



Audit Committee

Friday, February 26, 2021 at 8:00 a.m.

GLWater.org

Join by Microsoft Teams

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

[GLWA Audit Committee Meeting](#)

AGENDA

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
 - A. January 15, 2021 (Page 1)
 - B. January 22, 2021 Special Meeting (Page 6)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
 - A. Presentation: Water Residential Assistance Program Redesign (Page 9)
Implementation Update
 - B. Business Inclusion and Diversity Program Update (Page 23)
7. NEW BUSINESS
 - A. Proposed Amendments to Investment Policy (Page 24)
 - B. Qualified Financial Institutions (Page 47)
8. REPORTS
 - A. CFO Report (*Verbal*)
 - B. Monthly Financial Report for November 2020 (Page 52)
 - C. Shared Services Update (Page 53)
 - D. Quarterly Debt Report (Page 61)
 - E. Quarterly Investment Report (Page 76)
9. COMMUNICATIONS
 - A. *The Procurement Pipeline* for February 2021 (Page 108)
10. LOOK AHEAD
 - A. Next Audit Committee Meeting: March 26, 2021 at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT



Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Friday, January 15, 2021

8:00 AM

Telephonic Meeting

Telephonic Meeting

Call-In Number: 1-313-771-3116 Conference ID: 868 434 344#

1. Call To Order

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

2. Quorum Call

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

Committee Members Attendance Location:

Chairperson Baker (Clinton Township, Michigan)

Director Brown (Detroit, Michigan)

Director Quadrozzi (Beverly Hills, Michigan)

3. Approval of Agenda

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to amend the Agenda to add the election of the Chairperson of the Audit Committee, and move Item 6B. to 6A.

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

Motion By: Gary Brown

Support: Jaye Quadrozzi

Action: Approved as Amended

The motion carried unanimously.

A. Election of Chairperson

Director Brown nominated Chairperson Baker to continue as the Chairperson of the Audit Committee.

**Motion By: Gary Brown
Support: Jaye Quadrozzi
Action: Approved
The motion carried unanimously.**

4. Approval of Minutes**A. [2021-011](#) Minutes from Audit Committee meeting December 18, 2020**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [4A Audit Committee Meeting Minutes - December 18, 2020](#)

**Motion By: Jaye Quadrozzi
Support By: Gary Brown
Action: Approved
The motion carried by a unanimous vote.**

5. Public Comment

There were no public comments.

6. Old Business**A. [2021-013](#) Proposed FY 2022 Water and Sewer Service Charges**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [6B Proposed FY 2022 Water and Sewer Service Charges](#)

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

B. [2021-012](#) Discussion Draft: FY 2022 & FY 2023 Biennial Budget and Five-Year Plan

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [6A Discussion Draft FY 2022 - FY 2023 Biennial Budget and Five-Year Plan Binder 2](#)

Nicolette Bateson, Chief Financial Officer/Treasurer, requested to continue the discussion on Item 6B., Discussion Draft: FY 2022 & FY 2023 Biennial Budget and Five-Year Plan (Binder 2) at a Special Meeting on Friday, January 22, 2021 and requested Audit Committee action to Receive and File Part 1 of Item 6B.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

7. New Business**A.** [2021-014](#) Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue Bonds in an Amount Not to Exceed \$15,000,000 (Ordinance 2021-01)

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7A Resolution Regarding Approval of Series Ordinance Authorizing Issuance and Sale of Sewage Disposal System Revenue Bonds](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Recommended for Approval to the Board of Directors
Agenda of January 27, 2021

The motion carried by a unanimous vote.

B. [2021-015](#) Call for Public Hearing on Proposed FY 2022 Schedule of Revenues and Charges and a Public Hearing on the FY 2022 & FY 2023 Biennial Budget Request

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [7B Call for Public Hearing on Proposed FY 2022 Schedule of Revenues, Charges and FY 2022 - FY 2023 Biennial Budget Request](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Approved

The motion carried by a unanimous vote.

8. Reports**A. [2021-016](#) CFO Report**

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8A CFO Update 1.15.2021](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

B. [2021-017](#) Monthly Financial Report for October 2020

Sponsors: Nicolette Bateson

Indexes: Finance

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

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

C. [2021-018](#) Water Residential Assistance Program Redesign Implementation Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8C Water Residential Assistance Program Redesign Implementation Update](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

D. [2021-019](#) FY 2021 Water Residential Assistance Program Commitments Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8D FY 2021 Water Residential Assistance Program Commitments Update](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

E. [2021-020](#) Business Inclusion and Diversity Program Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [8E B.I.D. Audit Committee Update 1.15.2021](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

9. Communications

None

10. Look Ahead

A Special Audit Committee Meeting is scheduled for Friday, January 22, 2021 at 8:00 a.m.

The next regular Audit Committee Meeting is scheduled for Friday, February 26, 2021 at 8:00 a.m.

11. Other Matters

None

12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Approved

The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 10:49 a.m.



Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Friday, January 22, 2021

8:00 AM

Telephonic Meeting

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 Jaye Quadrozzi

Committee Members Attendance Location:

Chairperson Baker (Clinton Township, Michigan)

Director Brown (Detroit, Michigan)

Director Quadrozzi (Beverly Hills, Michigan)

3. Approval of Agenda

Chairperson Baker requested a Motion to approve the Agenda.

Motion By: Jaye Quadrozzi

Support: Gary Brown

Action: Approved

The motion carried unanimously.

4. Approval of Minutes

None

5. Public Comment

There were no public comments.

6. Old Business

A. [2021-032](#) Discussion Draft: FY 2022 & FY 2023 Biennial Budget and Five-Year Plan

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [6A Discussion Draft FY 2022 & FY 2023 Biennial Budget and Five-Year Plan binde](#)

Motion By: Jaye Quadrozzi

Support By: Gary Brown

Action: Received and Filed

The motion carried by a unanimous vote.

B. [2021-033](#) Update: Proposed FY 2022 Water and Sewer Service Charges

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [6B Update Proposed FY 2022 Water and Sewer Service Charges Binder](#)

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Received and Filed

The motion carried by a unanimous vote.

7. New Business

None

8. Reports

None

9. Communications

A. [2021-034](#) The Procurement Pipeline for January 2021

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: [9A January 2021 Procurement Pipeline](#)

No Action Taken

10. Look Ahead

The next Audit Committee Meeting is scheduled for Friday, February 26, 2021 at 8:00 a.m.

11. Other Matters

None

12. Adjournment

Chairperson Baker requested a Motion to Adjourn.

Motion By: Gary Brown

Support By: Jaye Quadrozzi

Action: Approved

The motion carried by a unanimous vote.

There being no further business, the meeting was adjourned at 9:40 a.m.



Financial Services Audit Committee Communication

Date: February 26, 2021

To: Great Lakes Water Authority Audit Committee

From: Jon Wheatley, Public Finance Manager

Re: Presentation: Water Residential Assistance Program Redesign Implementation 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 presented their report and recommendations at the October 23, 2020 Audit Committee meeting and to the GLWA Board on October 28, 2020.

GLWA has extended its engagement with PSC to help support the implementation of the recommended program changes through June 2021. As part of the engagement, the seventeen recommendations from the final report were prioritized into three phases of implementation by PSC and GLWA. Based on preliminary discussions, it is anticipated that the full implementation of all recommendations may take at least twelve months, depending on the feedback from the community action agencies (CAA).

Analysis: The included presentation prepared by PSC provides the implementation status update for each of the recommended program changes. The presentation includes target launch dates for CAA initiatives to improve program adoption and uptake as well as increase conservation participation. The presentation also includes an update on the implementation timeline for the direct service pilot program.

Next Steps: GLWA and PSC will continue to meet regularly with Wayne Metro, Macomb County Community Action Agency (MCAA), and Oakland Livingston Human Services Agency (OLHSA) to discuss their individual progress regarding their specific implementation plans. Per the outlined next steps in the presentation, PSC will bring recommended program changes, program metrics and program reporting format to the March 26, 2021 Audit Committee for review.

Budget Impact: None.

Proposed Action: Receive and file this presentation.

Water Residential Assistance Program: Implementation Progress Report

Maggie Pallone and Eric Pardini

Public Sector Consultants

Great Lakes Water Authority Audit Committee

Friday, February 26, 2021

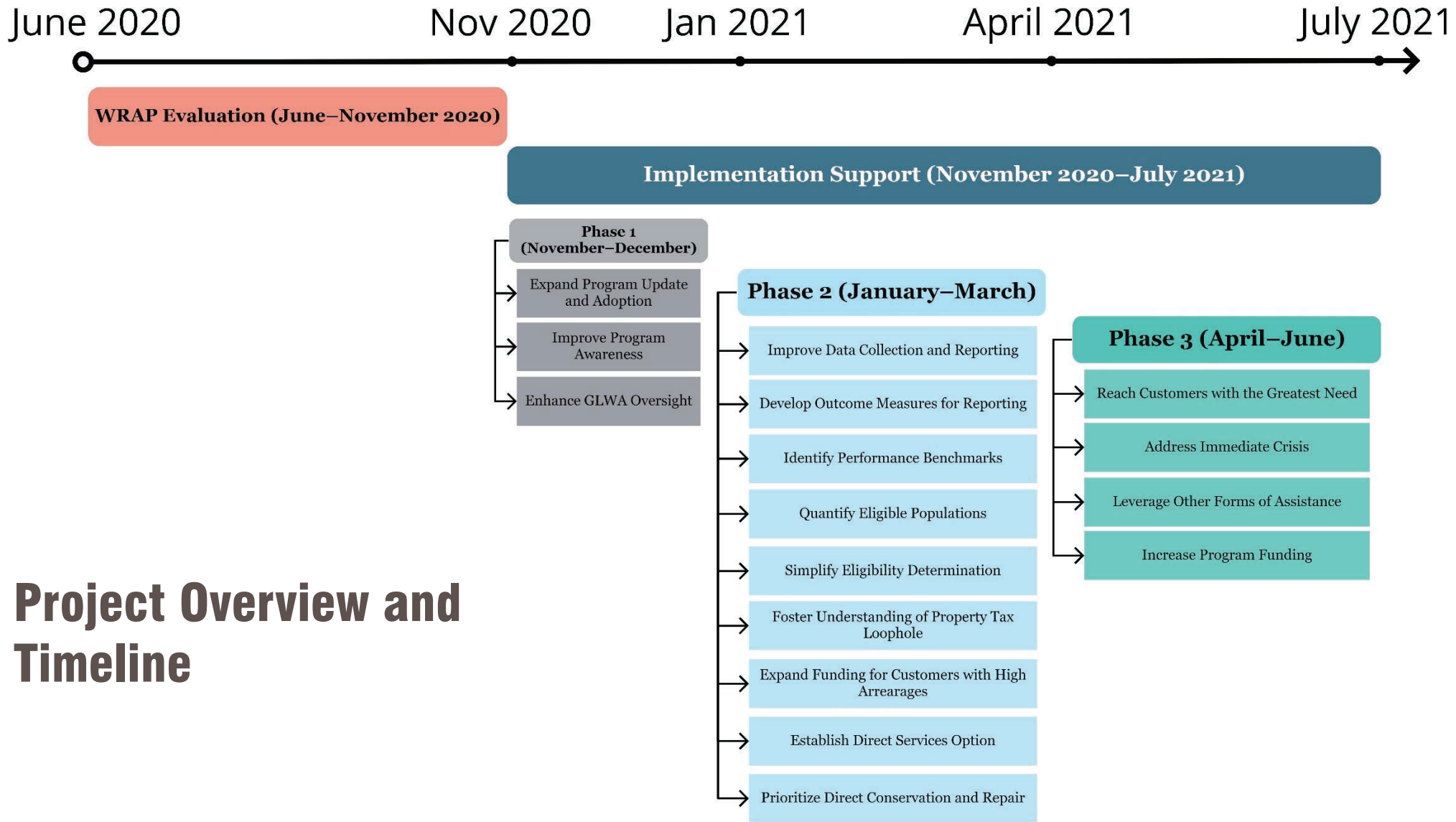
PSC



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Key Takeaways

- Substantive changes to the Water Residential Assistance Program (WRAP) delivery are in progress.
- Wayne Metro, OLHSA, and MCA are partnering to transition program intake, conservation, and communication and outreach.
- Great Lakes Water Authority (GLWA) is in the process of adding staff support for WRAP.
- Public Sector Consultants (PSC) and GLWA are developing several proposed WRAP changes for the Audit Committee to review at their March meeting.



Project Overview and Timeline

Implementation Status Update: Phase 1

- Expand Program Adoption and Uptake

- Status

- GLWA and PSC met with community action agencies (CAAs) to discuss outreach to member partner communities and efforts to transition program intake from Wayne Metro to OLHSA and MCA.
- OLHSA is in the process of transitioning program intake (targeted launch date of March 1).
- MCA is in the early stages of transitioning program intake (targeted launch date of April 1).

- Next Steps

- GLWA and CAAs will meet with nonparticipating communities to encourage participation in WRAP by March.
- GLWA and PSC will identify remaining barriers and potential solutions to ensure universal access to WRAP throughout GLWA's service territory.
- GLWA will monitor ongoing transition planning for program intake.



Implementation Status Update: Phase 1

- **Improve Program Awareness—Communications and Marketing**
 - Status
 - Wayne Metro is working with OLHSA and MCA to transition marketing and communications functions.
 - OLHSA and MCA are beginning to perform these functions for their respective service areas.
 - Next Step
 - CAAs are being asked to submit draft marketing plans to GLWA by March 1, 2021.
- **Enhance GLWA Program Oversight**
 - Status
 - GLWA is developing a job description for a WRAP Program Administrator to provide dedicated support and oversight.
 - Worked with CAAs to better define needs for GLWA administration and oversight.
 - Next Step
 - GLWA will post for this position in March 2021.



Implementation Status Update: Phase 2

- Simplify Eligibility Determination—Categorical Eligibility

- Status

- Categorical eligibility enables customers who are already receiving one form of assistance to be automatically qualified to receive other forms of assistance with similar eligibility requirements.
- PSC has researched criteria for other income-qualified programs to identify similarities with WRAP eligibility.
- CAAs support the use of categorical eligibility for WRAP.

- Next Steps

- PSC is developing a memo summarizing a potential change to WRAP eligibility to allow for categorical eligibility determination.
- GLWA's Board of Directors will need to approve proposed changes to program eligibility. A summary of proposed changes will be presented at the **March Audit Committee Meeting** for review.



Implementation Status Update: Phase 2

- Data Collection, Outcomes Measures, and Reporting
 - Status
 - Data gaps have been identified based on WRAP performance measures defined in the program design report.
 - PSC has developed a revised reporting template that integrates and streamlines desired information.
 - Potential outcomes measures are also being developed to be included in the revised reporting template.
 - Next Steps
 - PSC to review revised reporting template with CAAs and begin collecting additional data.
 - PSC will share outcome measures with GLWA and CAAs and incorporate into revised reporting template.
 - GLWA will present revised WRAP progress report at the **March Audit Committee Meeting**.

Implementation Status Update: Phase 2

- Identify Performance Metrics

- Status

- PSC has compiled WRAP data and conducted analysis to identify past performance trends.
- PSC has developed a list of variables that could be utilized in setting performance metrics.

- Next Step

- Potential performance metrics will be presented for review at the **March Audit Committee meeting**. Board review and approval to follow.

- Quantify Eligible Populations

- Status

- PSC is compiling relevant data from the Census Bureau and CAAs' Community Needs Assessments to identify the potential eligible population for WRAP.

- Next Step

- PSC will provide GLWA with estimates for eligible WRAP populations within member partner communities and the region.



Implementation Status Update: Phase 2

- **Prioritize Direct Conservation Investment and Repairs**
 - Status
 - Wayne Metro is working with OLHSA and MCA to transition WRAP's conservation services delivery.
 - CAAs have identified potential changes to the eligibility determination for WRAP.
 - Next Step
 - GLWA to review proposed conservation plans for individual CAAs (targeted launch date of April 1).
- **Serving Customers with High Arrearages**
 - Status
 - CAAs have supported changing the cap on arrearage payments.
 - Next Steps
 - PSC is working through analysis of arrearage data to determine optimal level of arrearage forgiveness and related policy options.
 - GLWA's Board of Directors will need to approve any recommended changes to program eligibility. Will be presented at **March Audit Committee Meeting**.

Implementation Status Update: Phase 2

- Establish Direct Services Option

- Status

- PSC is inventorying online payment capabilities used by member partner communities for water and sewer billing to facilitate a direct services option.
- Options for direct service will be informed by feedback from CAAs and member partner communities.

- Next Steps

- PSC and GLWA will develop a pilot proposal for review at the **March Audit Committee meeting**.
- The goal is to develop a pilot approach to be tested this program year (April–June).

- Understanding the Impact of Shifting Past Due Water Bills to Property Tax Rolls

- Status and Next Step

- PSC will draft a memo summarizing the potential impacts on housing stability, health, and safety that arise from this practice and the role WRAP can play in helping address past-due bills before they become a tax liability.



Implementation Status Update: **Phase 3**

- The following recommendations still need to be addressed:
- Reach Customers with the Greatest Need
- Address Immediate Customer Crisis
- Leverage Other Forms of Assistance
 - State and federal novel coronavirus (COVID-19) programs
- Increase Program Funding

Questions?





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Financial Services Audit Committee Communication

Date: February 26, 2021

To: Great Lakes Water Authority Audit Committee

From: Megan Torti, Vendor Outreach Coordinator

Re: Business Inclusion & Diversity Program Update

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

Analysis: In support of an effective Phase I launch for the B.I.D. Program, the following strategic efforts were undertaken by the B.I.D. Program Team.

1. Hosted Professional Association focus group on January 25, 2021 that was facilitated by Bridgeport Consulting. Participants provided the GLWA B.I.D. Team with their feedback through question and discussion. The focus group included representatives from nine professional organizations and associations throughout Southeastern Michigan.
2. Updated Procurement forms and documents to meet B.I.D. Program requirements.
3. Updated e-procurement software Bonfire to meet B.I.D. Program requirements.
4. Developed materials for Procurement Team training which took place on January 22, 2021 and January 29, 2021.
5. Provided a PowerPoint presentation to CIP Workgroup on February 9, 2021. Answered follow up questions from participants.

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

- Posting job description for the B.I.D. Program Team Manager.
- Drafting final report and recommendations based on research into the Inclusion & Diversity Programs of other national utilities and public sector entities.
- Developing outreach & education materials to engage internal and external stakeholders.
- Identifying meaningful reporting and performance measures.

An update to the Board of Directors was presented on February 22, 2021.

Proposed Action: Receive and file this report.



Financial Services Audit Committee Communication

Date: February 26, 2021

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Amendments to the Great Lakes Water Authority Investment Policy

Background: The current Investment Policy was approved by the Great Lakes Water Authority (GLWA) Board of Directors on August 22, 2018. A periodic review of the policy is required to ensure the policies governing the management of the portfolio continue to be relevant and are implemented and monitored as stated.

Analysis: The following amendments to the investment policy add language related to the pooling of assets, add a specific due diligence process for investment advisors, and add clarity to other areas in the policy:

1. Section 7C – Updated section number reference.
2. Section 8 (New) – POOLING OF CASH AND INVESTMENTS was added as a new section allowing GLWA to pool assets for investment purposes.
3. Section 9 – MAXIMUM MATURITIES has been renumbered from Section 8 to Section 9 and language was clarified to better define maximum maturities.
4. Section 10 – AUTHORIZED FINANCIAL INSTITUTIONS AND BROKER/DEALERS has been renumbered from Section 9 to Section 10 and language was added to require specific due diligence for investment advisors.
5. Section 11 – AUTHORIZED INVESTMENTS has been renumbered from Section 10 to Section 11. Also, language was added to define standard rating services, mutual fund language from Section 12 was moved to this section, language about collateralization was moved from this section to the INVESTMENT DIVERSIFICATION AND CONSTRAINTS section, and descriptions for investment pools and acceptance of bond proceeds was clarified.
6. Section 12 – MUTUAL/COLLECTIVE INVESTMENT FUNDS was deleted as Section 12. This information was included in AUTHORIZED INVESTMENTS (Section 11).

7. Section 12 (New)- INVESTMENT DIVERSIFICATION AND CONSTRAINTS was originally included as Section 11(J). It is now a separate section and includes language about collateralization that was originally included in AUTHORIZED INVESTMENTS (Section 11).
8. Section 13 – SAFE KEEPING AND CUSTODY has been renumbered from Section 12 to Section 13.
9. Section 14 – INTERNAL CONTROLS & PRACTICES has been renumbered from Section 13 to Section 14.
10. Section 15 – REPORTING has been renumbered from Section 14 to Section 15.
11. Section 16 – INVESTMENT POLICY ADOPTION has been renumbered from Section 15 to Section 16.
12. Addendum B – Title has been updated to clarify what parties would use this certification.
13. Addendum C – New certification added specifically for Investment Advisors.
14. Addendum D – Definition added for local government investment pool.

Proposed Action: The Audit Committee recommends that the GLWA Board of Directors approve the proposed amendments of the GLWA Investment Policy.



February 18, 2021

Memorandum

To: Deirdre Henry, Treasury Manager
Great Lakes Water Authority

From: Brian Quinn, Managing Director
PFM Asset Management LLC

Re: Review of the Great Lakes Water Authority's Investment Policy Statement

PFM Asset Management LLC ("PFM") appreciates this opportunity to review the investment policy of the Great Lakes Water Authority (the "Authority" or "GLWA"). Our objective in presenting this memorandum to the Authority is to identify significant changes that the Authority can undertake to enhance its investment policy and its portfolio management strategy. The comments below are based on a comparison of your investment policy to current state investing regulations (Michigan Public Act 20 of 1943 Investment of Surplus Funds of Political Subdivisions, as amended) and our experience with similar governmental investment policies throughout the state of Michigan and throughout the country.

Based upon our review, PFM feels that the Authority's investment policy is consistent with the governing Michigan regulations but has a few areas for improvement. Below is an outline of the material revisions that PFM feels that the Great Lakes Water Authority can make to enhance its investment policy and investment management program:

Subject Matter	Description of PFM's Suggestion
Pooling of Cash and Investments	Add a section to that allows the Authority to pool monies for investment purposes. The language should specifically identify and define monies that can be pooled versus monies that need to be segregated due to the constraints of the Master Bond Ordinance.
Maturity Limitation	In the <i>Maximum Maturities</i> section, the language should be clarified to state a maximum maturity limit for all investment types except for Federal Agency mortgage-backed securities and collateralized mortgage obligations to better limit the Authority's duration risk (mortgage-backed securities and collateralized mortgage obligations shall be limited to a weighted average life of five years).
Investment Advisors – Compliance Guidelines	Add language that provide specific standards that investment advisors should follow to meet GLWA compliance guidelines. Also require the investment advisor to sign a compliance certification. The certification document should be added as an addendum to the investment policy.



Subject Matter	Description of PFM's Suggestion
Areas of Clarification	<ul style="list-style-type: none"> • Replace the references to “standard rating services” in the policy with the name of the nationally recognized statistical rating organization (“NRSRO”). • Add language about mutual funds to the <i>Authorized Investment</i> section and remove separate <i>Mutual/ Collective Investment Funds</i> section. • Language about collateralization that is currently included in the <i>Authorized Investment</i> section should be moved to the <i>Investment Diversification and Constraints</i> section. • Add specific language to clearly define Local Government Investment Pools (“LGIP”)

While the above changes will help to improve the overall internal controls with regards to the Great Lakes Water Authority’s investments, please note that no undue risk is being taken currently.

As a national investment advisor to governmental entities, we benefit from being exposed to numerous investment policies. It is our opinion that the best policies are simple, not too restrictive, and are congruent with the prevailing regulatory guidelines. Further, good policy is meant to withstand the test of time (with the exception of changes in regulations) and does not unduly restrict the investment manager from making sound investment decisions.



INVESTMENT POLICY

SECTION 1 – PURPOSE

The purpose of this Investment Policy Statement is to establish a clear understanding of the philosophy and the investment objectives for Financial Assets (the Assets) (defined under section, “Scope”) of the Great Lakes Water Authority (the GLWA). This document will further describe the standards that will be utilized by the GLWA’s Board in monitoring investment performance of the Assets, as well as, serve as a guideline for the GLWA’s Finance Officers, any investment manager retained by the GLWA, or financial institution(s) utilized by the GLWA in its routine financial activities.

The investment purpose of the GLWA is to endeavor to accumulate a pool of assets sufficient to build capital for future use with the corresponding obligations to support near-term and long-term needs of the GLWA. The Assets are to be invested consistent with the policies of the GLWA’s Board and this policy document, as amended from time to time and in accordance with Michigan Public Act 20 of 1943 Investment of Surplus Funds of Political Subdivisions (the Act).

