,926	\$ 27,198	15.0%	\$ 184,946	\$ 184,946	\$ 27,299	14.8%
General Retirement System Legacy Pension	10,824	1,804	16.7%	10,824	10,824	1,804	16.7%
Debt Service	214,691	32,779	15.3%	209,740	209,740	33,873	16.1%
General Retirement System Accelerated Pension	11,621	1,937	16.7%	11,621	11,621	1,937	16.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,403	401	16.7%	2,415	2,415	400	16.6%
Lease Payment	27,500	4,583	16.7%	27,500	27,500	4,583	16.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall/(Surplus) Pending Improvement & Extension Fund Transfer Pending	10,244	4,140	40.4%	-	-	6,513	0.0%
	20,798	3,466	16.7%	39,706	39,706	6,618	16.7%
<b>Total Revenue Requirements</b>	<b>\$ 480,005</b>	<b>\$ 76,308</b>	<b>15.9%</b>	<b>\$ 486,751</b>	<b>\$ 486,751</b>	<b>\$ 83,027</b>	<b>17.1%</b>
<b>Net Difference</b>		<b>\$ 4,184</b>				<b>\$ (3,818)</b>	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 491				\$ (1,916)	
Revenue Requirement Variance		3,693				(1,902)	
Overall Variance		<b>\$ 4,184</b>				<b>\$ (3,818)</b>	

All amounts are unaudited unless otherwise noted.

## Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of August 31, 2020, is 16.7% (two months). When comparing FY 2021 to FY 2020 in **Table 2 – Operations & Maintenance Budget – Major Budget Categories**, it appears that overall spending is consistent.

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 2020 AMENDED BUDGET	FY 2020 ACTIVITY THRU 8/31/2019	Percent Year-to- Date	FY 2021 BOARD ADOPTED BUDGET	FY 2021 AMENDED BUDGET	FY 2021 ACTIVITY THRU 8/31/2020	Percent Year-to- Date
Water	\$ 66,021	11,248	17.0%	\$ 71,966	\$ 71,966	\$ 12,498	17.4%
Sewer	115,985	17,892	15.4%	115,677	115,677	16,942	14.6%
Centralized	97,732	15,748	16.1%	102,722	102,722	15,354	14.9%
Administrative	29,028	4,211	14.5%	31,709	31,709	4,321	13.6%
Employee Benefits	-	157	0.0%	-	-	(249)	0.0%
<b>Total O&amp;M Budget</b>	<b>\$ 308,767</b>	<b>\$ 49,256</b>	<b>16.0%</b>	<b>\$ 322,075</b>	<b>\$ 322,075</b>	<b>\$ 48,866</b>	<b>15.2%</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 O&M expenses are at 15.2% which is reasonably within the pro-rata benchmark of 16.7%. This positive variance equates to a dollar amount of \$4.8 million. The expense category commentary is provided below for items highlighted on Table 3.

**Personnel Costs:** The overall category is on target with the pro-rata benchmark; coming in at 15.6% through August 2020.

**Utilities:** The overall category is higher than the pro-rata benchmark; coming in at 18.2% through August 2020. Variances within this category, when they occur, are not unexpected as usage varies throughout the year.

- **Electric** is higher than the benchmark, coming in at 20.7%. 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 8.1% which is lower than the benchmark of 16.7%. A review of the accounts has confirmed that the usage is variable throughout the year.
- **Sewage service** is lower than the benchmark, coming in at 14.3%. A review of this category is being conducted.
- **Water service** is lower than the benchmark, coming in at 12.2%. While usage does vary throughout the year, a review of the accounts has shown that the water service bills are coming in lower for Wastewater Operations. Utilization of the new chemical building has required changes to the operational processes which has resulted in the reduction of the use of potable water.

**Chemicals:** This category is higher than the pro-rate benchmark; coming in at 20.0% through August 2020. Variances within this category are not unexpected as usage varies throughout the year. While this category is being reviewed, this variance is not a concern at this time.

**Supplies & Other:** This category is lower than the benchmark; coming in at 11.0% through August 2020. Given that the nature of the items in this category are subject to one-time expenses that do not occur evenly throughout the year, this variance is not a concern at this time. A review of this category is being conducted.

**Contractual Services:** The overall category is lower than the pro-rata benchmark; coming in at 15.5% through August 2020. 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 slightly lower than the benchmark; coming in at 13.3% through August 2020. The amount in the Capital Program Allocation account is shown as negative as this is a "contra" account which represents an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget.

**Shared Services:** This category is higher than the benchmark; coming in at 21.9% through August 2020. 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 2021. A budget amendment will be entered to adjust the shared services budget to this revised FY 2021 forecast. In addition, it is important to note that some of the shared services agreements are not billed at a monthly rate of 1/12 of the annual budgeted amount.

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

Expense Categories	FY 2020 AMENDED BUDGET	FY 2020 ACTIVITY THRU 8/31/2019	Percent Year-to-Date at 8/31/2019	FY 2020 ACTIVITY THRU 6/30/2020	Percent Year-to-Date at 6/30/2020	FY 2021 AMENDED BUDGET	FY 2021 PRORATED BUDGET (2 MONTHS)	FY 2021 ACTIVITY THRU 8/31/2021	Percent Year-to-Date	PRORATED BUDGET LESS FY 2021 ACTIVITY
Entity-wide										
Salaries & Wages	\$ 64,703	\$ 10,809	16.7%	\$ 64,190	16.8%	\$ 70,761	\$ 11,793	\$ 10,853	15.3%	\$ 940
Workforce Development	1,271	148	11.6%	1,252	11.8%	948	158	147	15.5%	11
Overtime	7,191	1,257	17.5%	7,494	16.8%	6,988	1,165	1,292	18.5%	(127)
Employee Benefits	22,466	4,251	18.9%	25,001	17.0%	24,475	4,079	4,278	17.5%	(199)
Transition Services	5,872	822	14.0%	6,330	13.0%	7,160	1,193	877	12.3%	316
Employee Benefits Fund	-	157	0.0%	-	0.0%	-	-	(249)	0.0%	249
Personnel Costs	101,503	17,444	17.2%	104,266	16.7%	110,333	18,389	17,199	15.6%	1,190
Electric	39,549	8,287	21.0%	40,669	20.4%	39,240	6,540	8,105	20.7%	(1,565)
Gas	5,332	623	11.7%	5,196	12.0%	6,629	1,105	537	8.1%	568
Sewage Service	1,988	337	17.0%	2,109	16.0%	2,120	353	302	14.3%	51
Water Service	3,662	547	14.9%	3,178	17.2%	3,948	658	484	12.2%	174
Utilities	50,531	9,794	19.4%	51,153	19.1%	51,937	8,656	9,429	18.2%	(772)
Chemicals	14,019	2,544	18.2%	14,242	17.9%	13,420	2,237	2,678	20.0%	(441)
Supplies & Other	34,124	5,406	15.8%	33,653	16.1%	38,622	6,437	4,262	11.0%	2,175
Contractual Services	103,975	15,471	14.9%	106,372	14.5%	106,155	17,692	16,504	15.5%	1,189
Capital Program Allocation	(3,122)	(488)	15.6%	(3,347)	14.6%	(3,448)	(575)	(458)	13.3%	(117)
Shared Services	(4,995)	(914)	18.3%	(1,734)	52.7%	(3,413)	(569)	(747)	21.9%	179
Unallocated Reserves	12,731		0.0%		0.0%	8,469	1,411		0.0%	1,411
Total Expenses	\$ 308,767	\$ 49,256	16.0%	\$ 304,605	16.2%	\$ 322,075	\$ 53,679	\$ 48,866	15.2%	\$ 4,814
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 Bond Fund*, and *Capital Asset Fund*.

The June 2020 comparative values shown in the tables below are presented in a draft format. Adjustments related to fiscal year end 2020 audit affect the basic financial statements. The results of these adjustments will be presented in the audited CAFR.

## Statement of Net Position – All Funds Combined

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

**Table 1 – Statement of Net Position - All Funds Combined  
As of August 31, 2020  
(\$000)**

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2020
<b>Assets</b>				
Cash - unrestricted (a)	\$ 103,222	\$ 142,470	\$ 245,693	\$ 208,357
Cash - restricted (a)	31,546	42,505	74,051	114,415
Investments - unrestricted (a)	279,166	152,179	431,345	473,549
Investments - restricted (a)	44,465	105,855	150,320	157,786
Accounts Receivable	109,408	78,107	187,514	193,719
Due from (to) Other Funds (b)	9,154	(9,154)	-	-
Other Assets (c)	676,200	434,988	1,111,188	1,114,230
Cash Held FBO DWSD Advance (d)	-	16,708	16,708	-
Capital Assets, net of Depreciation	1,369,590	2,273,824	3,643,414	3,689,047
Land	292,799	123,846	416,645	416,645
Construction Work in Process (e)	143,964	187,136	331,100	303,220
<b>Total assets</b>	<b>3,059,513</b>	<b>3,548,465</b>	<b>6,607,978</b>	<b>6,670,969</b>
<b>Deferred Outflows (f)</b>	<b>62,217</b>	<b>153,051</b>	<b>215,268</b>	<b>217,097</b>
<b>Liabilities</b>				
Liabilities - Short-Term (g)	135,908	150,074	285,982	305,598
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,728	6,464	9,191	9,179
Cash Held FBO DWSD (d)	(468)	-	(468)	1,250
Liabilities - Long-Term (i)	3,018,170	3,613,094	6,631,264	6,683,741
<b>Total liabilities</b>	<b>3,156,337</b>	<b>3,769,632</b>	<b>6,925,969</b>	<b>6,999,768</b>
<b>Deferred Inflows (f)</b>	<b>55,682</b>	<b>52,938</b>	<b>108,620</b>	<b>109,876</b>
<b>Total net position (j)</b>	<b>\$ (90,289)</b>	<b>\$ (121,054)</b>	<b>\$ (211,344)</b>	<b>\$ (221,578)</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 2030 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 book value. Investments at June 30, 2020 are reported at market value. The August 31, 2020 values differ from the Cash and Investment section of this Financial Report Binder due to timing of certain items recognized on a cash versus accrual basis.
- b. *Due from Other Funds* and *Due to Other Funds* are shown at gross for sub-fund activity.
- c. *Other Assets* primarily consists of the contractual obligation receivable from DWSD related to reimbursement of bonded indebtedness for local system improvements.
- d. *Cash Held FBO Advance (for benefit of) DWSD* and *Cash Held FBO DWSD* represents the net difference between DWSD retail cash received from customers and net financial commitments as outlined in the Master Bond Ordinance.
- e. *Construction Work in Process* represents the beginning balance of CWIP plus any construction spending during the fiscal year. The balance will fluctuate based on the level of spend less any capitalizations or write-offs.
- f. *Deferred Inflow* and *Deferred Outflow* relate mainly to financing activity and GLWA's share of the legacy General Retirement System (GRS) pension obligation.
- g. *Liabilities - Short-term* include accounts payable, retainage payable, and certain accrued liabilities. Some items, such as compensated absences and worker's compensation, are reviewed periodically but only adjusted in the interim if there is a material change.
- h. *Other Liabilities* account for the cash receipts set aside for the Budget Stabilization Fund and the Water Residential Assistance Program.
- i. *Liabilities – Long-term* include bonds payable, lease payable, and legacy General Retirement System pension liabilities.
- j. *Net Position Deficit* is defined by accounting standards as the residual of all other elements presented in a statement of financial position. It is the difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. GLWA's net deficit is largely driven by an increase in depreciation expense because of the increase in the acquisition valuation approach for recording capital asset values in the opening Statement of Net Position on January 2016. Efforts are underway to evaluate the net operating effect of this matter over the long term.

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

### – All Funds Combined

This statement, shown in Table 2, is presented in summary format. The accrual basis of revenues and operations and maintenance expense vary from the revenue requirement basis presented in the *Budget to Actual Analysis* and the *Wholesale Billings, Receivables & Collections* sections of the August 2020 Financial Report Binder. Prior year ending balances are provided in the June 30, 2020 column as a reference for comparative purposes. Explanatory notes follow this statement.

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

**Table 2 – Statement of Revenues, Expenses and Changes in Net Position**  
**– All Funds Combined**  
**For the Two Months ended August 31, 2020**  
**(\$000)**

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2020
<b>Revenue</b>						
Wholesale customer charges	\$ 64,857	94.6%	\$ 44,770	57.0%	\$ 109,627	\$ 578,705
Local system charges	3,707	5.4%	31,506	40.1%	35,213	207,103
Industrial waste charges		0.0%	1,310	1.7%	1,310	7,855
Pollutant surcharges		0.0%	866	1.1%	866	6,449
Other revenues	3	0.0%	114	0.1%	117	778
<b>Total Revenues</b>	<b>68,567</b>	<b>100.0%</b>	<b>78,565</b>	<b>100.0%</b>	<b>147,132</b>	<b>800,889</b>
<b>Operating expenses</b>						
Operations and Maintenance	21,566	31.5%	27,712	35.3%	49,279	309,482
Depreciation	20,642	30.1%	25,086	31.9%	45,728	280,104
<b>Total operating expenses</b>	<b>42,208</b>	<b>61.6%</b>	<b>52,798</b>	<b>67.2%</b>	<b>95,007</b>	<b>589,586</b>
<b>Operating Income</b>	<b>26,359</b>	<b>38.4%</b>	<b>25,767</b>	<b>32.8%</b>	<b>52,126</b>	<b>211,303</b>
<b>Total Nonoperating (revenue) expense</b>	<b>20,239</b>	<b>29.5%</b>	<b>21,653</b>	<b>27.6%</b>	<b>41,892</b>	<b>232,056</b>
<b>Increase/(Decrease) in Net Position</b>	<b>6,120</b>	<b>8.9%</b>	<b>4,114</b>	<b>5.2%</b>	<b>10,234</b>	<b>(20,753)</b>
Net Position (deficit), beginning of year	(96,410)		(123,418)		(219,828)	(200,825)
<b>Net position (deficit), end of year</b>	<b>\$ (90,289)</b>		<b>\$ (119,304)</b>		<b>\$ (209,594)</b>	<b>\$ (221,578)</b>
<i>Totals may be off due to rounding</i>						

## Water Fund

- ✓ The increase in Water Fund Net Position is \$6.1 million.
- ✓ Wholesale water customer charges of \$64.9 million account for 94.6% of Water System revenues.
- ✓ Operating expenses of \$42.2 million represent 61.6% of total operating revenue. Depreciation is the largest operating expense at \$20.6 million or 48.9% of operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals \$26.4 million or 38.4 % of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$14.0 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

## Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is \$4.1 million.
- ✓ Wholesale customer charges of \$44.8 million account for 57.0% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average “share” of each customer’s historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of \$31.5 million account for 40.1% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$52.8 million represent 67.2% of total operating revenue. Depreciation is the largest operating expense at \$25.1 million or 47.5% of total operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals \$25.8 million or 32.8 % of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$16.3 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

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

This Supplemental Schedule of Operations & Maintenance Expenses (O&M) schedule is shown below in Table 3. This accrual basis of operations and maintenance expense may vary from the revenue requirement basis presented in the *Budget to Actual Analysis* section of the August 2020 Financial Report Binder. Explanatory notes follow this schedule.

**Table 3 – Supplemental Schedule of Operations & Maintenance Expenses  
– All Funds Combined  
For the Two Months ended August 31, 2020  
(\$000)**

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
<b>Operating Expenses</b>						
Personnel						
Salaries & Wages	3,940	18.3%	7,938	28.6%	11,878	24.1%
Overtime	802	3.7%	490	1.8%	1,292	2.6%
Benefits	2,564	11.9%	1,465	5.3%	4,029	8.2%
Total Personnel	\$ 7,307	33.9%	\$ 9,893	35.7%	\$ 17,199	34.9%
<b>Utilities</b>						
Electric	5,567	25.8%	2,539	9.2%	8,105	16.4%
Gas	38	0.2%	499	1.8%	537	1.1%
Sewage	24	0.1%	278	1.0%	302	0.6%
Water	6	0.0%	477	1.7%	484	1.0%
Total Utilities	\$ 5,635	26.1%	\$ 3,793	13.7%	\$ 9,429	19.1%
Chemicals	1,172	5.4%	1,506	5.4%	2,678	5.4%
Supplies and other	1,458	6.8%	2,804	10.1%	4,262	8.6%
Contractual services	6,999	32.5%	9,917	35.8%	16,917	34.3%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(314)	-1.5%	(144)	-0.5%	(458)	-0.9%
Shared services allocation	(691)	-3.2%	(56)	-0.2%	(747)	-1.5%
<b>Operations and Maintenance Expenses</b>	<b>\$ 21,566</b>	<b>100.0%</b>	<b>\$ 27,712</b>	<b>100.0%</b>	<b>\$ 49,279</b>	<b>100.0%</b>

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (19.1 % of total O&M expenses) and chemicals (5.4% of total O&M expenses).
- ✓ Personnel costs (34.9% of total O&M expenses) include all salaries, wages, and benefits for employees as well as staff augmentation contracts that fill a vacant position (contractual transition services).
- ✓ Contractual services (34.3%) includes:
  - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$1.2 million);
  - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$ 2.6 million); and
  - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.

## Supplemental Schedule of Nonoperating Expenses – All Funds Combined

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

**Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined  
For the Two Months ended August 31, 2020  
(\$000)**

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2020
<b>Nonoperating (Revenue)/Expense</b>				
Interest income contractual obligation	\$ (4,411)	\$ (2,936)	\$ (7,347)	\$ (41,136)
Interest income DWSD Shortfall	-	(153)	(153)	(1,299)
Investment earnings	(958)	(666)	(1,624)	(19,445)
Unrealized (gain)/loss on investment	4,946	3,340	8,286	(5,972)
Other nonoperating revenue	0	(6)	(7)	(2,552)
Interest Expense				
Bonded debt	18,420	19,194	37,614	243,745
Lease obligation	2,890	3,532	6,422	38,808
Other obligations	794	259	1,053	6,395
Total interest expense	22,104	22,985	45,088	288,948
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	-	-	(5,960)
Amortization, issuance costs, debt	(2,609)	(1,705)	(4,314)	(10,303)
Amortization, raw water rights	594	-	594	3,567
(Gain) loss on disposal of capital assets	(1)	(9)	(10)	1,317
Loss on impairment of capital assets	-	-	-	1,432
Water Residential Assistance Program	574	802	1,376	3,315
Legacy pension expense	-	-	-	20,144
<b>Total Nonoperating (Revenue)/Expense</b>	<b>\$ 20,239</b>	<b>\$ 21,653</b>	<b>\$ 41,892</b>	<b>\$ 232,056</b>

- ✓ Interest income on contractual obligation relates to the portion of the total GLWA debt obligation attributable to DWSD. This interest income offsets the total debt interest expense paid by GLWA on behalf of both entities monthly.
- ✓ Interest income DWSD shortfall represents interest from a budgetary shortfall loan from fiscal years 2016, 2017 and 2018 and is paid in accordance with the 2018 Memorandum of Understanding (MOU).

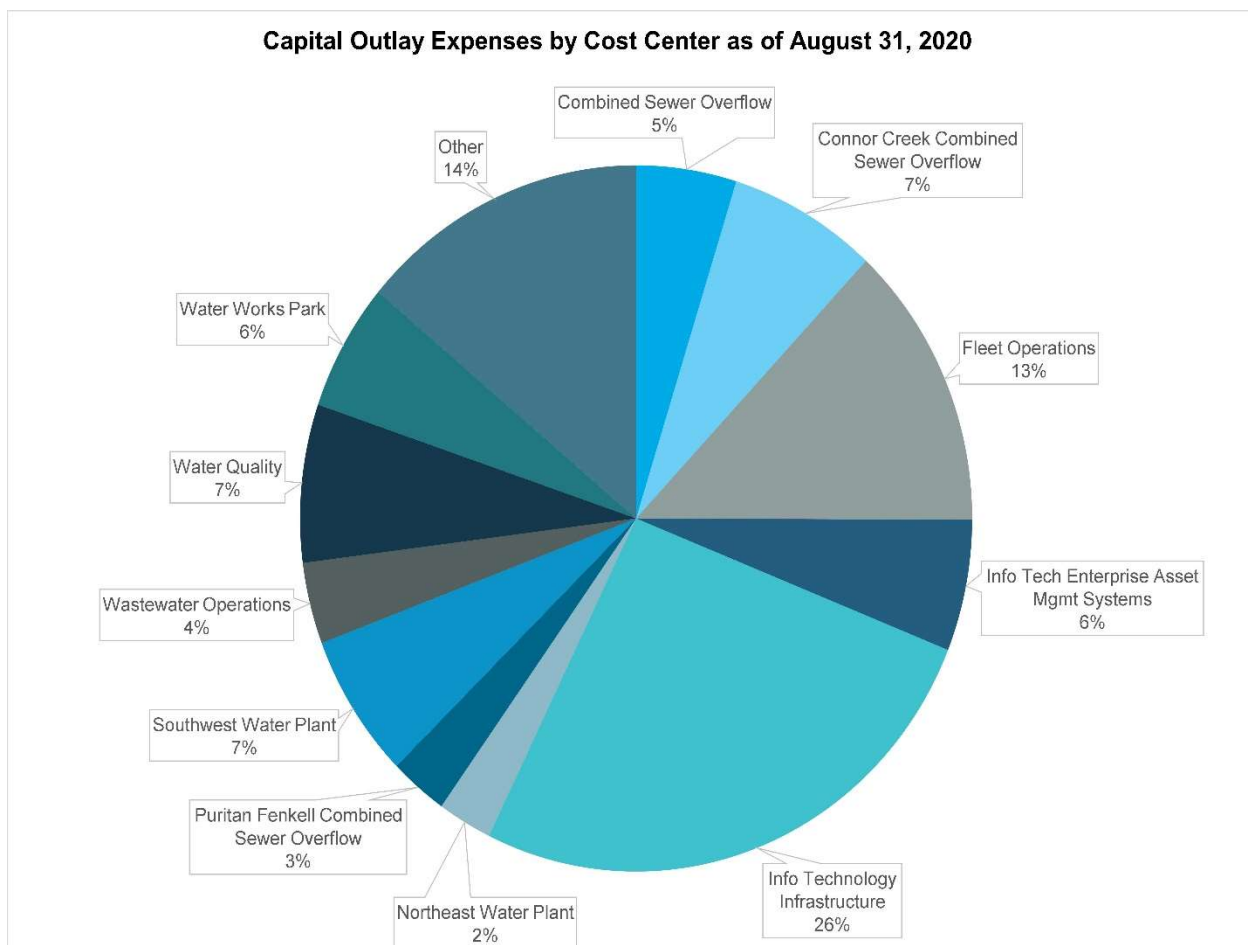
- ✓ Investment earnings in this report are reflected at book value. Any differences between the Basic Financial report and Cash and Investment section of this Financial Report binder are due to accrued interest and related market adjustments for FY 2020 and FY 2021. FY 2020 market value adjustments for Water and Sewer totaled \$4.9 million and \$3.3 million, respectively. FY 2021 market value adjustment will be made as part of audit preparation in June 2021.
- ✓ 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.

## Financial Activity Charts

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

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

Through August 31, 2020, total capital outlay spend is \$1.9 million. Following this chart is a sample list of projects and purchases from the total spend of \$1.9 million:



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

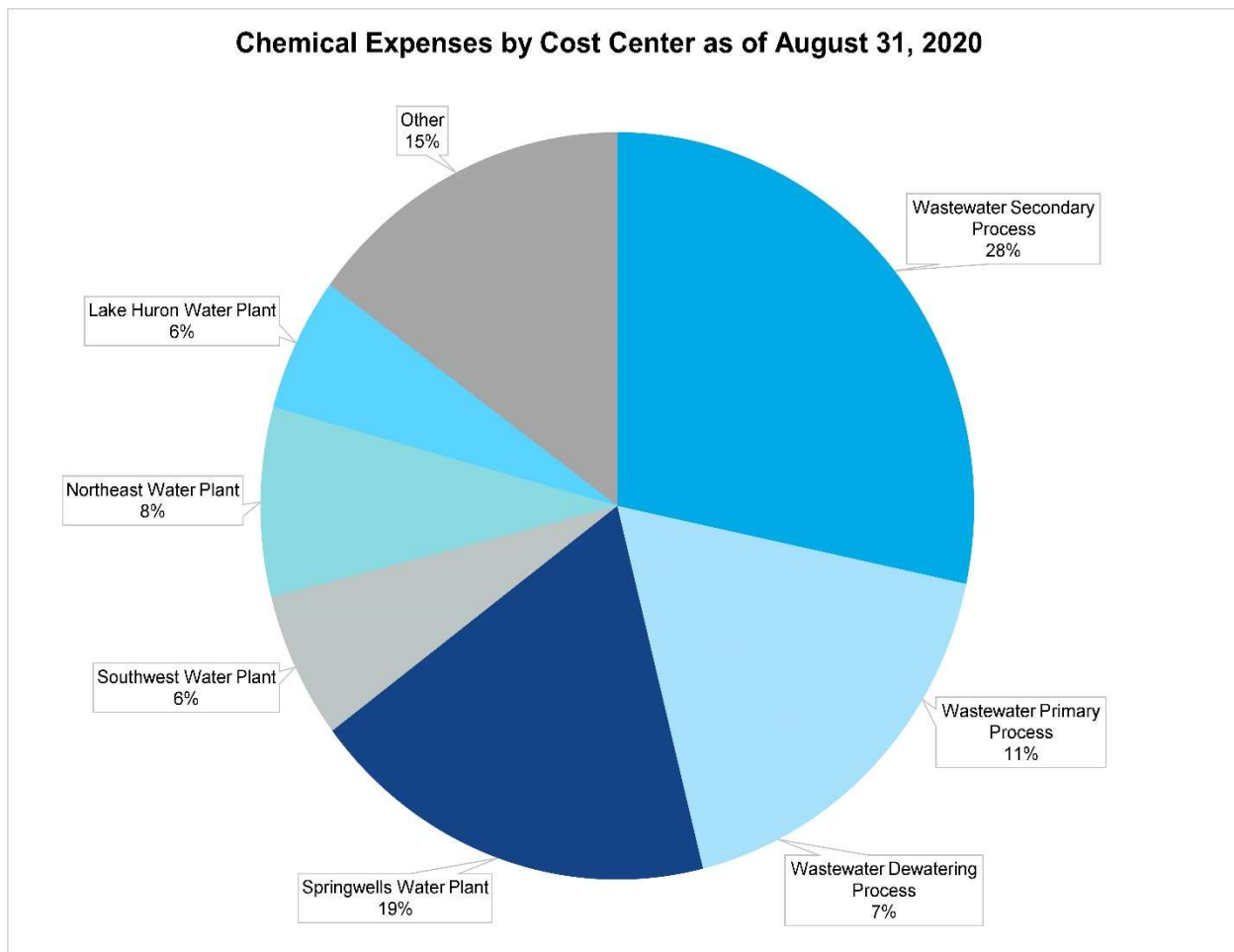
**Water Operations:** Generator (\$111k); Southwest Water Plant feed system (\$110k) and emergency valve closure (\$43k).

**Wastewater Operations:** Magnetic drive (\$129k); chemical containment improvements (\$93k); level and flow instrumentation (\$84k); Complex A Bio Solids dryer (\$67k); flow metering equipment (\$34k); and actuator (\$29k).

**Centralized & Administrative Facilities:** Datacenter modernization (\$327k); trucks and vehicles (\$252k); IT software (\$347k); and IT Computers (\$37k).

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

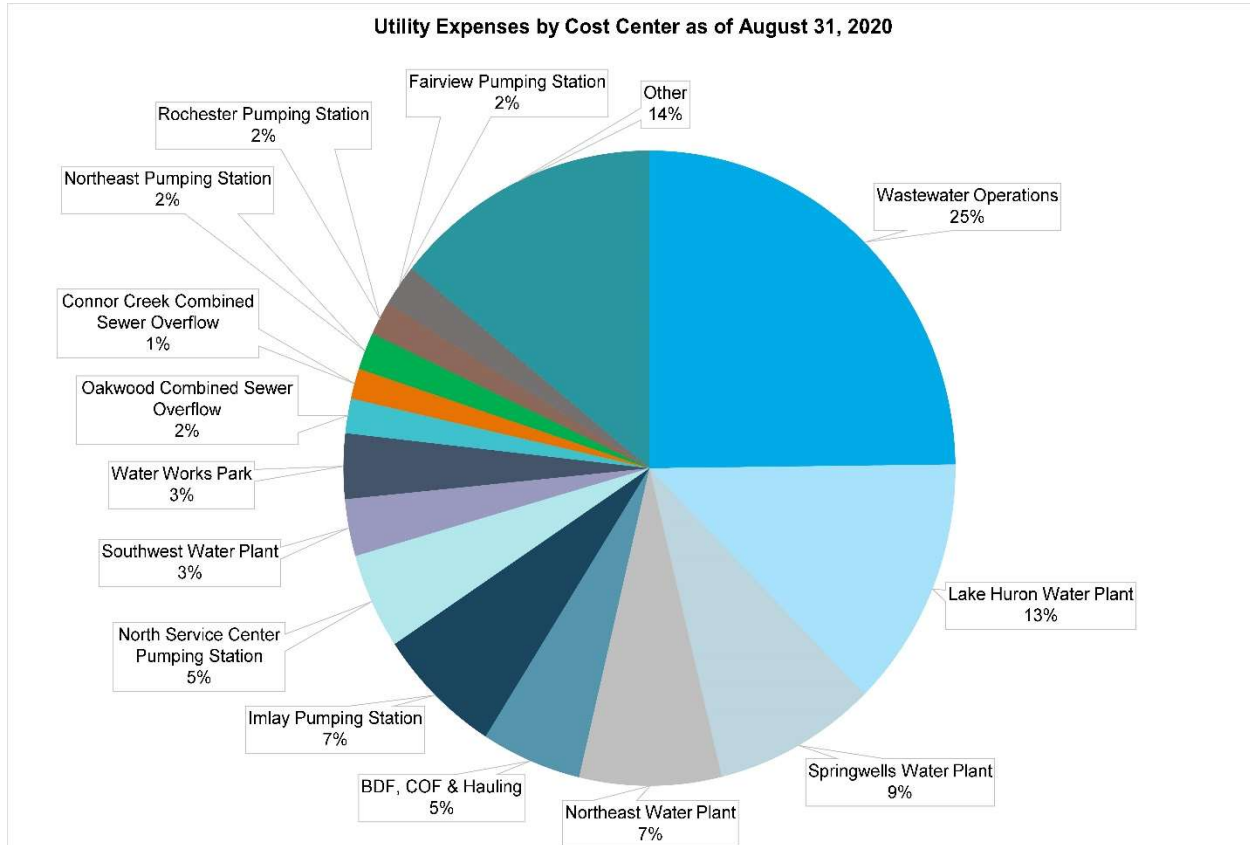
Chemical expenses are \$2.7 million through August 31, 2020. The allocation is shown in the chart below and remains consistent with prior periods.



**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 \$9.4 million through August 31, 2020. The allocation is shown in the chart below and consistent with prior periods.



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

## Financial Operations KPI

This key performance indicator shown in **Chart 1 – Bank Reconciliation Completion Status** below provides a measure of the progress made in the month-end close process which includes bank reconciliations with a completed status at month end. Through August 31, 2020 all reconciliations are up-to-date and complete.

There were no new accounts from July 2020.