SECTION 2 – GLWA CHIEF FINANCIAL OFFICER

The Great Lakes Water Authority Board hereby delegates to the Chief Financial Officer/Treasurer (the CFO), and such delegates as the CFO may designate from time-to-time, primary responsibility for recommending investment policies and strategies, trustees, investment managers and/or advisors, and other fiduciaries, and monitoring the performance of the Financial Services Group’s Managers, including but not limited to the Treasury Manager and Finance Director, advisors and other fiduciaries of the GLWA. This delegation includes the authority to open and close investment and depository accounts at authorized financial institutions and broker/dealers as noted in Section 9 and are authorized investments as noted in Section 10. This delegation is not intended to conflict with the Great Lakes Water Authority Board’s ultimate authority and responsibility for the Financial Assets of the GLWA. The Great Lakes Water Authority Board may at its discretion set policy and practices for periodic reporting of the results of investment performance, review of market conditions, and other such information as it may require.

This Investment Policy Statement and the policies and guidance herein are not intended to substitute or conflict with routine treasury reporting duties and practices of the Financial Services Group and the Chief Financial Officer as managed for the Great Lakes Water Authority.

SECTION 3 – DELEGATION OF AUTHORITY

The Chief Financial Officer delegates management responsibility for the day to day or routine activities of the investment program to the Treasury Manager, under the supervision of the Chief Financial Officer. The Treasury Manager shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the activities of subordinate officials, and their procedures in the absence of the Treasury Manager with the approval of the Chief Financial Officer.

The Treasury Manager shall establish written investment policy procedures for the operation of the investment program consistent with this Investment Policy Statement. No person may engage in an investment transaction except as provided under the terms of this policy and the procedures established by the Treasury Manager.

With the CFO's approval, the Treasury Manager may delegate investment transactions to a qualified investment advisor to become the GLWA's money manager provided that said advisor meets standard industry qualifications.

SECTION 4 – SCOPE

This Investment Policy Statement applies to the Financial Assets, all transactions and investment decisions and practices for which the Treasury Manager has authority and oversight. Such assets shall include funds classified in the audited financial statements of the GLWA as Current Assets and Long-Term Assets.

This policy does not cover investment activities of pension fund or deferred compensation programs.

SECTION 5 – THE PRUDENT INVESTOR STANDARD

The Assets are to be invested and managed with judgment and care; under circumstances then prevailing; which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

The standard of prudence to be used by the GLWA's Treasury Manager will be the "prudent person" and / or "prudent investor" standard and shall be applied in the context of managing the overall portfolio of assets. The Treasury Manager acting in accordance with written procedures and this investment policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

SECTION 6 – ETHICS

Officers and employees involved in the investment process shall refrain from personal business activity that would conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Employees and investment officials shall disclose any material interests in financial institutions with which they conduct business. They shall further disclose any personal financial/investment positions that could be related to the performance of the investment portfolio. Employees and officers shall refrain from undertaking personal investment transactions with the same individual with which business is conducted on behalf of GLWA.

SECTION 7 – INVESTMENT OBJECTIVES

The investment policies of the GLWA will be carried out by means of investment strategies that reflect continuous evaluation of changing investment environments, judgment regarding the allocation of the GLWA's assets among different kinds of investment opportunities, identification of appropriate investment vehicles, and the making of specific investment decisions.

The objective of the investments will be to provide for the GLWA's continued operations on a reasonably consistent basis and to achieve income and growth of principal without undue exposure to risk. Therefore, the primary focus will be preservation of principal, income generation and capital appreciation a secondary consideration together with the current spending requirements and short and intermediate term capital requirements of GLWA. The Assets of GLWA will be managed in accordance with the following objectives, in priority order:

A. Safety – Safety of principal is the foremost objective of the GLWA's investment program.

Investments shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. The objective will be to mitigate risk.

1. Credit Risk – The GLWA will minimize credit risk, the risk of loss due to the failure of the security issuer or backer, by:
 - i. Limiting investments to the safest types of securities, and
 - ii. Pre-qualifying the financial institutions, broker/dealers, and intermediaries with which the GLWA will do business, and
 - iii. Diversifying the portfolio so that the potential losses on individual securities will be minimized.
2. Interest Rate Risk - The GLWA will minimize the risk that market value of the securities in the portfolio will fall due to changes in the general interest rates, by:
 - i. Matching investments with anticipated short and long-term cash flow requirements, and
 - ii. Minimizing the need to liquidate securities prior to maturity, and

iii. Monitoring the maturity dates of individual securities and the weighted average maturity of the investment portfolio to ensure duration is commensurate with the cash flow characteristics of the GLWA.

3. Custodial credit risk – The GLWA will minimize custodial risk by:

- i. Using only financial institutions and brokers meeting pre-established criteria and
- ii. Holding all securities in the name of Great Lakes Water Authority.

B. Liquidity – The investment portfolio of the GLWA will remain sufficiently liquid to enable the GLWA to meet all operating requirements that may be reasonably anticipated. Investment maturities for operating funds shall be scheduled to coincide with projected cash flow needs, taking into account large routine expenditures (such as payroll and debt service), as well as considering sizable blocks of anticipated revenue (water and sewerage fee collections).

C. Return on Investments – The investment portfolio of the GLWA shall be designed and managed with the objective of attaining a benchmark rate of return throughout the budgetary and economic cycles, commensurate with GLWA’s investment risk constraints, operating cash flow and long-term capital needs. Portfolio performance will be measured against appropriate U.S. Treasury benchmarks as noted in Section 1514.

Commented [A1]: Updated section reference

Securities shall generally be held until maturity with the following exceptions:

- A security with declining credit may be sold early to minimize loss of principal;
- Selling a security and reinvesting the proceeds that would improve the quality, yield, or target duration in the portfolio may be undertaken;
- Unanticipated liquidity needs of the portfolio require that the security be sold.

D. Diversification - It is the policy of the GLWA to maintain a diversified investment portfolio. Assets held in a common fund or concentration account and other investment funds will be diversified to reduce the risk of loss resulting from over concentration of assets in a specific maturity, individual financial institution(s) or a specific class of securities. Diversification strategies will be determined and revised by the Treasury Manager, from time to time to meet diversification objectives while seeking to attain market rates of return or the benchmark index standards, set out herein.

It is also understood that temporary deviations from this objective may be necessary from time to time in order to accommodate certain financial goals and obligations.

SECTION 8 – POOLING OF CASH AND INVESTMENTS (Internal Pooling of Investments)

The cash and investments in GLWA funds may be pooled into one investment portfolio to maximize investment earnings with the following exceptions:

Commented [A2]: Section added to accurately reflect the ability to pool monies for investment purposes. Due to constraints of Master Bond Ordinance, language was added to specifically identify monies that could be pooled vs monies that needed to be segregated. The segregation was defined by legal counsel.

- Water System and Sewer System funds must be held separately;
- Debt reserve and debt service funds may be held in one deposit account but separate

from other deposit accounts;

- Construction moneys funds must be held in separate, deposit accounts pursuant to the requirements of the specific bond series.

GLWA may aggregate moneys for deposit and investment purposes in the following manner:

- Trust Estate accounts (i.e., budget stabilization, improvement & extension, pension, receiving, emergency repair & replacement, and WRAP) can be aggregated and deposited together;
- Debt service funds, which may, regardless of applicable priority of lien, be held in one deposit account but separate from other deposit accounts;
- Debt service reserve funds, which may, regardless of applicable priority of lien, be held in one deposit account but separate from other deposit accounts;
- Operating and maintenance moneys may be deposited and held in one deposit account but may require additional accounting attention to ensure a record of the separation of these funds from moneys in the Trust Estate.

Pooled funds and investment earnings will be allocated on an accounting basis to the various funds and distributed as defined in the Master Bond Ordinance.

SECTION 98 – MAXIMUM MATURITIES

~~To the extent possible, investments should match anticipated short term and long term cash flow requirements. The weighted average maturity of the portfolio should not exceed five years. Unless matched to a particular cash flow need, funds will not be directly invested in securities that exceed five years maximum maturity period. Any longer duration investments must be matched to a particular cash flow and must fall within the weighted average maturity guidelines for the portfolio.~~

Investments made by GLWA must mature within five (5) years from the date of settlement unless the investments are matched to a specific obligation or debt of GLWA. This requirement applies to all investments except for Federal Agency mortgage-backed securities (“MBS”) and collateralized mortgage obligations (“CMOs”). For MBS and CMOs, the 5-year maximum maturity limitation will be applied to the weighted average life (“WAL”) calculation rather than the final maturity of the MBS or CMO security.

Commented [A3]: Maximum maturity language was clarified to:
a) allow use of weighted average life for mortgage backed securities
b) limit bullet security investments to a 5 year maximum

SECTION 109 – AUTHORIZED FINANCIAL INSTITUTIONS AND BROKER/DEALERS

A. The Treasury Manager shall maintain a listing of financial institutions and broker/dealers authorized to provide investment services. The Treasury Manager will actively monitor and will conduct a quarterly evaluation of each financial institution and broker/dealer for credit worthiness to determine whether it should be on the “Qualified Institutions” listing. In addition, the Treasury Manager shall also maintain ~~also maintain~~ a record of investment policy certifications as shown at Addendum B from financial institutions and broker/dealers with which it conducts business.

Commented [A4]: Eliminate clerical redundancy

i. For broker/dealers, the evaluation will include review of audited financial statements, audited financial statements, proof of Financial Industry Regulatory



Authority (FINRA) registration, proof of approval to do business in Michigan, evidence of adequate insurance coverage, review of bank ratings by at least two independent sources, and certification of having read, understood, and agreeing to comply with the GLWA investment policy. The authorized listing of financial institutions, and / or broker/dealers shall be approved periodically by the Great Lakes Water Authority Audit Committee or as may be amended.

ii. For financial institutions, the evaluation will include review of audited financial statements, proof of Michigan registration, evidence of adequate insurance coverage, and review of bank ratings by at least two independent sources.

iii. For investment advisors, the evaluation will include a review of audited financial statements, proof that the advisor is registered with the SEC under the Investment Advisers Act of 1940 (Form ADV), and evidence of adequate insurance coverage. The investment advisor's Form ADV, annual financial statements, and insurance certificates shall be reviewed and updated on an annual basis. In addition, the Treasury Manager shall also maintain a record of investment policy certifications as shown at Addendum C from investment advisors with which it conducts business.

All investment advice and services provided by an investment advisor so appointed shall be rendered pursuant to a written contract between the investment advisor and GLWA, and in accordance with GLWA's investment policy.

- B. Any designated investment advisors assisting the GLWA in the management of its overall portfolio may utilize their own approved list of broker/dealers to buy and sell investments in accordance with this policy. ~~The advisor's list must be submitted to the Treasury Manager on a quarterly basis in advance of utilization of those broker/dealers.~~
- C. Whenever possible, all investment decisions should be made using a competitive bid process. A competitive bid can be executed through a bidding process involving at least three separate broker/dealers or financial institutions or through the use of a nationally recognized trading platform. If a competitive quote is not available, the Treasury Manager will document why the competitive bid process was not used and the process used to make the investment decision.

Commented [A5]: Added due diligence language specifically to annually review the investment advisor and require certification in Addendum C

Commented [A6]: New advisor certification meets due diligence requirements. Delete language requiring submission of broker/dealer list from investment advisor.

SECTION 1110 – AUTHORIZED INVESTMENTS

In accordance with Michigan Public Act 20 of 1943, as it is currently written and as it automatically incorporates future amendments to the Act, and consistent with GLWA's bond indentures, State authorizing bond statutes and ordinances, the surplus funds of GLWA will be invested as follows:

- A. Bonds, securities, and other obligations of the United States or an agency or instrumentality of the United States.
- B. Certificates of deposit, savings accounts, deposit accounts, or depository receipts of a

bank or a savings and loan association which is a member of the Federal Deposit Insurance Corporation or a credit union which is insured by the National Credit Union Administration. The bank, savings and loan association or credit union must be eligible to be a depository of surplus funds belonging to the State.

- C. Commercial paper rated at the time of purchase within the highest classifications established by not less than two nationally recognized statistical ratings organizations (NRSRO) standard rating services and which matures not more than 270 days after the date of purchase.

Commented [A7]: Language updated to reflect current description of rating agencies.

- D. United States government or federal agency obligation repurchase agreements.

Repurchase agreements shall be negotiated only with dealers or financial institutions with which GLWA has negotiated a Master Repurchase Agreement. Repurchase Agreements must be signed with the bank or dealer and must contain provisions similar to those outlined in the Public Security Association's (or successor Association) model Master Repurchase Agreement.

- E. Bankers' acceptances of United States banks.

Bankers' acceptances shall not mature more than 180 days after the date of purchase and must be rated at the time of purchase in the highest classification by at least two nationally recognized rating services.

- F. Obligations of the state of Michigan or any of its political subdivisions that at the time of purchase are rated no lower than a single-A rating category and by not less than one (1) rating agency, see Addendum A.

- G. Mutual funds registered under the investment company act of 1940, title I of Michigan chapter 686, 54 Stat. 789, 15 U.S.C. 80a-1 to 80a-3 and 80a-4 to 80a-64, with authority to purchase only investment vehicles that are legal for direct investment by a public corporation. Included in this authorization are mutual funds that have net asset values (NAV) that fluctuate or can fluctuate on a periodic basis. A mutual fund is not disqualified as a permissible investment solely by reason of either any of the following:

Commented [A8]: Clerical correction.

1. The purchase of securities on a when-issued or delayed delivery basis;
2. The ability to lend portfolio securities as long as the mutual fund receives collateral at all times equal to at least 100% of the value of the securities loaned;
3. The limited ability to borrow and pledge a like portion of the portfolio's assets for temporary or emergency purposes; and,
4. Investment pools organized under the surplus funds investment pool act, 1982 PA 367, 129.111 to 129.118.

The Treasury Manager is authorized to invest in mutual investment funds after

investigation of the prospectus. After the initial investment has been approved, the Treasury Manager must continue to monitor the account, at least annually, by reviewing the account's suitability as an investment vehicle.

- H. Obligations described in (A) through (G) if purchased through an inter-local agreement under the urban cooperation act of 1967, 1967(Ex Sess) P.A. 7, MCL 124.501 to 124.512. For purposes of this section, the objectives listed in Section 7 shall be altered in that the return on investment shall be of primary concern, followed by safety of capital and liquidity.

~~Although permitted under state law, collateralization will not be required on all investments with the exception of repurchase or reverse repurchase agreements. Repurchase and reverse repurchase agreements must be collateralized at not less than 102% of the market value of principal and accrued interest. All other investments will be looked at on a case by case basis taking into account liquidity, safety and yield.~~

- I. **Local Government** Investment Pools (**External Pooling of Investments**)- Any investment into a pooled type account can only be made after the Treasury Manager has completed a thorough investigation. After the initial investment has been approved, the Treasury Manager must continue to monitor the account, at least annually, by reviewing the account's suitability as an investment vehicle. When reviewing the pooled account, the Treasury Manager shall take into account the following:

1. Detailed description of eligible investments made by the pool or fund;
2. A written statement of the investment policy and the pool or fund objectives;
3. A description of interest calculations and how interest is distributed;
4. An explanation on how the fund will handle gains and losses within the fund;
5. A description on how the funds will be safeguarded, and how often the underlying securities will be marked-to-market;
6. Audited Financial Statements;
7. An explanation of who will be able to invest in the fund, how often investments can be made, and what size limitations, if any, will be in effect for the fund;
8. A schedule for receiving statements and portfolio listings;
9. A fee schedule, explaining how and when the fees will be assessed;
10. Whether the fund will be able to receive accept bond proceeds, and whether they will accept bond proceeds; and,
11. Whether the pool or fund utilizes any type of reserves or a retained earnings account; and, if so, whether it affects the interest earnings of the participants;
12. Whether or not the fund is rated by a nationally recognized statistical ratings organization (NRSRO).

Commented [A9]: This paragraph was taken from Mutual Funds (previous Section 11) to properly classify it under Authorized Investments (New Section 11).

Commented [A10]: This paragraph does not fit under Permissible Investments. It was moved below to Investment Diversification and Constraints (Section 12).

Commented [A11]: Added Local Government to avoid confusion with GLWA Pooling mentioned above in Section 8.

Commented [A12]: Clarification of acceptance of bond proceeds.

Commented [A13]: Added language to consider whether or not the Local Government Pool is rated or not.

SECTION 12 - INVESTMENT DIVERSIFICATION AND CONSTRAINTS



The purchase of certificates of deposit, commercial paper, banker’s acceptances, municipal bonds, and repurchase agreements shall be restricted to the GLWA’s or the investment advisor’s own approved issuer list in which there is an establishment of a formal credit review process when purchasing these types of investments.

The percentage of the overall portfolio to be invested in certificates of deposit, commercial paper, bankers’ acceptances, municipal bonds, or repurchase agreements shall be limited to a maximum of 50% for each security type.

The GLWA will also minimize the risk in placing a large portion of the portfolio with a single security issuer by limiting the exposure to 5% of the total portfolio at the time of purchase. This requirement does not apply to investments issued by the U.S. government or its agencies or instrumentalities, investments in money mutual funds, and investments in local government investment pools.

Although permitted under state law, collateralization will not be required on all investments with the exception of repurchase or reverse repurchase agreements. Repurchase and reverse repurchase agreements must be collateralized at not less than 102% of the market value of principal and accrued interest. All other investments will be looked at on a case-by-case basis taking into account liquidity, safety and yield.

Commented [A14]: This paragraph was formerly included as part of Authorized Investments above in Section 11. We moved it to this section to better position it as a constraint.

SECTION 1211 – MUTUAL / COLLECTIVE INVESTMENT FUNDS

The Treasury Manager is authorized to invest in mutual / collective investment funds (for purposes of investing in bonds, money market instruments, and other securities) after investigation of the prospectus and the following:

- A. The investment policy and objectives of the fund
- B. A description of Authorized Investment securities
- C. A description of interest calculation and distribution of income or dividends
- D. A description of how funds are safeguarded and securities priced
- E. Audited Financial Statements
- F. A description of any limitations on the size and frequency of deposits or withdrawals
- G. A fee schedule, break points, including assessments of such
- H. Frequency and delivery of statements and portfolio of securities in the fund

After the initial investment has been approved, the Treasury Manager must continue to monitor the account, at least annually, by reviewing the account’s suitability as an investment vehicle.

Commented [A15]: This section was consolidated into Section 11: Authorized Investment to reduce redundancy.

SECTION 1312 – SAFE KEEPING AND CUSTODY

All securities purchased by the GLWA under this section will be properly designated as an asset of the GLWA and shall be conducted on a delivery versus payment (DVP) basis. Certificates of Deposit purchased from financial institutions or brokers shall be held in a safe keeping account and evidenced by safe keeping receipt. Securities purchased from broker – dealers will be held in the name of the Great Lakes Water Authority by a third-party custodian in a safe keeping account

designated by the GLWA Treasury Manager and evidenced by safekeeping receipts.

For purposes of this Policy, third party custodians shall be defined as a separate financial institution or a separate and distinct division or department of the same institution whose function is safe keeping and / or trust services. No withdrawal of such securities, in whole or in part, shall be made from safe keeping except by the GLWA Finance Officers as authorized herein, or by its designee.

The GLWA will execute third party custodial agreement(s) with its bank(s) and depository institution(s). Such agreements will include letters of authority from the GLWA, details as to responsibilities of each party, notification of securities purchases, sales, delivery, repurchase agreements, wire transfers, safe keeping and transaction costs, procedures in case of wire failure or other unforeseen mishaps including the liability of each party.

SECTION 1413 – INTERNAL CONTROLS & PRACTICES

The Treasury Manager shall maintain a system of internal controls and practices which shall be designed, in addition to conforming to generally accepted accounting principles, to minimize losses of funds arising from fraud, employee error, misrepresentation by third parties, unanticipated changes in financial markets, or imprudent actions by employees and officers of GLWA.

SECTION 1514 – REPORTING

The Treasury Manager shall generate a quarterly investment report that provides a clear picture of the status of the current investment portfolio. Each quarterly report will indicate any areas of policy concern and suggested or planned revisions of investment strategies. The report shall include:

- A. Discussion of investment strategy
- B. A summary of investments by type
- C. A summary of available funds and percentage invested
- D. A summary of interest income and average invested balances by financial asset classifications
- E. An analysis of investments by maturity dates
- F. A detailed report of all investments by type including fund, investment amount, rate, purchase date and maturity date and market price
- G. Reporting of portfolio as compared to the average U.S. Treasury Bills or U.S. Treasury Notes that most closely commensurate with the average life of the portfolio.

SECTION 1615 -INVESTMENT POLICY ADOPTION

The GLWA's Investment Policy shall be adopted by resolution of the Great Lakes Water Authority Board. The Policy shall be reviewed periodically by the Great Lakes Water Authority Audit Committee. Any modifications made to the Investment Policy must be approved by the Great Lakes Water Authority Board.

Addendum A - Investment Grade Classifications

Long-Term Ratings

	Standard & Poor's	Moody's Investors <u>Service</u>	Fitch Investors <u>Service</u>	<u>Capacity to repay debt</u>
	AAA	Aaa	AAA	Extremely strong capacity
	AA+	Aa1	AA+	Very strong capacity
	AA	Aa2	AA	
	AA-	Aa3	AA-	
Investment Grade Debt	A+	A1	A+	Strong capacity; some susceptibility to adverse economic circumstances or effects
	A	A2	A	
	A-	A3	A-	
	BBB+	Baa1	BBB+	Adequate capacity; however <i>more likely</i> to be weakened due to adverse economic circumstances or effects
	BBB	Baa2	BBB	
	BBB-	Baa3	BBB-	
Non-Investment Grade or Speculative	BB+	Ba1	BB+	Vulnerable to default; faces <i>major</i> ongoing uncertainties or exposure
	BB	Ba2	BB	
	BB-	Ba3	BB-	

Short Term Note Ratings

<u>S & P</u>	<u>Moody's</u> (Moody's investment grade)
SP-1+	MIG-1
SP-1	-
SP-2	MIG-2
SP-3	MIG-3

Commercial Paper Ratings

An Issuer's ability to honor its' short-term obligations

<u>S&P</u>	<u>Moody's</u> (Prime)
A1	P1
A2	P2
A3	P3



Addendum B
Investment Policy

BANKER & BROKER / DEALER CERTIFICATION

Commented [A16]: Clarification to identify who the Certification relates to.

I hereby certify that I have received a copy of the Investment Policy of the Great Lakes Water Authority "GLWA". I have read and fully understand the State of Michigan Public Act 20 of Public Acts of 1943, as amended. I have personally read the Investment Policy and agree to have all personnel involved with investing GLWA proceeds to comply with the terms of the Investment Policy, and Public Act 20, regarding the investment of GLWA funds. Any investment not conforming to GLWA Investment Policy will be disclosed promptly. We also pledge to exercise due diligence in informing GLWA in writing of all foreseeable risks associated with financial transactions conducted with the Great Lakes Water Authority.

Sign Name: _____

Print Name: _____

Title: _____

Institution: _____

Address: _____

City/State/Zip: _____

Date: _____

INVESTMENT POLICY – GREAT LAKES AUTHORITY
BOARD APPROVAL DATE: ~~TBD~~ **October 22, 2015**
(See Attachment Page – Great Lakes Water Authority Investment Policy)
(See Attachment Public Act 20 of 1943")



Addendum C
Investment Policy
INVESTMENT ADVISOR CERTIFICATION

I hereby certify that I have received a copy of the Investment Policy of the Great Lakes Water Authority "GLWA". I have read and fully understand the State of Michigan Public Act 20 of Public Acts of 1943, as amended. I have personally read the Investment Policy and agree to have all personnel involved with investing GLWA proceeds to comply with the terms of the Investment Policy, and Public Act 20, regarding the investment of GLWA funds. Any investment not conforming to GLWA Investment Policy will be disclosed promptly. We also pledge to exercise due diligence in informing GLWA in writing of all foreseeable risks associated with financial transactions conducted with the Great Lakes Water Authority.

Additionally, I certify that, as an investment advisor, we are licensed to do business in the state of Michigan. We also certify that there are currently no potential conflicts of interest and agree to disclose any potential conflicts or risks to public funds that might arise out of business transactions between our firm and GLWA. In addition, we agree to be a fiduciary with respect to any security decisions on behalf of GLWA.

Commented [A17]: As noted above in Section 10, A (iii) , the Investment Advisor Certification is added to document the due diligence performed on the Investment Advisor.

Sign Name: _____

Print Name: _____

Title: _____

Institution: _____

Address: _____

City/State/Zip: _____

Date: _____

INVESTMENT POLICY – GREAT LAKES AUTHORITY
BOARD APPROVAL DATE: (TBD) ~~October 22, 2015~~
(See Attachment Page – Great Lakes Water Authority Investment Policy)
(See Attachment Public Act 20 of 1943”)

Addendum DC

Glossary of Terms

Average Life

An estimate of the number of terms to maturity, taking the possibility of early payments into account. Average life is calculated using the weighted average time to the receipt of all future cash flows.

Agency Bond

A bond issued by a government sponsored enterprise (GSE) or agency. These bonds are not fully guaranteed in the same way as U.S. Treasury and municipal bonds. Examples include Fannie Mae, (FNMA) Federal National Mortgage Association; Freddie Mac (FHLMC) Federal Home Loan Mortgage Corporation, Sallie Mae Student Loan Marketing Association; Ginnie Mae (GNMA) Government National Mortgage Association.

Asked

The price at which securities are offered.

Banker's Acceptance (BA)

A draft or bill of exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer. Acceptances are traded at a discount from face value on the secondary market. Banker's acceptances are very similar to T-bills and are often used in money market funds.

Benchmark

A comparative base for measuring the performance of risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investments.

Bid

The price offered by a buyer of securities. (When you are selling securities, you ask for a bid.)

Bond

A debt investment in which an investor loans money to an entity (corporate or governmental) that borrows the funds for a defined period of time at a fixed interest rate. Bonds are used by companies, municipalities, states and U.S. and foreign governments to finance a variety of projects and activities.

Broker

A Broker brings buyers and sellers together for a commission

Certificate of Deposit

A time deposit with a specific maturity evidenced by a Certificate. Large denomination CDs are typically negotiable.

Collateral

Securities, evidence of deposit or other property, which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits.

Collective Investment Fund

A fund that is operated by a trust company or a bank and handles a pooled group of trust accounts. Collective investment funds combine the assets of various individuals and organizations to create a larger, well-diversified portfolio.

Commercial Paper

An unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. Maturities on commercial paper rarely range any longer than 270 days. The debt is usually issued at a discount, reflecting prevailing market interest rates.

Commercial paper is not usually backed by any form of collateral, so only firms with high-quality debt ratings will easily find buyers without having to offer a substantial discount (higher cost) for the debt issue.

A major benefit of commercial paper is that it does not need to be registered with the Securities and Exchange Commission (SEC) as long as it matures before nine months (270 days), making it a very cost-effective means of financing. The proceeds from this type of financing can only be used on current assets (inventories) and are not allowed to be used on fixed assets, such as a new plant, without SEC involvement.

Coupon

The annual rate of interest that a bond's issuer promises to pay the bondholder on the bond's face value. Also, a certificate attached to a bond evidencing interest due on a payment.

Dealer

A dealer, as opposed to a broker, acts as a principal in all transactions, buying and selling for their own account.

Discount

The difference between the cost price of a security and its maturity when quoted at lower than face value. A security selling below original offering price shortly after sale also is considered to be at a discount.

Discount securities

Non-interest-bearing money market instruments that are issued at a discount and redeemed at maturity for full face value, e.g. US Treasury Bills.

Diversification

Dividing investment funds among a variety of securities offering independent returns.

Delivery versus Payment – DVP

A securities industry procedure in which the buyer's payment for securities is due at the time of delivery. Security delivery and payment are simultaneous. Also known as delivery against payment, delivery against cash, or from the sell side.

Federal Deposit Insurance Corporation (FDIC)

A federal agency that insure bank deposits, currently up to \$250,000 per deposit account. (If a depositor wants an FDIC insured account, the desired bank must be a participant in the FDIC program. Banks that are participants of the FDIC are required to display an official sign at each teller window or station where deposits are regularly received. The maximum dollar amount that is insured in a qualified account is \$250,000 per bank. In other words, it is possible for a depositor to deposit \$1 million in four different banks and each account will be fully insured.) (The different accounts that can be FDIC insured are NOW, checking, savings, Certificate of Deposits (CD) and money market deposit accounts.)

Federal Funds Rate

The rate of interest at which Fed Funds are traded. The Federal Reserve through open-market operations currently pegs this rate.

Federal Open Market Committee

The branch of the Federal Reserve Board that determines the direction of monetary policy. The FOMC is composed of the board of governors, which has seven members, and five reserve bank presidents. The president of the Federal Reserve Bank of New York serves continuously, while the presidents of the other reserve banks rotate their service of one-year terms.

Federal Reserve System

The central bank of the United States created by Congress and consisting of a seven-member Board of Governors in Washington, D.C., twelve regional banks in major cities around the country.

Financial Institution

A state or nationally chartered bank or a state or federally chartered savings and loan association, savings bank, or credit union whose deposits are insured by an agency of the United State government that maintains a principal office or branch office located in this state under the laws of this state of the United States.

Government-Sponsored Enterprise - GSE

Privately held corporations with public purposes created by the U.S. Congress to reduce the cost of capital for certain borrowing sectors of the economy. Members of these sectors include students, farmers and homeowners. GSEs carry the implicit backing of the U.S. Government, but they are not direct obligations of the U.S. Government. For this reason, these securities will offer a yield premium over Treasuries. Examples of GSEs include: Federal Home Loan Bank, Federal Home Loan Mortgage Corporation (Freddie Mac), Federal Farm Credit Bank and the Resolution Funding Corporation.

Investment Grade

A rating that indicates that a municipal or corporate bond has a relatively low risk of default. Bond rating firms, such as Moody's, use different designations consisting of upper- and lower- case letters 'A' and 'B' to identify a bond's credit quality rating. 'AAA' and 'AA' (high credit quality) and 'A' and 'BBB' (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations ('BB', 'B', 'CCC', etc.) are considered low credit quality, and are commonly referred to as "junk bonds".

Liquidity

1. The degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid assets. 2.) The ability to convert an asset to cash quickly, also known as, "marketability".

Local Government Investment Pool (LGIP)

Public Act 20 of the Michigan code permits local governments to pool their assets for investment purposes. LGIP's need to be organized under state statute and act similar to a mutual fund in that each participant owns a portion of the total pool of investments. Most LGIP's are structured to be short-term investments similar to a money market fund and provide overnight liquidity.

Commented [A18]: Added definition as LGIP's are included in Section 11 (l) as an Authorized Investment

Market Value

The price at which a security is trading and could presumably be purchased or sold.

Master Trust

A collection of funds from individual investors that are pooled together in order to obtain wholesale prices and rates unavailable for regular investors.

Master Repurchase Agreement

A written contract covering all future transactions between the parties to a repurchase – reverse repurchase agreements that establishes each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller-borrower.

Maturity

The date upon which the principal or stated value of an investment becomes due and payable.

Money Market

A segment of the financial market in which financial instruments with high liquidity and very short maturities are traded. The money market is used by participants as a means for borrowing and lending in the short term, from several days to just under a year. Money market securities consist of negotiable certificates of deposit (CDs), bankers' acceptances, U.S. Treasury bills, commercial paper, municipal notes, federal funds and repurchase agreements (repos).

Municipal Bond

A debt security issued by a state, municipality or county to finance its capital expenditures. Municipal bonds are exempt from federal taxes and from most state and local taxes, especially if you live in the state in which the bond is issued. At times taxable municipal bonds are issued to finance a project or activity that does not provide a major benefit to the public. In such cases, the federal government will not permit the tax-exemption that is a prominent feature of most municipal bonds.

Mutual Fund

An investment vehicle that is made up of a pool of funds collected from many investors for the purpose of investing in securities such as, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to

produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

Each shareholder participates proportionally in the gain or loss of the fund. Mutual fund units, or shares, are issued and can typically be purchased or redeemed as needed at the fund's current net asset value (NAV) per share.

Offer

The price asked by a seller of securities. (When you are buying securities, you ask for an offer.)

Open Market Operations

Purchases and sales of government and certain other securities in the open market by the New York Federal Reserve Bank, as directed by the FOMC in order to influence the volume of money and credit in the economy. Purchases inject reserves into the bank system and stimulate growth of money and credit; sales have the opposite effect. Open market operations are the Federal Reserve's most important and most flexible monetary policy tool.

Portfolio

Collection of securities held by an investor.

Rate of return

The gain or loss on an investment over a specified period, expressed as a percentage increase over the initial investment cost. Gains on investments are considered to be any income received from the security plus realized capital gains.

Repurchase Agreement - Repo

A form of short-term borrowing for dealers in government securities. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back the following day. For the party selling the security (and agreeing to repurchase it in the future) it is a repo; for the party on the other end of the transaction, (buying the security and agreeing to sell in the future) it is a reverse repurchase agreement.

Securities & Exchange Commission (SEC)

An agency created by Congress to protect investors in securities transactions by administering securities legislation.

SEC Rule 15C3-1

Requirement that member firms as well as nonmember broker-dealers in securities maintain a maximum ratio of indebtedness to liquid capital of 15 to 1; also called the net capital ratio.

Structured Notes

Notes issued by Government Sponsored Enterprises (FHLB, FNMA, SLMA, etc.) and corporations, which have imbedded options (e.g. call features, step-up coupons, floating rate coupons, derivative-based returns) into their debt structure.

Total Return

When measuring performance, the actual rate of return of an investment or a pool of investments over a given evaluation period. Total return includes interest, capital gains, dividends and distributions realized over a given period of time.

Total return accounts for two categories of return: income and capital appreciation. Income includes interest paid by fixed-income investments, distributions or dividends. Capital appreciation represents the change in the market price of an asset.

Treasury Bills

A non-interest-bearing deposit security issued by the U.S. Treasury to finance national debt. Most bills are issued to mature in three months, six months or one-year.

Treasury Bonds

Long-term coupon bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having final maturities of more than ten years.

Treasury Notes

Medium-term coupon bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities from two to ten years.

Yield

The rate of annual income return on an investment, expressed as a percentage. 1.) Income yield is obtained by dividing the current dollar income by the current market price for the security. 2.) Net yield or Yield to Maturity is the current income yield minus any premium above par plus any discount from par in purchase price, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond.



Financial Services Audit Committee Communication

Date: February 26, 2021

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Qualified Financial Institutions

Background: One of the ways that a public entity manages risk is to actively monitor and evaluate each financial institution and broker/dealer for credit worthiness with whom it may conduct business for managing public funds. This approach is in alignment with the Great Lakes Water Authority (GLWA) Investment Policy and Michigan Public Act 20. As stated in section 9 of the GLWA Investment Policy, the Treasury Manager shall maintain a listing of Qualified Institutions that provide banking and investment services to GLWA. This list shall be reviewed and approved periodically by the GLWA Audit Committee.

Analysis: GLWA has maintained consistent relationships with the institutions listed on the Qualified list since 2016. The Treasury Manager conducts a quarterly review of each institution. The latest quarterly review was completed in January 2021 based on information as of September 30, 2020 which is most current and complete data set.

For Broker/Dealers, the following documents were reviewed:

- Audited financial statements
- Financial Industry Regulatory Authority (FINRA) registration
- Registration with the Michigan Department of Licensing and Regulatory Affairs (LARA)
- Federal Deposit Insurance Corporation (FDIC) insurance coverage
- Bank ratings service provider reports

For Financial Institutions, the following documents were reviewed:

- Audited financial statements
- Registration with the Michigan Department of Licensing and Regulatory Affairs (LARA)
- FDIC insurance coverage
- Bank ratings service provider reports

For the Local Government Investment Pools:

- Information Statement which explains the investment objectives of the investment pool
- Audited financial statements for investment pool
- Audited financial statements for investment advisor
- Credit rating

PFM Asset Management LLC (PFM), the Investment Advisor for GLWA, annually provides a list of their approved broker/dealers. This list has been evaluated for credit worthiness by PFM. Reliance on the investment advisor's analysis of qualified institutions is provided for in the GLWA investment policy.

Based upon the above analysis, attached is the GLWA list of qualified financial institutions, PFM's qualified broker/dealer list, and a summary of the qualified financial institution review.

Proposed Action: Receive and file this report.

Great Lakes Water Authority Qualified Financial Institutions Review

Name	Relationship Established	Bal as of 9/30/2020
Financial Institutions		
Comerica Bank	Jan 2016	\$ 5,250,773
Fifth Third Bank (custodian for MILAF funds managed by PFM)	Jul 2017	-
First Independence Bank	Jan 2016	16,589,708
J.P. Morgan Chase	Jan 2016	25,005,432
TCF Bank (Chemical Bank)	-	-
U.S. Bank - Trustee (includes funds managed by PFM)	Jan 2016	787,582,503
Broker / Dealers		
Comerica Securities Corporation	-	-
Fifth Third Securities	-	-
J.P. Morgan Securities	Jun 2017	19,129,510
U.S. Bancorp Investments	-	-
Local Government Investment Pool		
Michigan Liquid Asset Fund Plus (MILAF)	Nov 2016	36,543,173
Total		\$ 890,101,099

Note: GLWA Treasury team interacts directly with these organizations

PFM Asset Management LLC
Approved Broker/Dealer List
Second Quarter 2020

- | | |
|--|--|
| ‡ Academy Securities Inc. | Jane Street Execution Services LLC |
| * Amherst Pierpont Securites LLC | * Jefferies LLC |
| ‡ Bancroft Capital LLC | * J.P. Morgan Securities LLC |
| * Barclays Capital Inc. | Keybank Capital Markets |
| BB&T Capital Markets | † Loop Capital Markets LLC |
| † Blaylock Robert Van LLC | Lloyds Securities Inc. |
| * BMO Capital Markets Corp. | MarketAxess Corporation |
| * BNP Paribas Securities Corp. | Mitsubishi UFJ Securities (USA), Inc. |
| BNY Capital Markets LLC | * Mizuho Securities USA Inc. |
| * BofA Securities, Inc. | * Morgan Stanley & Co. LLC |
| † Cabrera Capital Markets LLC | * NatWest Markets Securities Inc. |
| * Cantor Fitzgerald & Co. | * Nomura Securities International, Inc. |
| † CastleOak Securities | Performance Trust Capital Partners, LLC |
| * Citigroup Global Markets Inc. | Piper Jaffray & Company |
| † C.L. King & Associates, Inc. | PNC Capital Markets LLC |
| Commerz Markets LLC | * RBC Capital Markets, LLC |
| Credit Agricole Securities (USA), Inc. | Robert W. Baird & Co. |
| * Credit Suisse Securities (USA) LLC | ‡ Roberts & Ryan Investments, Inc. |
| * Daiwa Capital Markets America Inc. | Scotia Capital (USA), Inc. |
| * Deutsche Bank Securities Inc. | * SG Americas Securities LLC |
| ‡ Drexel Hamilton LLC | † Siebert Williams Shank & Co LLC |
| Fifth Third Securities, Inc. | SMBC Nikko Securities America Inc |
| FTN Financial | Stifel, Nicolaus & Company, Incorporated |
| * Goldman Sachs & Co. LLC | SunTrust Robinson Humphrey, Inc. |
| Guggenheim Securities, LLC | Susquehanna Financial Group, LP |
| Hilltop Securities Inc. | * TD Securities (USA) LLC |
| * HSBC Securities (USA) Inc. | Tradition Asiel Securities, Inc. |
| ICAP Corporates, LLC | * UBS Securities LLC |
| ING Financial Markets, LLC | U.S. Bancorp Investments, Inc. |
| INTL FCStone Partners L.P. | Vining Sparks IBG, L.P. |
| Incapital LLC | * Wells Fargo Securities, LLC |

- * *Primary Government Securities Dealer*
† *Minority or woman owned business enterprise*
‡ *Service Disabled-Veteran Owned*

Note: Direct issuers of CP and CDs are considered to be approved counterparties if approved as an issuer.

Important Disclosures

This list is current as of the effective date only and is subject to change without notice. This list is for informational purposes only, and may not be relied upon for any other purpose. The list does not imply counterparty approval for derivatives of any type. This information is confidential and may not be distributed without prior written consent of PFM Asset Management LLC.

Great Lakes Water Authority
Financial Institutions / Brokers / Investment Funds
Qualified Institutions Review Matrix as of September 30, 2020

Bank Name	Broker/Dealer Name	Investment Funds	FDIC Insured	FINRA Registered	Approved to do business in MI	Audited Financial Statements	Rating	Bauer Financial Rating	Robinson Capital Rating
Comerica	Comerica Securities ^(a)	-	Yes	Yes	Yes	Yes	Moody's - A3	5 Stars	A-
Fifth Third Bank	Fifth Third Securities ^(a)	-	Yes	Yes	Yes	Yes	Moody's - A3	5 Stars	A-
First Independence Bank	-	-	Yes	n/a1	Yes	Yes	n/a1	4 Stars	B
JPMorgan Chase	JPMorgan Securities LLC	-	Yes	Yes	Yes	Yes	Moody's - A2	5 Stars	B+
U.S. Bank	U.S. Bancorp Investments Inc ^(a)	-	Yes	Yes	Yes	Yes	Moody's - Baa1	4 Stars	B+
TCF Bank (Chemical Bank)	-	-	Yes	n/a1	Yes	Yes	n/a1	4 Stars	B+
-	-	MILAF	n/a2	n/a2	n/a2	Yes	S&P - AAAm	n/a2	n/a2

^(a) Currently, GLWA is only utilizing the bank for depository services and has not opened accounts with the broker.

n/a1 These entities are not broker/dealers and are not registered with FINRA and may not be rated by Moodys.

n/a2 Not Applicable for Investment Funds

FDIC The Federal Deposit Insurance Corporation (FDIC) is an independent agency of the U. S. government that protects the funds deposited in banks and savings associations. FDIC insurance is backed by the full faith and credit of the U.S. government. FDIC insurance covers all deposit accounts, including checking accounts, savings accounts, money market deposit accounts, and certificates of deposits. It does not cover other financial products and services that banks may offer, such as stocks, bonds, mutual funds, life insurance policies, annuities or securities.

FINRA The Financial Industry Regulatory Authority (FINRA) resulted from the merger of the New York Stock Exchange's regulatory committee and the National Association of Securities Dealers (NASD). FINRA's mission is to safeguard the investing public against fraud and bad practices by enforcing rules and regulations for every broker/dealer and monitoring compliance to FINRA rules as well as federal securities laws and rules of the Municipal Securities Rulemaking Board. Only entities that are broker/dealers need to be registered with FINRA.

Moody's / S&P Rating Moody's Investors Service and Standard & Poors are leading global providers of credit ratings, research, and risk analysis.

Bauer Financial Rating Bauer Financial is an independent bank research firm that is a source for unbiased, independent bank and credit union ratings. They have been analyzing and reporting on the financial condition of the nation's banking industry since 1983. Independent analysis is performed on the raw data as reported to federal regulators and supplemented with historical and other data to assign ratings.

Robinson Capital Rating Founded in December 2012, Robinson Capital is an independent investment advisor who offers banking research to Michigan based counties, cities, townships and school districts. Credit scores are assigned using a number of data sources and approaches. Credit scores are based on analysis of creditworthiness, taking into account the risk of default for each entity. For each bank, Robinson starts with the traditional financial statement analysis to calculate a base credit score, similar to most banking research offerings. In addition, they consider a number of other factors that enhance detection of instability, including; size, diversity of loans, geographic region, and financial data trends.

GLWA

Great Lakes Water Authority



Monthly Financial Report Binder

November 2020

**Presented to the
Great Lakes Water Authority
Audit Committee on February 26, 2021**

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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:

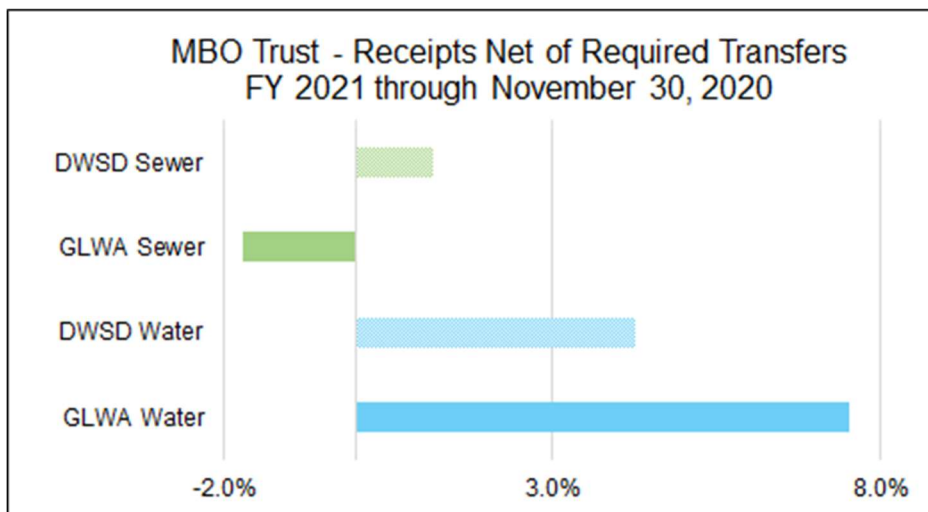
No Risk (green) - Potential (yellow) - Likely (red)

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 November 30, 2020				
Metric	FY 2021 Budget	FY 2021 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue (\$M)	\$137.8	\$142.5	3%	45
Wholesale Water Billed Usage (mcf)	6,398,000	6,826,000	7%	
Wholesale Sewer Billed Revenue (\$M)	\$111.6	\$111.6	0%	47
Wholesale Water Operations & Maintenance (\$M)	\$55.9	\$55.1	-1%	6
Wholesale Sewer Operations & Maintenance (\$M)	\$76.0	\$70.5	-7%	
Investment Income (\$M)	\$1.5	\$3.6	140%	35
Water Prorated Capital Spend w/SRA* (\$M)	\$45.0	\$49.0	9%	27
Sewer Prorated Capital Spend w/SRA* (\$M)	\$34.0	\$30.0	-12%	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 51)



Net cash flow receipts remain positive for GLWA Water while Sewer reports a small shortfall of \$3.3 million related to the timing of payments received. This means that all legal commitments of the MBO Trust and the lease payment for

the Water fund are fully funded and for the Sewer fund nearly funded to date – and that positive cash flow is available for additional capital program funding in subsequent year(s). DWSD Water and Sewer report positive net receipts of \$2.0 million and \$1.5 million respectively through November 2020 attributed to the receipt of anticipated Michigan CARES Act funding.

The current DWSD loan receivable balance for fiscal years 2017 and 2018 is \$19.0 million.

Budget to Actual Analysis (page 3)

- The first quarter budget amendment that was approved by the GLWA Board on October 28, 2020 is reflected in the FY 2021 Amended Budget columns on the tables in the November 2020 Budget to Actual report.
- The total Revenue Requirements are on target through November 2020.
- The total Operations & Maintenance expenses are at 39.7% of budget through November 2020 which is reasonably within the pro-rata benchmark of 41.7%.

Basic Financial Statements (page 10)

- The Basic Financial Statements are prepared on a full accrual basis and reflect preliminary, unaudited results.
- Operating income for November 2020 is \$44.7 million for the Water fund (29.5% of total revenues) and \$62.0 million for the Sewer fund (31.5% of total revenues).
- Water Net Position increased \$1.7 million, and Sewage Disposal Net Position increased \$15.2 million for the year to date through November 2020.

Construction Work in Progress Summary (page 26)

- Both the Water and Wastewater systems are exceeding 75% of the Capital Spend Ratio.

Master Bond Ordinance Transfers (page 29)

- For November, transfers of \$13.6 million and \$18.3 million were completed for the GLWA Water and Sewer funds, respectively.
- Also for November, transfers of \$4.7 million and \$7.7 million were completed for the DWSD Water and Sewer funds, respectively.

Cash Balances & Investment Income (page 35)

- Total cash & investments are \$530 million in the Water fund and \$433 million in the Sewer fund.
- The total combined cumulative investment income for FY 2021 through November was \$3.6 million.

DWSD Retail Revenues, Receivables & Collections (page 40)

- Water usage through November 30, 2020 is at 92.85% of budget and revenues at 93.84% of budget.
- Sewer usage through November 30, 2020 is at 92.24% of budget and revenues at 97.26% of budget.
- Combined accounts receivable balances for the water and sewer funds report an increase of \$4 million over the prior year.
- Past dues over 180 days make up 65% 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 45)

- GLWA accounts receivable past due balances (net of Highland Park) continue to be higher than usual due to mail delivery issues and COVID-related collection issues although total past dues still remain below 2% of the total accounts receivable balance.
- The Highland Park past due balance is \$45.5 million, includes \$34.7 million for wastewater treatment services, \$1.7 million for industrial waste control services, and \$9.1 million for water supply services. In FY 2021, Highland Park has made three payments totaling \$1.7 million through November 2020.

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



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

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

The FY 2021 information presented in these sections includes the first quarter budget amendments approved by the GLWA Board on October 28, 2020.

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 November 2020, the pro-rata benchmark is 41.7% (5 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 November 30, 2020 these payments total \$2.8 million for FY 2021.