**Chart 1 – Bank Reconciliation Completion Status**



**Table 1 – Fiscal Year 2021 GL Cash Account Rollforward**

Total GL Cash accounts as of July 1, 2020	74
New GL Cash accounts	0
Inactivated GL Cash accounts	0
Total GL Cash accounts as of August 31, 2020	<u>74</u>



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 Revenue Requirement Basis” from the Budget to Actual Analysis (Table 1A and Table 1B) 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 Two Months Ended August 31, 2020**

	Water	Sewer	Total
<b>Net Revenue Requirement Budget Variance (a)</b>	\$ 12,088	\$ (3,818)	\$ 8,270
<b>Budgetary categories adjustments to financial reporting basis</b>			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	1,907	3,413	5,320
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	8,948	17,615	26,563
Accelerated pension B&C notes obligation portion (g)	31	69	100
Lease payment (h)	860	1,051	1,911
WRAP (i)	(298)	(402)	(700)
DWSD short term allocation (j)	1,715	6,513	8,228
Operating Reserve Deposit (j)	-	-	-
Improvement & Extension Fund (j)	3,994	6,204	10,198
<b>Nonbudgeted financial reporting categories adjustments</b>			
Depreciation (k)	(20,642)	(25,086)	(45,728)
Amortization (k)	2,015	1,705	3,720
Other nonoperating income (k)	-	6	6
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	1	9	10
Raw water rights (l)	430	-	430
Investment earnings construction fund & WRAP (m)	17	22	39
Investment earnings DWSD note receivable (m)	-	153	153
Investment earnings unrealized gain/loss (m)	(4,946)	(3,340)	(8,286)
Capital contribution (n)	-	-	-
<b>Net Position Increase/(Decrease) per Financial Statements (b)</b>	<b>\$ 6,120</b>	<b>\$ 4,114</b>	<b>\$ 10,234</b>

**Table 2- Explanatory Notes for Crosswalk**

- (a) Source: Budget to Actual Table 1A and Table 1B in Monthly Financial Binder
- (b) Source: Basic Financial Statements Table 2 in Monthly Financial Binder
- (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, Operating Reserve Deposit, and Improvement & Extension Fund transfers are shown as an expense for budget purposes but not for financial reporting purposes. For FY 2021, the Sewer Improvement and Extension Fund adjustments also reflect \$414 thousand in Sewer Improvement and Extension Fund expenses relating to repairs paid for through the Sewer Improvement and Extension Fund. These are consolidated expenses for financial reporting purposes but are not reflected in the current Operations and Maintenance budget expenses.
- (k) Certain nonoperating income and expenses are reported in financial statements only.

- (l) The water service contract with Flint includes a license for raw water rights which has been recorded as an asset and liability by the Authority. The contract provides a credit to Flint as Flint satisfies its monthly bond payment obligation to KWA. This KWA credit is treated as a noncash payment of principal and interest on the liability recorded for the raw water rights. For budget, wholesale customer charges are net of the anticipated KWA credits to Flint as that is the cash that will be received and available to meet the budgeted revenue requirements. For financial reporting basis the Flint wholesale charges are recorded at the total amount billed. When the KWA credit is issued, the receivable from Flint is reduced and the principal and interest payments on the liability for the raw water rights are recorded as a noncash transaction. Most of the adjustment shown relates to the principal reduction made for the credits applied which are not an expense for financial reporting basis.
- (m) Investment earnings from the construction fund are not shown as revenue in the budget and are shown as revenue in the financial statements. Construction fund investment earnings are excluded from the definition of revenue for budget purposes as they are used for construction costs and are not used to meet the revenue requirements in the budget. WRAP account earnings are also excluded from the definition of revenue for budget purposes and are not used to meet the revenue requirements in the budget. Interest on the DWSD note receivable is budgeted as part of the Sewer improvement and extension fund and is transferred directly to that fund as payments are made. 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.
- (n) The capital contribution is a one-time payment made to GLWA by the Oakland Macomb Interceptor Drainage District (OMIDD) as part of a contract amendment to the OMIDD Wastewater Disposal Services Contract.



The Monthly Construction Work in Progress (CWIP) Summary includes the following.

1. Water System Construction Work in Progress costs incurred to date
2. Sewer System Construction Work in Progress costs incurred to date

## **Construction Work in Progress**

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

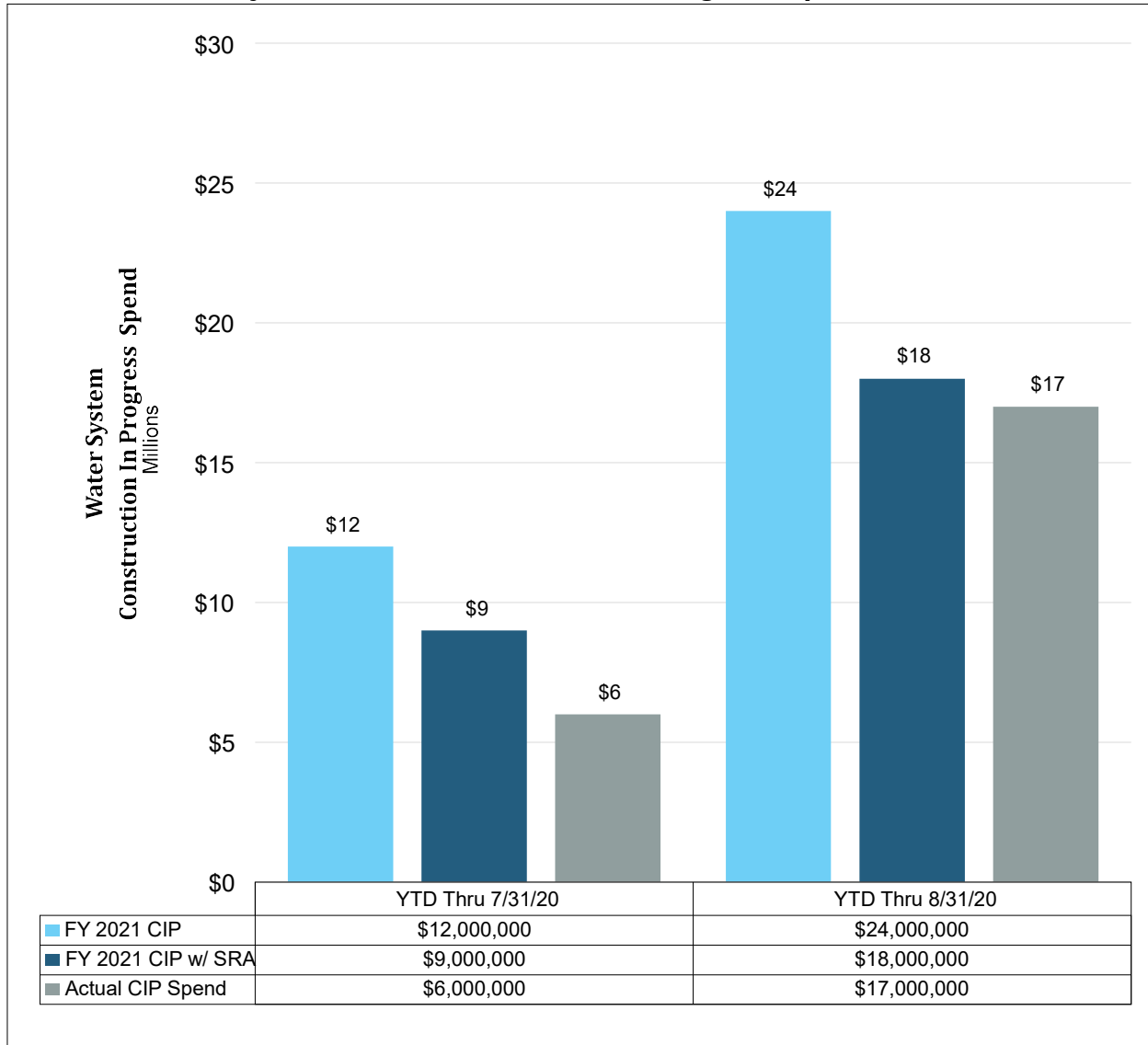
This report presents quarterly and monthly CWIP spending against the prorated CIP in total and the CIP adjusted for the SRA. The prorated CIP is calculated by dividing the total fiscal year 2021 board-approved CIP plan by twelve equal months. It should be noted that for operational purposes, GLWA utilizes Primavera P6 for refined monthly projections for cash management and project management.

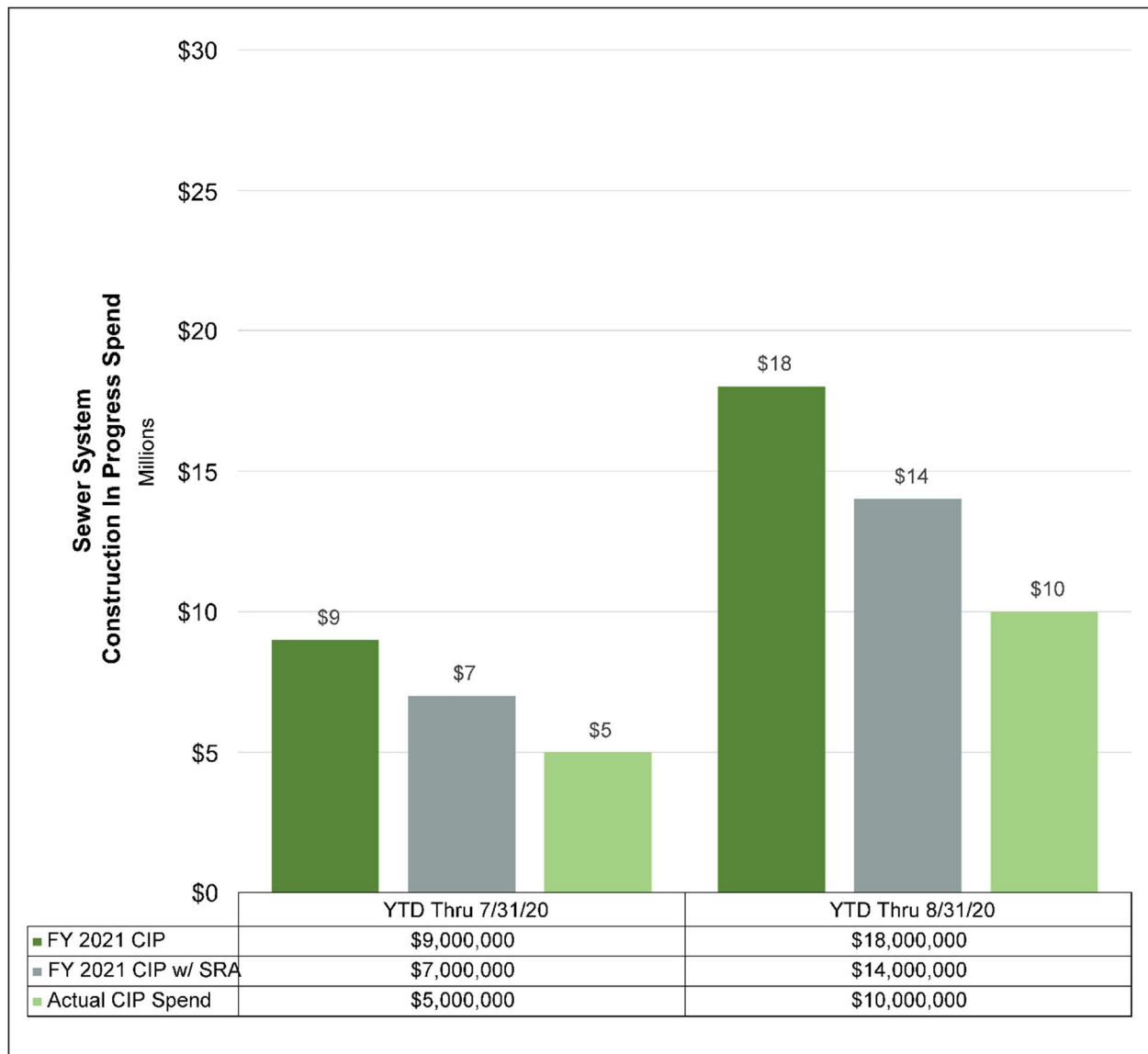
### **Chart 1 – Water System Construction in Work in Progress Spend**

As of August 2020, the Water system incurred over \$ 17 million of construction costs to date. This is 71% of the fiscal year 2021 prorated CIP through August and 94% of the financial plan which is labeled as the FY 2021 CIP w/SRA in the chart below.

### **Chart 2 – Sewer System Construction in Work in Progress Spend**

As of August 2020 the Sewer system incurred nearly \$ 10 million of construction costs to date. This is 56% of the fiscal year 2021 prorated CIP through August and 71% of the financial plan which is labeled as the FY 2021 CIP w/SRA in the chart below.

**Chart 1 – Water System Construction Work in Progress Spend**


**Chart 2 – Sewer System Construction Work in Progress Spend**




This report includes the following.

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

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

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

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

**Table 1 – GLWA FY 2021 Water MBO Transfers** reflects the required transfers for FY 2021 completed through August 3, 2020. MBO transfers for water totaling \$25.5 million have been transferred to GLWA accounts.

**Table 2 – GLWA FY 2021 Sewer MBO Transfers** reflects the required transfers for FY 2021 completed through August 3, 2020. MBO transfers for sewer totaling \$35.3 million have been transferred to GLWA accounts.

**Table 3 – GLWA MBO Transfer History** reflects historical transfers for FY 2016 through FY 2021 to date.

**Table 1 – GLWA FY 2021 Water MBO Transfers**

<b>WATER</b>							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
FY 2021							
July 2020	\$ 11,160,517	\$504,000	\$891,308	\$192,608	-	-	\$12,748,433
August 2020	11,160,517	504,000	891,308	192,608	-	-	12,748,433
Total FY 2021	\$ 22,321,034	\$ 1,008,000	\$ 1,782,616	\$ 385,216	\$ -	\$ -	\$ 25,496,866

**Table 2 – GLWA FY 2021 Sewer MBO Transfers**

<b>SEWER</b>							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
FY 2021							
July 2020	\$ 15,194,175	\$902,000	\$1,223,950	\$313,500	-	-	\$17,633,625
August 2020	15,194,175	902,000	1,223,950	313,500	-	-	17,633,625
Total FY 2021	\$30,388,350	\$1,804,000	\$2,447,900	\$627,000	\$ -	\$ -	\$35,267,250

**Table 3 – GLWA MBO Transfer History**

<b>GLWA MBO Transfer History</b>							
<b>WATER</b>							
	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 (2 months)	22,321,034	1,008,000	1,782,616	385,216	-	-	25,496,866
<b>Life to Date</b>	<b>\$575,218,046</b>	<b>\$31,226,300</b>	<b>\$54,464,091</b>	<b>\$10,646,920</b>	<b>\$2,686,900</b>	<b>\$606,000</b>	<b>\$674,848,257</b>

<b>SEWER</b>							
	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 (2 months)	30,388,350	1,804,000	2,447,900	627,000	-	-	35,267,250
<b>Life to Date</b>	<b>\$871,197,342</b>	<b>\$55,952,800</b>	<b>\$74,563,009</b>	<b>\$14,323,896</b>	<b>\$8,246,100</b>	<b>\$779,600</b>	<b>\$1,025,062,747</b>

## 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 2021 Water MBO Transfers** reflects the required transfers for FY 2021 completed through August 3, 2020. MBO transfers for Water totaling \$9.0 million have been transferred to accounts held by DWSD. For FY 2021, DWSD has requested that \$8,278,300 of the lease payment be utilized to offset a portion of debt service.

**Table 5 – DWSD FY 2021 Sewer MBO Transfers** reflects the required transfers for FY 2021 completed through August 3, 2020. MBO transfers for Sewer totaling \$16.3 million have been transferred to accounts held by DWSD. For FY 2021, DWSD has requested that \$3,257,200 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 2021 to date.

**Table 7 – DWSD Sewer MBO and Lease Payment Transfer History** reflects historical transfers for FY 2016 through FY 2021 to date.

**Table 4 – DWSD FY 2021 Water MBO Transfers**

WATER				
	Operations & <u>Maintenance</u>	<u>Pension</u>	Lease Payment (I&E Fund)	<u>Total Water</u>
FY 2021				
July 2020	\$2,986,158	\$356,000	\$1,139,808	\$4,481,966
August 2020	2,986,158	356,000	1,139,808	4,481,966
Total FY 2021	\$5,972,316	\$712,000	\$2,279,616	\$8,963,932

**Table 5 – DWSD FY 2021 Sewer MBO Transfers**

SEWER				
	Operations & <u>Maintenance</u>	<u>Pension</u>	Lease Payment (I&E Fund)	<u>Total Sewer</u>
FY 2021				
July 2020	\$5,826,308	\$238,000	\$2,109,017	\$8,173,325
August 2020	5,826,308	238,000	2,109,017	8,173,325
Total FY 2021	\$11,652,616	\$476,000	\$4,218,034	\$16,346,650

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

Transfers to DWSD				
WATER				
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
<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 (2 months)</b>				
MBO/Lease Requirement	5,972,316	712,000	3,750,000	10,434,316
Offset to Debt Service	-	-	(1,470,384)	(1,470,384)
Net MBO Transfer	5,972,316	712,000	2,279,616	8,963,932
<b>Life-to-Date</b>				
MBO/Lease Requirement	170,960,720	22,053,100	116,250,000	309,263,820
Offsets	-	-	(13,192,484)	(13,192,484)
<b>Total Water</b>	<b>170,960,720</b>	<b>22,053,100</b>	<b>103,057,516</b>	<b>296,071,336</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)
Total MBO Transfer	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	-	-	-	-
Total MBO Transfer	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)
Total MBO Transfer	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)
Total MBO Transfer	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)
Total MBO Transfer	55,243,500	2,856,000	22,467,300	80,566,800
<b>FY 2021 (2 months)</b>				
MBO/Lease Requirement	11,652,616	476,000	4,583,333	16,711,949
Offset to Debt Service	-	-	(365,299)	(365,299)
Total MBO Transfer	11,652,616	476,000	4,218,034	16,346,650
<b>Life-to-Date</b>				
MBO/Lease Requirement	252,591,928	14,767,800	142,083,333	409,443,061
Offsets	(7,100,000)	-	(38,971,163)	(46,071,163)
<b>Total Sewer</b>	<b>245,491,928</b>	<b>14,767,800</b>	<b>103,112,170</b>	<b>363,371,898</b>

\* 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:

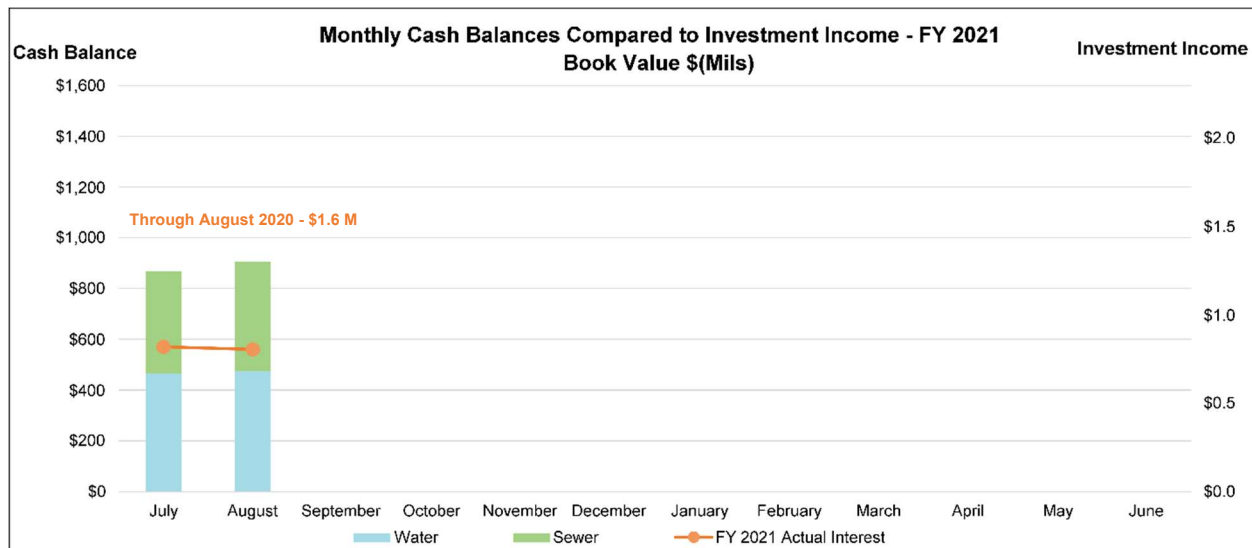
1. Monthly Cash Balances Compared to Investment Income
2. Cash Balance Detail

## 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. The total cumulative investment income for August 2020 is \$1.6 million. This total investment income includes earnings from revenue requirement funds as well as construction bond funds.

**Chart 1 – Monthly Cash Balances Compared to Investment Income – Through August 2020**



\$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	\$464	\$473	-	-	-	-	-	-	-	-	-	-
Sewer	\$403	\$431	-	-	-	-	-	-	-	-	-	-
Total	\$867	\$904	-	-	-	-	-	-	-	-	-	-
Investment Income	\$0.8	\$0.8	-	-	-	-	-	-	-	-	-	-

## 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

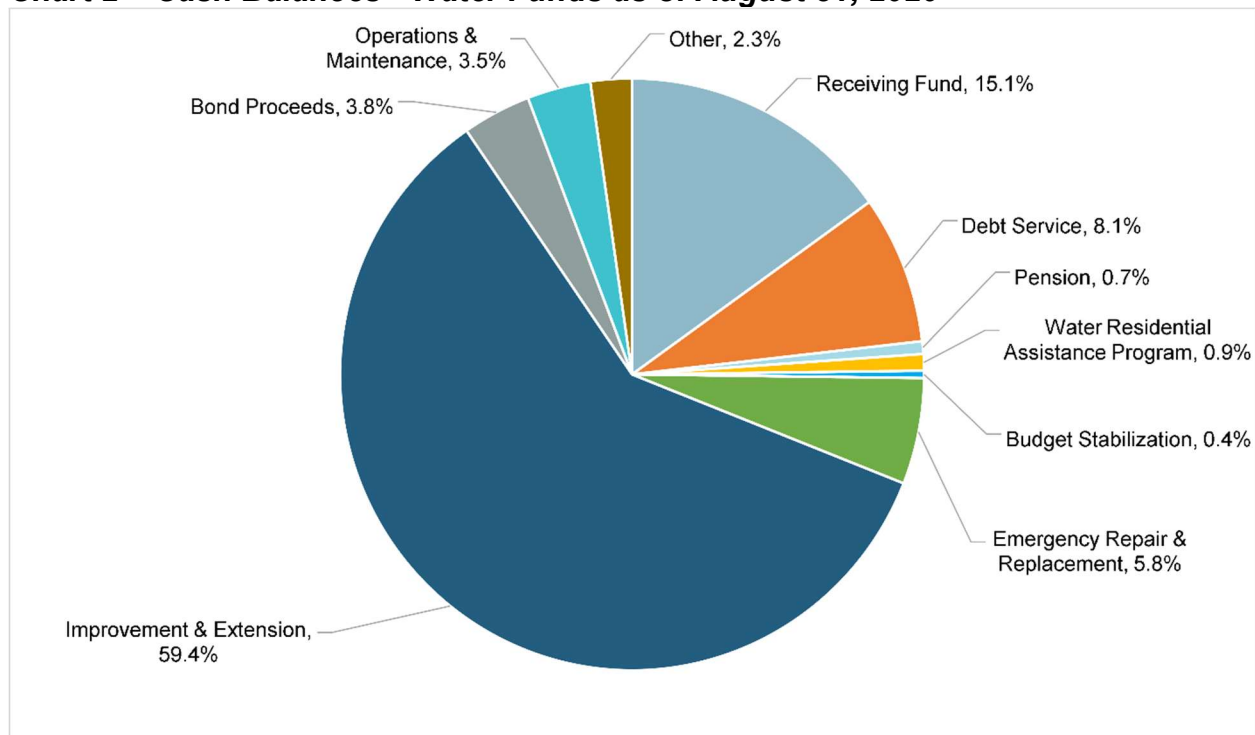
### ***Funds Held Outside Trust:***

- 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 August 31, 2020** - Shows the allocation of the balance among the different categories defined in the section above. The total cash balance for Water Funds as of August 31, 2020 is \$473 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.

**Chart 2 – Cash Balances - Water Funds as of August 31, 2020**

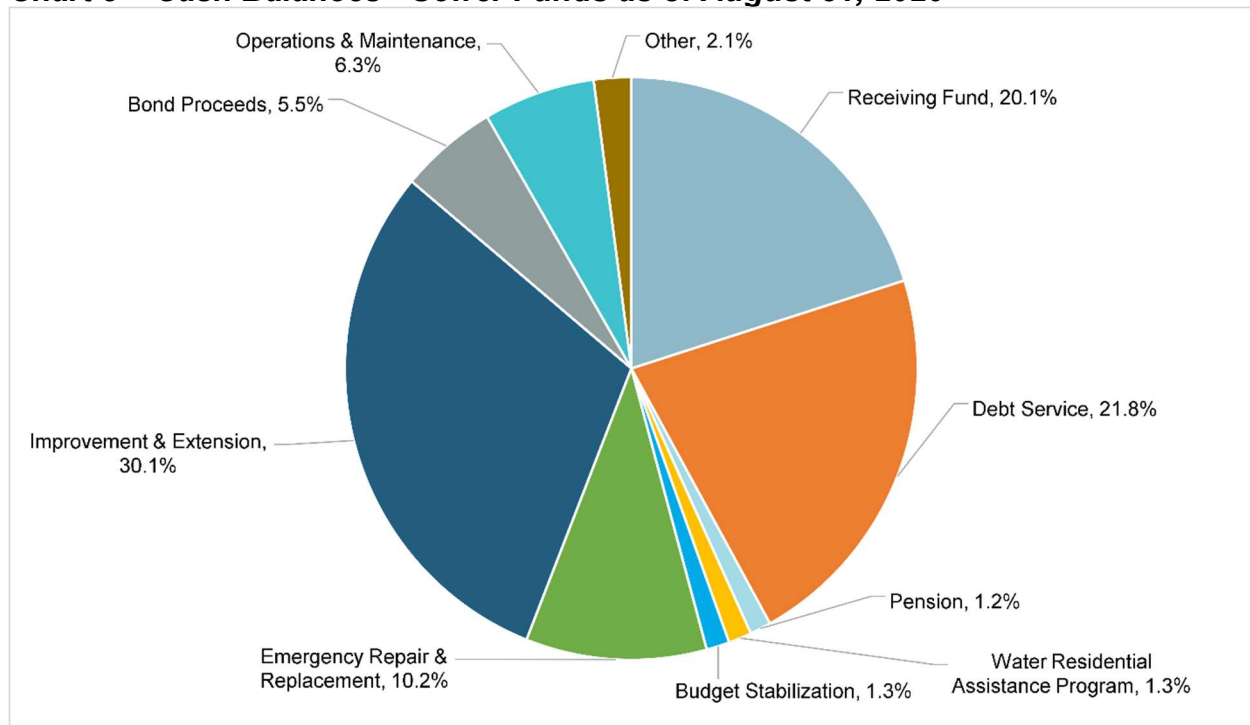


**Note:** Due to rounding totals may not equal 100%.

**Chart 3 – Cash Balances - Sewer Funds as of August 31, 2020** - Shows the allocation of the balance among the different funds defined in the section above. The total cash balance for Sewer Funds as of August 31, 2020 is \$431 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.

The pace for Sewer I&E deposits has been less than anticipated due to a budget shortfall over multiple years by DWSD. Beginning in February 2019, DWSD began making payments which will replenish the I&E fund.

**Chart 3 – Cash Balances - Sewer Funds as of August 31, 2020**



**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 2021 water usage and billed revenue which are provided by DWSD staff. As of August 31, 2020, the DWSD usage was at 96.11% of the budget and billed revenue was at 95.97% 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 2021 - Budget/Goal			FY 2021 - Actual			FY 2021 - Variance	
	Volume	Revenue	Unit Revenue	Volume	Revenue (2)	Unit Revenue	Volume	Revenue
	Mcf	\$	\$/Mcf	Mcf	\$	\$/Mcf	Mcf	\$
July	273,700	10,099,621	36.90	265,796	9,747,518	36.67	(7,904)	(352,103)
August	263,300	9,828,389	37.33	250,308	9,378,385	37.47	(12,992)	(450,004)
September	239,800	9,215,509	38.43					
October	228,800	8,928,629	39.02					
November	208,200	8,391,381	40.30					
December	208,900	8,409,637	40.26					
January	210,200	8,443,541	40.17					
February	214,600	8,558,293	39.88					
March	216,500	8,607,845	39.76					
April	211,700	8,482,661	40.07					
May	221,300	8,733,029	39.46					
June	261,800	9,789,269	37.39					
<b>Total</b>	<b>2,758,800</b>	<b>107,487,800</b>	<b>38.96</b>	<b>516,104</b>	<b>19,125,903</b>	<b>37.06</b>	<b>(20,896)</b>	<b>(802,106)</b>
Subtotals ytd	537,000	19,928,009	37.11	516,104	19,125,903	37.06	(20,896)	(802,106)
Achievement of Budget				96.11%	95.97%			

(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
September	8,610,801	9,766,449	(1,155,648)	-11.83%
October	9,619,977	9,015,400	604,577	6.71%
November	7,067,667	7,938,517	(870,850)	-10.97%
December	8,597,558	7,297,698	1,299,860	17.81%
January	9,076,091	8,158,817	917,274	11.24%
February	8,281,985	7,927,299	354,686	4.47%
March	6,948,308	8,707,578	(1,759,270)	-20.20%
April	5,956,105	8,475,657	(2,519,552)	-29.73%
May	8,109,469	8,415,767	(306,298)	-3.64%
June	7,821,791	7,554,457	267,334	3.54%
July	8,017,490	8,093,394	(75,904)	-0.94%
August	7,135,456	8,671,848	(1,536,392)	-17.72%
<b>Rolling, 12-Month Total</b>	<b>95,242,698</b>	<b>100,022,881</b>		
<b>Rolling, 12-Month Average</b>	<b>7,936,892</b>	<b>8,335,240</b>		

## 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 2021 sewer billed revenue which are provided by DWSD staff. As of August 31, 2020, the DWSD usage was at 97.57% of the budget and billed revenue was at 99.71% 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 2021 - Budget/Goal		FY 2021 - Actual		FY 2021 - Variance	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$
July	252,700	29,612,070	252,929	29,802,377	229	190,307
August	252,900	29,624,420	240,390	29,261,344	(12,510)	(363,076)
September	219,800	27,736,625				
October	245,700	29,214,479				
November	192,400	26,173,181				
December	192,600	26,184,593				
January	195,700	26,361,479				
February	195,300	26,338,655				
March	192,100	26,279,396				
April	188,900	25,973,471				
May	195,300	26,338,655				
June	245,560	29,206,491				
<b>Total</b>	2,568,960	329,043,516	493,319	59,063,721	(12,281)	(172,769)
<b>Subtotals ytd</b>	505,600	59,236,490	493,319	59,063,721	(12,281)	(172,769)
<b>Achievement of Budget/Goal</b>			97.57%	99.71%		

(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
September	21,972,754	23,727,505	(1,754,751)	-7.40%
October	26,321,010	23,938,933	2,382,077	9.95%
November	17,546,180	20,624,039	(3,077,859)	-14.92%
December	25,889,823	19,612,154	6,277,669	32.01%
January	23,512,702	19,612,154	3,900,548	19.89%
February	22,682,982	20,624,039	2,058,943	9.98%
March	19,325,377	22,111,691	(2,786,314)	-12.60%
April	17,105,146	20,930,511	(3,825,365)	-18.28%
May	23,639,652	22,807,283	832,369	3.65%
June	22,558,827	20,426,151	2,132,676	10.44%
July	20,652,159	20,940,157	(287,998)	-1.38%
August	22,395,220	23,175,643	(780,423)	-3.37%
<b>Rolling 12-Month Total</b>	<b>263,601,832</b>	<b>258,530,260</b>		
<b>Rolling, 12-Month Average</b>	<b>21,966,819</b>	<b>21,544,188</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 total, current and non-current Water and Sewer receivables by category as of August 31, 2020 with comparative totals from August 31, 2019.