2. **Investment Earnings:** For *both* systems, investment earnings are above the pro-rata benchmark for FY 2021; the *water* system is at 170.1%; while the *sewer* system is at 143.2%. 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 expenses¹ for *both* systems have variances from the pro-rata benchmark. The *water* system is slightly under the pro-rata benchmark for FY 2021 at 41.1%. The *sewer* system O&M expenses, at 38.7%, is less than the pro-rata benchmark.
5. **Debt Service:** *Both* systems are slightly above the pro-rata benchmark for FY 2021; the *water* system is at 42.5%; while the *sewer* system is at 42.7%. 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.² Steps to proactively detect, and ideally prevent, this shortfall scenario were put into place with the 2018 Memorandum of Understanding (dated June 27, 2018). For FY 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 surplus of \$2.0 million and the DWSD *sewer* system has a budgetary surplus of \$1.5 million through November 30, 2020. GLWA and DWSD staff are meeting regularly to discuss steps to mitigate any shortfall as outlined in the 2018 MOU.

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

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

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.
9. **Other Revenue Requirements:** The remaining revenue requirements for *both* systems are funded on a 1/12th basis each month in accordance with the Master Bond Ordinance.
10. **Overall:** Total revenue requirements for *both* systems are in line with the benchmark.

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

	FY2020 AMENDED BUDGET	FY 2020 THRU 11/30/2019	Percent Year-to- Date	FY 2021 BOARD ADOPTED BUDGET	FY 2021 AMENDED BUDGET	FY 2021 THRU 11/30/2020	Percent Year-to- Date
Water System							
Revenues							
Suburban Wholesale Customer Charges	\$ 304,634	\$ 134,363	44.1%	\$ 314,252	\$ 313,134	\$ 139,428	44.5%
Retail Service Charges	21,296	8,873	41.7%	22,555	21,926	9,267	42.3%
Investment Earnings	8,084	3,967	49.1%	4,834	1,270	2,160	170.1%
Other Revenues	2		11.2%	-	-	15	0.0%
Total Revenues	\$ 334,016	\$ 147,203	44.1%	\$ 341,642	\$ 336,329	\$ 150,870	44.9%
Revenue Requirements							
Operations & Maintenance Expense	\$ 126,840	\$ 52,724	41.6%	\$ 137,127	\$ 134,127	\$ 55,111	41.1%
General Retirement System Legacy Pension	6,048	2,520	41.7%	6,048	6,048	2,520	41.7%
Debt Service	135,999	53,612	39.4%	143,190	137,436	58,392	42.5%
General Retirement System Accelerated Pension	6,268	2,612	41.7%	6,268	6,268	2,612	41.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,698	708	41.7%	1,669	1,669	696	41.7%
Lease Payment	22,500	9,375	41.7%	22,500	22,500	9,375	41.7%
Operating Reserve Deposit	3,976	-	0.0%	877	-	-	0.0%
DWSD Budget Shortfall/(Surplus) Pending Improvement & Extension Fund Transfer Pending	1,230	(1,036)	-84.2%	-	-	(2,027)	0.0%
Total Revenue Requirements	\$ 334,016	\$ 132,788	39.8%	\$ 341,642	\$ 336,329	\$ 138,462	41.2%
Net Difference		\$ 14,415				\$ 12,408	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 8,029				\$ 10,733	
Revenue Requirement Variance		6,385				1,675	
Overall Variance		\$ 14,415				\$ 12,408	

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

	FY 2020 AMENDED BUDGET	FY 2020 THRU 11/30/2019	Percent Year-to- Date	FY 2021 BOARD ADOPTED BUDGET	FY 2021 AMENDED BUDGET	FY 2021 THRU 11/30/2020	Percent Year-to- Date
Sewer System							
Revenues							
Suburban Wholesale Customer Charges	\$ 272,324	\$ 113,804	41.8%	\$ 277,012	\$ 274,054	\$ 111,927	40.8%
Retail Service Charges	185,807	77,420	41.7%	190,112	187,960	78,765	41.9%
Industrial Waste Control Charges	7,834	3,488	44.5%	8,775	8,683	3,278	37.8%
Pollutant Surcharges	5,910	2,518	42.6%	5,263	5,208	2,601	49.9%
Investment Earnings	7,731	3,357	43.4%	5,589	987	1,414	143.2%
Other Revenues	400	211	52.9%	-	-	265	0.0%
Total Revenues	\$ 480,005	\$ 200,798	41.8%	\$ 486,751	\$ 476,891	\$ 198,249	41.6%
Revenue Requirements							
Operations & Maintenance Expense	\$ 181,926	\$ 69,536	38.2%	\$ 184,946	\$ 182,296	\$ 70,508	38.7%
General Retirement System Legacy Pension	10,824	4,510	41.7%	10,824	10,824	4,510	41.7%
Debt Service	214,691	86,473	40.3%	209,740	201,780	86,128	42.7%
General Retirement System Accelerated Pension	11,621	4,842	41.7%	11,621	11,621	4,842	41.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,403	1,001	41.7%	2,415	2,415	1,006	41.7%
Lease Payment	27,500	11,458	41.7%	27,500	27,500	11,458	41.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall/(Surplus) Pending Improvement & Extension Fund Transfer Pending	10,244	10,690	104.4%	-	-	(1,474)	0.0%
Total Revenue Requirements	\$ 480,005	\$ 197,177	41.1%	\$ 486,751	\$ 476,891	\$ 193,709	40.6%
Net Difference		\$ 3,621				\$ 4,540	
<i>Recap of Net Positive Variance</i>							
Revenue Variance		\$ 795				\$ (455)	
Revenue Requirement Variance		2,826				4,995	
Overall Variance		\$ 3,621				\$ 4,540	

All amounts are unaudited unless otherwise noted.

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of November 30, 2020, is 41.7% (five 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		Percent Year-to-Date	FY 2021		Percent Year-to-Date
	AMENDED BUDGET	ACTIVITY THRU 11/30/2019		ADOPTED BUDGET	AMENDED BUDGET	
Water	\$ 66,021	\$ 28,457	43.1%	\$ 71,966	\$ 70,820	42.4%
Sewer	115,985	44,098	38.0%	115,676	114,975	38.2%
Centralized	97,731	38,545	39.4%	102,721	100,338	39.8%
Administrative	29,028	11,486	39.6%	31,709	30,290	36.8%
Employee Benefits	-	(326)	0.0%	-	581	0.0%
Total O&M Budget	\$ 308,766	\$ 122,260	39.6%	\$ 322,073	\$ 316,423	39.7%

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 39.7% which is reasonably within the pro-rata benchmark of 41.7%. This positive variance equates to a dollar amount of \$6.2 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 41.2% through November 2020.

Utilities: The overall category is higher than the pro-rata benchmark; coming in at 42.3% through November 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 46.5%. 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 27.0% which is lower than the benchmark of 41.7%. 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 38.7%. A review of this category is being conducted.
- **Water service** is lower than the benchmark, coming in at 28.3%. 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 45.5% through November 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 33.0% through November 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 slightly lower than the pro-rata benchmark; coming in at 41.0% through November 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 lower than the benchmark; coming in at 36.3% through November 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 56.2% through November 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	FY 2020	Percent	FY 2020	Percent	FY 2021	FY 2021	Percent	FY 2021
	AMENDED BUDGET	ACTIVITY THRU 11/30/2019	Year-to-Date at 11/30/2019	ACTIVITY THRU 6/30/2020	Year-to-Date at 6/30/2020	AMENDED BUDGET	PRORATED AMENDED BUDGET (5 MONTHS)	ACTIVITY THRU 11/30/2020	PRORATED BUDGET LESS FY 2021
Entity-wide									
Salaries & Wages	\$ 64,703	\$ 26,878	41.5%	\$ 64,189	41.9%	\$ 69,842	\$ 29,101	\$ 26,782	\$ 2,319
Workforce Development	1,271	370	29.1%	1,252	29.5%	948	395	366	29
Overtime	7,191	3,082	42.9%	7,494	41.1%	6,988	2,912	3,124	(212)
Employee Benefits	22,465	10,594	47.2%	25,001	42.4%	24,194	10,081	10,717	(636)
Transition Services	5,872	2,212	37.7%	6,330	34.9%	6,834	2,847	3,297	(450)
Employee Benefits Fund	-	(326)	0.0%	-	0.0%	-	-	581	(581)
Personnel Costs	101,503	42,810	42.2%	104,267	41.1%	108,806	45,336	44,867	469
Electric	39,549	17,908	45.3%	40,669	44.0%	39,240	16,350	18,254	(1,904)
Gas	5,332	1,850	34.7%	5,196	35.6%	6,629	2,762	1,790	972
Sewage Service	1,988	847	42.6%	2,109	40.2%	2,120	883	821	62
Water Service	3,662	1,401	38.2%	3,179	44.1%	3,948	1,645	1,118	527
Utilities	50,531	22,007	43.6%	51,153	43.0%	51,937	21,640	21,983	(342)
Chemicals	14,019	6,219	44.4%	14,242	43.7%	13,420	5,592	6,112	(521)
Supplies & Other	34,124	13,826	40.5%	35,402	39.1%	39,021	16,259	12,877	3,382
Contractual Services	103,975	40,812	39.3%	106,372	38.4%	104,782	43,659	42,948	711
Capital Program Allocation	(3,122)	(1,196)	38.3%	(3,347)	35.7%	(3,448)	(1,437)	(1,250)	(187)
Shared Services	(4,995)	(2,217)	44.4%	(1,734)	127.9%	(3,413)	(1,422)	(1,918)	496
Unallocated Reserve	12,731	-	0.0%	-	0.0%	5,318	2,216	-	2,216
Total Expenses	\$ 308,766	\$ 122,260	39.6%	\$ 306,354	39.9%	\$ 316,423	\$ 131,843	\$ 125,619	\$ 6,224



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 based on final audited figures.

Statement of Net Position – All Funds Combined

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

**Table 1 – Statement of Net Position - All Funds Combined
As of November 30, 2020
(\$000)**

	Water	Sewage Disposal	Total Business- type Activities	Comparative June 30, 2020
Assets				
Cash - unrestricted (a)	\$ 153,773	\$ 152,869	\$ 306,642	\$ 208,357
Cash - restricted (a)	26,563	46,541	73,104	114,415
Investments - unrestricted (a)	242,248	131,969	374,217	473,549
Investments - restricted (a)	85,489	117,149	202,637	157,786
Accounts Receivable	93,639	83,244	176,883	193,719
Due from (to) Other Funds (b)	(16)	16	-	-
Other Assets (c)	678,220	434,683	1,112,903	1,114,230
Cash Held FBO DWSD Advance (d)	-	8,721	8,721	-
Capital Assets, net of Depreciation	1,348,379	2,237,561	3,585,940	3,689,047
Land	292,799	123,846	416,645	416,645
Construction Work in Process (e)	168,879	208,475	377,354	303,220
Total assets	3,089,975	3,545,072	6,635,046	6,670,969
Deferred Outflows (f)	61,566	150,930	212,495	217,097
Liabilities				
Liabilities - Short-Term (g)	172,452	176,721	349,173	305,598
Due to (from) Other Funds (b)	-	-	-	-
Other Liabilities (h)	2,891	6,799	9,690	9,179
Cash Held FBO DWSD (d)	3,273	-	3,273	1,250
Liabilities - Long-Term (i)	3,012,866	3,570,423	6,583,289	6,683,741
Total liabilities	3,191,481	3,753,943	6,945,424	6,999,768
Deferred Inflows (f)	54,672	51,964	106,636	109,876
Total net position (j)	\$ (94,613)	\$ (109,906)	\$ (204,519)	\$ (221,578)

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 November 30, 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 November 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 Five Months ended November 30, 2020
(\$000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business- Type Activities	Comparative June 30, 2020
Revenue						
Wholesale customer charges	\$ 142,200	93.9%	\$ 111,927	56.9%	\$ 254,127	\$ 578,705
Local system charges	9,267	6.1%	78,765	40.0%	88,032	207,103
Industrial waste charges		0.0%	3,278	1.7%	3,278	7,855
Pollutant surcharges		0.0%	2,601	1.3%	2,601	6,449
Other revenues	15	0.0%	265	0.1%	280	778
Total Revenues	151,482	100.0%	196,836	100.0%	348,318	800,889
Operating expenses						
Operations and Maintenance	55,112	36.4%	72,111	36.6%	127,223	309,482
Depreciation	51,605	34.1%	62,715	31.9%	114,320	280,104
Total operating expenses	106,717	70.4%	134,826	68.5%	241,543	589,586
Operating Income	44,765	29.6%	62,010	31.5%	106,775	211,303
Total Nonoperating (revenue) expense	42,969	28.4%	46,748	23.7%	89,717	232,056
Increase/(Decrease) in Net Position	1,796	1.2%	15,262	7.8%	17,059	(20,753)
Net Position (deficit), beginning of year	(96,410)		(125,168)		(221,578)	(200,825)
Net position (deficit), end of year	\$ (94,613)		\$ (109,906)		\$ (204,519)	\$ (221,578)
<i>Totals may be off due to rounding</i>						

Water Fund

- ✓ The increase in Water Fund Net Position is \$1.8 million.
- ✓ Wholesale water customer charges of \$142.2 million account for 93.9% of Water System revenues.
- ✓ Operating expenses of \$106.7 million represent 70.4% of total operating revenue. Depreciation is the largest operating expense at \$51.6 million or 48.4% of operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals \$44.8 million or 29.6 % of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$35.6 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 \$15.3 million.
- ✓ Wholesale customer charges of \$111.9 million account for 56.9% 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 \$78.8 million account for 40.0% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of \$134.8 million represent 68.5% of total operating revenue. Depreciation is the largest operating expense at \$62.7 million or 46.5% of total operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals \$62.0 million or 31.5 % of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of \$40.0 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 November 2020 Financial Report Binder. Explanatory notes follow this schedule.

**Table 3 – Supplemental Schedule of Operations & Maintenance Expenses
– All Funds Combined
For the Five Months ended November 30, 2020
(\$000)**

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business- Type Activities	Percent of Total
Operating Expenses						
Personnel						
Salaries & Wages	9,665	17.5%	20,780	28.8%	30,445	23.9%
Overtime	1,950	3.5%	1,174	1.6%	3,124	2.5%
Benefits	7,650	13.9%	3,649	5.1%	11,299	8.9%
Total Personnel	\$ 19,264	35.0%	\$ 25,603	35.5%	\$ 44,867	35.3%
Utilities						
Electric	12,169	22.1%	6,084	8.4%	18,254	14.3%
Gas	232	0.4%	1,558	2.2%	1,790	1.4%
Sewage	91	0.2%	731	1.0%	822	0.6%
Water		0.0%	1,118	1.6%	1,118	0.9%
Total Utilities	\$ 12,492	22.7%	\$ 9,491	13.2%	\$ 21,983	17.3%
Chemicals	2,704	4.9%	3,409	4.7%	6,112	4.8%
Supplies and other	3,747	6.8%	9,130	12.7%	12,877	10.1%
Contractual services	19,545	35.5%	25,006	34.7%	44,551	35.0%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(864)	-1.6%	(386)	-0.5%	(1,250)	-1.0%
Shared services allocation	(1,777)	-3.2%	(141)	-0.2%	(1,918)	-1.5%
Operations and Maintenance Expenses	\$ 55,112	100.0%	\$ 72,111	100.0%	\$ 127,223	100.0%

Totals may be off due to rounding

- ✓ Core expenses for water and sewage disposal systems are utilities (17.3% of total O&M expenses) and chemicals (4.8% of total O&M expenses).
- ✓ Personnel costs (35.3% 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 (35.0%) includes:
 - Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately \$2.8 million);
 - Sewage Disposal System costs for the operation and maintenance of the biosolids dryer facility (approximately \$6.6 million); and
 - Centralized and administrative contractual costs allocated to both systems for information technology, building maintenance, field, planning and other services.
- ✓ Both the Capital Program Allocation and Shared Services Allocation are shown as negative amounts because they are 'contra' expense accounts representing offsets to associated costs in other Operations and Maintenance expense categories.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined

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

**Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined
For the Five Months ended November 30, 2020
(\$000)**

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2020
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	\$ (10,448)	\$ (7,340)	\$ (17,788)	\$ (41,136)
Interest income DWSD Shortfall	-	(347)	(347)	(1,299)
Investment earnings	(2,178)	(1,436)	(3,614)	(19,445)
Net (increase)/decrease in fair value of investments	4,946	3,340	8,286	(5,972)
Other nonoperating revenue	(39)	(7)	(46)	(2,552)
Interest Expense				
Bonded debt	46,054	47,339	93,393	243,745
Lease obligation	7,214	8,817	16,031	38,808
Other obligations	1,979	647	2,626	6,395
Total interest expense	55,246	56,803	112,049	288,948
Other non-capital expense	-	-	-	-
Memorandum of Understanding	-	-	-	-
Capital Contribution	-	12	12	(5,960)
Amortization, issuance costs, debt	(6,611)	(5,070)	(11,681)	(10,303)
Amortization, raw water rights	1,486	-	1,486	3,567
(Gain) loss on disposal of capital assets	(7)	(11)	(18)	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
Total Nonoperating (Revenue)/Expense	\$ 42,969	\$ 46,747	\$ 89,716	\$ 232,056

- ✓ Interest income on contractual obligation relates to the portion of the total GLWA debt obligation attributable to DWSD. This interest income offsets the total debt interest expense paid by GLWA on behalf of both entities monthly.
- ✓ Interest income DWSD shortfall represents interest from a budgetary shortfall loan from fiscal years 2016, 2017 and 2018 and is paid in accordance with the 2018 Memorandum of Understanding (MOU).
- ✓ Investment earnings in this report are reflected at book value. Any differences between the Basic Financial report and Cash and Investment section of this Financial Report binder are due to accrued interest. FY 2020 market value adjustments for Water and Sewer totaled \$4.9 million and \$3.3 million,

respectively. FY 2021 market value adjustment will be made as part of audit preparation in June 2021.

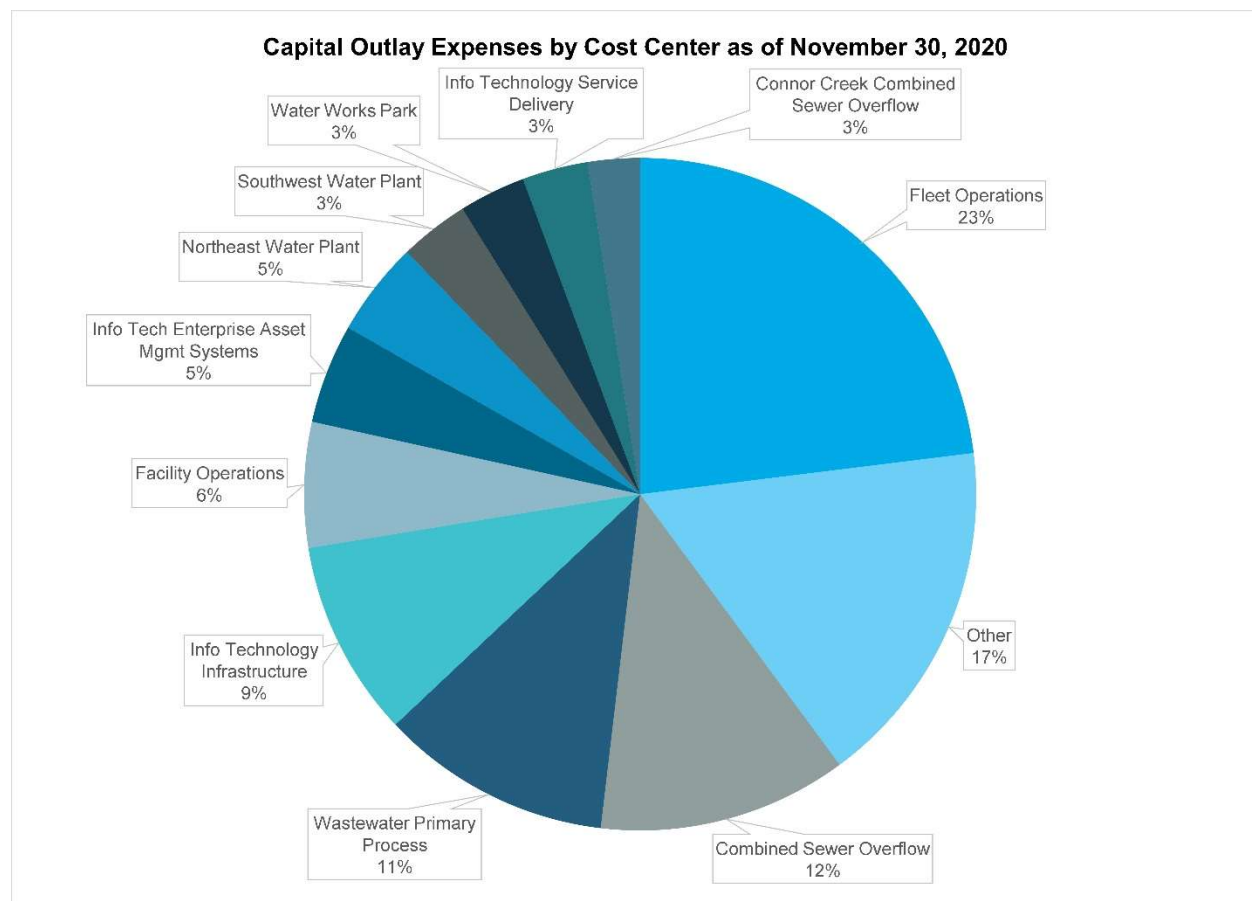
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
 - Bonded debt;
 - Lease obligation for the regional assets from the City of Detroit; and
 - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to 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 November 30, 2020, total capital outlay spend is \$7.3 million. Following this chart is a sample list of projects and purchases from the total spend of \$7.3 million:



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

Water Operations: Generator (\$111k); Southwest Water Plant feed system (\$110k); evaporators (\$101k) and high-pressure water tank (\$92k).

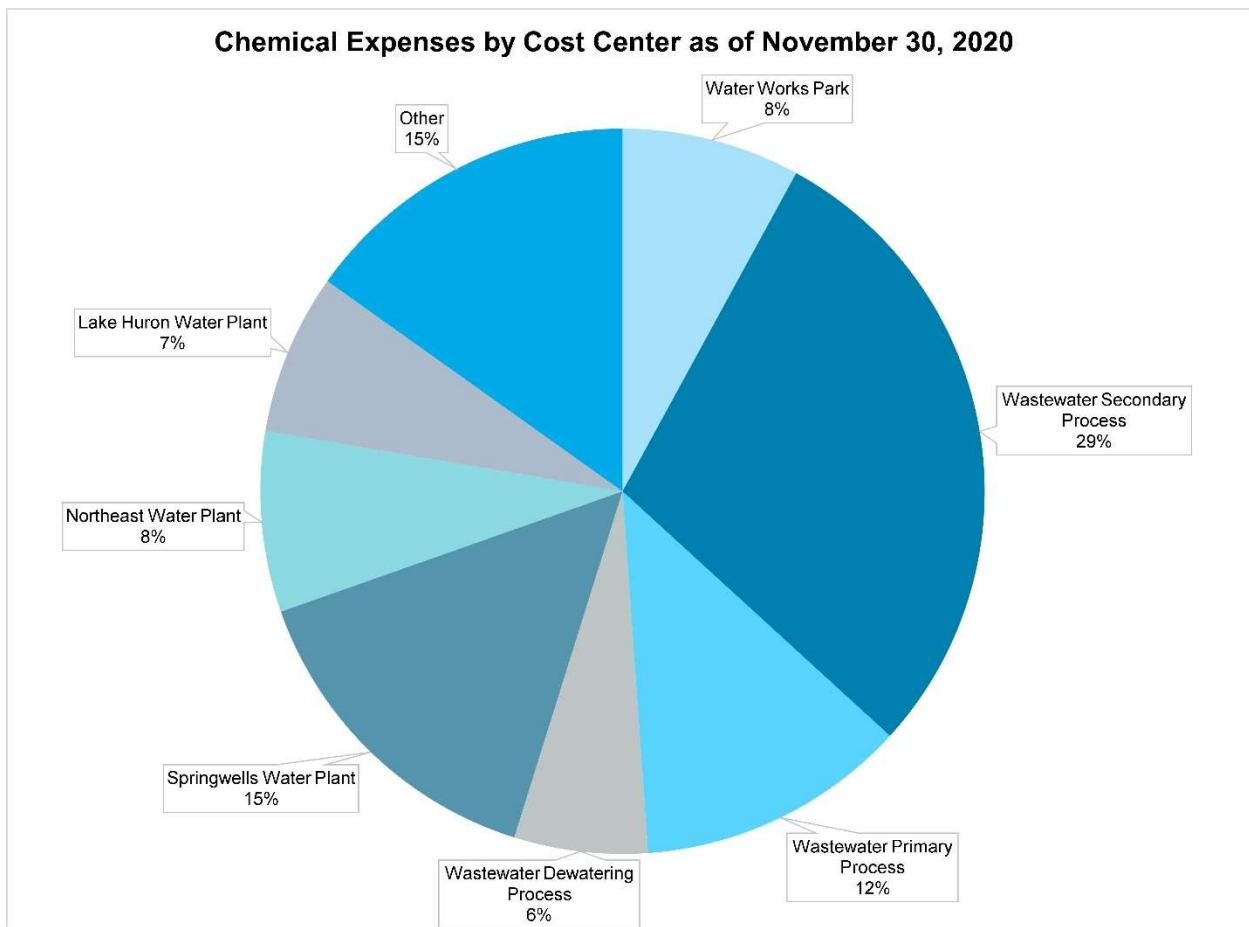
Wastewater Operations: Chemical containment improvements (\$879k); pump at WRRF (\$742k); level and flow instrumentation (\$163k); submersible mixers (\$135k);

turbimeter, controller and process head (\$134k); magnetic drive (\$129k); actuators (\$121k); Complex A Bio Solids dryer (\$68k) and dilute water control (\$56k).