**Table 5 – DWSD Retail Accounts Receivable Aging Report – Water & Sewer Combined**

Sales Class	# of Accounts	Avg. Balance	Current	> 30 Days	> 60 Days	> 180 Days	Balance
Residential	204,241	\$ 473.56	\$ 14,671,000 15.2%	\$ 7,535,000 7.8%	\$ 17,130,000 17.7%	\$ 57,383,000 59.3%	\$ 96,719,000 100.0%
Commercial	20,612	1,779.82	8,939,000 24.4%	2,784,000 7.6%	5,628,000 15.3%	19,335,000 52.7%	36,686,000 100.0%
Industrial	2,141	6,020.89	3,283,000 25.5%	634,000 4.9%	2,343,000 18.2%	6,631,000 51.4%	12,891,000 100.0%
Tax Exempt	3,448	923.86	568,000 17.8%	147,000 4.6%	445,000 14.0%	2,025,000 63.6%	3,185,000 100.0%
Government	66,051	311.31	3,851,000 18.7%	2,617,000 12.7%	2,972,000 14.5%	11,122,000 54.1%	20,562,000 100.0%
Drainage	33,750	860.58	2,691,000 9.3%	1,355,000 4.7%	3,847,000 13.2%	21,152,000 72.8%	29,045,000 100.0%
Subtotal - Active Accounts	<b>330,243</b>	<b>\$ 602.85</b>	<b>\$ 34,003,000</b> 17.1%	<b>\$ 15,073,000</b> 7.6%	<b>\$ 32,364,000</b> 16.3%	<b>\$ 117,649,000</b> 59.1%	<b>\$ 199,088,000</b> 100.0%
Inactive Accounts	286,760	97.21	(61,000) (0.2%)	68,000 0.2%	439,000 1.6%	27,430,000 98.4%	27,877,000 100.0%
<b>Total</b>	<b>617,003</b>	<b>\$ 367.85</b>	<b>\$ 33,942,000</b> 15.0%	<b>\$ 15,141,000</b> 6.7%	<b>\$ 32,803,000</b> 14.5%	<b>\$ 145,079,000</b> 63.9%	<b>\$ 226,965,000</b> 100.0%
% of Total A/R							
Water Fund	220,656	193.01	\$ 7,574,000	\$ 2,995,000	\$ 5,750,000	\$ 26,271,000	\$ 42,589,000
Sewer Fund	271,978	677.91	\$ 26,368,000	\$ 12,146,000	\$ 27,054,000	\$ 118,808,000	\$ 184,376,000
<b>Total August 31, 2020 (a)</b>	<b>617,003</b>	<b>367.85</b>	<b>\$ 33,942,000</b>	<b>\$ 15,141,000</b>	<b>\$ 32,803,000</b>	<b>\$ 145,079,000</b>	<b>\$ 226,965,000</b>
Water Fund- Allowance							\$ (28,666,000)
Sewer Fund- Allowance							\$ (121,166,000)
<b>Total Bad Debt Allowance</b>							<b>\$ (149,832,000)</b>
Comparative - August 2019 (b)	597,669	322.86	\$ 35,287,000	\$ 12,996,000	\$ 31,336,000	\$ 113,345,000	\$ 192,965,000
<b>Difference (a) - (b)</b>	<b>19,334</b>	<b>44.99</b>	<b>\$ (1,345,000)</b>	<b>\$ 2,145,000</b>	<b>\$ 1,467,000</b>	<b>\$ 31,734,000</b>	<b>\$ 34,000,000</b>



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	82
Emergency	1
Older Contracts	4
Total	<u>87</u>

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

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

**Table 1 - Wholesale Water Billings** shows the FY 2021 water billed usage and revenues. As of August 31, 2020, the billed usage was at 111.33% of budget and billed revenue at 106.21% of budget. Billings and usage from the City of Flint are included as they were assumed in the FY 2021 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. The difference in rolling average from current year to prior year reflects the gentle downward trend in water usage over time.

**Table 1 – FY 2020 Wholesale Water Billings Report**

WHOLESALE WATER CHARGES								
Month (1)	FY 2021 - Budget/Goal			FY 2021 - Actual			FY 2021 - Variance	
	Volume	Revenue	Unit	Volume	Revenue	Unit	Volume	Revenue
	Mcf	\$	\$/Mcf	Mcf	\$	\$/Mcf	Mcf	\$
July	1,639,220	31,200,300	19.03	1,862,791	33,583,619	18.03	223,571	2,383,319
August	1,491,209	29,822,200	20.00	1,622,324	31,230,027	19.25	131,115	1,407,827
September	1,331,364	27,852,100	20.92					
October	1,033,853	25,773,900	24.93					
November	901,197	24,557,700	27.25					
December	980,114	25,189,000	25.70					
January	984,816	25,260,100	25.65					
February	883,785	24,344,600	27.55					
March	983,469	25,208,400	25.63					
April	912,079	24,593,900	26.96					
May	1,032,713	25,895,100	25.07					
June	1,379,070	29,502,100	21.39					
<b>Total</b>	13,552,890	319,199,400	23.55	3,485,115	64,813,646	18.60	354,686	3,791,146
<b>Subtotals ytd</b>	3,130,429	61,022,500	19.49	3,485,115	64,813,646	18.60	354,686	3,791,146
<b>Achievement of Budget</b>				111.33%	106.21%			

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

**Table 2 - Wholesale Water Collections**

Water				
Month	Current Year	Prior Year	Variance	Ratio
September	28,336,152	26,037,313	2,298,839	8.83%
October	25,786,774	27,827,722	(2,040,948)	-7.33%
November	29,245,969	29,238,260	7,709	0.03%
December	23,292,382	27,720,646	(4,428,264)	-15.97%
January	25,470,795	23,430,974	2,039,821	8.71%
February	24,629,768	26,147,082	(1,517,314)	-5.80%
March	25,017,989	24,967,264	50,725	0.20%
April	17,856,644	23,045,654	(5,189,010)	-22.52%
May	24,811,582	20,749,943	4,061,639	19.57%
June	27,098,783	25,676,458	1,422,325	5.54%
July	25,080,575	23,212,979	1,867,596	8.05%
August	26,241,018	28,808,254	(2,567,236)	-8.91%
<b>Rolling 12-Month Total</b>	302,868,431	306,862,549		
<b>Rolling, 12-Month Average</b>	25,239,036	25,571,879		

## Wholesale Sewer Billings and Collections

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

### Service Arrangement Type

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

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

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

**Table 3 - Wholesale Sewer Billings** shows the FY 2021 sewer billed revenue. As of August 31, 2020 the billed revenue is at 100.00% of budget.

**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 year-over-year rolling average from FY 2020 to FY 2021 remains consistent.

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.

**Table 3 – FY 2020 Wholesale Sewer Billings Report**

WHOLESALE SEWER CHARGES						
Month (1)	FY 2021 - Budget/Goal		FY 2021 - Actual		FY 2021 - Variance	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,323,183	N/A	22,323,183	N/A	-
August	N/A	22,323,183	N/A	22,323,183	N/A	-
September	N/A	22,323,183	N/A		N/A	
October	N/A	22,323,183	N/A		N/A	
November	N/A	22,323,183	N/A		N/A	
December	N/A	22,323,183	N/A		N/A	
January	N/A	23,005,800	N/A		N/A	
February	N/A	23,005,800	N/A		N/A	
March	N/A	23,005,800	N/A		N/A	
April	N/A	23,005,800	N/A		N/A	
May	N/A	23,005,800	N/A		N/A	
June	N/A	23,005,800	N/A		N/A	
<b>Total</b>		271,973,898		44,646,366		-
<i>Subtotals ytd</i>		44,646,366		44,646,366		-
<i>Achievement of Budget</i>				100.00%		

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

(2) Not tracked as part of the wholesale sewer charges.

**Table 4 - Wholesale Sewer Collections**

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
September	18,833,257	22,672,400	(3,839,143)	-16.93%
October	29,833,760	16,105,200	13,728,560	85.24%
November	19,428,000	28,633,300	(9,205,300)	-32.15%
December	19,999,642	24,440,000	(4,440,358)	-18.17%
January	17,121,812	26,874,927	(9,753,115)	-36.29%
February	23,284,737	13,895,100	9,389,637	67.58%
March	21,108,100	22,388,600	(1,280,500)	-5.72%
April	10,024,575	23,203,703	(13,179,128)	-56.80%
May	21,189,047	9,284,000	11,905,047	128.23%
June	28,598,467	32,639,436	(4,040,969)	-12.38%
July	22,297,737	27,222,400	(4,924,663)	-18.09%
September	25,354,280	35,153,500	(9,799,220)	-27.88%
<b>Rolling 12-Month Total</b>	257,073,414	282,512,566		
<b>Rolling, 12-Month Average</b>	21,422,785	23,542,714		

## City of Highland Park Billings and Collections

The City of Highland Park is provided water service pursuant to an emergency service basis. Sewer service is provided pursuant to a 1982 amended contract which indicates that the parties are guided in their legal relationship by a Michigan Supreme Court decision from 1949.

As of August 31, 2020, Highland Park had a delinquent balance of \$44.0 million, including \$33.6 million for wastewater treatment services, \$1.7 million for industrial waste control services, and \$8.7 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 2021 through August 31, 2020. 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
September 30, 2019 Balance	7,670,391	32,229,087	1,687,403	41,586,882
October 2019 Billing	107,422	472,500	3,933	583,855
October 2019 Payments	-	-	-	-
October 31, 2019 Balance	7,777,814	32,701,587	1,691,336	42,170,737
November 2019 Billing	101,003	472,500	3,948	577,451
November 2019 Payments	-	-	-	-
November 30, 2019 Balance	7,878,817	33,174,087	1,695,284	42,748,188
December 2019 Billing	98,501	472,500	3,845	574,846
December 2019 Payments	-	-	-	-
December 31, 2019 Balance	7,977,318	33,646,587	1,699,129	43,323,034
January 2020 Billing	85,342	472,500	3,853	561,695
January 2020 Payments	-	(1,561,812)	-	(1,561,812)
January 31, 2020 Balance	8,062,660	32,557,275	1,702,982	42,322,917
February 2020 Billing	93,589	472,500	3,892	569,981
February 2020 Payments	-	-	-	-
February 28, 2020 Balance	8,156,249	33,029,775	1,706,874	42,892,898
March 2020 Billing	92,950	472,500	3,906	569,356
March 2020 Payments	-	-	-	-
March 31, 2020 Balance	8,249,199	33,502,275	1,710,780	43,462,254
April 2020 Billing	94,738	472,500	3,905	571,143
April 2020 Payments	-	-	-	-
April 30, 2020 Balance	8,343,937	33,974,775	1,714,685	44,033,397
May 2020 Billing	92,674	472,500	3,824	568,998
May 2020 Payments	-	(807,648)	-	(807,648)
May 31, 2020 Balance	8,436,611	33,639,627	1,718,509	43,794,747
June 2020 Billing	97,073	472,500	3,831	573,404
June 2020 Payments	-	-	-	-
June 30, 2020 Balance	8,533,684	34,112,127	1,722,340	44,368,151
July 2020 Billing	100,390	472,500	3,831	576,721
July 2020 Payments	-	(926,053)	-	(926,053)
July 31, 2020 Balance	8,634,074	33,658,574	1,726,171	44,018,819
August 2020 Billing	104,325	472,500	3,835	580,660
August 2020 Payments	-	(560,097)	-	(560,097)
August 31, 2020 Balance	8,738,399	33,570,977	1,730,006	44,039,382

## Wholesale Water & Sewer Accounts Receivable Aging Report

The detailed accounts receivable aging is in the Appendix to this monthly report. This report reflects the wholesale receivables only and does not include DWSD.

**Table 6 - Wholesale Accounts Receivable Aging Report Summary** is a summary of the total, current and non-current receivables by category as of August 31, 2020.

**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. The water past due balance is related to a missed invoice by a member partner. The small sewer past due balance of \$108 relates to incorrect payment amounts. The water past due invoice was sent to member partner and we are still awaiting payment on the small sewer balance outstanding.

The IWC past dues relate mainly to member partners transitioning to the emailing of invoices and anticipate those past dues will be resolved soon. One past due Pollutant Surcharge customer accounts for \$90 thousand of the total past due for that category and is associated with a change in ownership. The \$90 thousand past due balance was paid in full in October 2020.

**Table 6 - Wholesale Accounts Receivable Aging Report Summary**

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 50,955,560.72	\$ 42,398,387.54	\$ 120,561.84	\$ 92,674.33	\$ 8,343,937.01
Sewer	\$ 50,286,888.88	\$ 17,188,304.17	\$ 472,608.16	\$ 472,500.00	\$ 32,153,476.55
IWC	\$ 2,260,068.65	\$ 511,054.77	\$ 25,218.39	\$ -	\$ 1,723,795.49
Pollutant Surcharge	\$ 788,055.53	\$ 643,684.75	\$ 26,576.53	\$ 18,809.04	\$ 98,985.21
Total	\$ 104,290,573.78	\$ 60,741,431.23	\$ 644,964.92	\$ 583,983.37	\$ 42,320,194.26
	100.00%	58.24%	0.62%	0.56%	40.58%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 42,217,161.50	\$ 42,193,672.68	\$ 23,488.82	\$ -	\$ -
Sewer	\$ 16,715,912.33	\$ 16,715,804.17	\$ 108.16	\$ -	\$ -
IWC	\$ 530,062.41	\$ 503,388.93	\$ 21,387.16	\$ -	\$ 5,286.32
Pollutant Surcharge	\$ 788,055.53	\$ 643,684.75	\$ 26,576.53	\$ 18,809.04	\$ 98,985.21
Total	\$ 60,251,191.77	\$ 60,056,550.53	\$ 71,560.67	\$ 18,809.04	\$ 104,271.53
	100.00%	99.68%	0.12%	0.03%	0.17%

**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 as well as a total of all activity for GLWA since inception at January 1, 2016. Fiscal year 2021 reflects two months of activity to date.

Water fund receipts exceeded required disbursements by 9% through August 31, 2020 with a historical ratio of receipts exceeding required disbursements by 14% since January 1, 2016.

Sewer fund receipts exceeded required disbursements by 13% through August 31, 2020 with a historical ratio of receipts exceeding required disbursements by 6% since January 1, 2016.

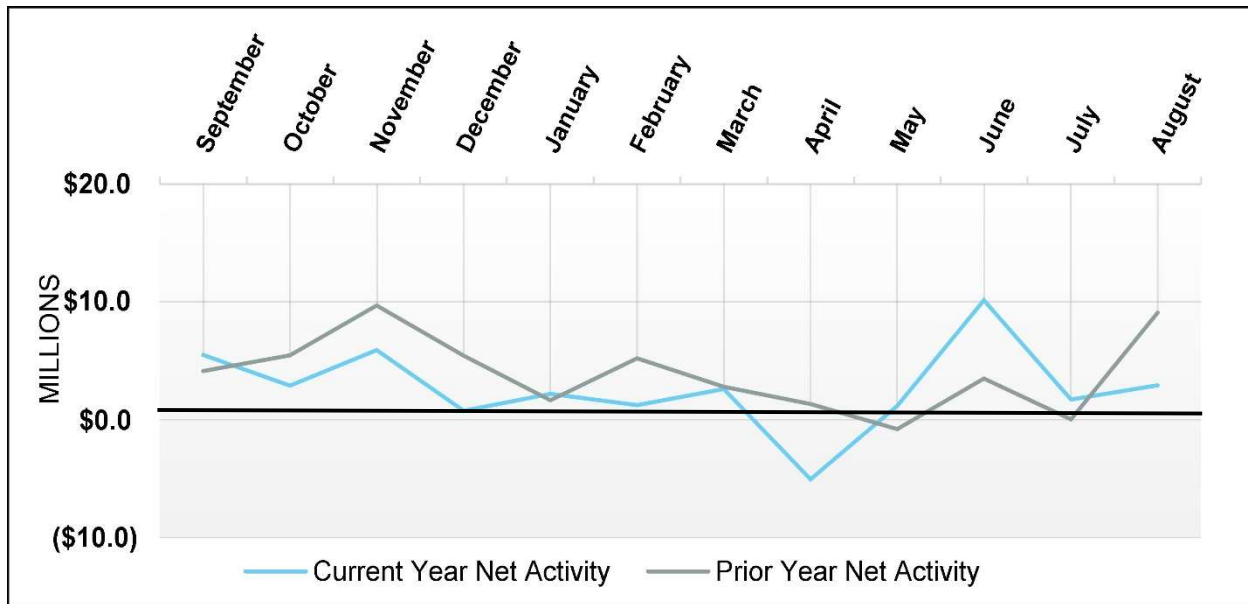
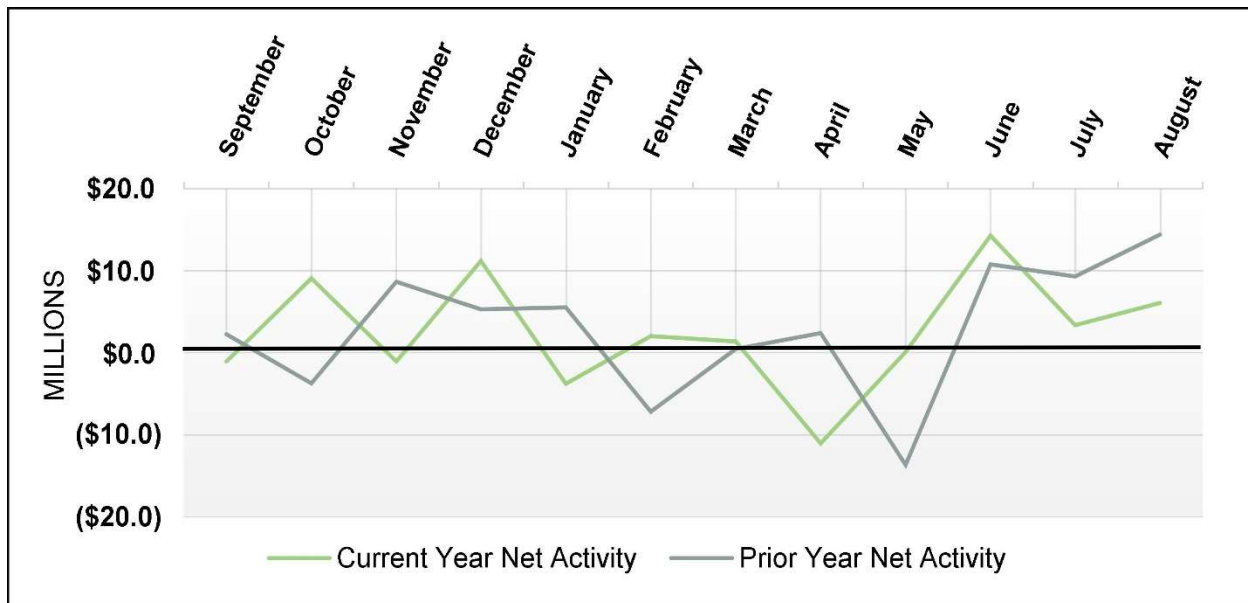
**Chart 1 – GLWA 12-Month Net Receipts – Water** outlines monthly cash receipt trends across two points of reference for the regional water system—current year and prior year. The black line at the zero highlights the minimum goal for net receipts.

**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 2016	FY 2017	FY 2018	FY 2019	FY 2020 (Prelim)	FY 2021 Thru August 31	Life-to-Date Total
<b>Water</b>							
1 Receipts	\$ 149,688,711	\$ 352,941,909	\$ 338,452,001	\$ 336,594,234	\$ 332,606,196	\$ 55,983,501	\$1,566,266,552
2 MOU Adjustments	-	-	-	-	-	-	-
3 Adjusted Receipts	149,688,711	352,941,909	338,452,001	336,594,234	332,606,196	55,983,501	1,566,266,552
4 Disbursements	(146,256,185)	(288,777,985)	(297,064,810)	(289,230,481)	(296,190,425)	(51,356,305)	(1,368,876,191)
5 Receipts Net of Required	3,432,526	64,163,924	41,387,191	47,363,753	36,415,771	4,627,196	197,390,361
6 I&E Transfer	-	-	(25,739,700)	(47,695,000)	(25,719,751)	(3,736,549)	(102,891,000)
7 Net Receipts	\$ 3,432,526	\$ 64,163,924	\$ 15,647,491	\$ (331,247)	\$ 10,696,020	\$ 890,647	\$ 94,499,361
8 Ratio of Receipts to Required Disbursements (Line 3/Line 4)	102%	122%	114%	116%	112%	109%	114%
<b>Sewer</b>							
9 Receipts	\$ 232,377,715	\$ 469,788,882	\$ 476,269,761	\$ 467,743,744	\$ 490,461,356	\$ 82,460,262	\$2,219,101,720
10 MOU Adjustments	-	-	-	-	-	-	-
11 Adjusted Receipts	232,377,715	469,788,882	476,269,761	467,743,744	490,461,356	82,460,262	2,219,101,720
12 Disbursements	(219,538,325)	(441,443,340)	(458,903,335)	(453,406,636)	(445,604,952)	(72,985,770)	(2,091,882,358)
13 Receipts Net of Required	12,839,390	28,345,542	17,366,426	14,337,108	44,856,404	9,474,492	127,219,362
14 I&E Transfer	-	-	(22,698,100)	(22,547,700)	(19,096,200)	(1,701,400)	(66,043,400)
15 DWSD Shortfall Advance	(1,285,466)	(28,014,534)	(24,113,034)	-	-	-	(53,413,034)
16 Shortfall Repayment (principal)	-	-	-	9,367,355	17,542,669	2,987,634	29,897,658
17 Net Receipts	\$ 11,553,924	\$ 331,008	\$ (29,444,708)	\$ 1,156,763	\$ 43,302,873	\$ 10,760,726	\$ 37,660,586
18 Ratio of Receipts to Required Disbursements (Line 11/Line 12)	106%	106%	104%	103%	110%	113%	106%
<b>Combined</b>							
19 Receipts	\$ 382,066,426	\$ 822,730,791	\$ 814,721,762	\$ 804,337,978	\$ 823,067,552	\$ 138,443,763	\$3,785,368,272
20 MOU Adjustments	-	-	-	-	-	-	-
21 Adjusted Receipts	382,066,426	822,730,791	814,721,762	804,337,978	823,067,552	138,443,763	3,785,368,272
22 Disbursements	(365,794,510)	(730,221,325)	(755,968,145)	(742,637,117)	(741,795,377)	(124,342,075)	(3,460,758,549)
23 Receipts Net of Required	16,271,916	92,509,466	58,753,617	61,700,861	81,272,175	14,101,688	324,609,723
24 I&E Transfer	-	-	(48,437,800)	(70,242,700)	(44,815,951)	(5,437,949)	(168,934,400)
25 Shortfall Advance	(1,285,466)	(28,014,534)	(24,113,034)	-	-	-	(53,413,034)
26 Shortfall Repayment	-	-	-	9,367,355	17,542,669	2,987,634	29,897,658
27 Net Receipts	\$ 14,986,450	\$ 64,494,932	\$ (13,797,217)	\$ 825,516	\$ 53,998,893	\$ 11,651,373	\$ 132,159,947
28 Ratio of Receipts to Required Disbursements (Line 21/Line 22)	104%	113%	108%	108%	111%	111%	109%

*MOU Adjustments applies to DWSD and is shown here for consistency.*

**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 as well as a total of all activity for DWSD since inception at January 1, 2016. Fiscal year 2021 reflects two months of activity to date.

Water fund receipts fell short of required disbursements by 10% through August 31, 2020 with a historical ratio of net receipts exceeding required disbursements by 2% since January 1, 2016.

Sewer fund receipts fell short of required disbursements by 13% through August 31, 2020 with a historic ratio of receipts falling short of required disbursements by 6% since January 1, 2016.

Both DWSD Water and Sewer funds closed fiscal year 2020 with shortfalls. However, agreed-upon terms under the April 2018 Memorandum of Understanding (MOU) state that DWSD has until June 30, 2021 to resolve this shortfall prior to establishment of a loan receivable with GLWA. This topic is discussed with executive leadership at quarterly Reconciliation Committee meetings and at regularly scheduled internal DWSD and GLWA management meetings. DWSD is working to address this shortfall resulting largely from this unforeseen COVID-19 pandemic using tax liens on commercial and industrial past due balances and the distribution of CARES Act funding from the State of Michigan.

***Table 3 – FY 2017 DWSD Loan Receivable - Sewer*** provides an activity summary of the loan receivable established under the terms of the April 2018 MOU addressing the cash shortfall from FY 2016 and FY 2017.

***Table 4 – FY 2017 DWSD Loan Receivable Payments - Sewer*** provides an activity summary of loan receivable payments to date on the FY 2017

Sewer Loan Receivable including the interest on the loan. This payment is transferred directly to GLWA Sewer Improvement & Extension fund monthly.

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

**Table 5 – FY 2018 DWSD Loan Receivable** - Sewer provides an activity summary of the loan receivable established under the terms of the April 2018 MOU addressing the cash shortfall from FY 2018.

**Table 6 – FY 2018 DWSD Loan Receivable Payments - Sewer** provides an activity summary of loan receivable payments to date on the FY 2018 Sewer Loan Receivable including the interest on the loan. This payment is transferred directly to GLWA Sewer Improvement & Extension fund monthly.

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

**Table 7 – Total DWSD Loan Receivable Balance – Sewer** provides a summary of the FY 2017 and FY 2018 loan receivable balances in a combined total.

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

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

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

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 (Prelim)	FY 2021 Thru August 31	Life-to-Date Total
<b>Water</b>							
1 Receipts	\$ 26,201,881	\$ 96,451,105	\$ 101,233,147	\$ 99,868,219	\$ 96,885,723	\$ 15,153,399	\$ 435,793,474
2 MOU Adjustments	18,446,100	-	-	-	-	-	18,446,100
3 Adjusted Receipts	44,647,981	96,451,105	101,233,147	99,868,219	96,885,723	15,153,399	454,239,574
4 Disbursements	(47,809,552)	(93,066,144)	(93,049,457)	(97,694,600)	(97,823,097)	(16,868,898)	(446,311,748)
5 Receipts Net of Required	(3,161,571)	3,384,961	8,183,690	2,173,619	(937,374)	(1,715,499)	7,927,826
6 I&E Transfer	-	-	-	(8,407,080)	-	-	(8,407,080)
7 Net Receipts	\$ (3,161,571)	\$ 3,384,961	\$ 8,183,690	\$ (6,233,461)	\$ (937,374)	\$ (1,715,499)	\$ (479,254)
8 Ratio of Receipts to Required Disbursements (Line 3/Line 4)	93%	104%	109%	102%	99%	90%	102%
<b>Sewer</b>							
9 Receipts	\$ 65,256,734	\$ 233,723,367	\$ 242,104,791	\$ 265,339,797	\$ 264,689,559	\$ 43,047,423	\$ 1,114,161,671
10 MOU Adjustments	55,755,100	-	-	6,527,200	-	-	62,282,300
11 Adjusted Receipts	121,011,834	233,723,367	242,104,791	271,866,997	264,689,559	43,047,423	1,176,443,971
12 Disbursements	(122,297,300)	(261,963,973)	(266,217,825)	(271,018,306)	(275,507,374)	(49,560,376)	(1,246,565,154)
13 Receipts Net of Required	(1,285,466)	(28,240,606)	(24,113,034)	848,691	(10,817,815)	(6,512,953)	(70,121,183)
14 I&E Transfer	-	-	-	-	-	-	-
15 Shortfall Advance from GLWA	1,285,466	28,014,534	24,113,034	-	-	-	53,413,034
16 Net Receipts (a)	\$ -	\$ (226,072)	\$ -	\$ 848,691	\$ (10,817,815)	\$ (6,512,953)	\$ (16,708,149)
17 Ratio of Receipts to Required Disbursements (Line 11/Line 12)	99%	89%	91%	100%	96%	87%	94%
<b>Combined</b>							
18 Receipts	\$ 91,458,615	\$ 330,174,472	\$ 343,337,938	\$ 365,208,016	\$ 361,575,282	\$ 58,200,822	\$ 1,549,955,145
19 MOU Adjustments	74,201,200	-	-	6,527,200	-	-	80,728,400
20 Adjusted Receipts	165,659,815	330,174,472	343,337,938	371,735,216	361,575,282	58,200,822	1,630,683,545
21 Disbursements	(170,106,852)	(355,030,117)	(359,267,282)	(368,712,906)	(373,330,471)	(66,429,274)	(1,692,876,902)
22 Receipts Net of Required	(4,447,037)	(24,855,645)	(15,929,344)	3,022,310	(11,755,189)	(8,228,452)	(62,193,357)
23 I&E Transfer	-	-	-	(8,407,080)	-	-	(8,407,080)
24 Shortfall Advance from GLWA	1,285,466	28,014,534	24,113,034	-	-	-	53,413,034
25 Net Receipts	\$ (3,161,571)	\$ 3,158,889	\$ 8,183,690	\$ (5,384,770)	\$ (11,755,189)	\$ (8,228,452)	\$ (17,187,403)
26 Ratio of Receipts to Required Disbursements (Line 20/Line 21)	97%	93%	96%	101%	97%	88%	96%

(a) The \$226,072 difference in FY 2017 is due to the June IWC payment from DWSD that was not past due at yearend and the \$12,272 rounding difference on the loan receivable.