Centralized & Administrative Facilities: Trucks and vehicles (\$1.7m); bleacher design (\$441k); datacenter modernization (\$320k); IT software (\$620k); IT computers (\$142k) universal power supply (\$100k); server drives (\$61k) and sewer meter support (\$50k).

Chart 2 – Chemical Expenses – Water and Sewer System Combined

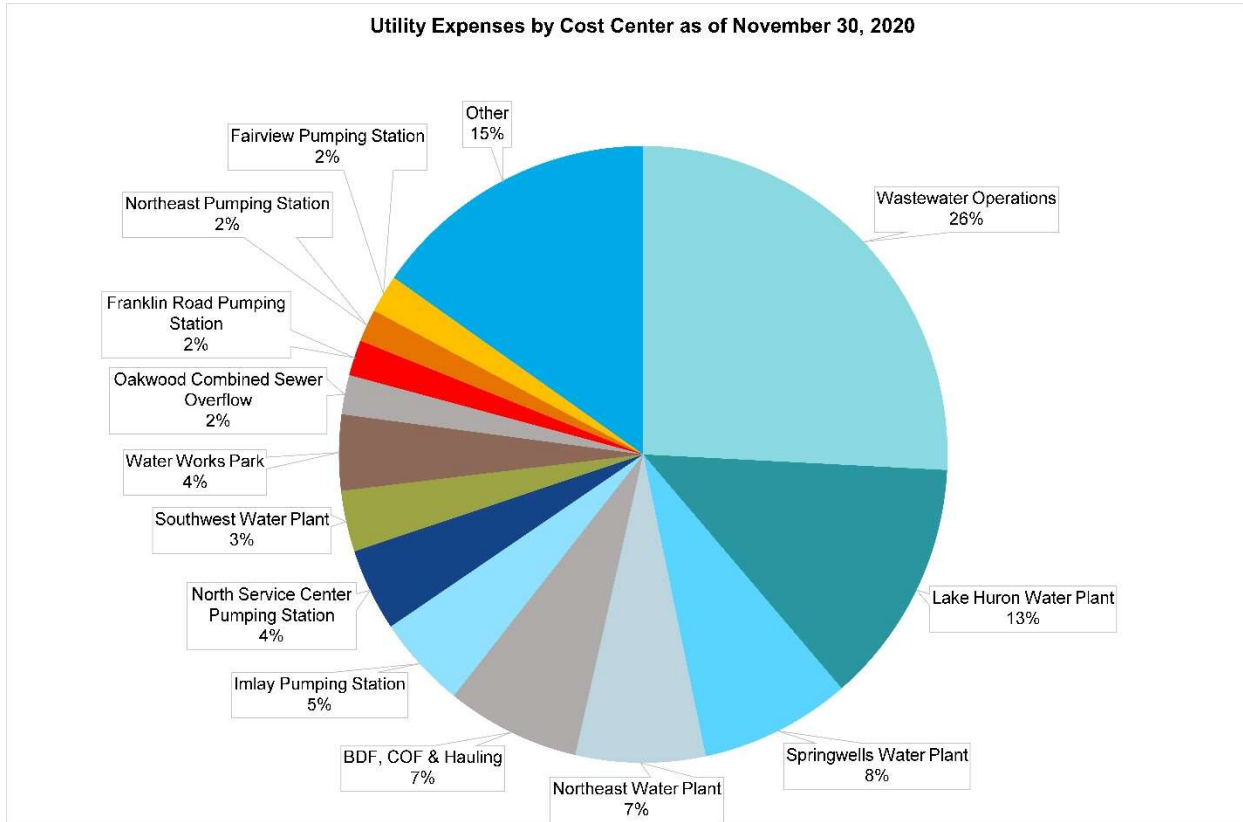
Chemical expenses are \$6.1 million through November 30, 2020. The allocation is shown in the chart below and remains consistent with prior periods.



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 \$22.0 million through November 30, 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 November 30, 2020 all reconciliations are up-to-date and complete.

There were no changes from October 2020.

Chart 1 – Bank Reconciliation Completion Status

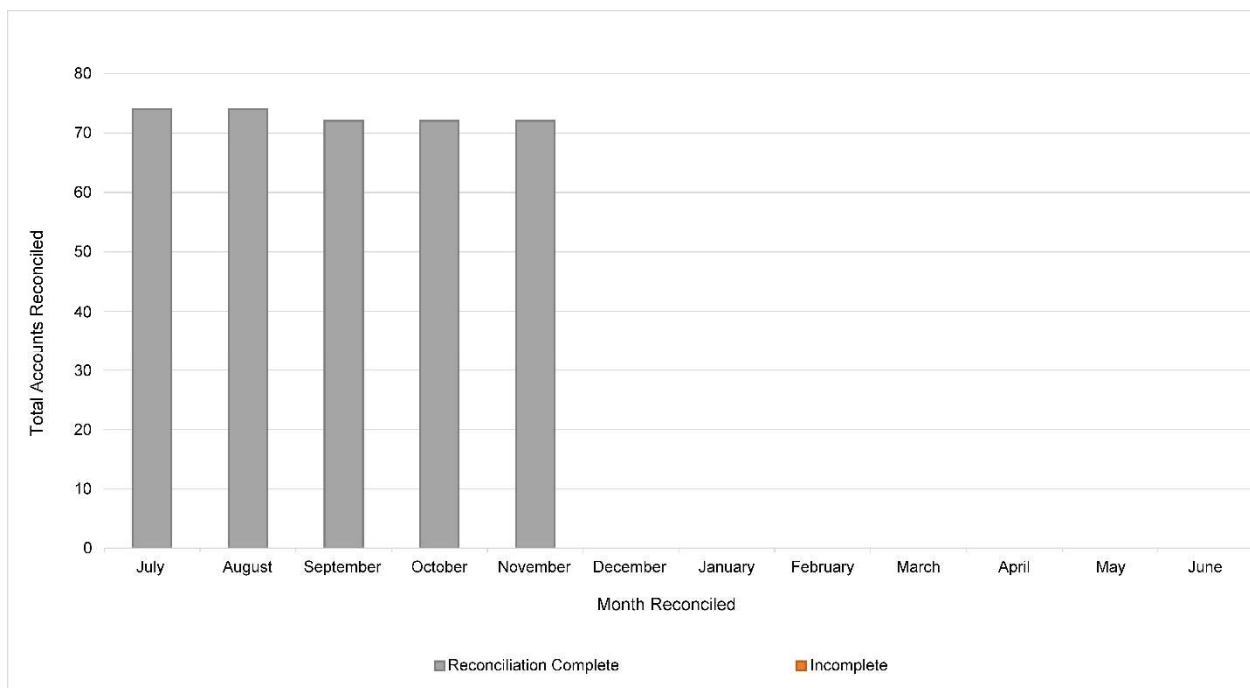


Table 1 – Fiscal Year 2021 GL Cash Account Rollforward

Total GL Cash accounts as of July 1, 2020	74
New GL Cash accounts	0
Inactivated GL Cash accounts	(2)
Total GL Cash accounts as of November 30, 2020	72



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 1/12th of the budget as defined in the MBO (“the flow of funds”) for all revenue requirements except for the Debt Service monthly transfer. The Debt Service monthly requirement is computed by the trustee, U.S. Bank. The cash transfer for debt is net of investment earnings that remain in the debt service accounts to be used for debt service.

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

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

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

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

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

**Table 1 – Crosswalk Budget Basis to Financial Reporting Basis (\$000)
For the Five Months Ended November 30, 2020**

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	\$ 12,408	\$ 4,540	\$ 16,948
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	4,767	8,531	13,298
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	22,786	46,129	68,915
Accelerated pension B&C notes obligation portion (g)	77	174	251
Lease payment (h)	2,161	2,641	4,802
WRAP (i)	122	204	326
DWSD short term allocation (j)	(2,027)	(1,474)	(3,501)
Operating Reserve Deposit (j)	-	-	-
Improvement & Extension Fund (j)	11,783	15,128	26,911
Nonbudgeted financial reporting categories adjustments			
Depreciation (k)	(51,605)	(62,715)	(114,320)
Amortization (k)	5,125	5,070	10,195
Other nonoperating income (k)	39	7	46
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	7	11	18
Raw water rights (l)	1,081	-	1,081
Investment earnings construction fund & WRAP (m)	18	21	39
Investment earnings DWSD note receivable (m)	-	347	347
Investment earnings unrealized gain/loss (m)	(4,946)	(3,340)	(8,286)
Capital contribution (n)	-	(12)	(12)
Net Position Increase/(Decrease) per Financial Statements (b)	\$ 1,796	\$ 15,262	\$ 17,058

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 \$1.6 million 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 of \$11.92 million made to GLWA by the Oakland Macomb Interceptor Drainage District (OMIDD) as part of an amendment to the OMIDD Wastewater Disposal Services Contract. This contribution is associated with revenue requirements for FY 2020 and 2021 so one-half of the contribution (or \$5.96 million) was recognized in FY 2020 and the remaining \$5.96 will be recognized as a capital contribution in FY 2021.



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 November 2020, the Water system incurred over \$ 49 million of construction costs to date. This is 82% of the fiscal year 2021 prorated CIP through November and 109% 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 November 2020, the Sewer system incurred over \$ 30 million of construction costs to date. This is 67% of the fiscal year 2021 prorated CIP through November and 88% 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

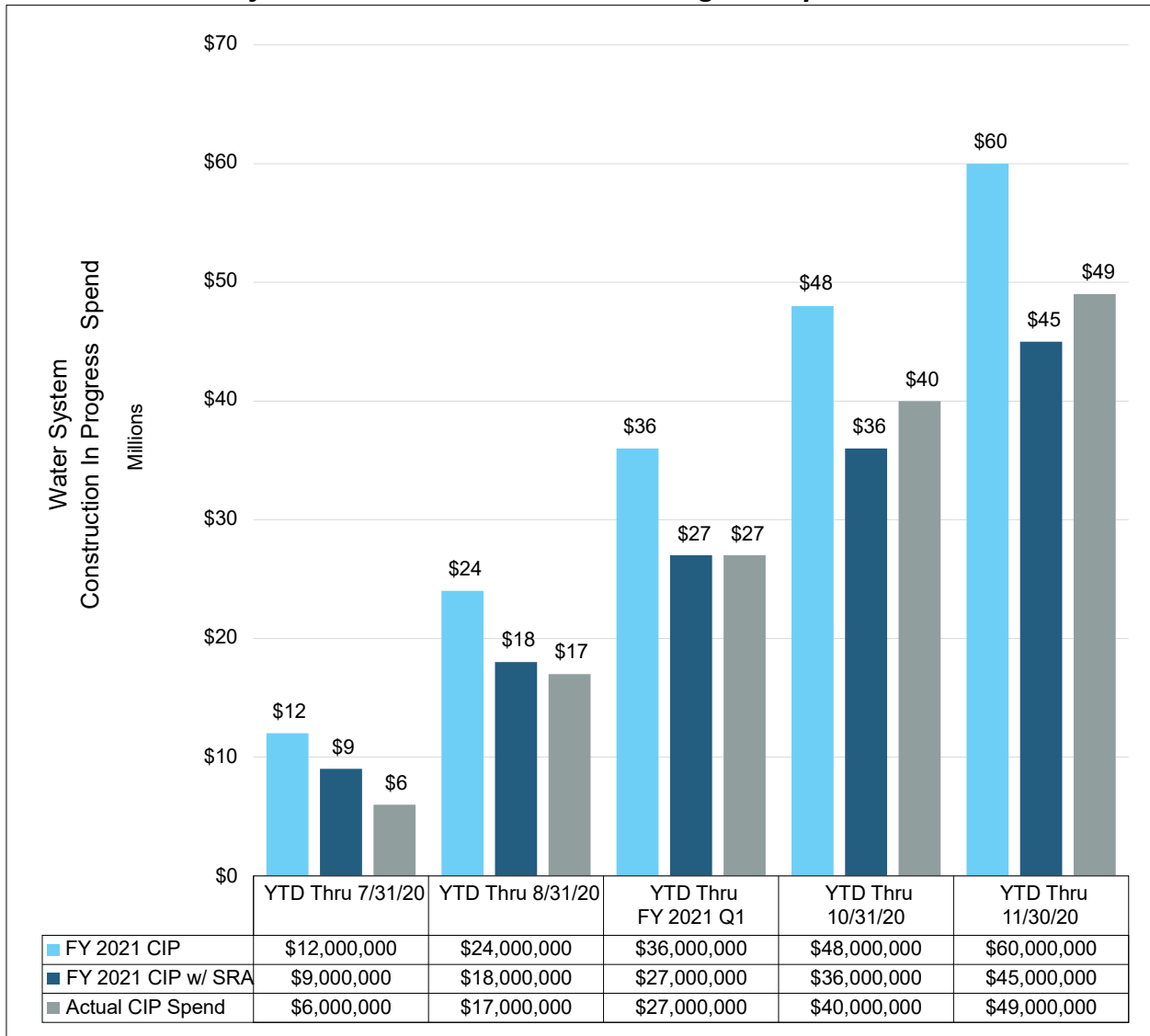
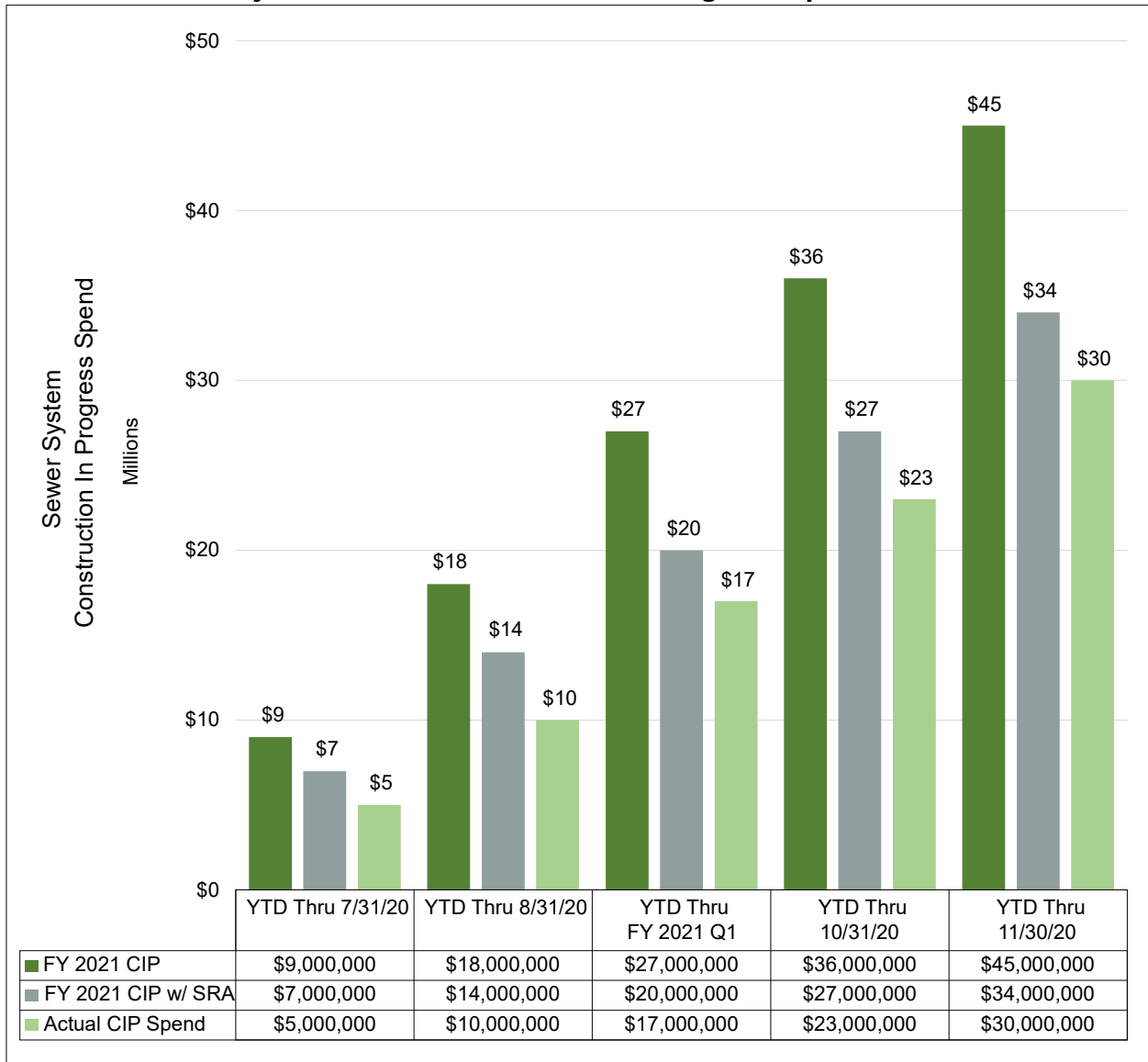


Chart 2 – Sewer System Construction Work in Progress Spend





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 November 2, 2020. MBO transfers for water totaling \$64.6 million have been transferred to GLWA accounts. The total transfer amount in November is different than the prior month due to corrections needed to adjust to approved budget levels.

Table 2 – GLWA FY 2021 Sewer MBO Transfers reflects the required transfers for FY 2021 completed through November 2, 2020. MBO transfers for sewer totaling \$88.8 million have been transferred to GLWA accounts. The total transfer amount in November is different than the prior month due to corrections needed to adjust to approved budget levels.

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

WATER							
	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
September 2020	11,160,517	504,000	891,308	192,608	-	-	12,748,433
October 2020	11,160,517	504,000	891,308	192,608	-	-	12,748,433
November 2020	11,994,307	504,000	891,308	197,988	-	-	13,587,603
Total FY 2021	\$ 56,636,375	\$2,520,000	\$4,456,540	\$968,420	\$ -	\$ -	\$64,581,335

Table 2 – GLWA FY 2021 Sewer MBO Transfers

SEWER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
FY 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
September 2020	15,194,175	902,000	1,223,950	313,500	-	-	17,633,625
October 2020	15,194,175	902,000	1,223,950	313,500	-	-	17,633,625
November 2020	15,842,491	902,000	1,223,950	314,455	-	-	18,282,896
Total FY 2021	\$76,619,191	\$4,510,000	\$6,119,750	\$1,568,455	\$ -	\$ -	\$88,817,396

Table 3 – GLWA MBO Transfer History

GLWA MBO Transfer History							
WATER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Water
Total FY 2016	\$71,052,000	\$6,037,100	\$10,297,200	\$1,983,300	\$2,326,900	\$606,000	\$92,302,500
Total FY 2017	111,879,600	6,037,200	10,297,200	2,077,200	360,000	-	130,651,200
Total FY 2018	121,562,604	6,048,000	10,695,696	2,159,400	-	-	140,465,700
Total FY 2019	121,562,604	6,048,000	10,695,696	2,061,000	-	-	140,367,300
Total FY 2020	126,840,204	6,048,000	10,695,683	1,980,804	-	-	145,564,691
Total FY 2021 (5 months)	56,636,375	2,520,000	4,456,540	968,420	-	-	64,581,335
Life to Date	\$609,533,387	\$32,738,300	\$57,138,015	\$11,230,124	\$2,686,900	\$606,000	\$713,932,726
SEWER							
	Operations & Maintenance	Pension Sub Account	Pension Obligation	WRAP	Budget Stabilization (For Benefit of DWSD)	Extraordinary Repair & Replacement (ER&R)	Total Sewer
Total FY 2016	\$100,865,600	\$10,838,400	\$14,025,800	\$2,523,400	\$5,591,700	\$779,600	\$134,624,500
Total FY 2017	175,858,800	10,838,400	14,026,800	2,654,400	2,654,400	-	206,032,800
Total FY 2018	191,079,396	10,824,000	14,687,496	2,760,804	-	-	219,351,696
Total FY 2019	191,079,396	10,824,000	14,687,496	2,870,992	-	-	219,461,884
Total FY 2020	181,925,800	10,824,000	14,687,517	2,887,300	-	-	210,324,617
Total FY 2021 (5 months)	76,619,191	4,510,000	6,119,750	1,568,455	-	-	88,817,396
Life to Date	\$917,428,183	\$58,658,800	\$78,234,859	\$15,265,351	\$8,246,100	\$779,600	\$1,078,612,893

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 November 2, 2020. MBO transfers for Water totaling \$22.6 million have been transferred to accounts held by DWSD. The I&E transfer amount in November is different than the prior month due to corrections needed to adjust to approved budget levels. 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 November 2, 2020. MBO transfers for Sewer totaling \$40.4 million have been transferred to accounts held by DWSD. The I&E transfer amount in November is different than the prior month due to corrections needed to adjust to approved budget levels. 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				
	<u>Operations & Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&E Fund)</u>	<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
September 2020	2,986,158	356,000	1,139,808	4,481,966
October 2020	2,986,158	356,000	1,139,808	4,481,966
November 2020	2,986,158	356,000	1,366,478	4,708,636
Total FY 2021	\$14,930,790	\$1,780,000	\$5,925,710	\$22,636,500

Table 5 – DWSD FY 2021 Sewer MBO Transfers

SEWER				
	<u>Operations & Maintenance</u>	<u>Pension</u>	<u>Lease Payment (I&E Fund)</u>	<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
September 2020	5,826,308	238,000	2,109,017	8,173,325
October 2020	5,826,308	238,000	2,109,017	8,173,325
November 2020	5,826,308	238,000	1,665,102	7,729,410
Total FY 2021	\$29,131,540	\$1,190,000	\$10,101,170	\$40,422,710

Table 6 – DWSD Water MBO and Lease Payment Transfer History

Transfers to DWSD				
WATER				
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Water
FY 2016 *				
MBO/Lease Requirement	\$26,185,600	\$4,262,700	\$22,500,000	\$52,948,300
Offset to Debt Service	-	-	(2,326,900)	(2,326,900)
Net MBO Transfer	26,185,600	4,262,700	20,173,100	50,621,400
FY 2017				
MBO/Lease Requirement	33,596,400	4,262,400	22,500,000	60,358,800
Offset to Debt Service	-	-	-	-
Net MBO Transfer	33,596,400	4,262,400	22,500,000	60,358,800
FY 2018				
MBO/Lease Requirement	35,059,704	4,272,000	22,500,000	61,831,704
Offset to Debt Service	-	-	(1,875,000)	(1,875,000)
Net MBO Transfer	35,059,704	4,272,000	20,625,000	59,956,704
FY 2019				
MBO/Lease Requirement	35,484,300	4,272,000	22,500,000	62,256,300
Offset to Debt Service	-	-	(3,972,200)	(3,972,200)
Net MBO Transfer	35,484,300	4,272,000	18,527,800	58,284,100
FY 2020				
MBO/Lease Requirement	34,662,400	4,272,000	22,500,000	61,434,400
Offset to Debt Service	-	-	(3,548,000)	(3,548,000)
Net MBO Transfer	34,662,400	4,272,000	18,952,000	57,886,400
FY 2021 (5 months)				
MBO/Lease Requirement	14,930,790	1,780,000	9,375,000	26,085,790
Offset to Debt Service	-	-	(3,449,290)	(3,449,290)
Net MBO Transfer	14,930,790	1,780,000	5,925,710	22,636,500
Life-to-Date				
MBO/Lease Requirement	179,919,194	23,121,100	121,875,000	324,915,294
Offsets	-	-	(15,171,390)	(15,171,390)
Total Water	179,919,194	23,121,100	106,703,610	309,743,904

Table 7 – DWSD Sewer MBO and Lease Payment Transfer History

	SEWER			
	Operations & Maintenance	Operations & Maintenance Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2016 *				
MBO/Lease Requirement	\$19,774,300	\$2,861,800	\$27,500,000	\$50,136,100
Offset to Debt Service	-	-	(19,991,500)	(19,991,500)
Total MBO Transfer	19,774,300	2,861,800	7,508,500	30,144,600
FY 2017				
MBO/Lease Requirement	41,535,600	2,862,000	27,500,000	71,897,600
Offset to Debt Service	-	-	-	-
Total MBO Transfer	41,535,600	2,862,000	27,500,000	71,897,600
FY 2018				
MBO/Lease Requirement	60,517,992	2,856,000	27,500,000	90,873,992
Offset to Debt Service	-	-	(9,166,664)	(9,166,664)
Total MBO Transfer	60,517,992	2,856,000	18,333,336	81,707,328
FY 2019				
MBO/Lease Requirement	56,767,920	2,856,000	27,500,000	87,123,920
Offset to Debt Service	-	-	(4,415,000)	(4,415,000)
Total MBO Transfer	56,767,920	2,856,000	23,085,000	82,708,920
FY 2020				
MBO/Lease Requirement	62,343,500	2,856,000	27,500,000	92,699,500
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(5,032,700)	(5,032,700)
Total MBO Transfer	55,243,500	2,856,000	22,467,300	80,566,800
FY 2021 (5 months)				
MBO/Lease Requirement	29,131,540	1,190,000	11,458,333	41,779,873
Offset to Debt Service	-	-	(1,357,163)	(1,357,163)
Total MBO Transfer	29,131,540	1,190,000	10,101,170	40,422,710
Life-to-Date				
MBO/Lease Requirement	270,070,852	15,481,800	148,958,333	434,510,985
Offsets	(7,100,000)	-	(39,963,027)	(47,063,027)
Total Sewer	262,970,852	15,481,800	108,995,306	387,447,958

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



This report includes the following:

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

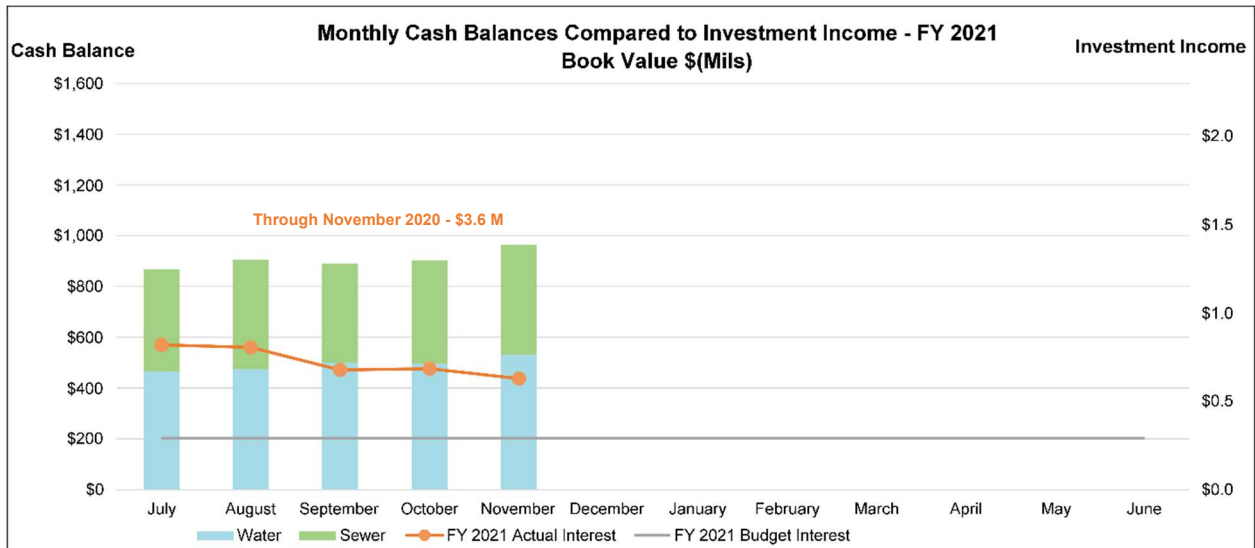
Monthly Cash Balances Compared to Investment Income

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

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. For the month of November 2020, GLWA earned investment income of \$0.6 million and the cumulative FY2021 earnings through November is \$3.6 million.

Investment earnings for the remainder of the fiscal year are expected to significantly decline due to maturities of existing investments being reinvested into lower, current market rate investments. GLWA continues to refine cash flows and work with its investment advisor to identify strategies to maximize future investment income while meeting the objectives of safety and liquidity. Total investment income reported here includes earnings from revenue requirement funds as well as construction bond funds.

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



\$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	\$464	\$473	\$499	497	530	-	-	-	-	-	-	-
Sewer	\$403	\$431	\$391	406	433	-	-	-	-	-	-	-
Total	\$867	\$904	\$890	903	963	-	-	-	-	-	-	-
Investment Income	\$0.8	\$0.8	\$0.7	\$0.7	\$0.6	-	-	-	-	-	-	-

Cash Balance Detail

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

Funds Held Within Trust:

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

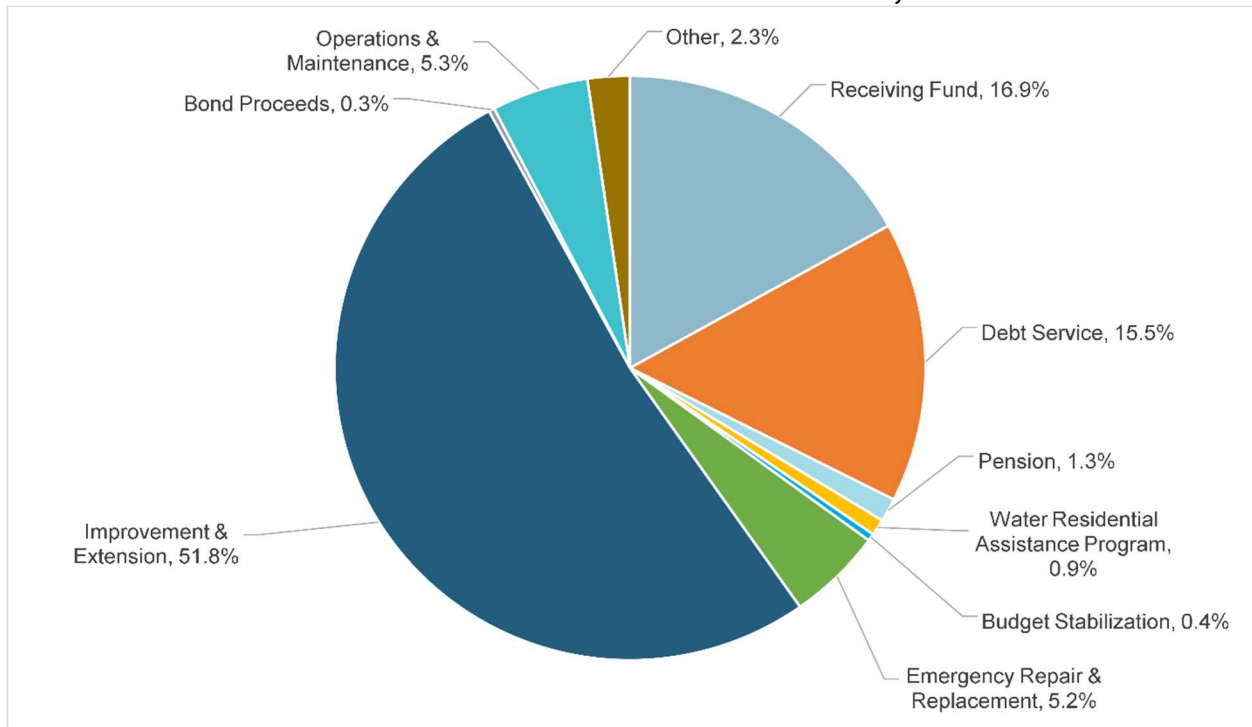
Funds Held Outside Trust:

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

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

Chart 2 – Cash Balances - Water Funds as of November 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 November 30, 2020 is \$530 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 November 30, 2020

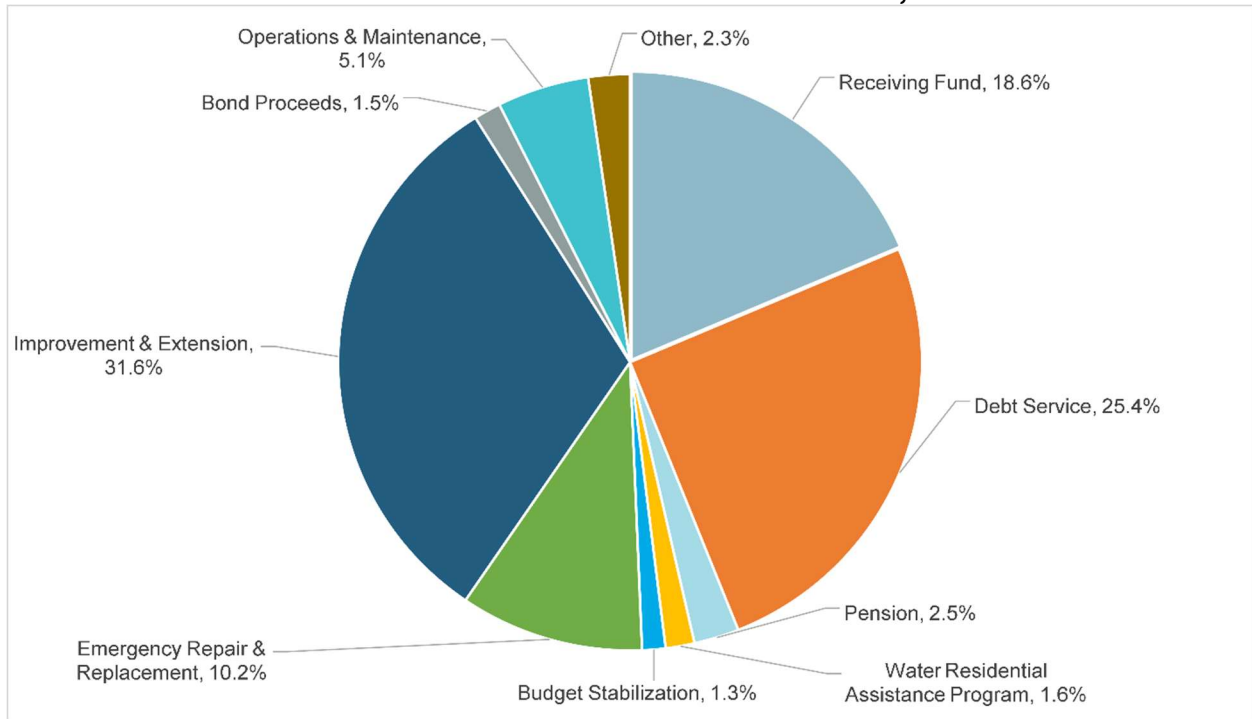


Note: Due to rounding totals may not equal 100%.

Chart 3 – Cash Balances - Sewer Funds as of November 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 November 30, 2020 is \$433 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 November 30, 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 November 30, 2020, the DWSD usage was at 92.85% of the budget and billed revenue was at 93.84% 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 - Original Budget		FY 2021 - Actual		FY 2021 - Variance		FY 2020 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	273,700	10,099,621	265,796	9,747,518	(7,904)	(352,103)	267,054	9,802,572
August	263,300	9,828,389	250,308	9,378,385	(12,992)	(450,004)	259,489	9,601,097
September	239,800	9,215,509	218,840	8,544,457	(20,960)	(671,052)	228,961	8,811,834
October	228,800	8,928,629	197,362	7,978,833	(31,438)	(949,796)	217,031	8,578,738
November	208,200	8,391,381	194,648	7,952,436	(13,552)	(438,945)	200,432	7,879,694
December	208,900	8,409,637					201,225	7,811,106
January	210,200	8,443,541					205,993	7,981,382
February	214,600	8,558,293					196,490	7,748,377
March	216,500	8,607,845					198,483	7,755,210
April	211,700	8,482,661					191,691	7,550,074
May	221,300	8,733,029					207,387	7,929,281
June	261,800	9,789,269					248,085	8,951,538
Total	2,758,800	107,487,800	1,126,954	43,601,629	(86,846)	(2,861,898)	2,622,321	100,400,903
<i>Subtotals ytd</i>	<i>1,213,800</i>	<i>46,463,527</i>	<i>1,126,954</i>	<i>43,601,629</i>	<i>(86,846)</i>	<i>(2,861,898)</i>		
<i>Achievement of Budget</i>			<i>92.85%</i>	<i>93.84%</i>				

(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
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%
September	9,031,966	8,610,801	421,165	4.89%
October	9,079,199	9,619,977	(540,778)	-5.62%
November	10,803,009	7,067,667	3,735,342	52.85%
Rolling, 12-Month Total	98,858,427	98,600,960		
Rolling, 12-Month Average	8,238,202	8,216,747		

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 November 30, 2020, the DWSD usage was at 92.24% of the budget and billed revenue was at 97.26% 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 - Original Budget		FY 2021 - Actual		FY 2021 - Variance		FY 2020 - Actuals	
	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	252,700	29,612,070	252,929	29,802,377	229	190,307	244,810	28,049,707
August	252,900	29,624,420	240,390	29,261,344	(12,510)	(363,076)	246,989	28,076,649
September	219,800	27,736,625	206,880	27,232,400	(12,920)	(504,225)	215,119	26,430,710
October	245,700	29,214,479	188,816	26,230,683	(56,884)	(2,983,796)	238,202	27,549,787
November	192,400	26,173,181	184,240	25,933,888	(8,160)	(239,293)	188,779	24,726,161
December	192,600	26,184,593					186,917	24,853,335
January	195,700	26,361,479					190,230	24,857,510
February	195,300	26,338,655					187,219	24,524,288
March	192,100	26,279,396					186,521	24,784,918
April	188,900	25,973,471					180,397	24,538,664
May	195,300	26,338,655					192,362	25,035,540
June	245,560	29,206,491					238,679	27,572,637
Total	2,568,960	329,043,516	1,073,255	138,460,692	(90,245)	(3,900,084)	2,496,224	310,999,906
<i>Subtotals ytd</i>	<i>1,163,500</i>	<i>142,360,776</i>	<i>1,073,255</i>	<i>138,460,692</i>		<i>(3,900,084)</i>		
<i>Achievement of Budget/Goal</i>				<i>92.24%</i>		<i>97.26%</i>		

(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
December	25,889,823	19,612,154	6,277,669	32.01%
January	23,512,702	21,140,835	2,371,867	11.22%
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%
September	26,463,387	21,972,754	4,490,633	20.44%
October	26,683,109	26,321,010	362,099	1.38%
November	28,730,139	17,546,180	11,183,959	63.74%
Rolling 12-Month Total	279,638,523	257,608,408		
Rolling, 12-Month Average	23,303,210	21,467,367		

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 November 30, 2020 with comparative totals from November 30, 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	208,731	\$ 435.59	\$ 1,318,000 1.4%	\$ 7,494,000 8.2%	\$ 21,038,000 23.1%	\$ 61,071,000 67.2%	\$ 90,921,000 100.0%
Commercial	20,659	1,335.57	7,161,000 26.0%	2,311,000 8.4%	5,345,000 19.4%	12,775,000 46.3%	27,592,000 100.0%
Industrial	2,135	5,329.98	3,602,000 31.7%	700,000 6.1%	1,312,000 11.5%	5,766,000 50.7%	11,379,000 100.0%
Tax Exempt	3,446	946.20	476,000 14.6%	172,000 5.3%	477,000 14.6%	2,136,000 65.5%	3,261,000 100.0%
Government	59,454	325.37	4,515,000 23.3%	1,517,000 7.8%	4,155,000 21.5%	9,157,000 47.3%	19,344,000 100.0%
Drainage	35,846	789.02	5,166,000 18.3%	1,436,000 5.1%	4,254,000 15.0%	17,426,000 61.6%	28,283,000 100.0%
Subtotal - Active Accounts	330,271	\$ 547.37	\$ 22,239,000 12.3%	\$ 13,629,000 7.5%	\$ 36,582,000 20.2%	\$ 108,330,000 59.9%	\$ 180,780,000 100.0%
Inactive Accounts	290,735	93.45	22,000 0.1%	21,000 0.1%	375,000 1.4%	26,753,000 98.5%	27,170,000 100.0%
Total	621,006	\$ 334.86	\$ 22,261,000 10.7%	\$ 13,650,000 6.6%	\$ 36,956,000 17.8%	\$ 135,083,000 65.0%	\$ 207,950,000 100.0%
<i>% of Total A/R</i>							
Water Fund	221,880	167.09	\$ 2,507,000	\$ 2,568,000	\$ 6,461,000	\$ 25,537,000	\$ 37,073,000
Sewer Fund	271,670	628.99	\$ 19,754,000	\$ 11,082,000	\$ 30,496,000	\$ 109,546,000	\$ 170,877,000
Total November 30, 2020 (a)	621,006	334.86	\$ 22,261,000	\$ 13,650,000	\$ 36,956,000	\$ 135,083,000	\$ 207,950,000
Water Fund- Allowance							\$ (29,005,000)
Sewer Fund- Allowance							\$ (115,431,000)
Total Bad Debt Allowance							\$ (144,436,000)
Comparative - November 2019 (b)	603,564	337.91	\$ 33,545,000	\$ 14,988,000	\$ 32,988,000	\$ 122,431,000	\$ 203,953,000
Difference (a) - (b)	17,442	(3.05)	\$ (11,285,000)	\$ (1,338,000)	\$ 3,968,000	\$ 12,652,000	\$ 3,998,000



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

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

Wholesale Water Billings and Collections

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

Service Arrangement Type

Model Contract	82
Emergency	1
Older Contracts	4
Total	87

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

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

Table 1 - Wholesale Water Billings shows the FY 2021 water billed usage and revenues. As of November 30, 2020, the billed usage was at 106.68% of budget and billed revenue at 103.38% of budget. Billings and usage from the City of Flint *are* included as they were assumed in the FY 2021 Budget. This schedule has been updated to reflect the most recent, Board-approved budget amendments.

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 2021 Wholesale Water Billings Report

WHOLESALE WATER CHARGES								
Month (1)	FY 2021 - Original Budget		FY 2021 - Amended Budget		FY 2021 - Actual		FY 2021 - Variance	
	Volume	Revenue	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	1,639,200	31,200,300	1,639,200	31,200,500	1,862,791	33,583,619	223,591	2,383,119
August	1,491,400	29,822,200	1,491,400	29,826,800	1,622,324	31,230,027	130,924	1,403,227
September	1,331,600	27,852,100	1,331,600	27,851,500	1,313,440	27,836,560	(18,160)	(14,940)
October	1,034,400	25,773,900	1,034,400	25,055,600	1,070,660	25,454,840	36,260	399,240
November	901,700	24,557,700	901,700	23,897,700	956,542	24,390,303	54,842	492,603
December	982,100	25,189,000	982,100	24,506,200				
January	985,300	25,260,100	985,300	25,263,400				
February	884,200	24,344,600	884,200	24,348,400				
March	984,200	25,208,400	984,200	25,213,400				
April	912,200	24,593,900	912,200	24,594,700				
May	1,032,900	25,895,100	1,032,900	25,896,800				
June	1,373,700	29,502,100	1,373,700	29,463,900				
Total	13,552,900	319,199,400	13,552,900	317,118,900	6,825,757	142,495,349	427,457	4,663,249
Subtotals ytd	6,398,300	139,206,200	6,398,300	137,832,100	6,825,757	142,495,349	427,457	3,289,149
Achievement of Budget					106.68%	103.38%		

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

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

Table 2 - Wholesale Water Collections

Water				
Month	Current Year	Prior Year	Variance	Ratio
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%
September	26,078,015	28,336,152	(2,258,137)	-7.97%
October	29,292,690	25,786,774	3,505,916	13.60%
November	32,218,822	29,245,969	2,972,853	10.17%
Rolling 12-Month Total	307,089,063	307,128,149		
Rolling, 12-Month Average	25,590,755	25,594,012		

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 November 30, 2020 the billed revenue is at 100.00% of budget. This schedule has been updated to reflect the most recent, Board-approved budget amendments.

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 2021 Wholesale Sewer Billings Report

WHOLESALE SEWER CHARGES								
Month (1)	FY 2021 - Original Budget		FY 2021 - Amended Budget		FY 2021 - Actual		FY 2021 - Variance	
	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue
	Mcf	\$	Mcf	\$	Mcf	\$	Mcf	\$
July	N/A	22,323,183	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	22,323,183	N/A	-
September	N/A	22,323,183	N/A	22,323,183	N/A	22,323,183	N/A	-
October	N/A	22,323,183	N/A	22,323,183	N/A	22,323,183	N/A	-
November	N/A	22,323,183	N/A	22,323,183	N/A	22,323,183	N/A	-
December	N/A	22,323,183	N/A	22,323,183	N/A	22,323,183	N/A	-
January	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
February	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
March	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
April	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
May	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
June	N/A	23,005,800	N/A	22,633,025	N/A		N/A	
Total		271,973,898		269,737,248		111,615,915		-
Subtotals ytd		111,615,915		111,615,915		111,615,915		-
Achievement of Budget						100.00%		

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

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

Table 4 - Wholesale Sewer Collections

Sewer				
Month	Current Year	Prior Year	Variance	Ratio
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%
August	25,354,280	35,153,500	(9,799,220)	-27.88%
September	19,593,613	18,833,257	760,356	4.04%
October	16,853,983	29,833,760	(12,979,777)	-43.51%
November	18,966,208	19,428,000	(461,792)	-2.38%
Rolling 12-Month Total	244,392,201	283,196,683		
Rolling, 12-Month Average	20,366,017	23,599,724		

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 November 30, 2020, Highland Park had a delinquent balance of \$45.5 million, including \$34.7 million for wastewater treatment services, \$1.7 million for industrial waste control services, and \$9.1 million for water supply services.

Table 5 - City of Highland Park Billings and Collections provides a life-to-date balance summary of the billing and collection history for Highland Park with detail provided for fiscal year 2021 through November 30, 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
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
September 2020 Billing	105,628	472,500	3,835	581,963
September 2020 Payments	-	(296,930)	-	(296,930)
September 30, 2020 Balance	8,844,027	33,746,547	1,733,841	44,324,415
October 2020 Billing	105,071	472,500	3,862	581,433
October 2020 Payments	-	-	-	-
October 31, 2020 Balance	8,949,098	34,219,047	1,737,703	44,905,848
November 2020 Billing	98,963	472,500	3,929	575,392
November 2020 Payments	-	-	-	-
November 30, 2020 Balance	9,048,061	34,691,547	1,741,632	45,481,240

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 November 30, 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. One member partner contract dispute accounts for \$850 thousand of the current Water past due balance.

Remaining Water, Sewer and IWC past due balances relate to several member partner communities that are still catching up from COVID business interruptions as well as noticeable delays in mail service. GLWA staff is working with each member partner to identify the source of the delay and resolve. The GLWA Treasury team is also exploring possible payment method alternatives to address current mail service challenges.

The pollutant surcharge past due includes \$28 thousand relates to a bankruptcy that is currently pending further court action. GLWA staff continue to focus on collection efforts for these customers as appropriate in the current pandemic environment.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 46,181,861.92	\$ 36,217,475.18	\$ 1,095,102.19	\$ 235,209.95	\$ 8,634,074.60
Sewer	\$ 61,917,703.37	\$ 27,680,356.70	\$ 490,800.00	\$ 472,500.00	\$ 33,274,046.67
IWC	\$ 2,319,353.17	\$ 579,014.98	\$ 6,776.19	\$ -	\$ 1,733,562.00
Pollutant Surcharge	\$ 738,682.48	\$ 683,835.61	\$ 12,913.94	\$ 5,447.50	\$ 36,485.43
Total	\$ 111,157,600.94	\$ 65,160,682.47	\$ 1,605,592.32	\$ 713,157.45	\$ 43,678,168.70
	100.00%	58.62%	1.44%	0.64%	39.29%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	\$ 37,133,800.74	\$ 36,013,440.79	\$ 989,474.62	\$ 130,885.33	\$ -
Sewer	\$ 27,226,156.70	\$ 27,207,856.70	\$ 18,300.00	\$ -	\$ -
IWC	\$ 577,721.42	\$ 571,224.08	\$ 2,941.58	\$ -	\$ 3,555.76
Pollutant Surcharge	\$ 738,682.48	\$ 683,835.61	\$ 12,913.94	\$ 5,447.50	\$ 36,485.43
Total	\$ 65,676,361.34	\$ 64,476,357.18	\$ 1,023,630.14	\$ 136,332.83	\$ 40,041.19
	100.00%	98.17%	1.56%	0.21%	0.06%

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 five months of activity to date.

Water fund receipts exceeded required disbursements by 15% through November 30, 2020 with a historical ratio of receipts exceeding required disbursements by 15% since January 1, 2016.