**Note 1:** The \$29,300,000 for the DWSD loan receivable balance is calculated as follows.

(1,285,466)	FY 2016 Shortfall
(28,240,606)	FY 2017 Shortfall
(29,526,072)	Subtotal
238,264	June IWC not due until July
(29,287,808)	FY 2017 Shortfall-to-Date

**29,300,000 FY 2017 Shortfall-to-Date, Rounded**

**Table 3 – FY 2017 DWSD Loan Receivable – Sewer**

Date	Transaction	Amount	Balance
06-30-18	Record Loan Receivable		29,300,000
02-08-19	Payment for July - Dec 2018	4,635,462	24,664,538
02-22-19	Payment for Jan - Mar 2019	2,353,768	22,310,770
04-15-19	Payment for the Apr 2019	789,990	21,520,780
05-08-19	Payment for May 2019	792,705	20,728,075
06-07-19	Payment for June 2019	795,430	19,932,645
07-05-19	Payment for July 2019	798,164	19,134,480
08-08-19	Payment for August 2019	800,908	18,333,572
09-06-19	Payment for September 2019	803,661	17,529,911
10-02-19	Payment for October 2019	806,424	16,723,487
11-04-19	Payment for November 2019	809,196	15,914,291
12-03-19	Payment for December 2019	811,978	15,102,314
01-06-20	Payment for January 2020	814,769	14,287,545
02-04-20	Payment for February 2020	817,570	13,469,975
03-03-20	Payment for March 2020	820,380	12,649,595
04-15-20	Payment for April 2020	823,200	11,826,395
05-06-20	Payment for May 2020	826,030	11,000,366
06-02-20	Payment for June 2020	828,869	10,171,497
07-07-20	Payment for July 2020	831,718	9,339,778
08-04-20	Payment for August 2020	834,577	8,505,201
		<b>20,794,799</b>	<b>8,505,201</b>

**Table 4 – FY 2017 DWSD Loan Receivable Payments – Sewer**

Date	Transaction	Principal	Interest	Total Paid
02-08-19	Payment for July - Dec 2018	4,635,462	564,636	5,200,098
02-22-19	Payment for Jan - Mar 2019	2,353,768	246,280	2,600,049
04-15-19	Payment for the Apr 2019	789,990	76,693	866,683
05-08-19	Payment for May 2019	792,705	73,978	866,683
06-07-19	Payment for June 2019	795,430	71,253	866,683
07-05-19	Payment for July 2019	798,164	68,518	866,683
08-08-19	Payment for August 2019	800,908	65,775	866,683
09-06-19	Payment for September 2019	803,661	63,022	866,683
10-02-19	Payment for October 2019	806,424	60,259	866,683
11-04-19	Payment for November 2019	809,196	57,487	866,683
12-03-19	Payment for December 2019	811,978	54,705	866,683
01-06-20	Payment for January 2020	814,769	51,914	866,683
02-04-20	Payment for February 2020	817,570	49,113	866,683
03-03-20	Payment for March 2020	820,380	46,303	866,683
04-15-20	Payment for April 2020	823,200	43,483	866,683
05-06-20	Payment for May 2020	826,030	40,653	866,683
06-02-20	Payment for June 2020	828,869	46,303	875,172
07-07-20	Payment for July 2020	831,718	34,965	866,683
08-04-20	Payment for August 2020	834,577	32,105	866,683
		<b>20,794,800</b>	<b>1,747,446</b>	<b>22,542,246</b>

**Table 5 – FY 2018 DWSD Loan Receivable – Sewer**

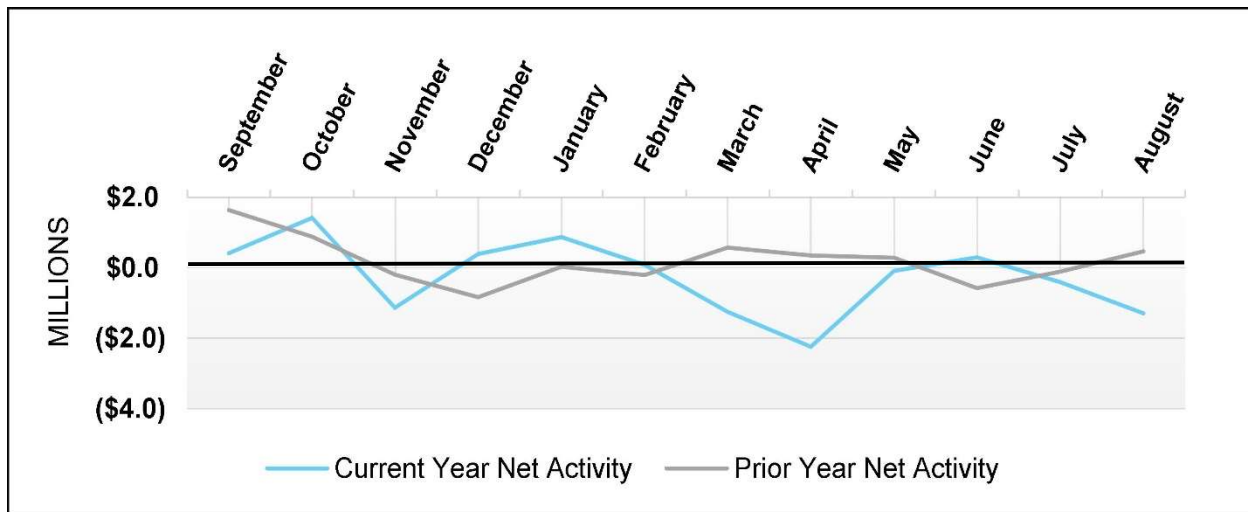
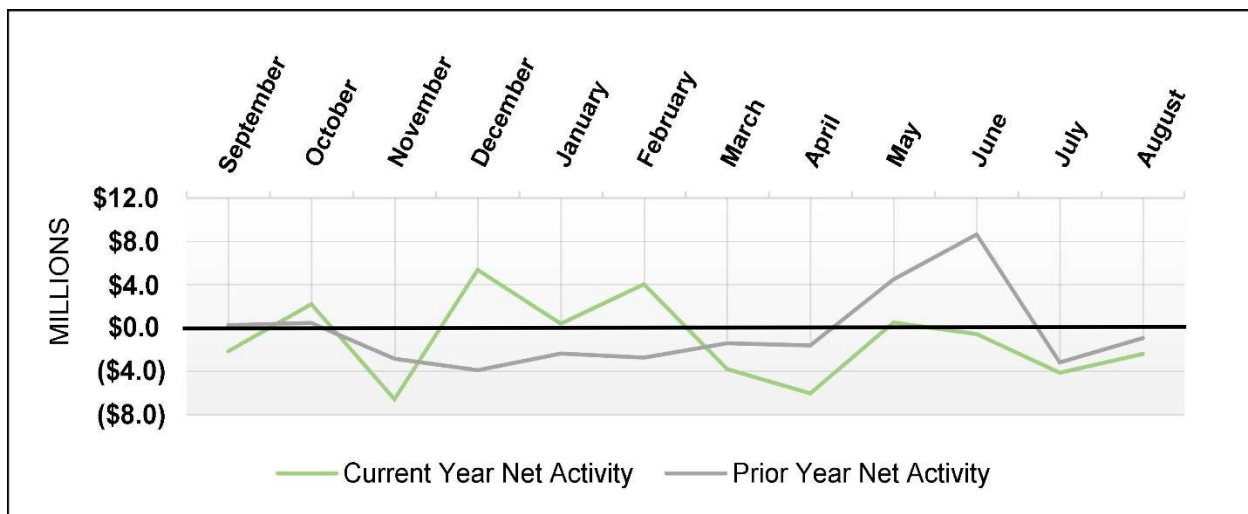
Date	Transaction	Amount	Balance
06-30-19	Record Loan Receivable		24,113,034
07-15-19	Payment for July 2019	638,978	23,474,056
08-08-19	Payment for August 2019	640,686	22,833,370
09-06-19	Payment for September 2019	642,400	22,190,970
10-02-19	Payment for October 2019	644,118	21,546,852
11-04-19	Payment for November 2019	645,840	20,901,012
12-03-19	Payment for December 2019	647,567	20,253,445
01-06-20	Payment for January 2020	649,299	19,604,146
02-04-20	Payment for February 2020	651,035	18,953,111
03-03-20	Payment for March 2020	652,776	18,300,335
04-15-20	Payment for April 2020	654,522	17,645,813
05-06-20	Payment for May 2020	656,272	16,989,541
06-02-20	Payment for June 2020	658,027	16,331,514
07-07-20	Payment for July 2020	659,787	15,671,727
08-04-20	Payment for August 2020	661,551	15,010,176
		<b>9,102,858</b>	<b>15,010,176</b>

**Table 6 – FY 2018 DWSD Loan Receivable Payments – Sewer**

Date	Transaction	Principal	Interest	Total Paid
07-15-19	Payment for July 2019	638,978	64,482	703,460
08-08-19	Payment for August 2019	640,686	62,774	703,460
09-06-19	Payment for September 2019	642,400	61,060	703,460
10-02-19	Payment for October 2019	644,118	59,342	703,460
11-04-19	Payment for November 2019	645,840	57,620	703,460
12-03-19	Payment for December 2019	647,567	55,893	703,460
01-06-20	Payment for January 2020	649,299	54,161	703,460
02-04-20	Payment for February 2020	651,035	52,425	703,460
03-03-20	Payment for March 2020	652,776	50,684	703,460
04-15-20	Payment for April 2020	654,522	48,938	703,460
05-06-20	Payment for May 2020	656,272	47,188	703,460
06-02-20	Payment for June 2020	658,027	45,433	703,460
07-07-20	Payment for July 2020	659,787	43,673	703,460
08-04-20	Payment for August 2020	661,551	41,909	703,460
		<b>9,102,858</b>	<b>745,582</b>	<b>9,848,440</b>

**Table 7 – Total DWSD Loan Receivable Balance – Sewer**

Date	FY17 Loan Balance	FY18 Loan Balance	Total
06-30-18	29,300,000	-	29,300,000
07-31-18	29,300,000	-	29,300,000
08-31-18	29,300,000	-	29,300,000
09-30-18	29,300,000	-	29,300,000
10-31-18	29,300,000	-	29,300,000
11-30-18	29,300,000	-	29,300,000
12-31-18	29,300,000	-	29,300,000
01-31-19	29,300,000	-	29,300,000
02-28-19	24,664,538	-	24,664,538
03-31-19	22,310,770	-	22,310,770
04-30-19	21,520,780	-	21,520,780
05-31-19	20,728,075	-	20,728,075
06-30-19	19,932,645	24,113,034	44,045,679
07-31-19	19,134,480	23,474,056	42,608,537
08-31-19	18,333,572	22,833,370	41,166,942
09-30-19	17,529,911	22,190,970	39,720,881
10-31-19	16,723,487	21,546,852	38,270,340
11-30-19	15,914,291	20,901,012	36,815,303
12-31-19	15,102,314	20,253,445	35,355,759
01-31-20	14,287,545	19,604,146	33,891,691
02-29-20	13,469,975	18,953,111	32,423,086
03-31-20	12,649,595	18,300,335	30,949,930
04-30-20	11,826,395	17,645,813	29,472,208
05-31-20	11,000,366	16,989,541	27,989,906
06-30-20	10,171,497	16,331,514	26,503,010
07-31-20	9,339,778	15,671,727	25,011,505
08-31-20	8,505,201	15,010,176	23,515,376

**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 8 – Combined Net Cash Flows from Trust Receipts & Disbursements** provides a summary of cash receipt collections and required

MBO transfers by fiscal year as well as a total of all activity for GLWA since inception at January 1, 2016. Fiscal year 2021 reflects two months of activity to date.

Water fund net receipts exceeded required disbursements by 4% through August 31, 2020 with a historical ratio of receipts exceeding required disbursements by 11% since January 1, 2016.

Sewer fund receipts exceeded required disbursements by 2% through August 31, 2020 and with a historical ratio of receipts exceeding required disbursements by 2% since January 1, 2016.

**Table 8 – Combined Net Cash Flows from Trust Receipts & Disbursements**

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 (Prelim)	FY 2021 Thru August 31	Life-to-Date Total
<b>Water</b>							
1 Receipts	\$ 175,890,592	\$ 449,393,014	\$ 439,685,148	\$ 436,462,453	\$ 429,491,919	\$ 71,136,900	\$2,002,060,026
2 MOU Adjustments	18,446,100	-	-	-	-	-	18,446,100
3 Adjusted Receipts	194,336,692	449,393,014	439,685,148	436,462,453	429,491,919	71,136,900	2,020,506,126
4 Disbursements	(194,065,737)	(381,844,129)	(390,114,267)	(386,925,081)	(394,013,522)	(68,225,203)	(1,815,187,939)
5 Receipts Net of Required	270,955	67,548,885	49,570,881	49,537,372	35,478,397	2,911,697	205,318,187
6 I&E Transfer	-	-	(25,739,700)	(56,102,080)	(25,719,751)	(3,736,549)	(111,298,080)
7 Net Receipts	\$ 270,955	\$ 67,548,885	\$ 23,831,181	\$ (6,564,708)	\$ 9,758,646	\$ (824,852)	\$ 94,020,107
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	100%	118%	113%	113%	109%	104%	111%
<b>Sewer</b>							
9 Receipts	\$ 297,634,449	\$ 703,512,249	\$ 718,374,552	\$ 733,083,541	\$ 755,150,915	\$ 125,507,685	\$3,333,263,391
10 MOU Adjustments	55,755,100	-	-	6,527,200	-	-	62,282,300
11 Adjusted Receipts	353,389,549	703,512,249	718,374,552	739,610,741	755,150,915	125,507,685	3,395,545,691
12 Disbursements	(341,835,625)	(703,407,313)	(725,121,160)	(724,424,942)	(721,112,326)	(122,546,146)	(3,338,447,512)
13 Receipts Net of Required	11,553,924	104,936	(6,746,608)	15,185,799	34,038,589	2,961,539	57,098,179
14 I&E Transfer	-	-	(22,698,100)	(22,547,700)	(19,096,200)	(1,701,400)	(66,043,400)
15 Shortfall Advance	-	-	-	-	-	-	-
16 Shortfall Repayment (principal)	-	-	-	9,367,355	17,542,669	2,987,634	29,897,658
17 Net Receipts	\$ 11,553,924	\$ 104,936	\$ (29,444,708)	\$ (7,361,901)	\$ 32,485,058	\$ 4,247,773	\$ 20,952,438
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	103%	100%	99%	102%	105%	102%	102%
<b>Combined</b>							
19 Receipts	\$ 473,525,041	\$1,152,905,263	\$1,158,059,700	\$1,169,545,994	\$1,184,642,834	\$ 196,644,585	\$5,335,323,417
20 MOU Adjustments	74,201,200	-	-	6,527,200	-	-	80,728,400
21 Adjusted Receipts	547,726,241	1,152,905,263	1,158,059,700	1,176,073,194	1,184,642,834	196,644,585	5,416,051,817
22 Disbursements	(535,901,362)	(1,085,251,442)	(1,115,235,427)	(1,111,350,023)	(1,115,125,848)	(190,771,349)	(5,153,635,451)
23 Receipts Net of Required	11,824,879	67,653,821	42,824,273	64,723,171	69,516,986	5,873,236	262,416,366
24 I&E Transfer	-	-	(48,437,800)	(78,649,780)	(44,815,951)	(5,437,949)	(177,341,480)
25 Shortfall Advance	-	-	-	-	-	-	-
26 Shortfall Repayment	-	-	-	9,367,355	17,542,669	2,987,634	29,897,658
27 Net Receipts	\$ 11,824,879	\$ 67,653,821	\$ (5,613,527)	\$ (4,559,254)	\$ 42,243,704	\$ 3,422,921	\$ 114,972,545
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	102%	106%	104%	106%	106%	103%	105%

## APPENDIX

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$260,802.06	\$260,802.06	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$43,402.95	\$43,402.95	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$78,747.48	\$78,747.48	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$32,902.21	\$32,902.21	\$0.00	\$0.00	\$0.00
BERLIN TOWNSHIP	\$72,400.33	\$72,400.33	\$0.00	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$755,424.18	\$755,424.18	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$51,041.07	\$51,041.07	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$44,299.38	\$44,299.38	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$2,331,559.58	\$2,331,559.58	\$0.00	\$0.00	\$0.00
CENTER LINE	\$43,017.36	\$43,017.36	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$458,347.67	\$458,347.67	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$784,883.63	\$784,883.63	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$832,784.01	\$832,784.01	\$0.00	\$0.00	\$0.00
DEARBORN	\$931,022.58	\$931,022.58	\$0.00	\$0.00	\$0.00
DEARBORN HEIGHTS	\$355,204.46	\$355,204.46	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$275,562.55	\$275,562.55	\$0.00	\$0.00	\$0.00
ECORSE	\$119,534.12	\$119,534.12	\$0.00	\$0.00	\$0.00
FARMINGTON	\$103,392.30	\$103,392.30	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$1,862,879.54	\$1,862,879.54	\$0.00	\$0.00	\$0.00
FERNDAL	\$197,738.28	\$197,738.28	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$123,833.00	\$123,833.00	\$0.00	\$0.00	\$0.00
FLINT	\$388,639.71	\$388,639.71	\$0.00	\$0.00	\$0.00
FRASER	\$125,902.40	\$125,902.40	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$160,842.64	\$160,842.64	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$59,990.16	\$59,990.16	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$107,638.02	\$107,638.02	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$11,316.74	\$11,316.74	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$161,149.63	\$161,149.63	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$77,417.81	\$77,417.81	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$161,883.39	\$161,883.39	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$72,131.34	\$72,131.34	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$74,172.51	\$74,172.51	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$157,276.33	\$157,276.33	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$68,763.57	\$68,763.57	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$8,738,399.22	\$204,714.86	\$97,073.02	\$92,674.33	\$8,343,937.01
HURON TOWNSHIP	\$148,563.37	\$148,563.37	\$0.00	\$0.00	\$0.00
IMLAY CITY	\$142,784.47	\$142,784.47	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP	\$2,559.52	\$2,559.52	\$0.00	\$0.00	\$0.00
INKSTER	\$207,664.05	\$207,664.05	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$59,652.78	\$59,652.78	\$0.00	\$0.00	\$0.00
LAPEER	\$135,877.27	\$135,877.27	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$72,682.47	\$49,193.65	\$23,488.82	\$0.00	\$0.00
LINCOLN PARK	\$216,824.01	\$216,824.01	\$0.00	\$0.00	\$0.00
LIVONIA	\$1,272,259.34	\$1,272,259.34	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$1,560,457.83	\$1,560,457.83	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MADISON HEIGHTS	\$160,029.71	\$160,029.71	\$0.00	\$0.00	\$0.00
MAYFIELD TOWNSHIP	\$6,342.32	\$6,342.32	\$0.00	\$0.00	\$0.00
MELVINDALE	\$57,609.97	\$57,609.97	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$36,070.85	\$36,070.85	\$0.00	\$0.00	\$0.00
NOCWA	\$2,442,413.30	\$2,442,413.30	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$89,478.16	\$89,478.16	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$708,230.28	\$708,230.28	\$0.00	\$0.00	\$0.00
NOVI	\$1,761,349.20	\$1,761,349.20	\$0.00	\$0.00	\$0.00
OAK PARK	\$129,592.08	\$129,592.08	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$8,110.75	\$8,110.75	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$113,433.35	\$113,433.35	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$518,241.66	\$518,241.66	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$301,860.37	\$301,860.37	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$114,491.50	\$114,491.50	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$88,334.87	\$88,334.87	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$26,998.76	\$26,998.76	\$0.00	\$0.00	\$0.00
ROMEO	\$53,068.09	\$53,068.09	\$0.00	\$0.00	\$0.00
ROMULUS	\$413,381.83	\$413,381.83	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$249,101.85	\$249,101.85	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$34,473.78	\$34,473.78	\$0.00	\$0.00	\$0.00
SHELBY TOWNSHIP	\$1,897,858.01	\$1,897,858.01	\$0.00	\$0.00	\$0.00
SOCWA	\$4,778,009.40	\$4,778,009.40	\$0.00	\$0.00	\$0.00
SOUTH ROCKWOOD	\$20,583.92	\$20,583.92	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SOUTHGATE	\$203,544.03	\$203,544.03	\$0.00	\$0.00	\$0.00
ST. CLAIR COUNTY-GREENWOOD T	\$103,404.42	\$103,404.42	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$295,430.62	\$295,430.62	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$1,727,732.40	\$1,727,732.40	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$129,428.36	\$129,428.36	\$0.00	\$0.00	\$0.00
SYLVAN LAKE	\$24,373.35	\$24,373.35	\$0.00	\$0.00	\$0.00
TAYLOR	\$873,312.26	\$873,312.26	\$0.00	\$0.00	\$0.00
TRENTON	\$165,494.50	\$165,494.50	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$1,612,246.36	\$1,612,246.36	\$0.00	\$0.00	\$0.00
UTICA	\$56,600.72	\$56,600.72	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$734,167.10	\$734,167.10	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$152,292.09	\$152,292.09	\$0.00	\$0.00	\$0.00
WARREN	\$992,691.24	\$992,691.24	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$316,507.34	\$316,507.34	\$0.00	\$0.00	\$0.00
WAYNE	\$288,640.93	\$288,640.93	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$2,248,144.78	\$2,248,144.78	\$0.00	\$0.00	\$0.00
WESTLAND	\$609,687.54	\$609,687.54	\$0.00	\$0.00	\$0.00
WIXOM	\$290,617.22	\$290,617.22	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$167,009.99	\$167,009.99	\$0.00	\$0.00	\$0.00
YCUA	\$2,011,544.14	\$2,011,544.14	\$0.00	\$0.00	\$0.00
<b>TOTAL WATER ACCOUNTS</b>	<b>\$50,955,560.72</b>	<b>\$42,398,387.54</b>	<b>\$120,561.84</b>	<b>\$92,674.33</b>	<b>\$8,343,937.01</b>

## GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 08/31/20

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	\$86,099.50	\$86,099.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$0.00	\$0.00	\$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	\$332,900.00	\$332,900.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$33,570,976.55	\$472,500.00	\$472,500.00	\$472,500.00	\$32,153,476.55
MELVINDALE	\$127,908.16	\$127,800.00	\$108.16	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,772,000.00	\$3,772,000.00	\$0.00	\$0.00	\$0.00
OMID	\$5,809,504.67	\$5,809,504.67	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROUGE VALLEY	\$4,513,500.00	\$4,513,500.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY N.E.	\$2,069,800.00	\$2,069,800.00	\$0.00	\$0.00	\$0.00
WAYNE COUNTY-AREA #3	\$4,200.00	\$4,200.00	\$0.00	\$0.00	\$0.00
<b>TOTAL SEWER ACCOUNTS</b>	<b>\$50,286,888.88</b>	<b>\$17,188,304.17</b>	<b>\$472,608.16</b>	<b>\$472,500.00</b>	<b>\$32,153,476.55</b>

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$1,532.83	\$1,532.83	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUBURN HILLS (E-F)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BERKLEY	\$6,009.64	\$6,009.64	\$0.00	\$0.00	\$0.00
BEVERLY HILLS	\$949.78	\$949.78	\$0.00	\$0.00	\$0.00
BINGHAM FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BIRMINGHAM (E-F)	\$2,318.68	\$2,318.68	\$0.00	\$0.00	\$0.00
BIRMINGHAM (SEOC)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$7,197.71	\$7,197.71	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$81.12	\$81.12	\$0.00	\$0.00	\$0.00
CENTER LINE	\$3,501.68	\$3,501.68	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$11,770.85	\$11,770.85	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$190.97	\$190.97	\$0.00	\$0.00	\$0.00
CITY OF FERNDAL	\$25,400.70	\$16,933.80	\$8,466.90	\$0.00	\$0.00
CITY OF ROCHESTER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLAWSON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$24,739.91	\$24,739.91	\$0.00	\$0.00	\$0.00
DEARBORN	\$35,146.93	\$35,146.93	\$0.00	\$0.00	\$0.00
DEARBORN HEIGHTS	\$9,171.63	\$9,171.63	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$202.80	\$202.80	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EASTPOINTE	\$6,146.53	\$6,146.53	\$0.00	\$0.00	\$0.00
FARMINGTON	\$3,829.54	\$3,829.54	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FRASER	\$14,145.30	\$9,430.20	\$4,715.10	\$0.00	\$0.00
GARDEN CITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$1,502.41	\$1,502.41	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,123.85	\$1,123.85	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$3,968.12	\$3,968.12	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,799.85	\$1,799.85	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$3,035.24	\$3,035.24	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$3,143.40	\$3,143.40	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,730,006.24	\$7,665.84	\$3,831.23	\$0.00	\$1,718,509.17
HUNTINGTON WOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$3,513.29	\$2,350.36	\$1,162.93	\$0.00	\$0.00
INKSTER	\$21,145.28	\$10,572.64	\$5,286.32	\$0.00	\$5,286.32
KEEGO HARBOR	\$667.55	\$667.55	\$0.00	\$0.00	\$0.00
LAKE ORION	\$763.88	\$763.88	\$0.00	\$0.00	\$0.00
LATHRUP	\$1,336.79	\$1,336.79	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$309.27	\$309.27	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIVONIA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$196.04	\$196.04	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$35,462.96	\$35,462.96	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,234.66	\$3,234.66	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$1,693.38	\$1,693.38	\$0.00	\$0.00	\$0.00
NOVI	\$33,539.74	\$33,539.74	\$0.00	\$0.00	\$0.00
OAK PARK	\$6,574.10	\$6,574.10	\$0.00	\$0.00	\$0.00
OAKLAND TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ORCHARD LAKE VILLAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O)	\$3,633.50	\$3,633.50	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$453.90	\$453.90	\$0.00	\$0.00	\$0.00
OXFORD TOWNSHIP	\$961.61	\$961.61	\$0.00	\$0.00	\$0.00
OXFORD VILLAGE	\$1,196.52	\$1,196.52	\$0.00	\$0.00	\$0.00
PLEASANT RIDGE	\$260.26	\$260.26	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$3,707.86	\$3,707.86	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$260.26	\$260.26	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$12,370.92	\$12,370.92	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$17,599.66	\$17,599.66	\$0.00	\$0.00	\$0.00
ROMULUS	\$1,760.98	\$1,760.98	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$13,832.65	\$13,832.65	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$26,369.07	\$26,369.07	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$12,037.87	\$12,037.87	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$54,255.76	\$54,255.76	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$7,605.00	\$7,605.00	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$22,862.32	\$22,862.32	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$30,259.45	\$30,259.45	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UTICA	\$2,854.41	\$2,854.41	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$5,267.73	\$3,511.82	\$1,755.91	\$0.00	\$0.00
VILLAGE OF FRANKLIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$1,412.84	\$1,412.84	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADM)	\$2,964.88	\$2,964.88	\$0.00	\$0.00	\$0.00
WAYNE	\$4,770.87	\$4,770.87	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (E-F)	\$6,121.18	\$6,121.18	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP. (C-O) P	\$225.63	\$225.63	\$0.00	\$0.00	\$0.00
WESTLAND	\$21,670.87	\$21,670.87	\$0.00	\$0.00	\$0.00
<b>TOTAL IWC ACCOUNTS</b>	<b>\$2,260,068.65</b>	<b>\$511,054.77</b>	<b>\$25,218.39</b>	<b>\$0.00</b>	<b>\$1,723,795.49</b>

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY	\$3,082.08	\$3,082.08	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$5,383.88	\$5,383.88	\$0.00	\$0.00	\$0.00
AACTRON	\$187.41	\$0.00	\$91.23	\$96.18	\$0.00
ACADEMY PACKING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$12.49	\$12.49	\$0.00	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$15,887.34	\$9,717.63	\$6,169.71	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$11,877.08	\$11,877.08	\$0.00	\$0.00	\$0.00
ATWATER IN THE PARK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AUTOMOTIVE FINISH	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AXLE BREWING COMPANY, LLC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. NEKTAR MEADERY	\$0.88	\$0.88	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$135.99	\$135.99	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$ (289.88)	\$0.00	\$ (289.88)	\$0.00	\$0.00
BARTZ BAKERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BASTONE BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BATCH BREWING COMPANY	\$369.60	\$369.60	\$0.00	\$0.00	\$0.00
BAYS MICHIGAN CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BEIRUT BAKERY, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BETTER MADE SNACK FOOD	\$21,218.38	\$21,218.38	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$31.30	\$31.30	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$7,263.22	\$7,263.22	\$0.00	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$21.00	\$21.00	\$0.00	\$0.00	\$0.00
BROWN IRON BREWHOUSE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CADILLAC STRAITS BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CANTON BREW WORKS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL REPRODUCTIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CF BURGER CREAMERY	\$17,205.98	\$17,205.98	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$1,749.20	\$28.96	\$17.69	\$20.91	\$1,681.64
CINTAS CORP. - MACOMB TWP.	\$28,311.25	\$28,311.25	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$ (7.38)	\$0.00	\$0.00	\$ (7.38)	\$0.00
CLASSIC CONTAINER CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$787.10	\$787.10	\$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

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

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
COUNTRY FRESH DAIRY CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CROSS CHEMICAL COMPANY, INC.	\$1,198.29	\$0.00	\$335.34	\$862.95	\$0.00
DARLING INGREDIENTS, INC.	\$7,934.08	\$7,934.08	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$56.81	\$56.81	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE CO., INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT BEER CO.	\$205.18	\$205.18	\$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	\$3,105.49	\$3,105.49	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$22.80	\$11.40	\$2.85	\$2.85	\$5.70
DETRONIC INDUSTRIES, INC.	\$243.39	\$112.15	\$44.38	\$22.43	\$64.43
DIFCO LABORATORIES, INC.	\$101,787.74	\$11,236.92	\$15,295.43	\$15,683.45	\$59,571.94
DIVERSIFIED CHEM TECH. INC.	\$133.69	\$133.69	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$1,507.56	\$1,507.56	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$627.39	\$627.39	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$63.00	\$63.00	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$3,890.36	\$3,890.36	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP	\$414.14	\$232.59	\$0.00	\$0.00	\$181.55
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$914.17	\$914.17	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EQ DETROIT, INC.	\$9,845.79	\$9,845.79	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$303.74	\$303.74	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.37	\$0.37	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLF	\$4,058.94	\$4,058.94	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$170.71	\$170.71	\$0.00	\$0.00	\$0.00
EXTRUDEHODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON BREWING COMPANY	\$18.08	\$18.08	\$0.00	\$0.00	\$0.00
FAYGO BEVERAGES, INC.	\$28,350.23	\$28,350.23	\$0.00	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$795.16	\$795.16	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$62.46	\$62.46	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$297.17	\$297.17	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2O ENERGY, LLC	\$2,457.36	\$2,457.36	\$0.00	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$4,809.39	\$4,809.39	\$0.00	\$0.00	\$0.00
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$61.41	\$61.41	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$53.43	\$0.00	\$0.00	\$0.00	\$53.43
GRANITE CITY FOOD & BREWERY	\$13.49	\$13.49	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HACIENDA MEXICAN FOODS	\$2,324.07	\$1,528.57	\$595.54	\$199.96	\$0.00
HENKEL CORPORATION	\$0.06	\$0.00	\$0.06	\$0.00	\$0.00
HOME STYLE FOOD INC.	\$113.79	\$113.79	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
HOMEGROWN BREWING COMPANY	\$107.77	\$107.77	\$0.00	\$0.00	\$0.00
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$1,338.15	\$1,338.15	\$0.00	\$0.00	\$0.00
HOUGHTON INTERNATIONAL INC.	\$544.40	\$544.40	\$0.00	\$0.00	\$0.00
HOUGHTON INTERNATIONAL INC.	\$2,472.67	\$2,472.67	\$0.00	\$0.00	\$0.00
HUNTINGTON CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
IDP, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
INDUSTRIAL METAL COATING	\$1,081.46	\$856.09	\$225.37	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$1,106.08	\$1,106.08	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$4.83	\$4.83	\$0.00	\$0.00	\$0.00
JAMEX BREWING CO.	\$76.56	\$76.56	\$0.00	\$0.00	\$0.00
KAR NUT PRODUCTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
KOWALSKI SAUSAGES, CO.	\$995.99	\$995.99	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$214.94	\$214.94	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$1,043.62	\$1,043.62	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$243.89	\$243.89	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$795.43	\$0.00	\$795.43	\$0.00	\$0.00
LIBERTY STREET PROD. BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LIFE TECHNOLOGIES	\$13,483.46	\$13,483.46	\$0.00	\$0.00	\$0.00
LILY'S SEAFOOD GRILL & BREWE	\$70.00	\$70.00	\$0.00	\$0.00	\$0.00
MACDERMID, INC.	\$2,387.18	\$2,387.18	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$937.09	\$930.17	\$6.92	\$0.00	\$0.00
MCNICHOLS POLISHING & ANODIZ	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MELLO MEATS INC, - KUBISCH S	\$483.81	\$199.21	\$85.38	\$56.92	\$142.30
METROPOLITAN BAKERY	\$575.85	\$575.85	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$767.88	\$314.24	\$147.67	\$150.03	\$155.94
MICHIGAN DAIRY	\$120,887.94	\$120,887.94	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$3,225.53	\$964.96	\$0.00	\$0.00	\$2,260.57
MICHIGAN SOY PRODUCTS CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$639.56	\$639.56	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$2,914.42	\$2,914.42	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$2.09	\$2.09	\$0.00	\$0.00	\$0.00
MOTOR CITY BREWING WORKS	\$1,636.89	\$323.76	\$0.00	\$0.00	\$1,313.13
NATIONAL CHILI COMPANY	\$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	\$63.31	\$63.31	\$0.00	\$0.00	\$0.00
OAKWOOD BAKERY	\$285.76	\$285.76	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SE	\$ (80.33)	\$0.00	\$ (80.33)	\$0.00	\$0.00
PELLERITO FOODS INC.	\$24.19	\$24.19	\$0.00	\$0.00	\$0.00
PEPSI COLA, INC.	\$43,037.28	\$43,037.28	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$67,265.24	\$67,265.24	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$13,281.88	\$13,281.88	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$4,564.65	\$4,564.65	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PERSONAL UNIFORM SERVICE, IN	\$79.62	\$56.78	\$11.75	\$11.09	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$43,689.37	\$43,689.37	\$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	\$2,483.14	\$0.00	\$1,987.91	\$495.23	\$0.00
PRODUCTION SPRING, LLC.	\$337.94	\$67.59	\$0.00	\$0.00	\$270.35
QUALA SERVICES, LLC	\$1,063.55	\$1,063.55	\$0.00	\$0.00	\$0.00
RAY'S ICE CREAM CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RED SPOT PAINT #409139	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RIVER ROUGE BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ROAK BREWING CO. LLC	\$1,255.62	\$1,255.62	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS BEER COMPANY	\$224.81	\$224.81	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS PROD BREWERY	\$1,917.06	\$1,917.06	\$0.00	\$0.00	\$0.00
ROYAL OAK BREWERY	\$ (765.27)	\$0.00	\$0.00	\$0.00	\$ (765.27)
RTT	\$27,772.36	\$0.00	\$0.00	\$0.00	\$27,772.36
SEAFARE FOODS, INC.	\$408.37	\$408.37	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$1,130.63	\$95.81	\$0.00	\$0.00	\$1,034.82
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	\$64.46	\$64.46	\$0.00	\$0.00	\$0.00
SWEETHEART BAKERY, INC.	\$2,040.39	\$145.22	\$59.54	\$47.92	\$1,787.71
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TOM LAUNDRY CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TRAFFIC JAM & SNUG	\$ (36.41)	\$0.00	\$ (36.41)	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
U-METCO, INC.	\$2,034.04	\$2,034.04	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$81,171.23	\$81,171.23	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$2,782.82	\$2,782.82	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$15.79	\$15.79	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$245.95	\$245.95	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$133.32	\$133.32	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$1,014.91	\$1,014.91	\$0.00	\$0.00	\$0.00
US ECOLOGY ROMULUS, INC.	\$2,549.16	\$2,549.16	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$4,556.61	\$4,556.61	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$8,415.44	\$3,019.40	\$1,110.95	\$1,166.50	\$3,118.59
VAUGHAN INDUSTRIES, INC.	\$44.01	\$44.01	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$3,703.22	\$3,703.22	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$ (36.26)	\$0.00	\$0.00	\$0.00	\$ (36.26)
WIGLEY'S MEAT PROCESS	\$628.95	\$628.95	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$2,276.72	\$2,276.72	\$0.00	\$0.00	\$0.00

## GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 08/31/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
WINTER SAUSAGE MFG. CO.	\$486.66	\$486.66	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO	\$14,445.69	\$14,445.69	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$5,848.34	\$5,848.34	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$240.06	\$154.88	\$0.00	\$0.00	\$85.18
<b>TOTAL POLLUTANT SURCHARGE ACCOUNTS</b>	<b>\$788,055.53</b>	<b>\$643,684.75</b>	<b>\$26,576.53</b>	<b>\$18,809.04</b>	<b>\$98,985.21</b>

## City of Highland Park Billings and Collections

	Water	Sewer	IWC	Cumulative Total
June 30, 2012 Balance	\$ -	\$ 10,207,956	\$ 852,987	\$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	(65,652)	(2,206,211)	-	(2,271,863)
June 30, 2013 Balance	\$ 420,235	\$ 12,989,380	\$ 1,007,431	\$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	-	(1,612,633)	-	(1,612,633)
June 30, 2014 Balance	\$ 1,424,592	\$ 18,357,189	\$ 1,169,382	\$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	-	(1,444,623)	-	(1,444,623)
June 30, 2015 Balance	\$ 2,432,625	\$ 22,465,689	\$ 1,335,121	\$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	-	(2,022,335)	-	(2,022,335)
June 30, 2016 Balance	\$ 3,589,803	\$ 26,055,521	\$ 1,441,551	\$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	-	(2,309,186)	-	(2,309,186)
June 30, 2017 Balance	\$ 4,835,070	\$ 29,548,335	\$ 1,543,550	\$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	-	(4,108,108)	-	(4,108,108)
June 30, 2018 Balance	\$ 6,112,248	\$ 31,097,327	\$ 1,624,022	\$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	-	(5,241,583)	-	(5,241,583)
June 30, 2019 Balance	\$ 7,351,045	\$ 31,472,844	\$ 1,675,243	\$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	-	(3,026,117)	-	(3,026,117)
June 30, 2020 Balance	\$ 8,533,684	\$ 34,112,127	\$ 1,722,340	\$ 44,368,151
FY 2021 Billings (2 Months)	204,715	945,000	7,666	1,157,381
FY 2021 Payments (2 Months)	-	(1,486,150)	-	(1,486,150)
<b>Balance as of August 31, 2020</b>	<b>\$ 8,738,399</b>	<b>\$ 33,570,977</b>	<b>\$ 1,730,006</b>	<b>\$ 44,039,382</b>



## Financial Services Audit Committee Communication

**Date:** November 20, 2020

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

**From:** Deirdre Henry, Treasury Manager

**Re:** Quarterly Investment Report through September 30, 2020 (Unaudited)

**Background:** As stated in section 14 of the Great Lakes Water Authority (GLWA) Investment Policy, quarterly reporting shall be presented to provide a clear picture of the status of the current GLWA investment portfolio. The attached report, prepared and presented by PFM Asset Management LLC, summarizes portfolio information through September 30, 2020 (unaudited).

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

- Yield at Cost:
  - As of September 30, 2020: 0.91%
  - As of June 30, 2020: 1.12%
- Portfolio Allocation in Cash/Money Market Securities:
  - As of September 30, 2020: 36%
  - As of June 30, 2020: 34%

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

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

# Great Lakes Water Authority

*Investment Performance Report – September 2020*





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## Executive Summary

### PORTFOLIO RECAP

- **Safety** – The aggregate portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The total credit profile of the portfolio is strong with over 97% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by Standard & Poor's.
- **Liquidity** – Great Lakes Water Authority ("GLWA") has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet liquidity requirements. As of September 30, 2020, about 36% of the funds were held in cash and money market accounts maturing overnight.
- **Return** – The overall yield at cost decreased to 0.91% as of September 30, 2020 versus 1.12% as of June 30, 2020. The lower yield is reflective of the near zero-interest rate environment that maturities are reinvested in. GLWA earned over \$2.3 million (unaudited) in investment income for the first quarter of fiscal 2021 on a book value basis.

### AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 9/30/20)	Yield @ Market (as of 9/30/20)
Deposit Account	Comerica	\$5,250,773	\$5,250,773	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$16,589,708	\$16,589,708	0.05%	0.05%
Deposit Account – Flint Security Deposit	Chase	\$3,813,464	\$3,813,464	0.15%	0.15%
Deposit Account	Chase	\$21,191,968	\$21,191,968	0.15%	0.15%
Trust Money Market Fund	U.S. Bank	\$220,749,962	\$220,749,962	0.05%	0.05%
Money Market Fund	JP Morgan	\$19,129,510	\$19,129,510	0.01%	0.01%
Local Government Investment Pool	GovMIC	\$36,543,173	\$36,543,173	0.19%	0.19%
Managed Funds	PFM	\$566,832,541	\$573,599,578	1.39%	0.17%
<b><u>SEPTEMBER 2020 TOTALS:</u></b>		<b><u>\$890,101,099</u></b>	<b><u>\$896,868,136</u></b>	<b><u>0.91%</u></b>	<b><u>0.14%</u></b>
<b><u>PREVIOUS QUARTER TOTALS:</u></b>		<b><u>\$949,191,639</u></b>	<b><u>\$957,477,726</u></b>	<b><u>1.12%</u></b>	<b><u>0.19%</u></b>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA. In addition to the above, there also exists surety bonds in the amount of \$324,809,258 as of 9/30/2020.



## Investment Strategy

### OVERALL STRATEGY

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

### PORTFOLIO PERFORMANCE – CURRENT PERIOD\*

- The overall portfolio's original yield at cost went from 1.12% as of June 30, 2020 to 0.91% as of September 30, 2020. The lower yield is a result of investing in a much lower interest rate environment.
- The total portfolio had a market yield of 0.14% at the end of September. Yield at market represents what the market would provide in return if the portfolio was purchased on September 30, 2020 (vs. purchased in prior months / years)
  - We utilize a variety of investment sectors, and because of that, this 0.14% yield at market as of 9/30/2020 is higher than the 0.10% yield of the 3-Month U.S. Treasury Bill Index, which is a comparable market indicator.

### PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned over \$2.3 million (unaudited) in investment income for fiscal year-to-date 2021 (as of September) on a book value basis.
- Even though the current period earnings are 88% of the FY 2021 amended budget of \$2.6 million, we anticipate a significant drop in earnings for the remainder of the year as a result of reinvesting in a near zero-interest rate environment.
- Based on the current rate environment, current period earnings, and assuming GLWA maintains investable balances that are similar to the July – September period, the FY 2021 earnings projection is now \$3.4 million, which slightly exceeds the amended budget.

*\* Yield at cost is based on the original cost of the individual investments from the purchase date to maturity. On the other hand, yield at market is calculated on a specific day (in this case, September 30, 2020) and assumes that all the securities in the portfolio are purchased given the market price/yield on that particular day. If one is to generally hold their investments to the stated maturity date, then the yield at cost would be the better number to use to gauge how the portfolio is performing.*

## Summary Market Overview and Outlook

### ECONOMIC HIGHLIGHTS UPDATE

- Although the season is changing, the clouds of uncertainty have not dissipated. Economic risks are still rooted in the country's struggle to contain the coronavirus, increasing business layoffs, stalled fiscal stimulus, and the upcoming highly acrimonious presidential election.
- At the September Federal Open Market Committee meeting, members continued to acknowledge the “tremendous human and economic hardship” the COVID-19 pandemic is causing. In new economic projections, the Committee extended the horizon of expected zero rates through 2023. They also referenced their new inflation policy by suggesting that they will allow “inflation moderately above 2.0% for some time so that inflation averages 2.0% over time.” Meanwhile, Federal Reserve (“Fed”) leaders continue to strongly call for additional fiscal stimulus.

### ECONOMIC IMPACT ON PORTFOLIO

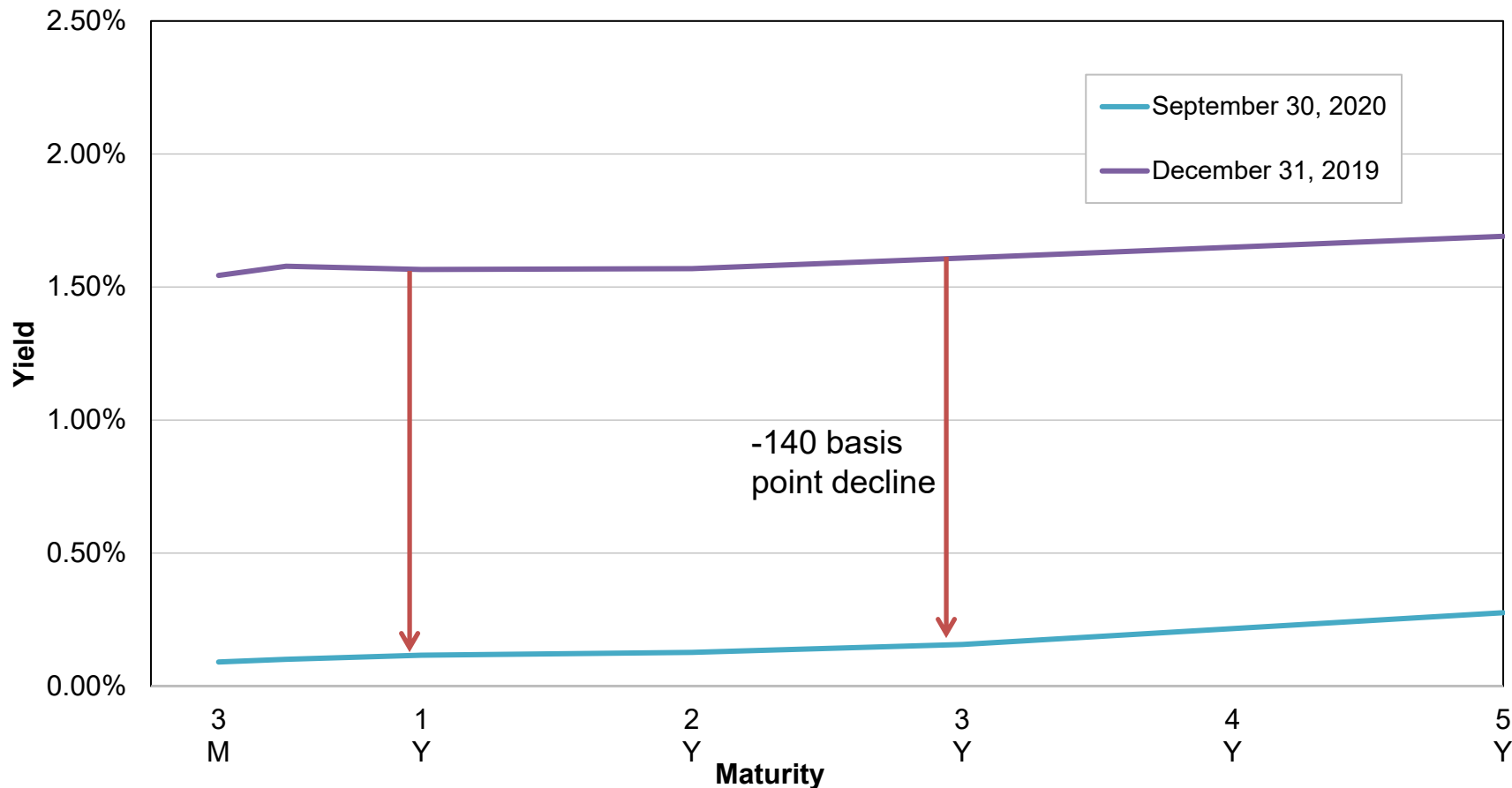
- Low volatility and directionless trading barely moved Treasury yields in September.
- The yield on the benchmark 2-year Treasury note remained anchored at 0.13%, and the yield on the benchmark 10-year Treasury note slipped to 0.68%.
- Treasury index returns were muted as yields traded in a very tight range for most of the month of September. For the period, the 3-month Treasury Index and the 5-year Treasury Index returned 0.01%, while the 10-year Treasury Index returned 0.22%.
- The U.S. economy remains on a path toward a slow recovery amid a challenging health outlook and mounting political uncertainty. Considering these uncertainties, we continue to focus on investment discipline.
- In short-term markets, LIBOR fell to record lows, credit spreads continue to collapse, and supply is constrained, making finding reasonable value challenging.
- Portfolio Impact: Taking all of the above into consideration, there are limited investment opportunities in the market currently, and this leads to the conclusion that the new interest rate environment means lower interest earnings for GLWA going forward.

## Summary Market Overview and Outlook

### Interest Rates Remain Low

- It should be noted that as a result of the Federal Reserve's current zero interest rate policy, the markets have seen a dramatic drop in fixed-income yields over the past nine months.

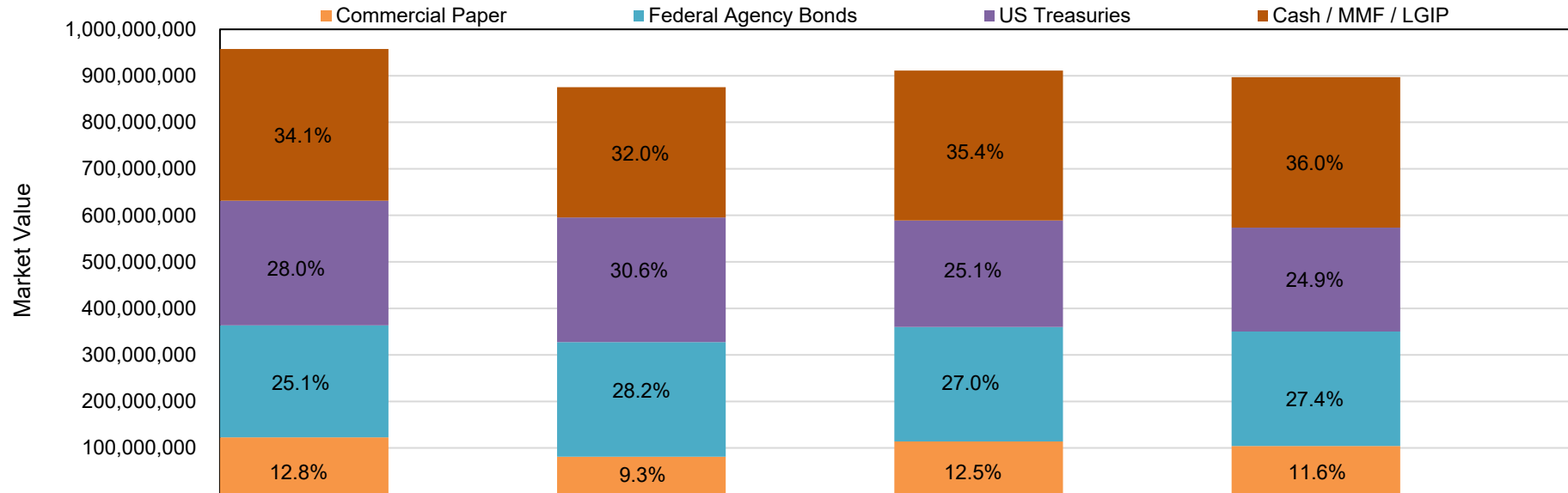
#### U.S. Treasury Yield Curve





## Portfolio Snapshot

### Investments – By Security Type

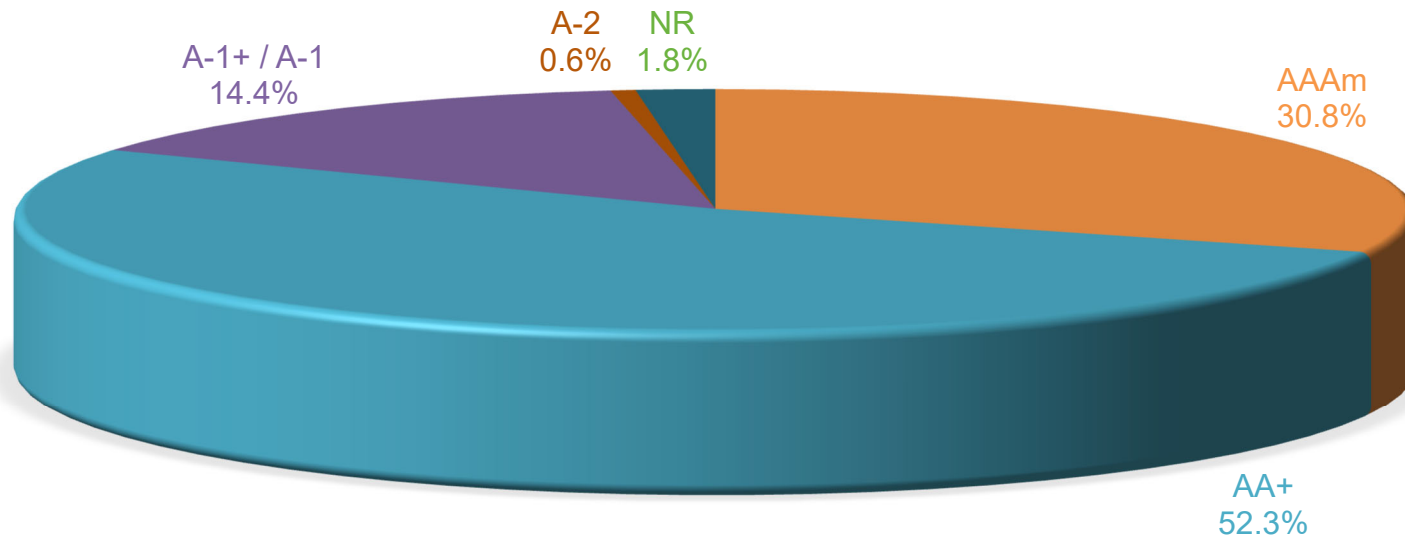


Security Type	June		July		August		September	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	122,917,184	12.8%	81,009,837	9.3%	113,910,757	12.5%	104,240,180	11.6%
Federal Agencies	240,552,126	25.1%	246,472,254	28.2%	246,187,773	27.0%	245,960,276	27.4%
U.S. Treasuries	267,906,040	28.0%	267,775,546	30.6%	228,840,911	25.1%	223,386,198	24.9%
Cash / MMF / LGIP	326,102,376	34.1%	280,105,531	32.0%	322,294,681	35.4%	323,281,482	36.0%
<b>Total</b>	<b>957,477,726</b>	<b>100.0%</b>	<b>875,363,168</b>	<b>100.0%</b>	<b>911,234,122</b>	<b>100.0%</b>	<b>896,868,136</b>	<b>100.0%</b>

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.

## Portfolio Snapshot

### Investments – By Credit Quality



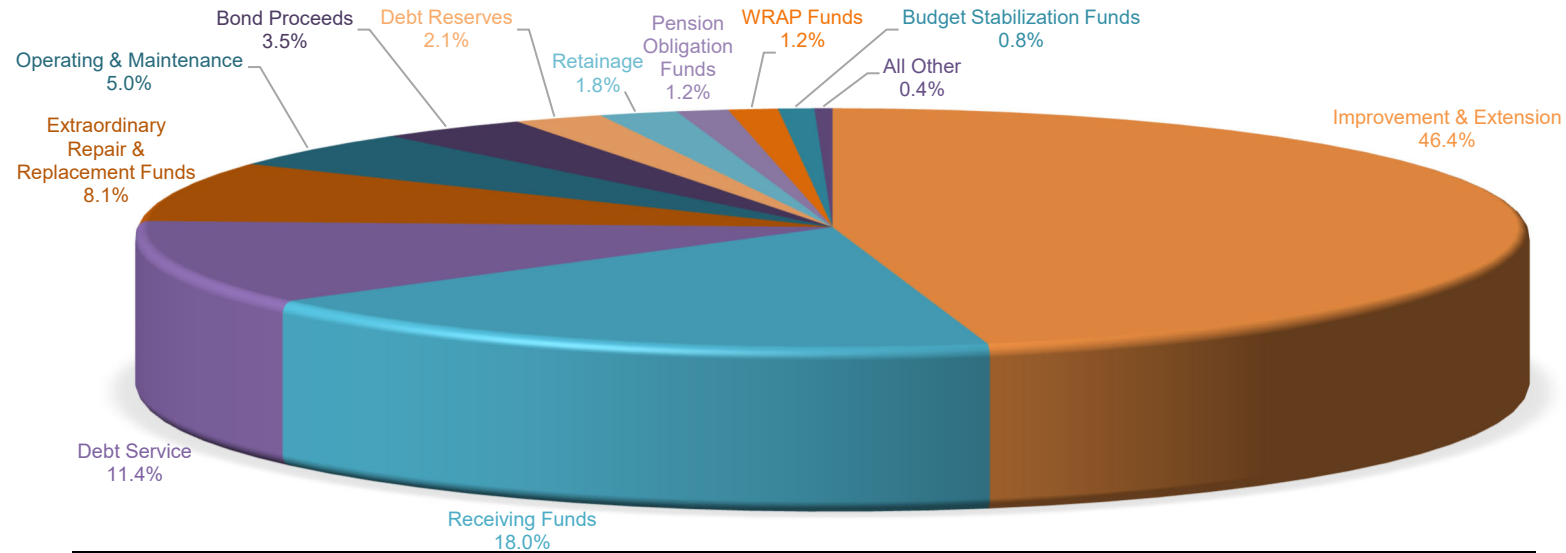
Credit Quality	Market Value	Asset Allocation
<b>Ratings</b>		
AAAm	276,422,645	30.8%
AA+	469,354,198	52.3%
A-1 + / A-1	129,250,813	14.4%
A-2	5,250,773	0.6%
NR	16,589,708	1.8%
<b>Totals</b>	<b>896,868,136</b>	<b>100.0%</b>

*In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.*



## Portfolio Snapshot

### Investments – By Account Purpose



Account Purpose		Market Value	% Allocation	Yield at Cost	Yield at Market	Duration
Improvement & Extension	\$	416,028,353	46.4%	1.46%	0.16%	1.322 Years
Receiving Funds (includes lockbox account)	\$	161,775,026	18.0%	0.04%	0.04%	0.003 Years
Debt Service	\$	102,231,796	11.4%	0.32%	0.21%	0.376 Years
Extraordinary Repair & Replacement Funds	\$	72,322,373	8.1%	1.56%	0.15%	1.038 Years
Operating & Maintenance	\$	44,629,461	5.0%	0.07%	0.07%	0.003 Years
Bond Proceeds	\$	31,535,965	3.5%	0.19%	0.19%	0.003 Years
Debt Reserves	\$	18,905,837	2.1%	1.54%	0.15%	1.449 Years
Retainage	\$	16,589,708	1.8%	0.05%	0.05%	0.003 Years
Pension Obligation Funds	\$	10,944,469	1.2%	0.14%	0.08%	0.045 Years
WRAP Funds	\$	10,480,303	1.2%	0.21%	0.15%	0.110 Years
Budget Stabilization Funds	\$	7,611,381	0.8%	1.66%	0.15%	0.977 Years
Flint Security Deposit Account	\$	3,813,464	0.4%	0.15%	0.15%	0.003 Years
<b>Total</b>	<b>\$</b>	<b>896,868,136</b>	<b>100.0%</b>	<b>0.91%</b>	<b>0.14%</b>	<b>0.781 Years</b>

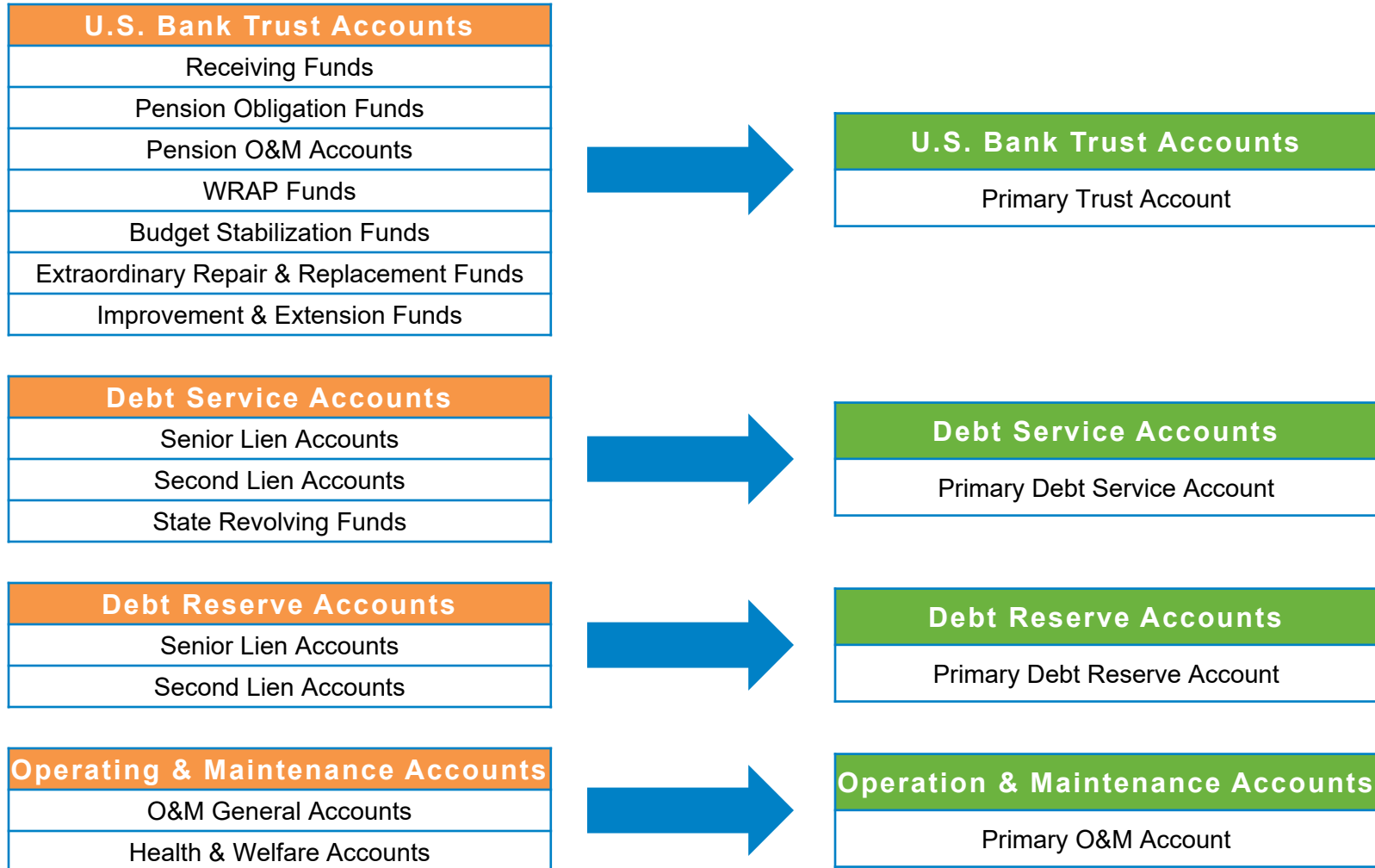
In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.



## Portfolio Snapshot

### Pooling of Cash / Investment Accounts

- GLWA & PFM are working toward reducing the number of bank accounts by pooling. Benefits of pooling accounts include the ability to take advantage of economies of scale when purchasing securities and reducing unnecessary liquidity. The recommended pooling strategy is shown below and will continue to separate water and sewer accounts. The anticipated implementation of this strategy is the 1<sup>st</sup> quarter 2021.