Sewer fund receipts exceeded required disbursements by 3% through November 30, 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	FY 2021 Thru Nov 30	Life-to-Date Total
Water							
1 Receipts	\$ 149,688,711	\$ 352,941,909	\$ 338,452,001	\$ 336,594,234	\$ 332,606,196	\$ 150,328,750	\$ 1,660,611,801
2 MOU Adjustments	-	-	-	-	-	-	-
3 Adjusted Receipts	149,688,711	352,941,909	338,452,001	336,594,234	332,606,196	150,328,750	1,660,611,801
4 Disbursements	(146,256,185)	(288,777,985)	(297,064,810)	(289,230,481)	(296,190,425)	(130,587,265)	(1,448,107,151)
5 Receipts Net of Required	3,432,526	64,163,924	41,387,191	47,363,753	36,415,771	19,741,485	212,504,650
6 I&E Transfer	-	-	(25,739,700)	(47,695,000)	(25,719,751)	(8,449,833)	(107,604,284)
7 Net Receipts	\$ 3,432,526	\$ 64,163,924	\$ 15,647,491	\$ (331,247)	\$ 10,696,020	\$ 11,291,652	\$ 104,900,366
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	102%	122%	114%	116%	112%	115%	115%
Sewer							
9 Receipts	\$ 232,377,715	\$ 469,788,882	\$ 476,269,761	\$ 467,743,744	\$ 490,461,356	\$ 189,758,340	\$ 2,326,399,798
10 MOU Adjustments	-	-	-	-	-	-	-
11 Adjusted Receipts	232,377,715	469,788,882	476,269,761	467,743,744	490,461,356	189,758,340	2,326,399,798
12 Disbursements	(219,538,325)	(441,443,340)	(458,903,335)	(453,406,636)	(445,604,952)	(184,563,263)	(2,203,459,851)
13 Receipts Net of Required	12,839,390	28,345,542	17,366,426	14,337,108	44,856,404	5,195,077	122,939,947
14 I&E Transfer	-	-	(22,698,100)	(22,547,700)	(19,096,200)	(8,443,866)	(72,785,866)
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	7,503,906	34,413,930
17 Net Receipts	\$ 11,553,924	\$ 331,008	\$ (29,444,708)	\$ 1,156,763	\$ 43,302,873	\$ 4,255,117	\$ 31,154,977
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	106%	106%	104%	103%	110%	103%	106%
Combined							
19 Receipts	\$ 382,066,426	\$ 822,730,791	\$ 814,721,762	\$ 804,337,978	\$ 823,067,552	\$ 340,087,090	\$ 3,987,011,599
20 MOU Adjustments	-	-	-	-	-	-	-
21 Adjusted Receipts	382,066,426	822,730,791	814,721,762	804,337,978	823,067,552	340,087,090	3,987,011,599
22 Disbursements	(365,794,510)	(730,221,325)	(755,968,145)	(742,637,117)	(741,795,377)	(315,150,528)	(3,651,567,002)
23 Receipts Net of Required	16,271,916	92,509,466	58,753,617	61,700,861	81,272,175	24,936,562	335,444,597
24 I&E Transfer	-	-	(48,437,800)	(70,242,700)	(44,815,951)	(16,893,699)	(180,390,150)
25 Shortfall Advance	(1,285,466)	(28,014,534)	(24,113,034)	-	-	-	(53,413,034)
26 Shortfall Repayment	-	-	-	9,367,355	17,542,669	7,503,906	34,413,930
27 Net Receipts	\$ 14,986,450	\$ 64,494,932	\$ (13,797,217)	\$ 825,516	\$ 53,998,893	\$ 15,546,769	\$ 136,055,343
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	104%	113%	108%	108%	111%	108%	109%

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

Chart 1 – GLWA 12-Month Net Receipts – Water

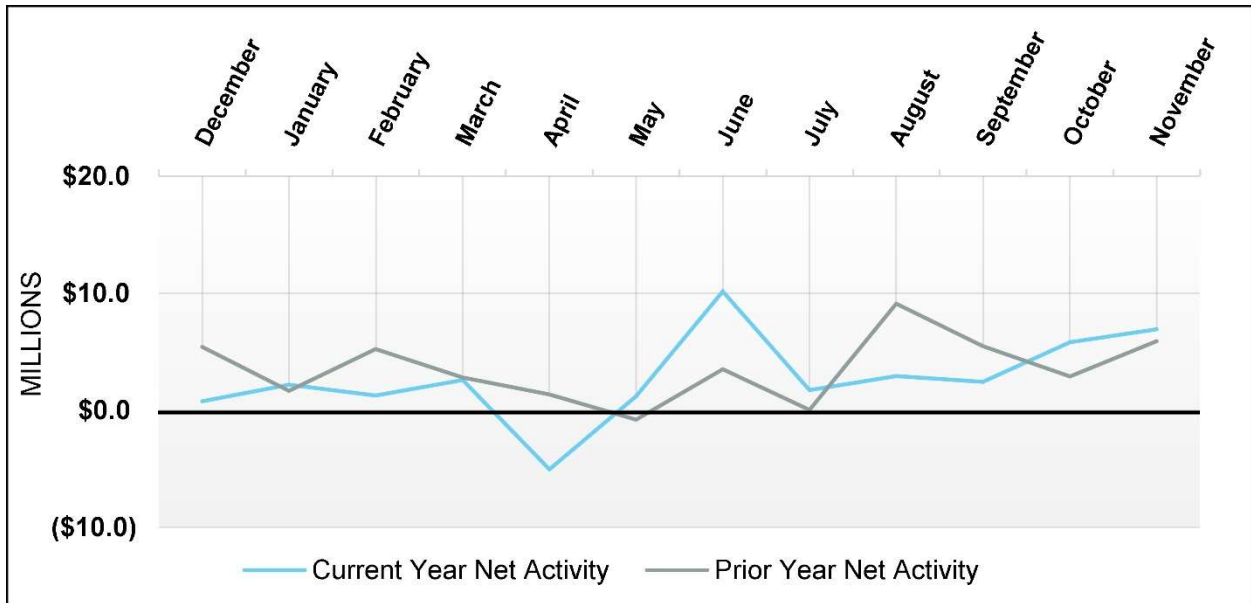
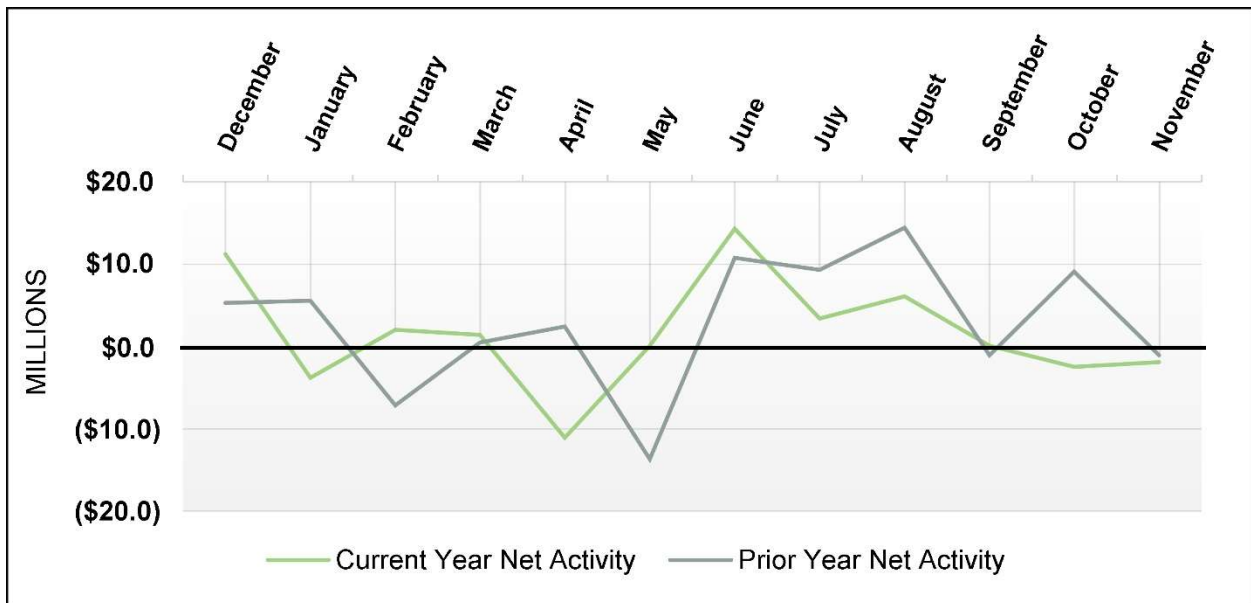


Chart 2 – GLWA 12-Month Net Receipts – Sewer



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 five months of activity to date.

Water fund receipts exceeded required disbursements by 5% through November 30, 2020 with a historical ratio of net receipts exceeding required disbursements by 2% since January 1, 2016.

Sewer fund receipts exceeded required disbursements by 1% through November 30, 2020 with a historic ratio of receipts falling short of required disbursements by 5% 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	FY 2021 Thru Nov 30	Life-to-Date Total
Water							
1 Receipts	\$ 26,201,881	\$ 96,451,105	\$ 101,233,147	\$ 99,868,219	\$ 96,885,723	\$ 44,067,810	\$ 464,707,885
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	44,067,810	483,153,985
4 Disbursements	(47,809,552)	(93,066,144)	(93,049,457)	(97,694,600)	(97,823,097)	(42,041,046)	(471,483,896)
5 Receipts Net of Required	(3,161,571)	3,384,961	8,183,690	2,173,619	(937,374)	2,026,764	11,670,089
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)	\$ 2,026,764	\$ 3,263,009
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	93%	104%	109%	102%	99%	105%	102%
Sewer							
9 Receipts	\$ 65,256,734	\$ 233,723,367	\$ 242,104,791	\$ 265,339,797	\$ 264,889,559	\$ 124,924,123	\$1,196,038,371
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	264,889,559	124,924,123	1,258,320,671
12 Disbursements	(122,297,300)	(261,963,973)	(266,217,825)	(271,018,306)	(275,507,374)	(123,450,146)	(1,320,454,924)
13 Receipts Net of Required	(1,285,466)	(28,240,606)	(24,113,034)	848,691	(10,817,815)	1,473,977	(62,134,253)
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)	\$ 1,473,977	\$ (8,721,219)
17 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	99%	89%	91%	100%	96%	101%	95%
Combined							
18 Receipts	\$ 91,458,615	\$ 330,174,472	\$ 343,337,938	\$ 365,208,016	\$ 361,575,282	\$ 168,991,933	\$1,660,746,256
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	168,991,933	1,741,474,656
21 Disbursements	(170,106,852)	(355,030,117)	(359,267,282)	(368,712,906)	(373,330,471)	(165,491,192)	(1,791,938,820)
22 Receipts Net of Required	(4,447,037)	(24,855,645)	(15,929,344)	3,022,310	(11,755,189)	3,500,741	(50,464,164)
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)	\$ 3,500,741	\$ (5,458,210)
26 <i>Ratio of Receipts to Required Disbursements (Line 20/Line 21)</i>	97%	93%	96%	101%	97%	102%	97%

(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
09-02-20	Payment for September 2020	837,446	7,667,754
10-05-20	Payment for October 2020	840,325	6,827,429
11-03-20	Payment for November 2020	843,214	5,984,216
		23,315,784	5,984,216

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
09-02-20	Payment for September 2020	837,446	29,237	866,683
10-05-20	Payment for October 2020	840,325	26,358	866,683
11-03-20	Payment for November 2020	843,214	23,469	866,683
		23,315,785	1,826,510	25,142,295

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
09-02-20	Payment for September 2020	663,320	14,346,855
10-05-20	Payment for October 2020	665,094	13,681,761
11-03-20	Payment for November 2020	666,873	13,014,888
		11,098,146	13,014,888

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
09-02-20	Payment for September 2020	663,320	40,140	703,460
10-05-20	Payment for October 2020	665,094	38,366	703,460
11-03-20	Payment for November 2020	666,873	36,587	703,460
		11,098,146	860,674	11,958,820

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
09-30-20	7,667,754	14,346,855	22,014,610
10-31-20	6,827,429	13,681,761	20,509,190
11-30-20	5,984,216	13,014,888	18,999,104

Chart 3 – DWSD 12-Month Net Receipts – Water

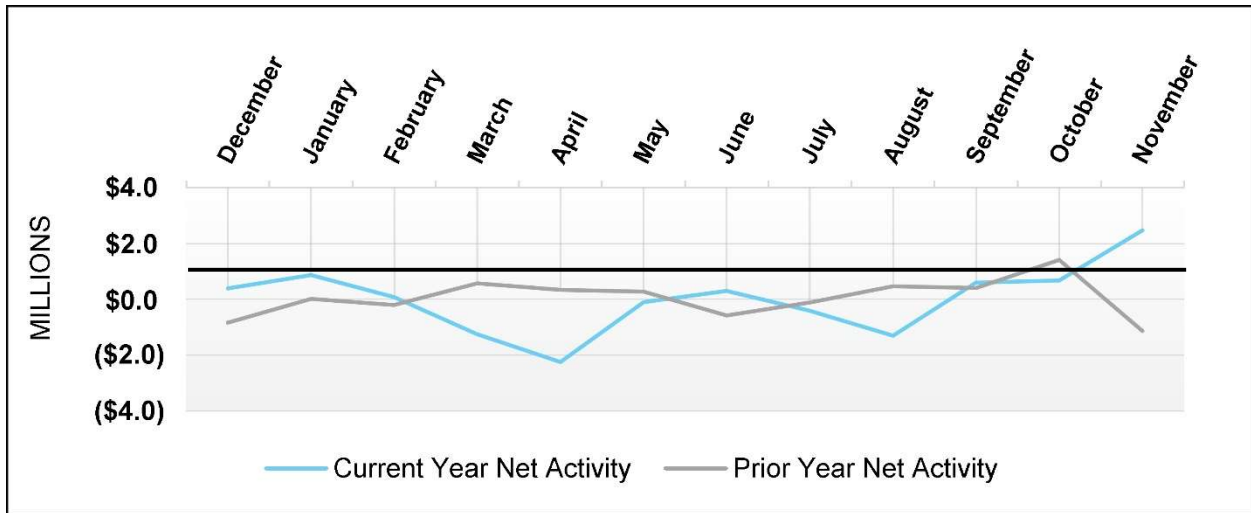
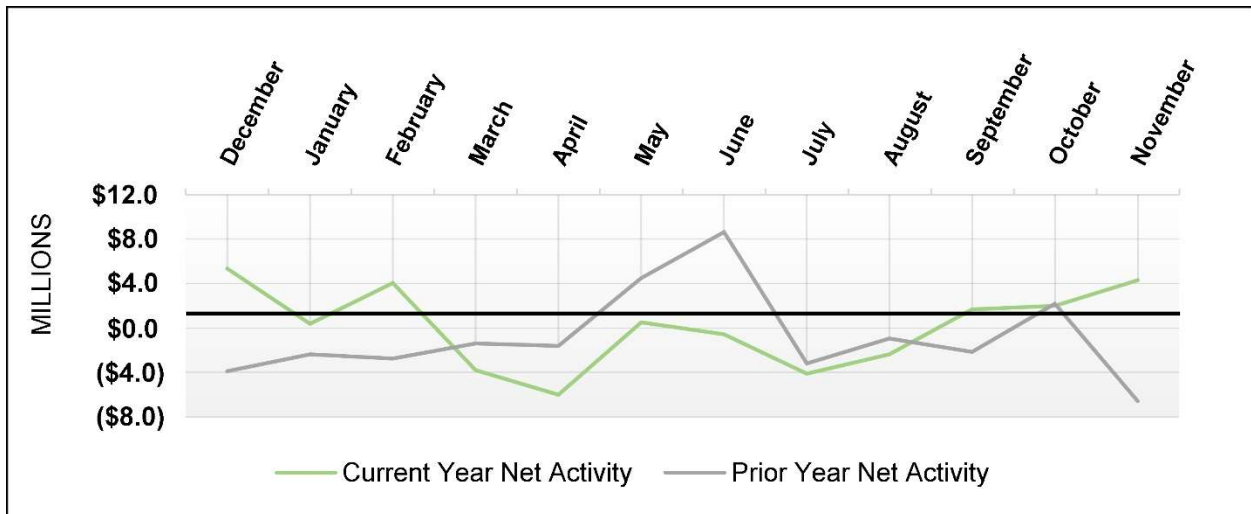


Chart 4 – DWSD 12-Month Net Receipts – Sewer



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 five months of activity to date.

Water fund net receipts exceeded required disbursements by 13% through November 30, 2020 with a historical ratio of receipts exceeding required disbursements by 12% since January 1, 2016.

Sewer fund receipts exceeded required disbursements by 2% through November 30, 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	FY 2021 Thru Nov 30	Life-to-Date Total
Water							
1 Receipts	\$ 175,890,592	\$ 449,393,014	\$ 439,685,148	\$ 436,462,453	\$ 429,491,919	\$ 194,396,560	\$2,125,319,686
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	194,396,560	2,143,765,786
4 Disbursements	(194,065,737)	(381,844,129)	(390,114,267)	(386,925,081)	(394,013,522)	(172,628,311)	(1,919,591,047)
5 Receipts Net of Required	270,955	67,548,885	49,570,881	49,537,372	35,478,397	21,768,249	224,174,739
6 I&E Transfer	-	-	(25,739,700)	(56,102,080)	(25,719,751)	(8,449,833)	(116,011,364)
7 Net Receipts	\$ 270,955	\$ 67,548,885	\$ 23,831,181	\$ (6,564,708)	\$ 9,758,646	\$ 13,318,416	\$ 108,163,375
8 <i>Ratio of Receipts to Required Disbursements (Line 3/Line 4)</i>	100%	118%	113%	113%	109%	113%	112%
Sewer							
9 Receipts	\$ 297,634,449	\$ 703,512,249	\$ 718,374,552	\$ 733,083,541	\$ 755,150,915	\$ 314,682,463	\$3,522,438,169
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	314,682,463	3,584,720,469
12 Disbursements	(341,835,625)	(703,407,313)	(725,121,160)	(724,424,942)	(721,112,326)	(308,013,409)	(3,523,914,775)
13 Receipts Net of Required	11,553,924	104,936	(6,746,608)	15,185,799	34,038,589	6,669,054	60,805,694
14 I&E Transfer	-	-	(22,698,100)	(22,547,700)	(19,096,200)	(8,443,866)	(72,785,866)
15 Shortfall Advance	-	-	-	-	-	-	-
16 Shortfall Repayment (principal)	-	-	-	9,367,355	17,542,669	7,503,906	34,413,930
17 Net Receipts	\$ 11,553,924	\$ 104,936	\$ (29,444,708)	\$ (7,361,901)	\$ 32,485,058	\$ 5,729,094	\$ 22,433,759
18 <i>Ratio of Receipts to Required Disbursements (Line 11/Line 12)</i>	103%	100%	99%	102%	105%	102%	102%
Combined							
19 Receipts	\$ 473,525,041	\$1,152,905,263	\$1,158,059,700	\$1,169,545,994	\$1,184,642,834	\$ 509,079,023	\$5,647,757,855
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	509,079,023	5,728,486,255
22 Disbursements	(535,901,362)	(1,085,251,442)	(1,115,235,427)	(1,111,350,023)	(1,115,125,848)	(480,641,720)	(5,443,505,822)
23 Receipts Net of Required	11,824,879	67,653,821	42,824,273	64,723,171	69,516,986	28,437,303	284,980,433
24 I&E Transfer	-	-	(48,437,800)	(78,649,780)	(44,815,951)	(16,893,699)	(188,797,230)
25 Shortfall Advance	-	-	-	-	-	-	-
26 Shortfall Repayment	-	-	-	9,367,355	17,542,669	7,503,906	34,413,930
27 Net Receipts	\$ 11,824,879	\$ 67,653,821	\$ (5,613,527)	\$ (4,559,254)	\$ 42,243,704	\$ 19,047,510	\$ 130,597,134
28 <i>Ratio of Receipts to Required Disbursements (Line 21/Line 22)</i>	102%	106%	104%	106%	106%	106%	105%

APPENDIX

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$224,381.93	\$224,381.93	\$0.00	\$0.00	\$0.00
ALMONT VILLAGE	\$40,205.08	\$40,205.08	\$0.00	\$0.00	\$0.00
ASH TOWNSHIP	\$66,928.12	\$66,928.12	\$0.00	\$0.00	\$0.00
BELLEVILLE	\$53,619.39	\$53,619.39	\$0.00	\$0.00	\$0.00
BERLIN TOWNSHIP	\$59,994.32	\$59,994.32	\$0.00	\$0.00	\$0.00
BROWNSTOWN TOWNSHIP	\$284,274.03	\$284,274.03	\$0.00	\$0.00	\$0.00
BRUCE TOWNSHIP	\$58,145.69	\$58,145.69	\$0.00	\$0.00	\$0.00
BURTCHVILLE TOWNSHIP	\$31,513.88	\$31,513.88	\$0.00	\$0.00	\$0.00
CANTON TOWNSHIP	\$829,916.99	\$829,916.99	\$0.00	\$0.00	\$0.00
CENTER LINE	\$39,378.43	\$39,378.43	\$0.00	\$0.00	\$0.00
CHESTERFIELD TOWNSHIP	\$348,911.08	\$348,911.08	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$1,275,781.35	\$1,275,781.35	\$0.00	\$0.00	\$0.00
COMMERCE TOWNSHIP	\$620,912.65	\$620,912.65	\$0.00	\$0.00	\$0.00
DEARBORN	\$3,060,155.24	\$2,199,230.94	\$735,369.79	\$125,554.51	\$0.00
DEARBORN HEIGHTS	\$298,454.83	\$298,454.83	\$0.00	\$0.00	\$0.00
EASTPOINTE	\$127,763.60	\$127,763.60	\$0.00	\$0.00	\$0.00
ECORSE	\$113,226.86	\$113,226.86	\$0.00	\$0.00	\$0.00
FARMINGTON	\$82,719.27	\$82,719.27	\$0.00	\$0.00	\$0.00
FARMINGTON HILLS	\$1,462,169.30	\$1,462,169.30	\$0.00	\$0.00	\$0.00
FERNDALE	\$176,737.52	\$176,737.52	\$0.00	\$0.00	\$0.00
FLAT ROCK	\$105,336.64	\$105,336.64	\$0.00	\$0.00	\$0.00
FLINT	\$324,487.11	\$324,487.11	\$0.00	\$0.00	\$0.00
FRASER	\$97,801.44	\$97,801.44	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GARDEN CITY	\$141,858.65	\$141,858.65	\$0.00	\$0.00	\$0.00
GIBRALTAR	\$27,562.26	\$27,562.26	\$0.00	\$0.00	\$0.00
GROSSE ILE TOWNSHIP	\$88,273.71	\$88,273.71	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$413,024.73	\$260,975.98	\$152,048.75	\$0.00	\$0.00
GROSSE POINTE SHORES	\$50,993.66	\$50,993.66	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$121,791.06	\$121,791.06	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$137,991.04	\$132,476.53	\$5,514.51	\$0.00	\$0.00
HARPER WOODS	\$210,581.60	\$136,409.09	\$68,841.69	\$5,330.82	\$0.00
HARRISON TWP	\$126,525.71	\$126,525.71	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$60,154.93	\$60,154.93	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$9,048,061.18	\$204,034.39	\$105,627.57	\$104,324.62	\$8,634,074.60
HURON TOWNSHIP	\$121,245.53	\$121,245.53	\$0.00	\$0.00	\$0.00
IMLAY CITY	\$266,033.99	\$266,033.99	\$0.00	\$0.00	\$0.00
IMLAY TOWNSHIP	\$1,262.37	\$1,262.37	\$0.00	\$0.00	\$0.00
INKSTER	\$103,217.43	\$103,217.43	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$49,701.97	\$49,701.97	\$0.00	\$0.00	\$0.00
LAPEER	\$130,507.16	\$130,507.16	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$71,355.50	\$46,800.90	\$24,554.60	\$0.00	\$0.00
LINCOLN PARK	\$194,123.26	\$194,123.26	\$0.00	\$0.00	\$0.00
LIVONIA	\$896,917.00	\$896,917.00	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$983,460.04	\$983,460.04	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$151,546.92	\$151,546.92	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MAYFIELD TOWNSHIP	\$9,453.68	\$6,308.40	\$3,145.28	\$0.00	\$0.00
MELVINDALE	\$52,049.53	\$52,049.53	\$0.00	\$0.00	\$0.00
NEW HAVEN	\$29,552.34	\$29,552.34	\$0.00	\$0.00	\$0.00
NOCWA	\$3,717,912.80	\$3,717,912.80	\$0.00	\$0.00	\$0.00
NORTHVILLE	\$69,952.29	\$69,952.29	\$0.00	\$0.00	\$0.00
NORTHVILLE TOWNSHIP	\$442,725.45	\$442,725.45	\$0.00	\$0.00	\$0.00
NOVI	\$716,713.28	\$716,713.28	\$0.00	\$0.00	\$0.00
OAK PARK	\$114,128.95	\$114,128.95	\$0.00	\$0.00	\$0.00
OAKLAND CO DR COM	\$11,620.03	\$11,620.03	\$0.00	\$0.00	\$0.00
PLYMOUTH	\$188,151.93	\$188,151.93	\$0.00	\$0.00	\$0.00
PLYMOUTH TOWNSHIP	\$346,881.23	\$346,881.23	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$259,131.44	\$259,131.44	\$0.00	\$0.00	\$0.00
RIVER ROUGE	\$57,122.73	\$57,122.73	\$0.00	\$0.00	\$0.00
RIVERVIEW	\$148,831.78	\$148,831.78	\$0.00	\$0.00	\$0.00
ROCKWOOD	\$23,494.00	\$23,494.00	\$0.00	\$0.00	\$0.00
ROMEO	\$19,692.83	\$19,692.83	\$0.00	\$0.00	\$0.00
ROMULUS	\$358,650.64	\$358,650.64	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$257,878.33	\$257,878.33	\$0.00	\$0.00	\$0.00
ROYAL OAK TOWNSHIP	\$32,411.97	\$32,411.97	\$0.00	\$0.00	\$0.00
SHELBY TOWNSHIP	\$2,570,850.18	\$2,570,850.18	\$0.00	\$0.00	\$0.00
SOCWA	\$3,916,204.51	\$3,916,204.51	\$0.00	\$0.00	\$0.00
SOUTH ROCKWOOD	\$9,374.86	\$9,374.86	\$0.00	\$0.00	\$0.00
SOUTHGATE	\$170,988.76	\$170,988.76	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ST. CLAIR COUNTY-GREENWOOD T	\$48,241.14	\$48,241.14	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$253,081.28	\$253,081.28	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$1,265,876.22	\$1,265,876.22	\$0.00	\$0.00	\$0.00
SUMPTER TOWNSHIP	\$56,655.23	\$56,655.23	\$0.00	\$0.00	\$0.00
SYLVAN LAKE	\$19,170.57	\$19,170.57	\$0.00	\$0.00	\$0.00
TAYLOR	\$379,770.44	\$379,770.44	\$0.00	\$0.00	\$0.00
TRENTON	\$278,785.57	\$278,785.57	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$1,110,397.55	\$1,110,397.55	\$0.00	\$0.00	\$0.00
UTICA	\$44,315.85	\$44,315.85	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$278,913.28	\$278,913.28	\$0.00	\$0.00	\$0.00
WALLED LAKE	\$134,738.29	\$134,738.29	\$0.00	\$0.00	\$0.00
WARREN	\$843,961.28	\$843,961.28	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$182,490.93	\$182,490.93	\$0.00	\$0.00	\$0.00
WAYNE	\$270,910.88	\$270,910.88	\$0.00	\$0.00	\$0.00
WEST BLOOMFIELD TWP (C-O)	\$1,729,873.78	\$1,729,873.78	\$0.00	\$0.00	\$0.00
WESTLAND	\$505,614.51	\$505,614.51	\$0.00	\$0.00	\$0.00
WIXOM	\$202,379.60	\$202,379.60	\$0.00	\$0.00	\$0.00
WOODHAVEN	\$136,587.93	\$136,587.93	\$0.00	\$0.00	\$0.00
YCUA	\$1,737,319.60	\$1,737,319.60	\$0.00	\$0.00	\$0.00
TOTAL WATER ACCOUNTS	\$46,181,861.92	\$36,217,475.18	\$1,095,102.19	\$235,209.95	\$8,634,074.60