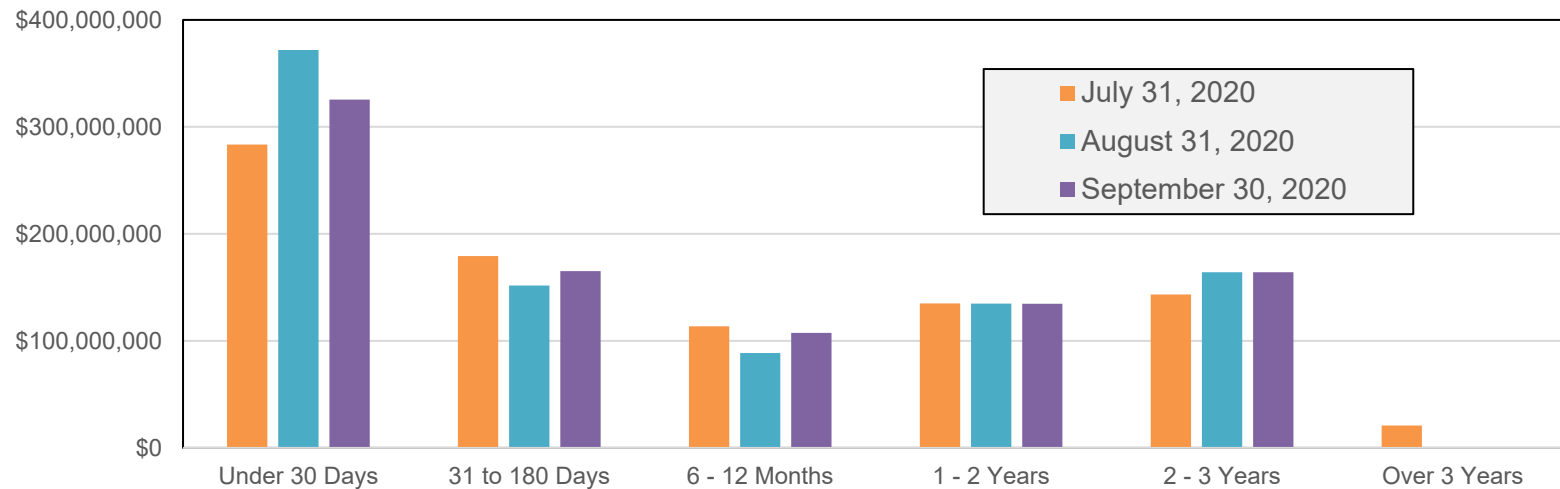
*Non-pooled accounts include the lockbox accounts, payroll accounts, accounts payable, P-Card accounts, construction bond accounts, retainage accounts, and the Flint Security Deposit account.*



## Portfolio Snapshot

### Investments – By Maturity

Maturity Distribution	July 31, 2020		August 31, 2020		September 30, 2020	
		%		%		%
Under 30 Days	\$ 283,355,014	32.4%	\$ 371,832,366	40.8%	\$ 325,446,456	36.3%
31 to 180 Days	179,208,058	20.5%	151,776,124	16.7%	165,208,044	18.4%
6 - 12 Months	113,563,296	13.0%	88,691,953	9.7%	107,464,110	12.0%
1 - 2 Years	134,958,444	15.4%	134,764,514	14.8%	134,607,535	15.0%
2 - 3 Years	143,398,120	16.4%	164,169,165	18.0%	164,141,992	18.3%
Over 3 Years	20,880,235	2.4%	-	0.0%	-	0.0%
<b>Totals</b>	<b>\$ 875,363,168</b>	<b>100.0%</b>	<b>\$ 911,234,122</b>	<b>100.0%</b>	<b>\$ 896,868,136</b>	<b>100.0%</b>



*In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.*



## Portfolio Snapshot

### Investment Accounts – Yield at Cost & Market

	As of September 30, 2020		As of June 30, 2020	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
<b>Bank Deposits</b>				
Comerica	0.01%	0.01%	0.15%	0.15%
First Independence	0.05%	0.05%	0.05%	0.05%
Flint Deposit Account	0.15%	0.15%	0.15%	0.15%
JP Morgan Chase	0.15%	0.15%	0.15%	0.15%
<b>Sub-Total Bank Deposits</b>	<b>0.10%</b>	<b>0.10%</b>	<b>0.11%</b>	<b>0.11%</b>
<b>Money Market Funds / LGIPs</b>				
GovMIC	0.19%	0.19%	0.57%	0.57%
U.S. Bank - First American MMF	0.05%	0.05%	0.06%	0.06%
JP Morgan Securities - Blackrock MMF	0.01%	0.01%	0.10%	0.10%
<b>Sub-Total MMF / LGIPs</b>	<b>0.07%</b>	<b>0.07%</b>	<b>0.17%</b>	<b>0.17%</b>
<b>Investment Portfolios</b>				
Sewage SR Debt Serv 5403	0.23%	0.20%	0.94%	0.18%
Sewage SR Res 5400	1.47%	0.17%	1.80%	0.17%
Sew 2nd Debt Serv 5403	0.23%	0.19%	0.45%	0.20%
Sewage 2nd Res 5481	1.80%	0.15%	1.80%	0.17%
Sew SRF Debt Serv 5410	0.21%	0.25%	1.49%	0.24%
Sewage ER & R	1.79%	0.16%	1.90%	0.20%
Sewer Improvement & Extension	1.50%	0.17%	1.57%	0.21%
Sewer Pension Obligation	0.33%	0.23%	0.00%	0.00%
Sewer Wrap Fund	0.26%	0.18%	0.82%	0.25%
Sewer Budget Stabilization Fund	1.90%	0.16%	2.00%	0.20%
Sewer Bond Fund	0.00%	0.00%	1.61%	0.23%
Sewer O&M Pension Sub Account	0.00%	0.00%	0.00%	0.00%
Water SR Debt Ser 5503	0.23%	0.19%	1.00%	0.17%
Water SR Reserve 5500	1.80%	0.15%	1.80%	0.17%
Water 2nd Debt Serv 5503	0.23%	0.20%	1.13%	0.19%
Water 2nd Res 5581	1.80%	0.15%	1.80%	0.17%
Water SRF Debt Serv 5575	0.21%	0.25%	1.48%	0.25%
Water ER & R	1.80%	0.16%	1.91%	0.20%
Water Improvement & Extension	1.67%	0.17%	1.76%	0.21%
Water Pension Obligation	0.33%	0.23%	0.00%	0.00%
Water Wrap Fund	0.25%	0.16%	0.70%	0.24%
Water Budget Stabilization Fund	1.90%	0.16%	2.00%	0.20%
Water Bond Fund	0.00%	0.00%	1.61%	0.23%
Water O&M Pension Sub Account	0.00%	0.00%	0.00%	0.00%
<b>Sub-Total Investment Portfolios</b>	<b>1.39%</b>	<b>0.17%</b>	<b>1.61%</b>	<b>0.21%</b>
<b><u>Grand Total</u></b>	<b><u>0.91%</u></b>	<b><u>0.14%</u></b>	<b><u>1.12%</u></b>	<b><u>0.19%</u></b>

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



## Portfolio Snapshot

### Peer Analysis Comparison

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

As of September 30, 2020				
	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
<b>GLWA</b>				
Great Lakes Water Authority	\$896,868,136	0.14%	0.78 Years	287 Days
<b>Short/Intermediate-Term Indices</b>				
S&P Rated Government Investment Pool Index		0.04%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		0.10%	0.16 Years	58 Days
BoA / ML 6-Month Treasury Index		0.11%	0.40 Years	146 Days
BoA / ML 1-Year Treasury Index		0.14%	0.91 Years	332 Days
BoA / ML 1-3 Year Treasury Index		0.13%	1.83 Years	668 Days
BoA / ML 1-5 Year Treasury Index		0.16%	2.58 Years	942 Days
<b>Peer Analysis (Water Entities / Utilities)</b>				
District of Columbia Water & Sewer Authority, DC	\$401,538,091	0.21%	0.65 Years	255 Days
DuPage Water Commission, IL	\$159,662,085	0.59%	2.40 Years	1,294 Days
Fairfax County Water Authority, VA	\$162,781,090	0.27%	1.92 Years	724 Days
Metro Wastewater Reclamation District, CO	\$238,207,846	0.29%	2.17 Years	884 Days
Metropolitan Water District of Southern California, CA	\$475,656,983	0.45%	0.65 Years	335 Days
Philadelphia Water Department, PA	\$194,783,904	0.24%	0.93 Years	381 Days
San Bernardino Valley Municipal Water District, CA	\$369,596,970	0.27%	1.86 Years	690 Days
Tohopekaliga Water Authority, FL	\$157,238,286	0.69%	1.83 Years	968 Days
Truckee Meadows Water Authority, NV	\$106,839,623	0.29%	2.01 Years	758 Days

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



## Portfolio Snapshot

### Monthly Investment Income (Book Value)

#### FY 2021 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period	Realized Gain / Loss	Investment Income
July 2020	\$819,118.39	\$0.00	\$819,118.39
August 2020	\$804,779.94	\$0.00	\$804,779.94
September 2020	\$677,008.40	\$0.00	\$677,008.40
<b><u>FY 2021 Y-T-D</u></b>	<b><u>\$2,300,906.73</u></b>	<b><u>\$0.00</u></b>	<b><u>\$2,300,906.73</u></b>

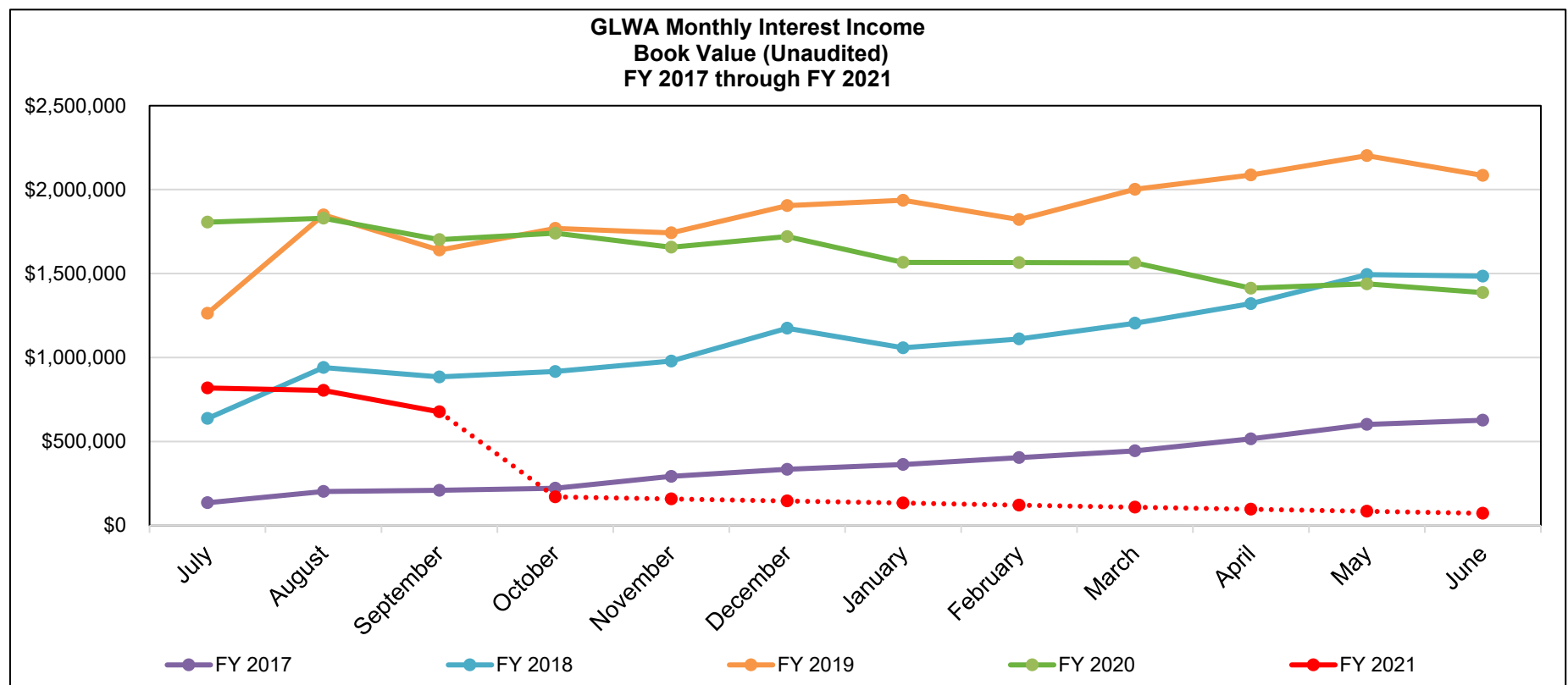
*These figures are based upon actual interest earned and posted to the Authority's various accounts via book value and does not include any earnings credit rate tied to the Authority's bank deposits. 7*



## Portfolio Snapshot

### Year-Over-Year Investment Income

- GLWA earned \$2,300,907 in investment income for fiscal year 2021 on a book value basis compared to \$5,338,140 for the first three months of fiscal year 2020.
- Based on the previous fiscal year's average balance, projected investment income for fiscal year 2021 is \$3.4 million as the market expects the overnight lending rate to be maintained at its current range of 0.00% to 0.25% through 2023.

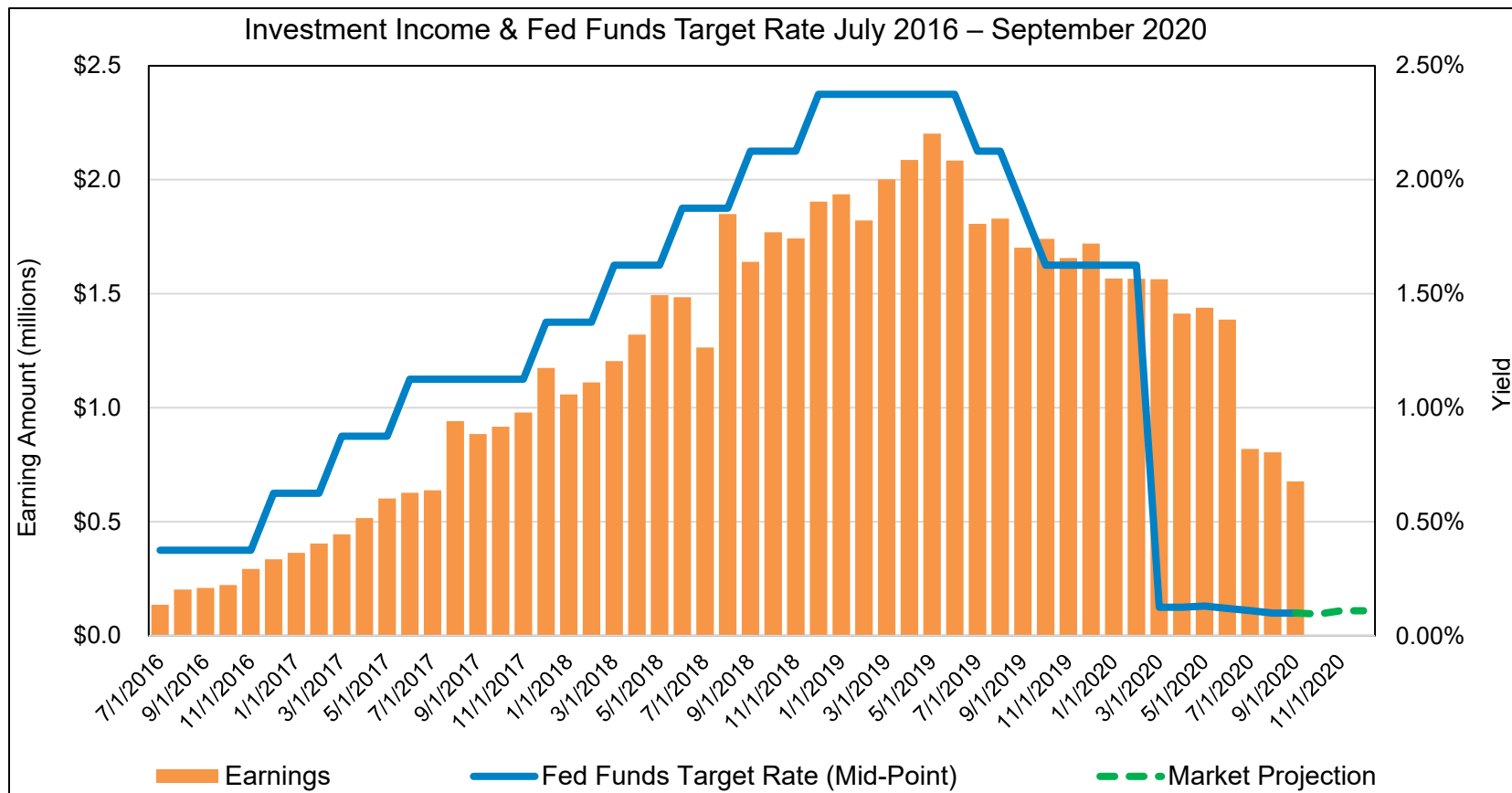




## Portfolio Snapshot

### Monthly Investment Income Compared to Fed Funds Rate

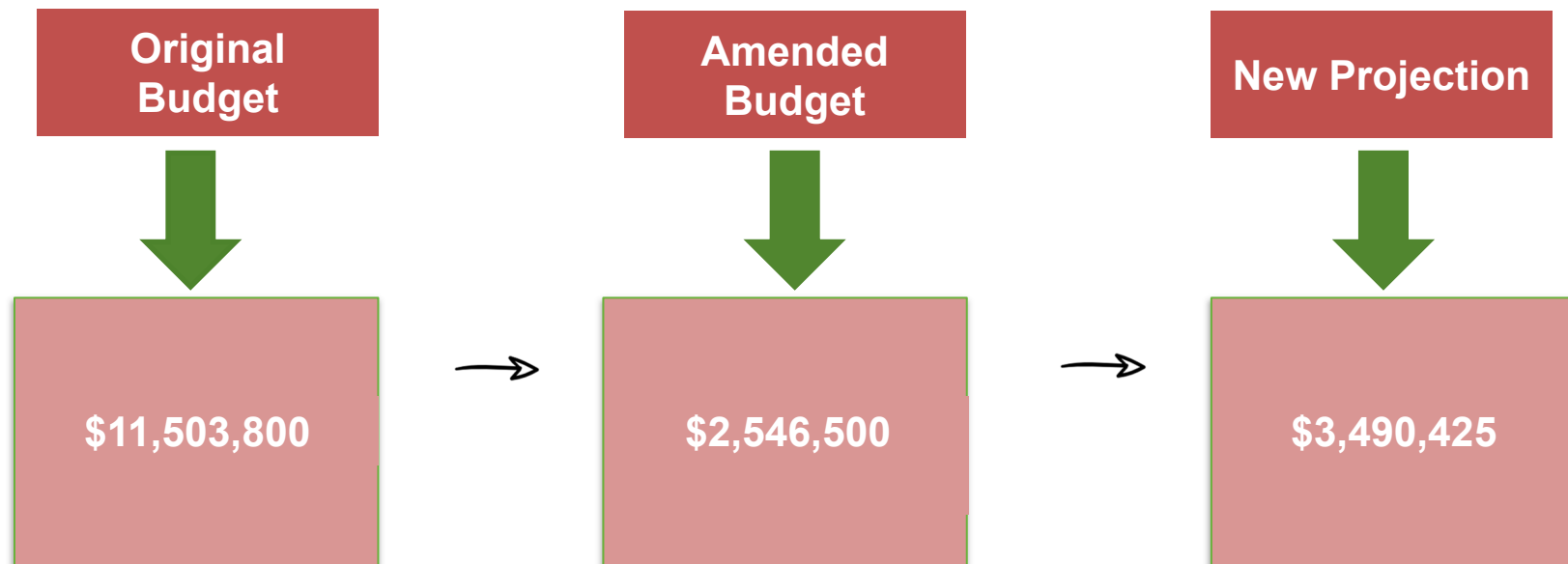
- As a result of the short-term duration of GLWA's portfolio, it is heavily impacted by changes in the Fed Funds target rate; the chart below illustrates that GLWA's investment income has consistently followed the trend of the Fed Funds rate.
- According to effective Fed Funds futures, the market expects the overnight lending rate to be maintained at its current range of 0.00% to 0.25% through 2023; based on the historical trend, the current zero interest rate monetary policy by the Federal Reserve will translate into lower interest earnings for GLWA going forward.



## Portfolio Snapshot

### Variance in Earnings Projections\*

- The original budget projections for FY 2021 were completed using a rate of 1.50%. This rate assumption was developed at the beginning of the FY 2021 budget process and during a time before the COVID-19 pandemic when there was still stability in the financial markets.
- The amended budget projections for FY2021 were based on a rate of 0.33% and updated operating budget assumptions. The lower rate is reflective of the significant decline in yields and the current zero interest rate policy by the Federal Reserve.
- The updated projection is still based on a market rate of 0.33%, but assumes that the 1<sup>st</sup> quarter average balances, which are slightly higher than the amended budget, continue for the remainder of the year.



\* Projections are a total of water and sewer and includes earnings from revenue requirements as well as construction bond funds.

# Appendix I: Portfolio Holdings



## Portfolio Holdings As of September 30, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<u>Short-Term Bank Deposits / MMF / LGIP</u>									
COMERICA BANK		\$ 5,250,773	10/1/2020	9/30/2020	0.01%	\$ 5,250,773	1	\$ -	\$ 5,250,773
FIRST INDEPENDENCE BANK		16,589,708	10/1/2020	9/30/2020	0.05%	16,589,708	1	-	16,589,708
FLINT DEPOSIT ACCOUNT		3,813,464	10/1/2020	9/30/2020	0.15%	3,813,464	1	-	3,813,464
JP MORGAN CHASE		21,191,968	10/1/2020	9/30/2020	0.15%	21,191,968	1	-	21,191,968
GovMIC		36,543,173	10/1/2020	9/30/2020	0.19%	36,543,173	1	-	36,543,173
U.S. BANK - FIRST AMERICAN MMF		220,749,962	10/1/2020	9/30/2020	0.05%	220,749,962	1	-	220,749,962
JP MORGAN SECURITIES - BLACKROCK MMF		19,129,510	10/1/2020	9/30/2020	0.01%	19,129,510	1	-	19,129,510

*In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.*



## Portfolio Holdings As of September 30, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>Commercial Paper</b>									
Exxon Mobil 0 10/2/2020	30229AK24	\$ 1,000,000	10/2/2020	6/3/2020	0.24%	\$ 999,193	2	\$ -	\$ 1,000,000
Credit Agricole 0 10/5/2020	22533TK54	300,000	10/5/2020	6/3/2020	0.18%	299,814	5	-	299,997
BNP Paribas NY 0 10/5/2020	09659BK58	615,000	10/5/2020	5/8/2020	0.30%	614,231	5	-	614,994
Credit Agricole 0 10/5/2020	22533TK54	250,000	10/5/2020	6/3/2020	0.18%	249,845	5	-	249,998
MUFG Bank LTD NY 0 11/2/2020	62479LL29	1,000,000	11/2/2020	7/16/2020	0.25%	999,243	33	-	999,880
Swedbank 0 11/2/2020	87019RL20	1,000,000	11/2/2020	6/3/2020	0.28%	998,818	33	-	999,880
Toyota Motor Credit 0 12/1/2020	89233GM11	1,000,000	12/1/2020	7/17/2020	0.26%	999,011	62	-	999,730
Toyota Motor Credit 0 12/1/2020	89233GM11	1,000,000	12/1/2020	7/16/2020	0.26%	999,003	62	-	999,730
Sumitomo Mitsui Bank 0 12/4/2020	86562KM43	5,500,000	12/4/2020	8/13/2020	0.20%	5,496,547	65	-	5,498,460
Sumitomo Mitsui Bank 0 12/4/2020	86562KM43	1,675,000	12/4/2020	8/13/2020	0.20%	1,673,948	65	-	1,674,531
Sumitomo Mitsui Bank 0 12/4/2020	86562KM43	4,050,000	12/4/2020	8/13/2020	0.20%	4,047,458	65	-	4,048,866
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	2,400,000	12/18/2020	7/17/2020	0.28%	2,397,177	79	-	2,399,160
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	7,500,000	12/18/2020	7/17/2020	0.28%	7,491,177	79	-	7,497,375
Toyota Credit PR 0 12/18/2020	8923A0MJ9	2,835,000	12/18/2020	7/17/2020	0.29%	2,831,483	79	-	2,834,008
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	410,000	12/18/2020	7/17/2020	0.28%	409,518	79	-	409,857
MUFG Bank LTD NY 0 12/18/2020	62479LMJ1	200,000	12/18/2020	8/10/2020	0.21%	199,848	79	-	199,930
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	2,885,000	12/18/2020	7/17/2020	0.28%	2,881,606	79	-	2,883,990
Toyota Credit PR 0 12/18/2020	8923A0MJ9	1,935,000	12/18/2020	7/17/2020	0.29%	1,932,600	79	-	1,934,323
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	7,500,000	12/18/2020	7/17/2020	0.28%	7,491,177	79	-	7,497,375
Toyota Credit PR 0 12/18/2020	8923A0MJ9	1,855,000	12/18/2020	7/17/2020	0.29%	1,852,699	79	-	1,854,351
Mizuho Bank LTD NY 0 12/18/2020	60689FMJ4	305,000	12/18/2020	7/17/2020	0.28%	304,641	79	-	304,893
MUFG Bank LTD NY 0 12/18/2020	62479LMJ1	325,000	12/18/2020	8/10/2020	0.21%	324,754	79	-	324,886
Skandinav Eskiida Bank 0 12/28/2020	83050TMU2	1,820,000	12/28/2020	9/3/2020	0.17%	1,819,003	89	-	1,819,290
Skandinav Eskiida Bank 0 12/28/2020	83050TMU2	2,843,000	12/28/2020	9/3/2020	0.17%	2,841,443	89	-	2,841,891
Skandinav Eskiida Bank 0 12/28/2020	83050TMU2	2,330,000	12/28/2020	9/3/2020	0.17%	2,328,724	89	-	2,329,091
Skandinav Eskiida Bank 0 12/28/2020	83050TMU2	2,366,000	12/28/2020	9/3/2020	0.17%	2,364,704	89	-	2,365,077
BNP Paribas NY 0 12/31/2020	09659BMX5	3,960,000	12/31/2020	7/17/2020	0.25%	3,955,408	92	-	3,958,218
MUFG Bank LTD NY 0 12/31/2020	62479LMX0	4,315,000	12/31/2020	8/13/2020	0.21%	4,311,476	92	-	4,313,058
MUFG Bank LTD NY 0 12/31/2020	62479LMX0	4,825,000	12/31/2020	8/13/2020	0.21%	4,821,060	92	-	4,822,829
MUFG Bank LTD NY 0 12/31/2020	62479LMX0	3,145,000	12/31/2020	8/13/2020	0.21%	3,142,432	92	-	3,143,585
MUFG Bank LTD NY 0 12/31/2020	62479LMX0	5,800,000	12/31/2020	8/13/2020	0.21%	5,795,263	92	-	5,797,390
MUFG Bank LTD NY 0 2/1/2021	62479LP17	1,000,000	2/1/2021	8/10/2020	0.24%	998,833	124	-	999,350
ABN AMRO Funding LLC 0 3/2/2021	00084BQ23	394,000	3/2/2021	9/4/2020	0.21%	393,589	153	-	393,669
ABN AMRO Funding LLC 0 3/2/2021	00084BQ23	4,924,000	3/2/2021	9/4/2020	0.21%	4,918,859	153	-	4,919,864
Toyota Motor Credit 0 3/12/2021	89233GQC3	400,000	3/12/2021	7/16/2020	0.33%	399,124	163	-	399,640
Toyota Motor Credit 0 3/12/2021	89233GQC3	650,000	3/12/2021	7/16/2020	0.33%	648,576	163	-	649,415
CitiGroup Global Markets 0 5/28/2021	17327ASU2	2,500,000	5/28/2021	9/3/2020	0.23%	2,495,735	240	-	2,495,850
CitiGroup Global Markets 0 5/28/2021	17327ASU2	7,500,000	5/28/2021	9/3/2020	0.23%	7,487,206	240	-	7,487,550
CitiGroup Global Markets 0 5/28/2021	17327ASU2	2,500,000	5/28/2021	9/3/2020	0.23%	2,495,735	240	-	2,495,850
CitiGroup Global Markets 0 5/28/2021	17327ASU2	7,500,000	5/28/2021	9/3/2020	0.23%	7,487,206	240	-	7,487,550

*In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.*



## Portfolio Holdings As of September 30, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>Federal Agencies</b>									
FHLMC 2.375 2/16/2021	3137EAE9	\$ 3,500,000	2/16/2021	8/8/2018	2.79%	\$ 3,465,210	139	\$ 10,160	\$ 3,529,330
FHLMC 2.375 2/16/2021	3137EAE9	20,000,000	2/16/2021	8/8/2018	2.79%	19,801,200	139	58,056	20,167,600
FHLMC 2.375 2/16/2021	3137EAE9	250,000	2/16/2021	8/9/2018	2.78%	247,563	139	726	252,095
FHLMC 2.375 2/16/2021	3137EAE9	685,000	2/16/2021	8/9/2018	2.78%	678,321	139	1,988	690,740
FNMA 2.5 4/13/2021	3135G0U27	3,500,000	4/13/2021	8/8/2018	2.82%	3,471,685	195	40,590	3,543,645
FNMA 2.5 4/13/2021	3135G0U27	20,000,000	4/13/2021	8/8/2018	2.82%	19,838,200	195	231,944	20,249,400
FNMA 2.5 4/13/2021	3135G0U27	250,000	4/13/2021	8/9/2018	2.81%	247,985	195	2,899	253,118
FNMA 2.5 4/13/2021	3135G0U27	3,400,000	4/13/2021	8/8/2018	2.81%	3,372,698	195	39,431	3,442,398
FNMA 2.5 4/13/2021	3135G0U27	685,000	4/13/2021	8/9/2018	2.81%	679,479	195	7,944	693,542
FNMA 2.5 4/13/2021	3135G0U27	5,750,000	4/13/2021	8/8/2018	2.81%	5,703,828	195	66,684	5,821,703
FHLB 2.25 6/11/2021	3130A1W95	10,000,000	6/11/2021	7/11/2019	1.94%	10,058,200	254	68,125	10,146,700
FHLB 2.25 6/11/2021	3130A1W95	25,000,000	6/11/2021	7/11/2019	1.94%	25,145,500	254	170,313	25,366,750
FHLB 1.875 7/7/2021	3130AGLD5	3,715,000	7/7/2021	6/10/2019	1.96%	3,708,982	280	16,060	3,763,964
FHLB 1.875 7/7/2021	3130AGLD5	3,910,000	7/7/2021	6/10/2019	1.96%	3,903,666	280	16,903	3,961,534
FHLMC 2.375 1/13/2022	3137EADB2	10,000,000	1/13/2022	7/11/2019	1.89%	10,118,700	470	50,799	10,288,700
FHLMC 2.375 1/13/2022	3137EADB2	25,000,000	1/13/2022	7/11/2019	1.89%	25,296,750	470	126,997	25,721,750
FHLB 2.125 6/10/2022	313379Q69	10,000,000	6/10/2022	7/11/2019	1.92%	10,059,200	618	64,931	10,332,400
FHLB 2.125 6/10/2022	313379Q69	25,000,000	6/10/2022	7/11/2019	1.92%	25,148,000	618	162,326	25,831,000
FHLMC 0.375 5/5/2023	3137EAER6	6,000,000	5/5/2023	6/5/2020	0.38%	6,000,060	947	8,938	6,025,740
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	947	21,822	14,712,849
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	964	8,889	10,007,200
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	964	22,222	25,018,000
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	964	213	240,173
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	964	3,022	3,402,448
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	964	596	670,482
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	964	5,111	5,754,140
FHLMC 0.25 6/26/2023	3137EAE54	3,150,000	6/26/2023	7/2/2020	0.29%	3,146,189	999	2,056	3,152,835
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	1,013	694	1,249,738
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	1,013	917	1,649,654

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.



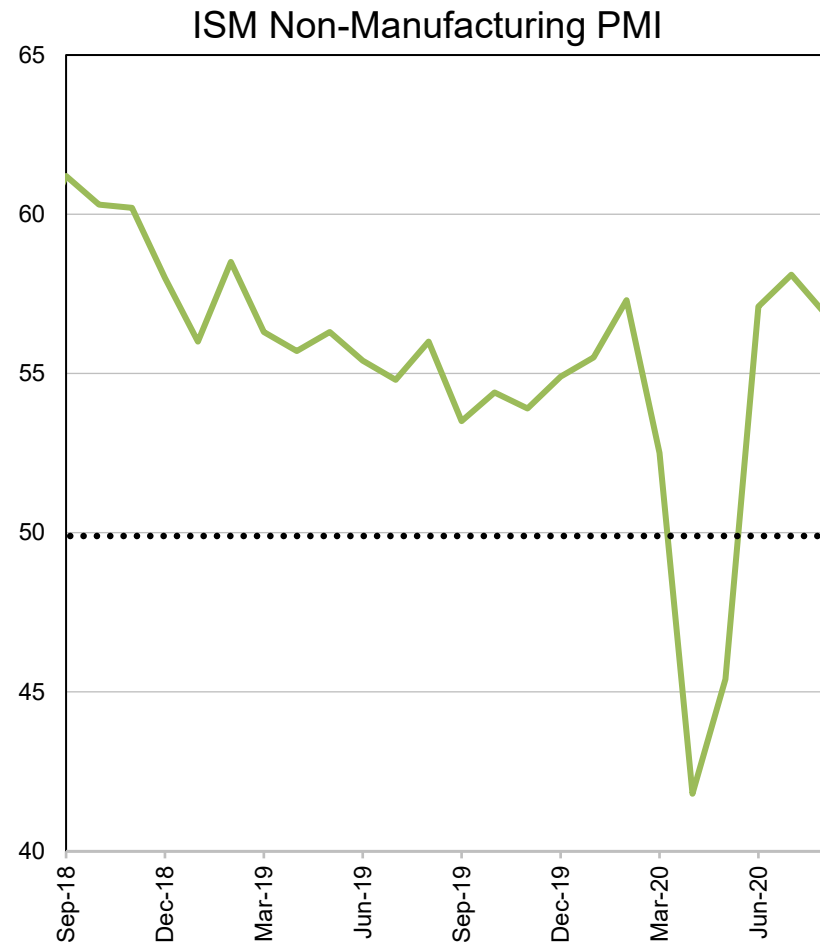
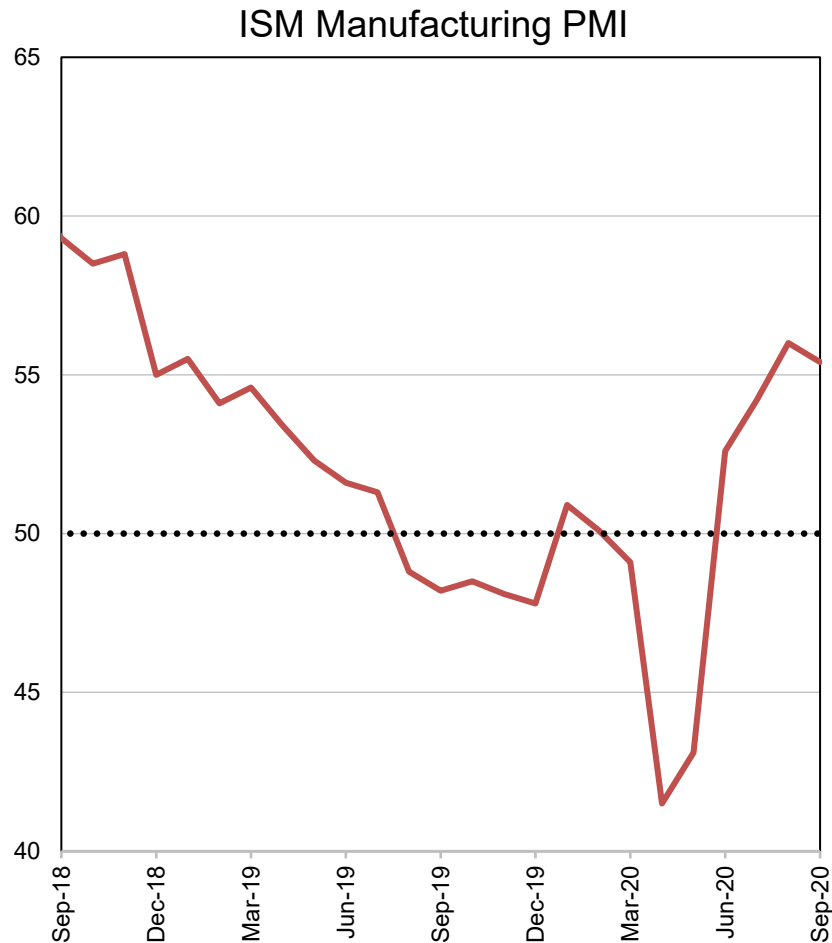
## Portfolio Holdings As of September 30, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
<b>U.S. Treasuries</b>									
T-Note 1.75 10/31/2020	912828WC0	\$ 4,915,000	10/31/2020	11/20/2019	1.64%	\$ 4,919,992	31	\$ 35,761	\$ 4,921,586
T-Note 1.75 10/31/2020	912828WC0	13,595,000	10/31/2020	11/20/2019	1.64%	13,608,807	31	98,915	13,613,217
T-Note 2 11/30/2020	912828A42	3,500,000	11/30/2020	8/8/2018	2.72%	3,444,082	61	23,333	3,510,850
T-Note 2 11/30/2020	912828A42	6,100,000	11/30/2020	9/6/2019	1.74%	6,119,539	61	40,667	6,118,910
T-Note 2 11/30/2020	912828A42	20,000,000	11/30/2020	8/8/2018	2.72%	19,680,469	61	133,333	20,062,000
T-Note 2 11/30/2020	912828A42	250,000	11/30/2020	8/9/2018	2.72%	246,006	61	1,667	250,775
T-Note 2 11/30/2020	912828A42	3,400,000	11/30/2020	9/17/2018	2.81%	3,341,828	61	22,667	3,410,540
T-Note 2 11/30/2020	912828A42	685,000	11/30/2020	8/9/2018	2.72%	674,056	61	4,567	687,124
T-Note 2 11/30/2020	912828A42	5,750,000	11/30/2020	9/17/2018	2.81%	5,651,621	61	38,333	5,767,825
T-Note 1.875 12/15/2020	9128283L2	120,000	12/15/2020	7/10/2019	1.91%	119,944	76	658	120,431
T-Note 2.625 5/15/2021	9128284P2	245,000	5/15/2021	2/7/2019	2.49%	245,708	227	2,412	248,800
T-Note 2.625 5/15/2021	9128284P2	3,455,000	5/15/2021	2/7/2019	2.49%	3,464,852	227	34,010	3,508,587
T-Note 2.625 5/15/2021	9128284P2	700,000	5/15/2021	2/7/2019	2.49%	702,023	227	6,891	710,857
T-Note 2.625 5/15/2021	9128284P2	5,685,000	5/15/2021	2/7/2019	2.49%	5,701,211	227	55,962	5,773,174
T-Note 1.25 10/31/2021	912828T67	10,000,000	10/31/2021	7/11/2019	1.83%	9,870,703	396	51,970	10,121,100
T-Note 1.25 10/31/2021	912828T67	2,500,000	10/31/2021	7/11/2019	1.83%	2,467,676	396	12,993	2,530,275
T-Note 1.25 10/31/2021	912828T67	17,500,000	10/31/2021	9/6/2019	1.55%	17,388,574	396	90,948	17,711,925
T-Note 1.25 10/31/2021	912828T67	270,000	10/31/2021	9/6/2019	1.55%	268,313	396	1,403	273,270
T-Note 1.25 10/31/2021	912828T67	3,405,000	10/31/2021	9/6/2019	1.55%	3,383,586	396	17,696	3,446,235
T-Note 1.25 10/31/2021	912828T67	730,000	10/31/2021	9/6/2019	1.55%	725,438	396	3,794	738,840
T-Note 1.25 10/31/2021	912828T67	5,765,000	10/31/2021	9/6/2019	1.55%	5,728,744	396	29,961	5,834,814
T-Note 2.625 12/15/2021	9128285R7	2,700,000	12/15/2021	7/10/2019	1.80%	2,752,945	441	20,720	2,780,784
T-Note 2.625 12/15/2021	9128285R7	1,500,000	12/15/2021	7/10/2019	1.80%	1,529,414	441	11,511	1,544,880
T-Note 2.625 12/15/2021	9128285R7	6,050,000	12/15/2021	7/10/2019	1.80%	6,168,637	441	46,429	6,231,016
T-Note 2.625 12/15/2021	9128285R7	10,900,000	12/15/2021	7/10/2019	1.80%	11,113,742	441	83,649	11,226,128
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	837	47,079	15,465,300
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	837	47,079	15,465,300
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	896	2,072	10,086,700
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	896	4,144	20,173,400
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	896	52	252,168
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	896	706	3,439,565
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	896	143	693,965
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	896	1,194	5,814,983
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	1,049	-	10,439,625
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	1,049	-	10,439,625

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of September 30, 2020.

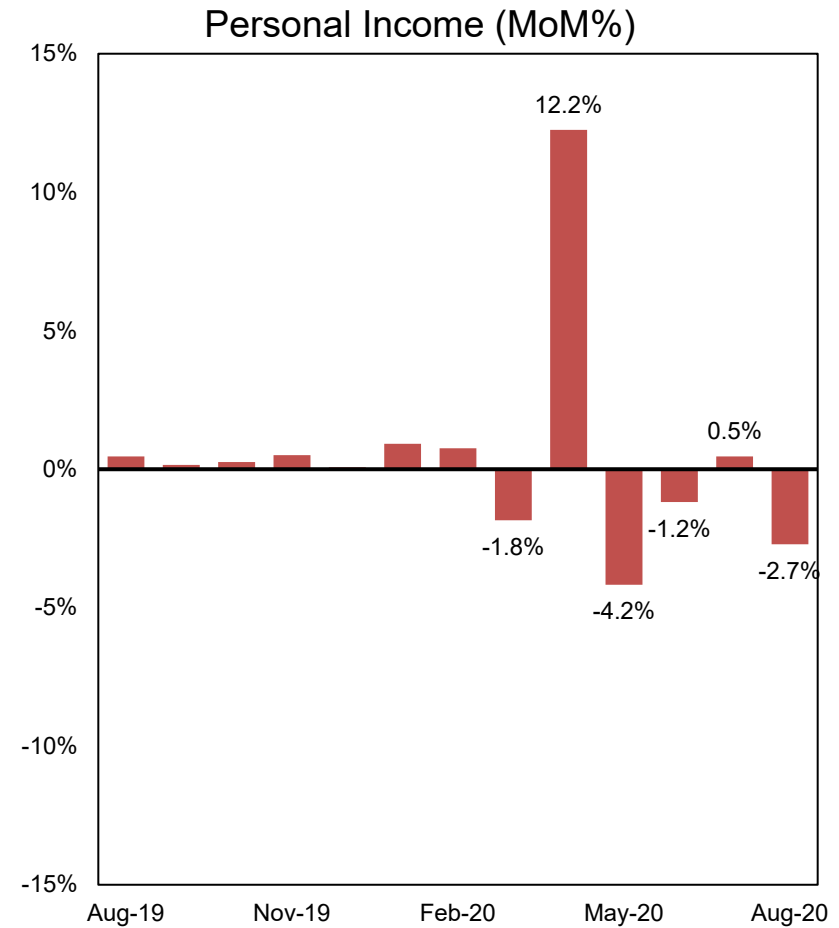
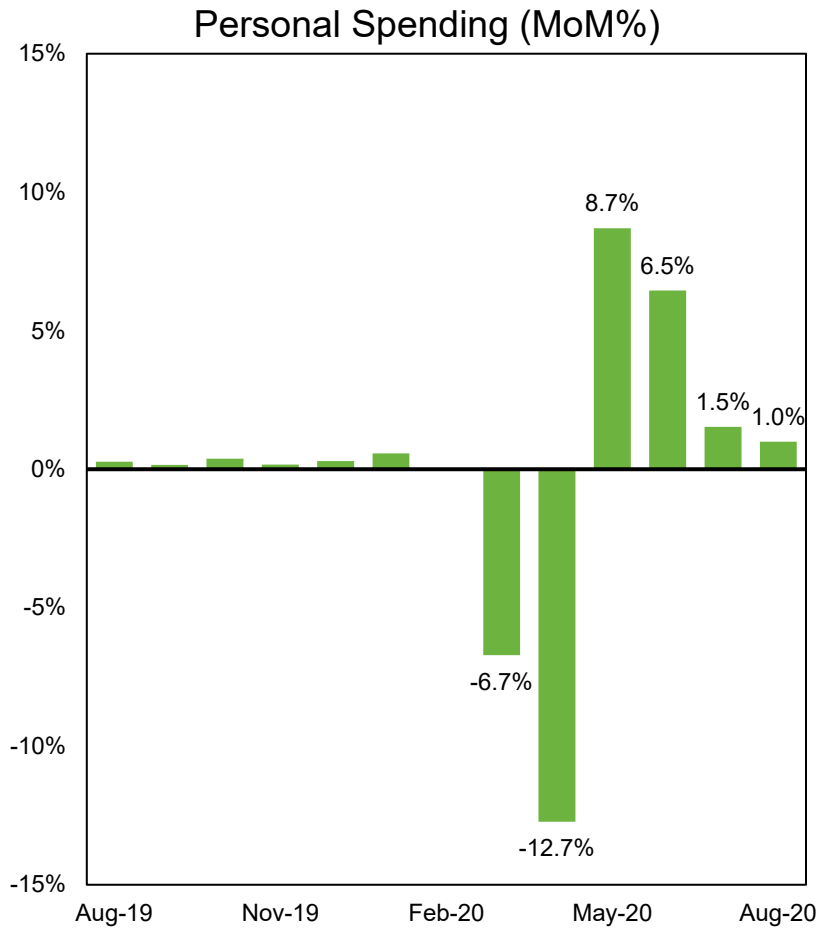
# Appendix II: Economic Update

## Expansion in the Manufacturing & Services Sectors Slow



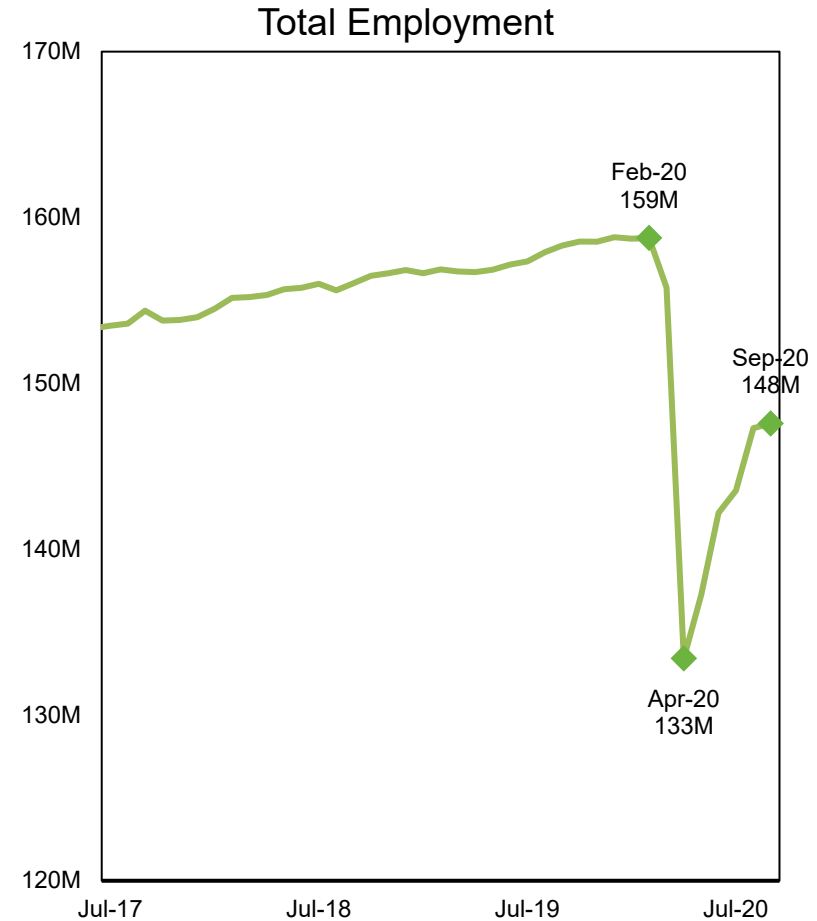
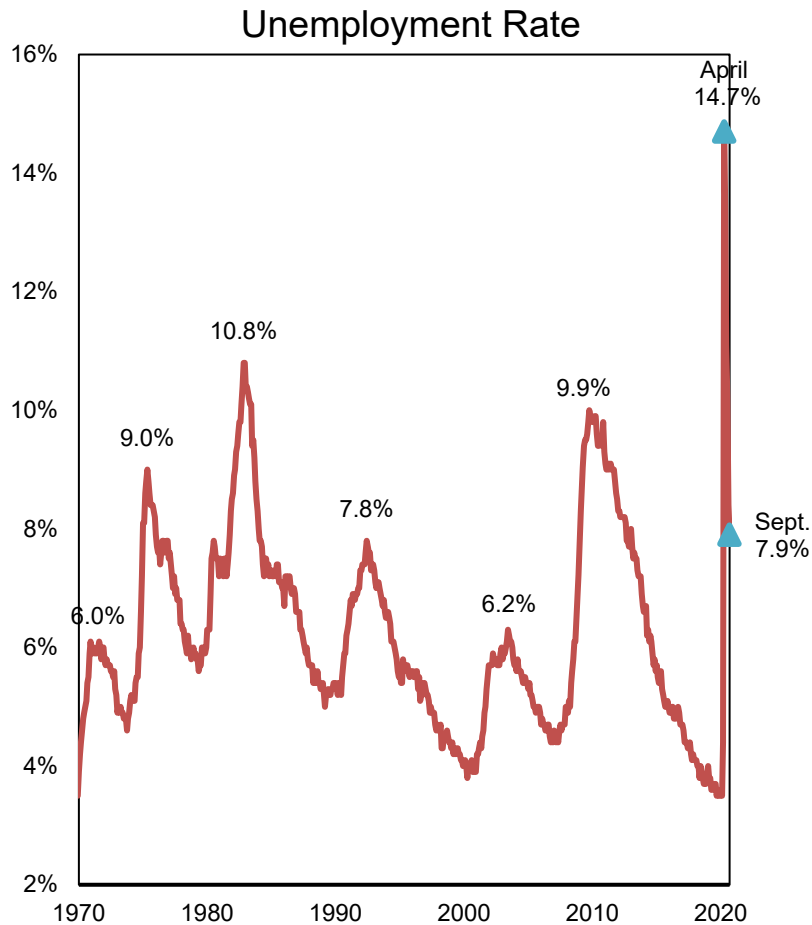
Source: Bloomberg, latest available data as of October 2020.

## Personal Spending Stalls as Income Declines



Source: Bloomberg, as of 9/30/2020.

## Slowing Momentum in the Labor Market Recovery



Source: Bloomberg, as of 9/30/2020. Data is seasonally adjusted.

## Yield Environment as of October 2, 2020

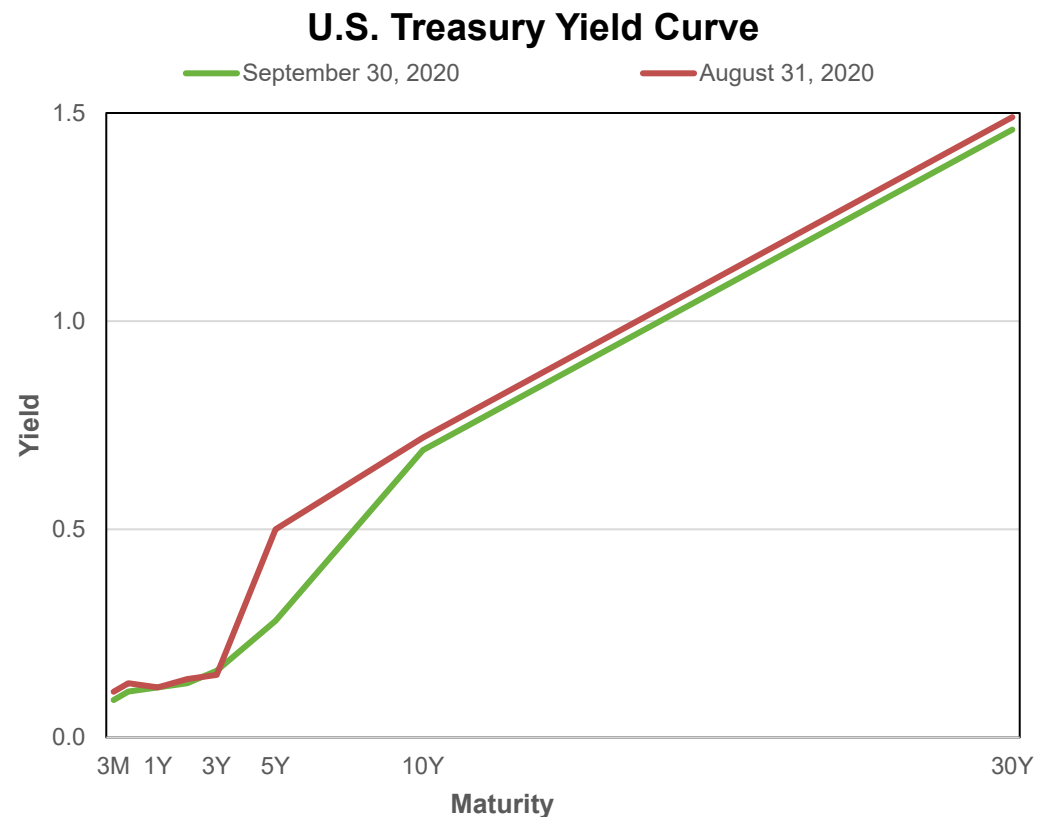
Maturity	Treasury	Federal Agency	AA Corporate	A Corporate
<b>3-Month</b>	0.09%	0.05%	0.19%	0.22%
<b>6-Month</b>	0.10%	0.06%	0.24%	0.29%
<b>1-Year</b>	0.11%	0.12%	0.25%	0.32%
<b>2-Year</b>	0.13%	0.12%	0.32%	0.41%
<b>3-Year</b>	0.16%	0.23%	0.41%	0.54%
<b>5-Year</b>	0.28%	0.35%	0.68%	0.84%

Source: Bloomberg BVAL yield curves for Treasury and Corporate. TradeWeb for Federal Agency yields. 3- and 6-month corporate yields from commercial paper; A-1+ for AA and A-1 for A. Yields are for indicative purposes only; actual yields may vary by issue.

## U.S. Treasury Yields Curve Steepens

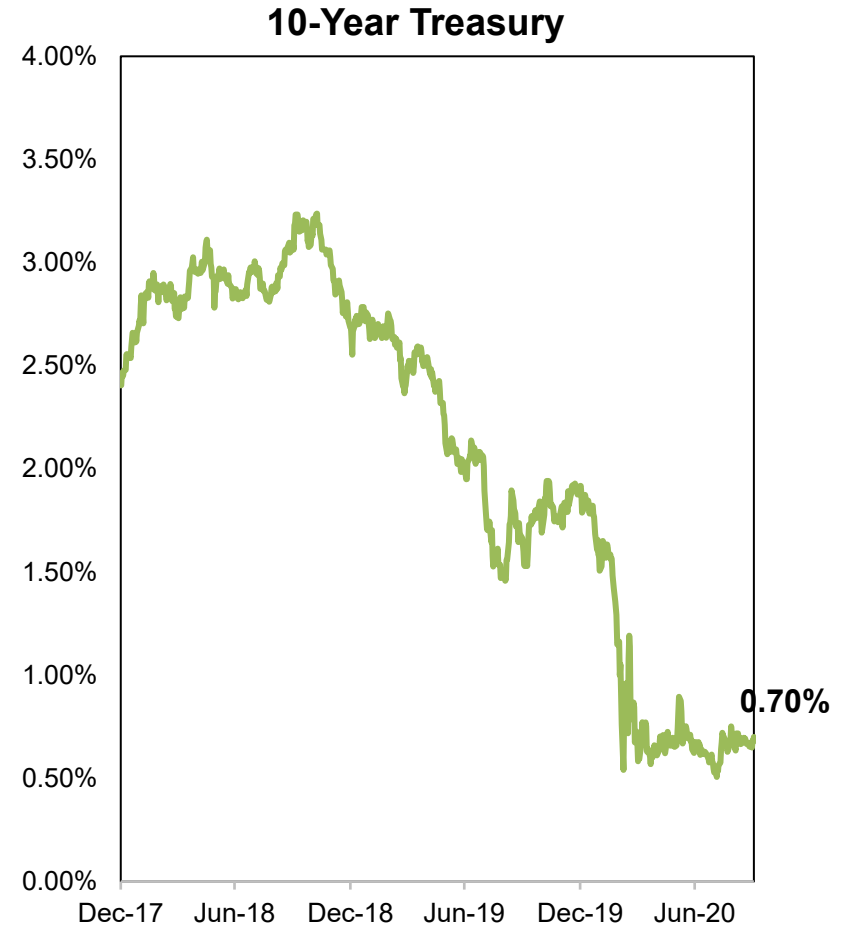
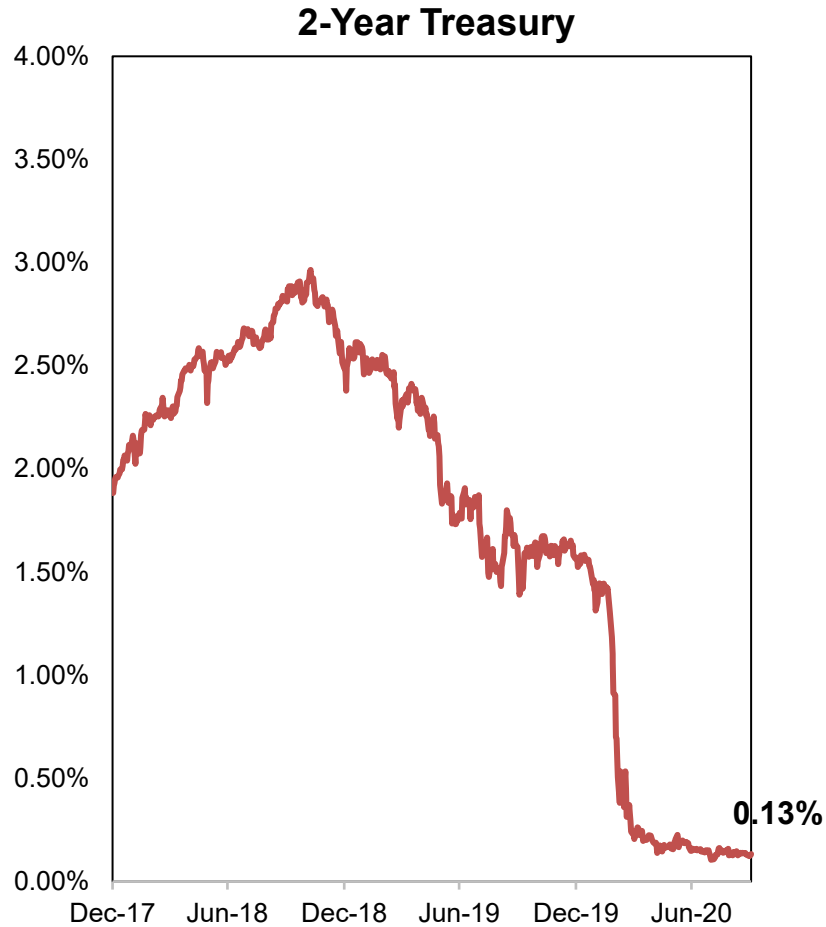
- The U.S. Treasury yield curve remained relatively unchanged at most maturities, although 5-year rates dropped more than 20 bps over the month

	<u>8/31/2020</u>	<u>9/30/2020</u>	<u>Change</u>
3 month	0.11%	0.09%	-0.02%
6 month	0.13%	0.11%	-0.02%
1 year	0.12%	0.12%	0.00%
2 year	0.14%	0.13%	-0.01%
3 year	0.15%	0.16%	0.01%
5 year	0.50%	0.28%	-0.22%
10 year	0.72%	0.69%	-0.03%
30 year	1.49%	1.46%	-0.03%



Source: Bloomberg, as of 9/30/2020.

## Treasury Yields Trade Sideways



Source: Bloomberg, as of 10/02/2020.

## Fixed Income Market Overview and Outlook

### FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The impact of the coronavirus continued its ripple effect through global economies and financial markets during the third quarter of 2020:
  - Global health crisis – Coronavirus restrictions were gradually eased throughout the U.S. but were followed by regional hot spots, reminding people of how long the virus may linger.
  - Economic shutdown – U.S. second quarter GDP plunged by a record annualized rate of -31.7%. For context, GDP fell by 8.4% during the height of the 2008 great financial crisis. However, other economic indicators were surprisingly strong and recovered at a faster clip than originally expected, leading various economists to revise upward their forecasts for future growth. The labor market rebounded, but the jobs landscape remains a significant headwind to a more robust and consistent recovery.
  - Financial markets – The Federal Reserve (“Fed”) continued to play a large role in supporting financial market stability. The central bank re-affirmed its ongoing support of the Agency mortgage-backed security (“MBS”) and commercial mortgage-backed security (“CMBS”) markets through its ongoing purchase program, and it extended the expiration date of many of its targeted lending facilities. The Fed also continued to purchase corporate debt instruments, though at a slower pace than in the second quarter of 2020, while extending its forward guidance regarding zero short-term interest rates through 2023.
- The U.S. Treasury yield curve remained relatively unchanged over the quarter, with all maturities ending the quarter within 0.05% of where they began. Yields on shorter-term tenors drifted lower as the lack of new fiscal stimulus resulted in lighter Treasury debt issuance. Longer-dated yields inched only slightly higher, nudged primarily by the Fed’s new inflation targeting policy. As a result, Treasury index returns were muted for the quarter.
  - Diversification away from Treasuries was again additive to performance in the third quarter of 2020. Momentum from the retracement of wider spreads at the onset of the pandemic continued in the third quarter, albeit at a reduced pace, but led most investment grade fixed income sectors to generate positive excess returns relative to similar duration Treasuries.

## Fixed Income Market Overview and Outlook

### FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Our strategy for the third quarter of calendar year 2020 encompassed the following:
  - Maintained a sharp focus on portfolio safety with robust due diligence on credit and securitized products given the backdrop of a fragile economic environment.
  - Portfolio durations were targeted to match their respective benchmarks as few catalysts were present to push yields meaningfully higher over the near term.
  - U.S. Treasury allocations were reduced further as financial markets stabilized and other sectors presented better investment opportunities to enhance portfolio earnings. Increased allocations to other investment-grade sectors boosted performance for the second consecutive quarter.
  - We continued to increase allocations to the Federal Agency sector as yield spreads on new issue Fannie Mae, Freddie Mac, and Federal Home Loan Bank bonds remained elevated from a historical perspective, especially for maturities of three years and longer. Value in callable Federal Agency structures was limited, as spreads narrowed on most structures.
  - Short-term credit (i.e., commercial paper) yield spreads remained near pre-pandemic levels throughout the third quarter of 2020, which eroded much of the sector's value. Select opportunities were found, but in general, allocations were reduced in favor of Treasury Bills.
- The U.S. and global economic recoveries have been stronger than expected. However, in the U.S., the pace of recovery appears to be slowing. Getting back to pre-pandemic growth and employment levels will likely be challenging.
  - The continued reach for yield and safety should pressure Agency spreads back to pre-COVID levels. Given this backdrop, we plan to continue to add to allocations at current yield spreads, which remain historically wide. Value is concentrated in maturities of 3 years and longer.

## Disclosure

*This material is based on information obtained from sources generally believed to be reliable and available to the public, however PFM Asset Management LLC cannot guarantee its accuracy, completeness or suitability. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. All statements as to what will or may happen under certain circumstances are based on assumptions, some but not all of which are noted in the presentation. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Past performance does not necessarily reflect and is not a guaranty of future results. The information contained in this presentation is not an offer to purchase or sell any securities.*



Debt Summary  
for the Quarter Ended September 30, 2020

The Quarterly Debt Summary Report includes the following:

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

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

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

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

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

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

## Key Takeaways

- ✓ The purpose of this report is to provide a resource for stakeholders and to support management decisions as capital financing needs evolve.
- ✓ GLWA continues to enhance transparency by including the Debt Summary Report in the Audit Committee Binder quarterly.
- ✓ Currently, GLWA has twelve open State Revolving Fund (SRF) loans, seven for water and five for sewer.
- ✓ Other key items of interest include the following balances as of September 30, 2020.

As of September 30, 2020 (\$ Millions)		
	Water	Sewer
FY 2021 Approved SRF Projects - <b>Table 5</b>	\$193.0	\$10.5
DWSD Obligation Receivable - <b>Table 6</b>	\$547.6	\$401.0
GLWA Outstanding Debt - <b>Table 7</b>	\$2,288.6	\$2,966.2

## Look Ahead - Five Year Capital Financing Plan

The following tables summarize the projected Capital Improvement Program (CIP) funding to be provided by proceeds received from the issuance of new revenue bonds and draws on committed SRF loans. *The financing plan is dynamic and changes with the pace of capital spending and alignment with refunding opportunities.* Table 1 is based on the FY 2021 to FY 2025 Capital Improvement Plan (CIP) for the regional system approved by the GLWA Board of Directors. Table 2 is based on the current local system CIP approved by the DWSD's Board of Water Commissioners. It is important to note the amounts represented in Revenue Bonds reflect the anticipated par amount of the bonds to be issued and not the net proceeds needed to support the capital plan.

**Table 1 - GLWA Projected Bond Financing FY 2021 – FY 2025**

	Projected Funding Needs for Regional System				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<b>Water</b>					
Revenue Bonds	\$ -	\$ -	\$ 220,000,000	\$ -	\$ 175,000,000
SRF loan draws	\$ 12,365,800	\$ 16,590,200	\$ 18,889,800	\$ 18,549,900	\$ 18,956,900
Total projected funding Water	\$ 12,365,800	\$ 16,590,200	\$ 238,889,800	\$ 18,549,900	\$ 193,956,900
<b>Sewer</b>					
Revenue Bonds	\$ -	\$ -	\$ 150,000,000	\$ -	\$ 90,000,000
SRF loan draws	\$ 33,200,000	\$ 15,112,000	\$ 13,500,000	\$ -	\$ -
Total projected funding Sewer	\$ 33,200,000	\$ 15,112,000	\$ 163,500,000	\$ -	\$ 90,000,000

**Table 2 - DWSD Projected Bond Financing FY 2021 – FY 2025**

	Projected Funding Needs for Local System				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<b>Water</b>					
Revenue Bonds	\$ -		\$ -	\$ -	\$ -
SRF loan draws	\$ 15,892,000	\$ 25,000,000	\$ 28,500,000	\$ -	\$ -
Total projected funding Water	\$ 15,892,000	\$ 25,000,000	\$ 28,500,000	\$ -	\$ -
<b>Sewer</b>					
Revenue Bonds	\$ -	\$ -	\$ -	\$ -	\$ -
SRF loans draws	\$ 8,000,000	\$ 10,000,000	\$ 8,628,000	\$ -	\$ -
Total projected funding Sewer	\$ 8,000,000	\$ 10,000,000	\$ 8,628,000	\$ -	\$ -

**Note:** Information presented is as of September 30, 2020. Financing plans continue to evolve based on the needs of the system.

## Existing Debt

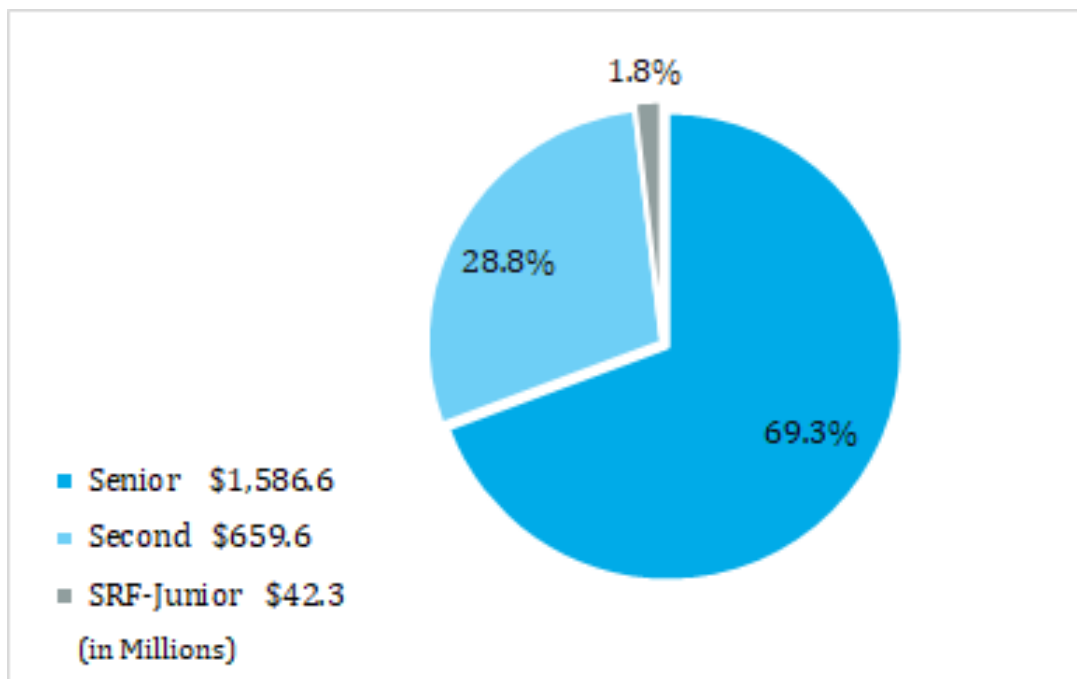
**Current Debt Ratings:** Bond ratings are a key measure of an organization's financial strength. Ratings are established by independent agencies that conduct detailed reviews of an organization's operational and financial performance to assist those seeking to invest in an organization through the purchase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

**Table 3 – Debt Ratings by System** provides a summary of the debt ratings assigned in March 2020 in advance of the most recent bond refinancing and new money issuance in May and June 2020.

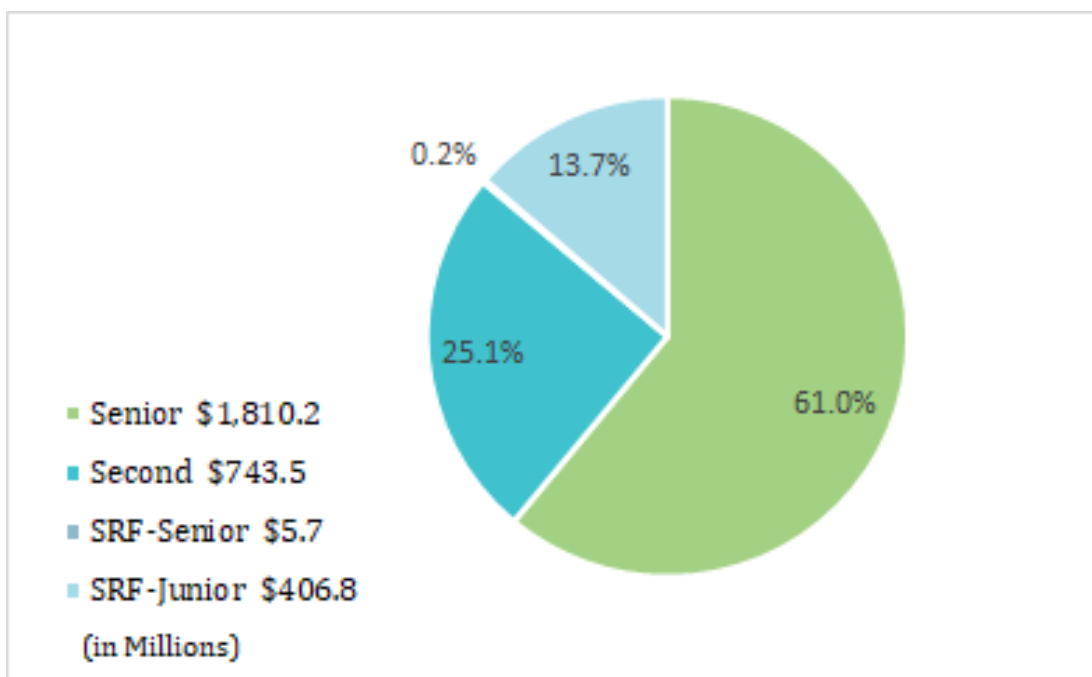
Current Debt Ratings			
	S&P Global Ratings	Moody's Investors Service	Fitch Ratings
<b>Water Supply System Revenue Bonds</b>			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Stable
<b>Sewage Disposal System Revenue Bonds</b>			
Senior lien	AA-	A1	A+
Second lien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

**Debt Allocation:** GLWA has \$2.3 billion in water system debt and \$3.0 billion in sewer system debt for a combined total of over \$5.3 billion. Debt within each system is prioritized according to its security interest, or lien category, with senior lien debt having the highest security interest, followed by second lien and finally junior lien.

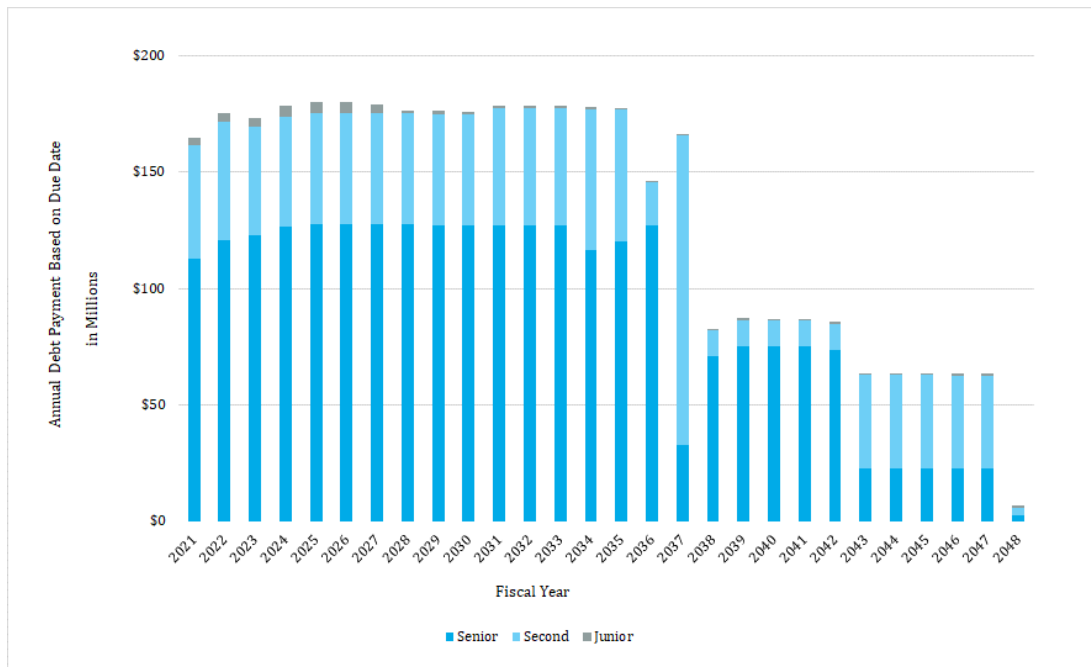
**Chart 1 - Debt Type by Lien – Water** provides a breakdown of the total water system debt for both the regional and local systems by lien type.



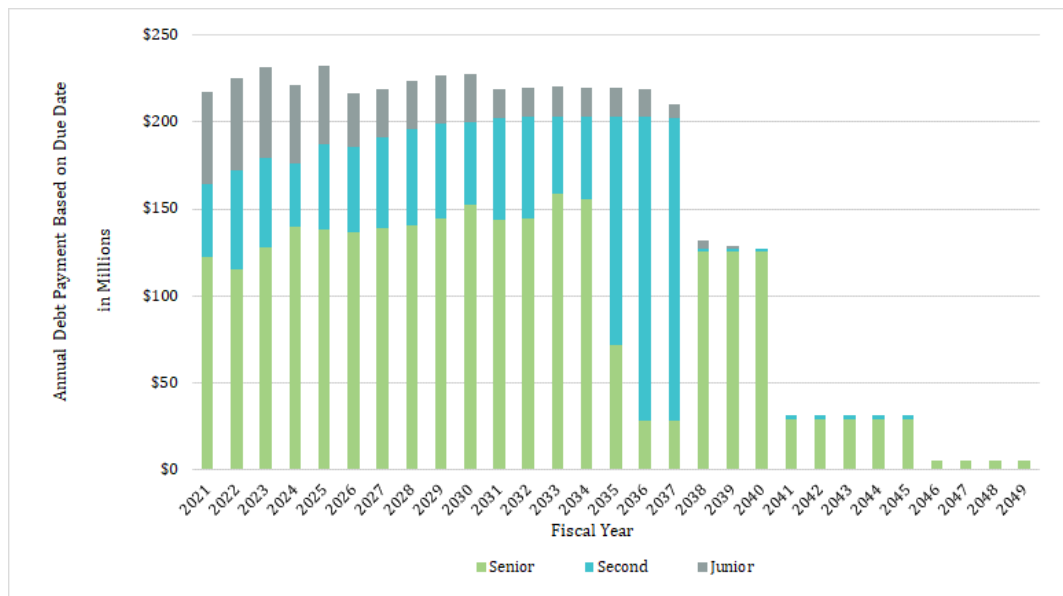
**Chart 2 - Debt Type by Lien – Sewer** provides a breakdown of the total sewer system debt for both the regional and local systems by lien type.



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



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



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

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

These loan programs have interest rates that are well below open market interest rates (usually between 2.0% and 2.5%) and are repaid over 20-30 years. For the state's FY 2021, the DWRF and CWRF program rates are 1.875% for 20-year loans and 2.125% for 30-year loans.

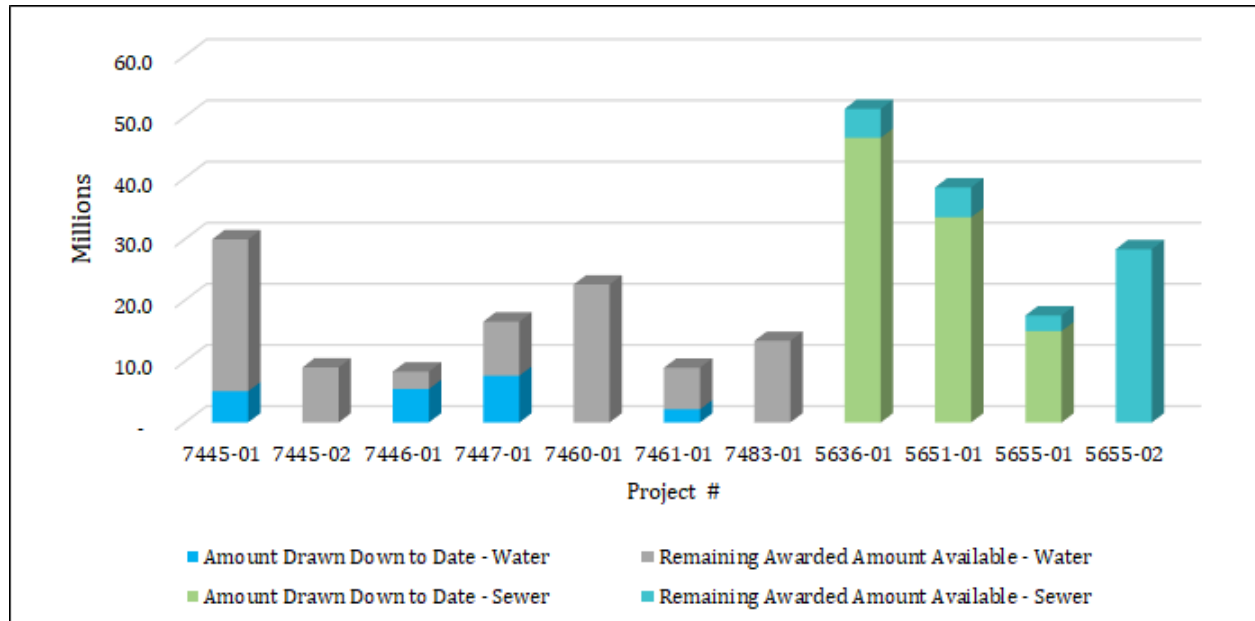
Funds are disbursed as construction payments are made. Interest on each loan is based on the amount of funds drawn and not the full loan amount. GLWA must submit project plans to the Michigan Department of Environment, Great Lakes, and Energy ("EGLE", and formerly known as the Michigan Department of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

**State Revolving Fund Loans:** GLWA's strategy is to maximize its use of SRF loans to finance qualified capital projects. GLWA currently has \$42.3 million in outstanding water SRF loans and \$412.5 million in outstanding sewer SRF loans.

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

State Loan #	Description	Order of Approval	Project Total (\$ Millions)
<b>SRF Water - DWSD Projects</b>			
7447-01	Water Main Replacement (WS-707 & 714)	8/9/2019	\$16.5
7460-01	Water Main Replacement (WS-710 & WS-711)	7/15/2020	\$22.6
7483-01	Water Main Replacement (WS-715 & WS-718)	9/9/2020	\$13.4
<b>SRF Water - GLWA Projects</b>			
7445-01	Northeast Transmission Phase 1	8/9/2019	\$30.0
7445-02	Northeast Transmission Main - Phase 2a	8/7/2020	\$9.0
7446-01	Lake Huron Sludge System-Raw Sludge Clarifiers	5/17/2019	\$8.3
7461-01	14 Mile Transmission Main Loop - Phase 1	8/7/2020	\$9.0
<b>Total Water</b>			<b>\$108.7</b>
<b>SRF Sewer - GLWA Projects</b>			
5688-01	Sewer Main Rehabilitation/Replacement - Phase 1	9/9/2020	\$4.0
<b>SRF Sewer - GLWA Projects</b>			
5636-01	Rehab Rectangular Primary Clarifiers, Electrical/Mechanical Buildings and Pipe Gallery	8/24/2016	\$51.3
5651-01	RRO Disinfection (Phase II)	3/13/2015	\$38.5
5655-01	Detroit River Interceptor Segment 1	8/23/2018	\$17.5
5655-02	Detroit River Interceptor Segment 2	3/27/2020	\$28.4
<b>Total Sewer</b>			<b>\$139.7</b>

**Chart 5 - Open State Revolving Fund Loans** summarizes all current SRF loans held by GLWA (including financings on behalf of DWSD) that are active (reference Table 4 above for project descriptions). It summarizes the original award amount remaining and the amount drawn down as of September 30, 2020 for each loan. On September 30, 2020, the amount of SRF loans authorized and unissued is \$88.3 million for the Water fund and \$44.6 million for the Sewage Disposal Fund.



**Table 5 - Project Plan Approved by EGLE** identifies projects approved by the EGLE but for which applications had not yet been submitted for funding as of September 2020.

Project Owner	Description	Project Total	Anticipated Funding Date
<b>Water SRF</b>			
GLWA	Northeast Transmission Main - Phase 2b	\$ 92,000,000	FY 2022
GLWA	Northeast Transmission Main - Phase 3	\$ 55,000,000	FY 2021
GLWA	14 Mile Transmission Main Loop - Phase 2	\$ 46,000,000	FY 2021
<b>Total Water SRF</b>		<b>\$ 193,000,000</b>	
<b>Sewer SRF</b>			
GLWA	PS-1 Ferric Chloride System Rehabilitation	\$ 10,500,000	3Q 2021
<b>Total Sewer SRF</b>		<b>\$ 10,500,000</b>	

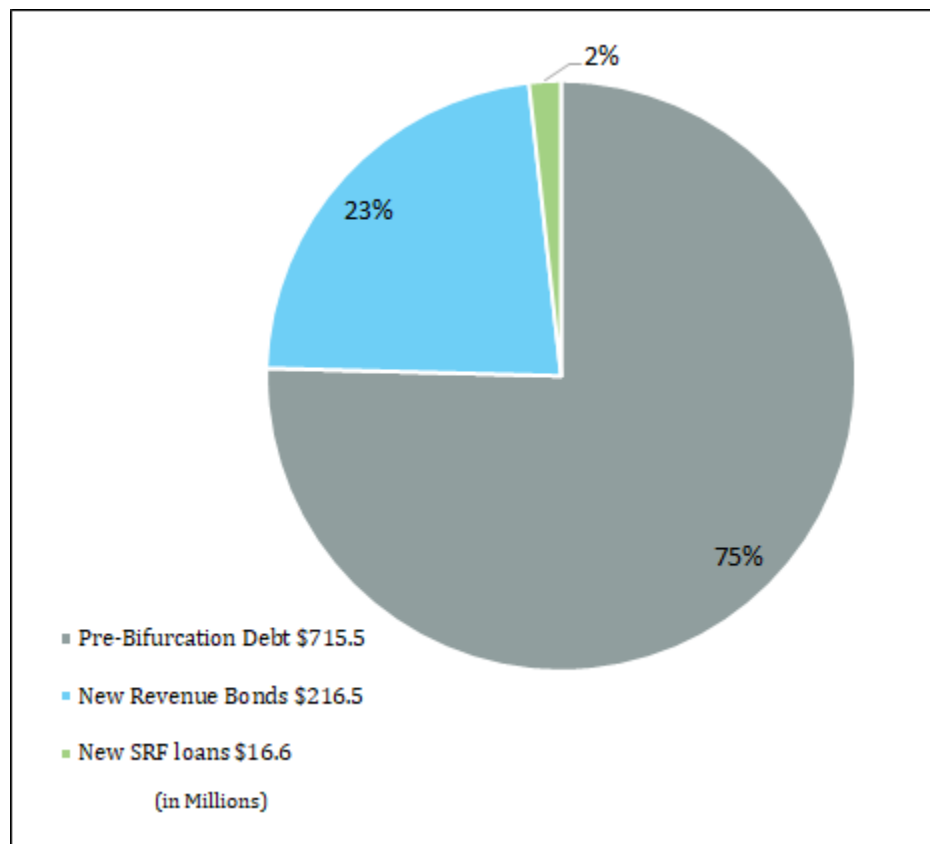
**DWSD Obligation Receivable:** GLWA holds an obligation receivable from DWSD as an asset to account for the amount due for financing local system capital projects. DWSD carries a like amount of this as an obligation payable on its statement of net assets.

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

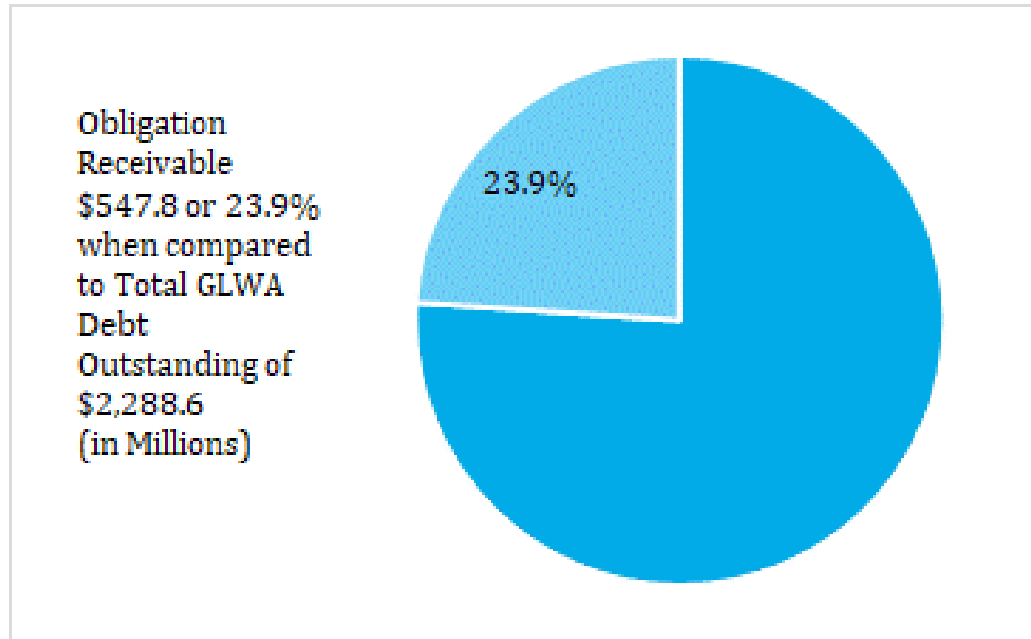
- a) an agreed upon amount for pre-January 1, 2016 (i.e. “pre-bifurcation”) debt as documented in a 2018 Memorandum of Understanding (\$455 million for water system and \$370 million for sewer per agreed-upon amortization schedules),
- b) new revenue bonds issued after January 1, 2016 to specifically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

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

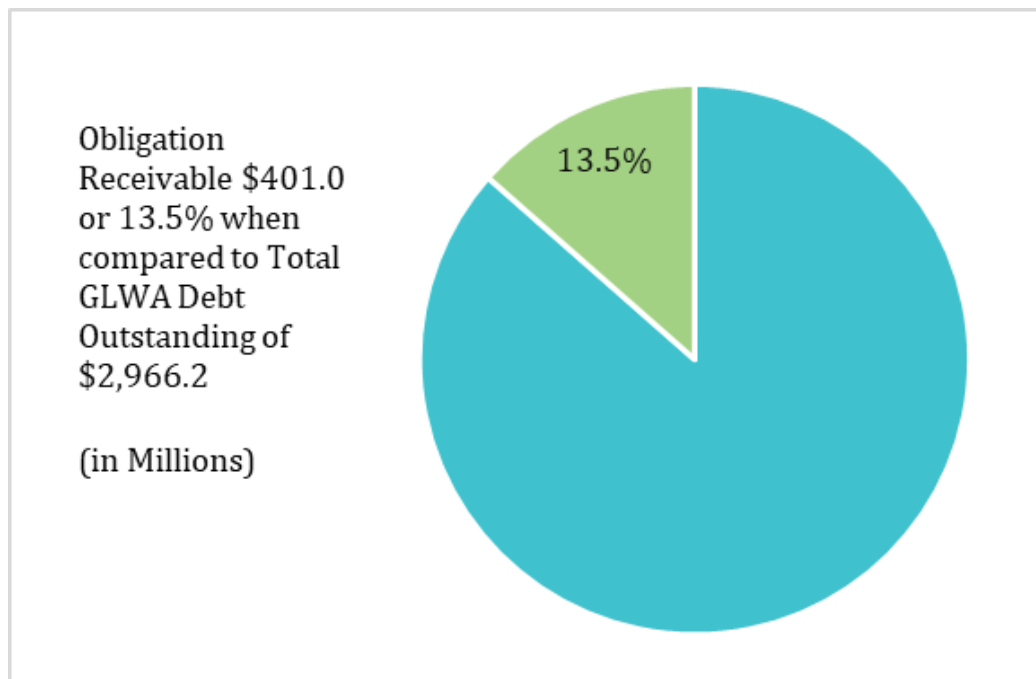
**Chart 6 - DWSD Obligation Receivable by Type** summarizes the total DWSD obligation receivable balance for both Water and Sewer as of September 30, 2020 by pre-bifurcation, revenue bond and SRF component.



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



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



**Table 6 - DWSD Obligation Receivable** provides obligation receivable detail including fiscal year 2021 beginning balances by debt type and loan issue (for revenue bonds and SRF loans), year-to-date activity and ending balances as of September 30, 2020. Total DWSD debt totals \$978 million. This differs slightly from the total in Chart 8 due to the inclusion of unamortized premiums.

Debt Type	July 1, 2020			Sept 30, 2020
	Beg Balance	Increase	Decrease	End Balance
<b>DWSD Water</b>				
Pre-Bifurcation Debt	\$ 398,320	\$ -	\$ (3,620)	\$ 394,700
Revenue Bond - 2016A	17,725	-	-	17,725
Revenue Bond - 2016B	33,015	-	-	33,015
Revenue Bond - 2020A	42,445	-	-	42,445
Revenue Bond - 2020B	43,135	-	-	43,135
SRF 7412-01	4,963	-	-	4,963
SRF 7413-01	3,219	-	-	3,219
SRF 7414-01	5,658	-	(155)	5,503
SRF 7447-01	1,692	1,233	-	2,925
Total DWSD Obligation	550,171	1,233	(3,775)	547,630
Unamortized Premiums	20,391	-	(213)	20,178
<b>Subtotal: Water</b>	<b>570,562</b>	<b>1,233</b>	<b>(3,988)</b>	<b>567,807</b>
<b>DWSD Sewer</b>				
Pre-Bifurcation Debt	323,833	-	(3,062)	320,771
Revenue Bond - 2018A	80,225	-	-	80,225
Total DWSD Obligation	404,058	-	(3,062)	400,996
Unamortized Premiums	9,339	-	(93)	9,245
<b>Subtotal: Sewer</b>	<b>413,397</b>	<b>-</b>	<b>(3,156)</b>	<b>410,241</b>
<b>Total DWSD Debt</b>	<b>\$ 983,959</b>	<b>\$ 1,233</b>	<b>\$ (7,144)</b>	<b>\$ 978,049</b>

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

**Table 7 - Long-Term Debt Summary** provides a detail of GLWA's fiscal year 2021 beginning balances by debt type and loan issues, year-to-date activity, and ending balances as of September 30, 2020. GLWA debt includes financing for both the regional and local share.

Debt Type	June 30, 2020			Sept 30, 2020
	Beg Balance	Increase	Decrease	End Balance
<b>Water Fund</b>				
Revenue Bonds	\$ 2,261,935	\$ -	\$ (15,690)	\$ 2,246,245
State Revolving Loans	39,318	4,671	(1,680)	42,309
Total Installment Debt	2,301,253	4,671	(17,370)	2,288,554
Unamortized Premiums / Discounts	191,536	-	(3,853)	187,683
<b>Subtotal: Water</b>	<b>2,492,789</b>	<b>4,671</b>	<b>(21,223)</b>	<b>2,476,237</b>
<b>Sewer Fund</b>				
Revenue Bonds	2,578,220	-	(30,235)	2,547,985
Capital Appreciation bonds	11,335	-	(5,660)	5,675
State Revolving Loans	449,667	1,683	(38,820)	412,530
Total Installment Debt	3,039,222	1,683	(74,715)	2,966,190
Capital Appreciation Bond Discount	(667)	-	331	(337)
Unamortized Premiums / Discounts	65,568	-	(4,805)	60,764
<b>Subtotal: Sewer</b>	<b>3,104,122</b>	<b>1,683</b>	<b>(79,189)</b>	<b>3,026,617</b>
<b>Total Combined, Long Term Debt</b>	<b>\$ 5,596,912</b>	<b>\$ 6,354</b>	<b>\$ (100,412)</b>	<b>\$ 5,502,854</b>

## Debt Service Coverage

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

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

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

**Table 8: Debt Service Coverage Ratios - Water** provides a summary of the MBO required minimum, historical, and budgeted debt service coverage ratios for the Water fund.

Debt Service Coverage Water Fund							
	MBO Required Minimum	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Adopted Budget 2021	Adopted Budget 2022
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	2.03	2.07	2.13	1.94	1.81	1.84
Senior and second lien bonds	1.10	1.57	1.55	1.54	1.42	1.32	1.38
All bonds, including SRF junior lien	1.00	1.56	1.53	1.51	1.40	1.28	1.32
<b>GAAP Basis</b>							
Senior Lien Bonds		2.10	2.12	2.04	1.97		
Senior and second lien bonds		1.63	1.59	1.47	1.45		
All bonds, including SRF junior lien		1.61	1.57	1.45	1.43		

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

Debt Service Coverage Sewage Disposal Fund							
	MBO Required Minimum	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Adopted Budget 2021	Adopted Budget 2022
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	2.02	2.04	2.11	2.15	2.44	2.38
Senior and second lien bonds	1.10	1.51	1.56	1.62	1.64	1.73	1.78
All bonds, including SRF junior lien	1.00	1.21	1.25	1.29	1.29	1.34	1.39
<b>GAAP Basis</b>							
Senior Lien Bonds		2.49	2.20	2.10	2.16		
Senior and second lien bonds		1.86	1.68	1.61	1.65		
All bonds, including SRF junior lien		1.50	1.34	1.28	1.30		

## Refinancing

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

The Authority successfully issued both water supply system and sewage disposal system refunding bonds this quarter. In May 2020, GLWA completed a \$463.1 million Water Supply System Revenue and Revenue Refunding bond transaction. This included a \$377.5 million taxable bond refinancing transaction with an additional \$85.6 million in tax-exempt new money to support the DWSD local system capital improvements. The refunding transaction resulted in \$66.5 million of present value savings for the water system. In June 2020, GLWA completed a \$687 million Sewage Disposal System Revenue Refunding taxable bond transaction resulting in present value savings of \$123 million for the sewage disposal system.

In FY 2020, GLWA issued bonds to refund certain issues of debt to achieve debt service savings. Funds from the refunding bonds have been placed in an irrevocable trust with an escrow agent to pay off this debt on the next available call dates. The bonds to be refunded are considered defeased and have been removed from GLWA's statement of net position.

**Table 10: Defeased Debt** provides a summary of the debt which has been defeased and the call dates.

Defeased Debt - Water Fund			
Bond Series to be Refunded	Amount	Call Date	Bond Issue Refunded By
Series 2011A	\$ 289,605,000	July 1, 2021	Series 2020C
Series 2011B	\$ 2,295,000	July 1, 2021	Series 2020C
Series 2011C	<u>\$ 74,125,000</u>	July 1, 2021	Series 2020C
<b>Total Defeased Water Fund Debt</b>	<b><u>\$ 366,025,000</u></b>		

Defeased Debt - Sewage Disposal Fund			
Bond Series to be Refunded	Amount	Call Date	Bond Issue Refunded By
Series 2012A	\$ 419,810,000	July 1, 2022	Series 2020A & Series 2020B
Series 2014C-1	\$ 123,200,000	July 1, 2022	Series 2020A & Series 2020B
Series 2014C-2	\$ 27,450,000	July 1, 2022	Series 2020A & Series 2020B
Series 2005A	\$ 31,785,000	July 1, 2021	Series 2020B
Series 2006B	<u>\$ 55,000,000</u>	July 1, 2021	Series 2020B
<b>Total Defeased Sewage Disposal Fund Debt</b>	<b><u>\$ 657,245,000</u></b>		

The next available refunding opportunity will be for bonds with a call date of July 1, 2024, for both the water fund and sewage disposal fund. Approximately \$390.4 million in water bonds and \$392.5 million in sewer bonds will be callable at that time. GLWA will continue to work with its registered municipal advisor to monitor the potential for refunding these bonds.