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	\$71,200.00	\$71,200.00	\$0.00	\$0.00	\$0.00
CENTER LINE	\$86,099.50	\$86,099.50	\$0.00	\$0.00	\$0.00
DEARBORN	\$1,625,200.00	\$1,625,200.00	\$0.00	\$0.00	\$0.00
EVERGREEN-FARMINGTON	\$2,903,300.00	\$2,903,300.00	\$0.00	\$0.00	\$0.00
FARMINGTON	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE FARMS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$151,000.00	\$151,000.00	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$332,900.00	\$332,900.00	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$36,600.00	\$18,300.00	\$18,300.00	\$0.00	\$0.00
HIGHLAND PARK	\$34,691,546.67	\$472,500.00	\$472,500.00	\$472,500.00	\$33,274,046.67
MELVINDALE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
OAKLAND COUNTY GWK DD	\$3,772,000.00	\$3,772,000.00	\$0.00	\$0.00	\$0.00
OMID	\$11,638,457.20	\$11,638,457.20	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$21,900.00	\$21,900.00	\$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
TOTAL SEWER ACCOUNTS	\$61,917,703.37	\$27,680,356.70	\$490,800.00	\$472,500.00	\$33,274,046.67

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/20

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	\$3,004.82	\$3,004.82	\$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)	\$9,232.47	\$4,640.74	\$2,273.05	\$0.00	\$2,318.68
BIRMINGHAM (SEOC)	\$ (18.59)	\$ (18.59)	\$0.00	\$0.00	\$0.00
BLOOMFIELD HILLS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BLOOMFIELD TOWNSHIP	\$7,206.16	\$7,206.16	\$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	\$11,799.58	\$11,799.58	\$0.00	\$0.00	\$0.00
CITY OF FARMINGTON (E-F)	\$190.97	\$190.97	\$0.00	\$0.00	\$0.00
CITY OF FERNDALE	\$8,466.90	\$8,466.90	\$0.00	\$0.00	\$0.00
CITY OF ROCHESTER	\$3,540.55	\$3,540.55	\$0.00	\$0.00	\$0.00
CLARKSTON (C-O) ADMIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CLAWSON	\$2,626.26	\$2,626.26	\$0.00	\$0.00	\$0.00
CLINTON TOWNSHIP	\$49,736.70	\$49,736.70	\$0.00	\$0.00	\$0.00
DEARBORN	\$70,293.86	\$70,293.86	\$0.00	\$0.00	\$0.00
DEARBORN HEIGHTS	\$17,265.04	\$17,265.04	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$101.40	\$101.40	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EASTPOINTE	\$6,154.98	\$6,154.98	\$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	\$4,715.20	\$4,715.20	\$0.00	\$0.00	\$0.00
GARDEN CITY	\$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	\$1,985.75	\$1,985.75	\$0.00	\$0.00	\$0.00
GROSSE POINTE PARK	\$1,123.85	\$1,123.85	\$0.00	\$0.00	\$0.00
GROSSE POINTE SHORES	\$324.48	\$324.48	\$0.00	\$0.00	\$0.00
GROSSE POINTE WOODS	\$2,458.95	\$2,458.95	\$0.00	\$0.00	\$0.00
HAMTRAMCK	\$7,936.24	\$7,936.24	\$0.00	\$0.00	\$0.00
HARPER WOODS	\$1,754.22	\$1,754.22	\$0.00	\$0.00	\$0.00
HARRISON TWP	\$3,035.24	\$3,035.24	\$0.00	\$0.00	\$0.00
HAZEL PARK	\$3,153.54	\$3,153.54	\$0.00	\$0.00	\$0.00
HIGHLAND PARK	\$1,741,631.75	\$7,790.90	\$3,834.61	\$0.00	\$1,730,006.24
HUNTINGTON WOODS	\$272.09	\$272.09	\$0.00	\$0.00	\$0.00
INDEPENDENCE (C-O) ADMIN	\$2,343.60	\$2,343.60	\$0.00	\$0.00	\$0.00
INKSTER	\$10,572.64	\$10,572.64	\$0.00	\$0.00	\$0.00
KEEGO HARBOR	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LAKE ORION	\$1,527.76	\$1,527.76	\$0.00	\$0.00	\$0.00
LATHRUP	\$1,336.79	\$1,336.79	\$0.00	\$0.00	\$0.00
LENOX TOWNSHIP	\$618.54	\$618.54	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIVONIA	\$38,373.14	\$38,373.14	\$0.00	\$0.00	\$0.00
MACOMB TWP	\$196.04	\$196.04	\$0.00	\$0.00	\$0.00
MADISON HEIGHTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELVINDALE	\$3,342.82	\$3,342.82	\$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	\$16,778.32	\$16,778.32	\$0.00	\$0.00	\$0.00
OAK PARK	\$6,705.92	\$6,705.92	\$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)	\$3,756.87	\$3,756.87	\$0.00	\$0.00	\$0.00
ORION TOWNSHIP (C-O) ADMIN	\$1,396.36	\$942.46	\$453.90	\$0.00	\$0.00
OXFORD TOWNSHIP	\$2,055.04	\$2,055.04	\$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	\$130.13	\$130.13	\$0.00	\$0.00	\$0.00
REDFORD TOWNSHIP	\$14,015.29	\$14,015.29	\$0.00	\$0.00	\$0.00
ROCHESTER HILLS	\$17,601.35	\$17,601.35	\$0.00	\$0.00	\$0.00
ROMULUS	\$880.49	\$880.49	\$0.00	\$0.00	\$0.00
ROSEVILLE	\$13,913.77	\$13,913.77	\$0.00	\$0.00	\$0.00
ROYAL OAK	\$26,367.38	\$26,358.93	\$8.45	\$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 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SHELBY TOWNSHIP	\$13,834.34	\$13,834.34	\$0.00	\$0.00	\$0.00
SOUTHFIELD (E-F)	\$54,304.77	\$54,304.77	\$0.00	\$0.00	\$0.00
SOUTHFIELD (SEOC)	\$7,605.00	\$7,605.00	\$0.00	\$0.00	\$0.00
ST. CLAIR SHORES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
STERLING HEIGHTS	\$30,254.38	\$30,254.38	\$0.00	\$0.00	\$0.00
TROY (E-F)	\$365.04	\$365.04	\$0.00	\$0.00	\$0.00
TROY (SEOC)	\$35,743.50	\$35,743.50	\$0.00	\$0.00	\$0.00
UTICA	\$2,881.45	\$2,881.45	\$0.00	\$0.00	\$0.00
VAN BUREN TOWNSHIP	\$5,440.11	\$3,996.85	\$206.18	\$0.00	\$1,237.08
VILLAGE OF FRANKLIN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
WASHINGTON TOWNSHIP	\$1,385.80	\$1,385.80	\$0.00	\$0.00	\$0.00
WATERFORD TOWNSHIP DPW (ADMI	\$2,963.18	\$2,963.18	\$0.00	\$0.00	\$0.00
WAYNE	\$0.00	\$0.00	\$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	\$21,571.16	\$21,571.16	\$0.00	\$0.00	\$0.00
TOTAL IWC ACCOUNTS	\$2,319,353.17	\$579,014.98	\$6,776.19	\$0.00	\$1,733,562.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY	\$3,786.95	\$3,786.95	\$0.00	\$0.00	\$0.00
A & R PACKING CO., LLC	\$3,512.96	\$3,512.96	\$0.00	\$0.00	\$0.00
AACTRON	\$344.35	\$85.54	\$0.00	\$71.40	\$187.41
ACADEMY PACKING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ACME RUSTPROOF	\$76.29	\$75.51	\$0.78	\$0.00	\$0.00
ADORING PET FUNERAL HOME	\$83.11	\$83.11	\$0.00	\$0.00	\$0.00
AEVITAS SPECIALITY SERVICES	\$1,636.43	\$1,153.97	\$482.46	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALEXANDER & HORNUNG	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALL CHEM CORP, LLC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ALPHA STAMPING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERICAN WASTE TECH INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
AMERITI MFG. CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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	\$0.65	\$0.65	\$0.00	\$0.00	\$0.00
BAFFIN BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BARON INDUSTRIES	\$2,003.41	\$1,316.13	\$0.00	\$687.28	\$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	\$554.40	\$184.80	\$0.00	\$0.00	\$369.60
BAYS MICHIGAN CORPORATION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

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	\$34,292.00	\$34,292.00	\$0.00	\$0.00	\$0.00
BLACK LOTUS BREWING CO.	\$61.25	\$0.00	\$0.00	\$0.00	\$61.25
BOZEK'S MARKET	\$91.07	\$91.07	\$0.00	\$0.00	\$0.00
BREW DETROIT	\$9,151.91	\$5,197.07	\$3,954.84	\$0.00	\$0.00
BROADWAY MKT CORNED BEEF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BROOKS BREWING, LLC.	\$92.31	\$71.31	\$0.00	\$0.00	\$21.00
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	\$11.16	\$6.20	\$0.00	\$4.96	\$0.00
CF BURGER CREAMERY	\$18,602.83	\$18,602.83	\$0.00	\$0.00	\$0.00
CHILANGO'S BAKERY	\$1,802.28	\$35.39	\$17.69	\$16.09	\$1,733.11
CINTAS CORP. - MACOMB TWP.	\$33,058.54	\$33,058.54	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$36,291.68	\$36,291.68	\$0.00	\$0.00	\$0.00
CINTAS CORPORATION	\$11,969.80	\$11,969.80	\$0.00	\$0.00	\$0.00
CITY LAUNDRY, INC.	\$9.15	\$9.15	\$0.00	\$0.00	\$0.00
CLASSIC CONTAINER CORP.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COCA-COLA REFRESHMENTS USA,	\$1,607.93	\$1,607.93	\$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 11/30/20

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.	\$4,113.55	\$2,629.09	\$0.00	\$1,484.46	\$0.00
DARLING INGREDIENTS, INC.	\$7,746.67	\$7,746.67	\$0.00	\$0.00	\$0.00
DAVE'S SAUSAGE FACTORY 2	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN BREWING	\$87.30	\$30.49	\$0.00	\$0.00	\$56.81
DEARBORN SAUSAGE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DEARBORN SAUSAGE CO., INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT BEER CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT LINEN SERVICE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT METRO WC AIRPORT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT RIVERTOWN BREWERY CC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DETROIT SAUSAGES CO INC	\$11.40	\$11.40	\$0.00	\$0.00	\$0.00
DETRONIC INDUSTRIES, INC.	\$49.64	\$49.64	\$0.00	\$0.00	\$0.00
DIFCO LABORATORIES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
DIVERSIFIED CHEM TECH. INC.	\$233.95	\$233.95	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$5,890.21	\$5,890.21	\$0.00	\$0.00	\$0.00
DOMESTIC UNIFORM RENTAL	\$2,282.07	\$2,282.07	\$0.00	\$0.00	\$0.00
DOWNEY BREWING COMPANY	\$15.75	\$15.75	\$0.00	\$0.00	\$0.00
E.W. GROBBEL'S SONS, INC.	\$4,681.52	\$4,681.52	\$0.00	\$0.00	\$0.00
EASTERN MARKET BREWING COMP?	\$93.14	\$93.14	\$0.00	\$0.00	\$0.00
ENVIROSOLIDS, L.L.C.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$761.20	\$761.20	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EQ DETROIT, INC.	\$9,014.93	\$9,014.93	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$78.88	\$78.88	\$0.00	\$0.00	\$0.00
EQ DETROIT, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ETON ST BREWERY- GRIFFIN CLF	\$2,885.46	\$2,885.46	\$0.00	\$0.00	\$0.00
EXTRUDE HONE CORPORATION	\$196.31	\$196.31	\$0.00	\$0.00	\$0.00
EXTRUDEHODE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FARMINGTON BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FAYGO BEVERAGES, INC.	\$21,224.14	\$21,224.14	\$0.00	\$0.00	\$0.00
FIVES CINETIC CORP.	\$3,907.53	\$3,907.53	\$0.00	\$0.00	\$0.00
FORD NEW MODEL PROGRAM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FOUNDERS BREWING COMPANY	\$106.67	\$44.21	\$0.00	\$0.00	\$62.46
FRESH-PAK	\$282.39	\$282.39	\$0.00	\$0.00	\$0.00
FRESH-PAK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G2O ENERGY, LLC	\$4,863.39	\$3,545.60	\$1,317.79	\$0.00	\$0.00
GENERAL LINEN SUPPLY CO.	\$6,477.23	\$6,477.23	\$0.00	\$0.00	\$0.00
GLOBAL TITANIUM, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$ (21.89)	\$0.00	\$0.00	\$ (21.89)	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GRANITE CITY FOOD & BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GREAT BARABOO BREWING CO.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
HACIENDA MEXICAN FOODS	\$2,848.72	\$1,165.57	\$652.26	\$830.93	\$199.96
HENKEL CORPORATION	\$141.32	\$141.32	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
HOME STYLE FOOD INC.	\$887.54	\$887.54	\$0.00	\$0.00	\$0.00
HOMEGROWN BREWING COMPANY	\$100.62	\$50.31	\$0.00	\$0.00	\$50.31
HOODS CLEANERS	\$211.33	\$0.00	\$0.00	\$0.00	\$211.33
HOUGHTON INTERNATIONAL INC.	\$935.05	\$436.36	\$498.69	\$0.00	\$0.00
HOUGHTON INTERNATIONAL INC.	\$1,367.24	\$885.17	\$482.07	\$0.00	\$0.00
HOUGHTON INTERNATIONAL INC.	\$12,920.19	\$9,017.95	\$3,902.24	\$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	\$1,295.28	\$784.27	\$511.01	\$0.00	\$0.00
ISLAMIC SLAUGHTER HOUSE	\$993.42	\$993.42	\$0.00	\$0.00	\$0.00
ITALIAN BUTTER BREAD STICKS	\$11.27	\$3.22	\$3.22	\$1.61	\$3.22
JAMEX BREWING CO.	\$115.06	\$38.50	\$0.00	\$0.00	\$76.56
KAR NUT PRODUCTS	\$1,129.43	\$1,129.43	\$0.00	\$0.00	\$0.00
KOWALSKI SAUSAGES, CO.	\$1,836.61	\$1,836.61	\$0.00	\$0.00	\$0.00
KUHNHENN BREWING	\$38.89	\$38.89	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$989.73	\$989.73	\$0.00	\$0.00	\$0.00
LA MICHOACANA FLOUR TORTILLA	\$22.68	\$22.68	\$0.00	\$0.00	\$0.00
LEAR CORPORATION DBA EAGLE C	\$3,539.46	\$3,539.46	\$0.00	\$0.00	\$0.00
LIBERTY STREET PROD. BREWERY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
LIFE TECHNOLOGIES	\$30,137.84	\$30,137.84	\$0.00	\$0.00	\$0.00
LILY'S SEAFOOD GRILL & BREWE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MACDERMID, INC.	\$2,112.11	\$2,112.11	\$0.00	\$0.00	\$0.00
MCCLURE'S PICKLES	\$692.44	\$685.52	\$6.92	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MCNICHOLS POLISHING & ANODIZ	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MELLO MEATS INC, - KUBISCH S	\$(28.49)	\$0.00	\$(28.49)	\$0.00	\$0.00
METROPOLITAN BAKERY	\$968.32	\$968.32	\$0.00	\$0.00	\$0.00
MIBA HYDRAMECHANICA CORP.	\$374.50	\$218.56	\$105.14	\$50.80	\$0.00
MICHIGAN DAIRY	\$158,415.89	\$158,415.89	\$0.00	\$0.00	\$0.00
MICHIGAN PROD. MACHINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MICHIGAN SOY PRODUCTS CO.	\$592.71	\$592.71	\$0.00	\$0.00	\$0.00
MIDWEST WIRE PRODUCTS, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MILANO BAKERY	\$1,034.18	\$1,034.18	\$0.00	\$0.00	\$0.00
MILTON CHILI CO.	\$42.54	\$42.54	\$0.00	\$0.00	\$0.00
MINNIE MARIE BAKERS, INC	\$2,637.17	\$2,637.17	\$0.00	\$0.00	\$0.00
MISTER UNIFORM & MAT RENTALS	\$4.88	\$4.88	\$0.00	\$0.00	\$0.00
MOTOR CITY BREWING WORKS	\$1,741.92	\$161.88	\$752.50	\$0.00	\$827.54
NATIONAL CHILI COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NEAPCO DRIVELINES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTH CENTER BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NORTHERN LAKES SEAFOOD & MEA	\$37.69	\$37.69	\$0.00	\$0.00	\$0.00
OAKWOOD BAKERY	\$136.07	\$136.07	\$0.00	\$0.00	\$0.00
PARKER'S HILLTOP BREWER & SE	\$(11.64)	\$0.00	\$0.00	\$0.00	\$(11.64)
PELLERITO FOODS INC.	\$8.06	\$8.06	\$0.00	\$0.00	\$0.00
PEPSI COLA, INC.	\$12,737.19	\$12,737.19	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$64,729.33	\$64,729.33	\$0.00	\$0.00	\$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PERDUE PREMIUM MEAT COMPANY	\$15,057.02	\$15,057.02	\$0.00	\$0.00	\$0.00
PERDUE PREMIUM MEAT COMPANY	\$1,267.95	\$1,267.95	\$0.00	\$0.00	\$0.00
PERSONAL UNIFORM SERVICE, IN	\$11.09	\$11.09	\$0.00	\$0.00	\$0.00
PETRO ENVIRON TECH, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PINE TREE ACRES, INC.	\$23,985.31	\$23,985.31	\$0.00	\$0.00	\$0.00
PLATING SPEC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
POWER VAC OF MICHIGAN, INC.	\$170.59	\$0.00	\$170.59	\$0.00	\$0.00
PREMIER PLATING, LLC	\$7,588.93	\$2,915.60	\$0.00	\$2,190.19	\$2,483.14
PRODUCTION SPRING, LLC.	\$ (202.76)	\$0.00	\$0.00	\$0.00	\$ (202.76)
QUALA SERVICES, LLC	\$945.52	\$945.52	\$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	\$12.73	\$12.73	\$0.00	\$0.00	\$0.00
RIVER ROUGE BREWING COMPANY	\$773.22	\$773.22	\$0.00	\$0.00	\$0.00
ROAK BREWING CO. LLC	\$284.94	\$284.94	\$0.00	\$0.00	\$0.00
ROCHESTER MILLS BEER COMPANY	\$218.94	\$163.05	\$0.00	\$0.00	\$55.89
ROCHESTER MILLS PROD BREWERY	\$2,831.27	\$1,894.40	\$0.00	\$0.00	\$936.87
ROYAL OAK BREWERY	\$ (654.14)	\$0.00	\$0.00	\$0.00	\$ (654.14)
RTT	\$27,772.36	\$0.00	\$0.00	\$0.00	\$27,772.36
SEAFARE FOODS, INC.	\$70.90	\$70.90	\$0.00	\$0.00	\$0.00
SHERWOOD BREWING COMPANY	\$1,162.13	\$31.50	\$0.00	\$0.00	\$1,130.63
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	\$124.84	\$60.38	\$0.00	\$0.00	\$64.46

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
SWEETHEART BAKERY, INC.	\$1,328.56	\$153.94	\$84.23	\$72.61	\$1,017.78
THE CROWN GROUP-LIVONIA PLAN	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOM LAUNDRY CLEANERS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TRAFFIC JAM & SNUG	\$(31.16)	\$0.00	\$0.00	\$0.00	\$(31.16)
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TURRI'S ITALIAN FOODS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
U-METCO, INC.	\$2,158.20	\$2,158.20	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$72,983.09	\$72,983.09	\$0.00	\$0.00	\$0.00
UNCLE RAYS SNACKS, LLC	\$2,158.69	\$2,158.69	\$0.00	\$0.00	\$0.00
UNIQUE LINEN SERVICES, INC.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
UNITED FISH DISTRIBUTORS	\$16.98	\$16.98	\$0.00	\$0.00	\$0.00
UNITED LINEN SERVICE, LLC.	\$531.43	\$531.43	\$0.00	\$0.00	\$0.00
UNITED MEAT & DELI	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
URBANREST BREWING COMPANY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
US ECOLOGY MICHIGAN	\$374.98	\$374.98	\$0.00	\$0.00	\$0.00
US ECOLOGY ROMULUS, INC.	\$2,372.53	\$2,372.53	\$0.00	\$0.00	\$0.00
USHER OIL SERVICES	\$4,776.23	\$4,776.23	\$0.00	\$0.00	\$0.00
VALICOR ENVIROMENTAL SERVICE	\$1,352.98	\$1,352.98	\$0.00	\$0.00	\$0.00
VAUGHAN INDUSTRIES, INC.	\$31.69	\$31.69	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS	\$8,674.66	\$8,674.66	\$0.00	\$0.00	\$0.00
VERNDALE PRODUCTS, INC.	\$(140.55)	\$(140.55)	\$0.00	\$0.00	\$0.00
VERNOR FOOD PRODUCTS	\$(36.26)	\$0.00	\$0.00	\$0.00	\$(36.26)

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 11/30/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
WIGLEY'S MEAT PROCESS	\$609.02	\$609.02	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$1,257.89	\$1,257.89	\$0.00	\$0.00	\$0.00
WINTER SAUSAGE MFG. CO.	\$241.89	\$241.89	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO	\$12,469.50	\$12,469.50	\$0.00	\$0.00	\$0.00
WOLVERINE PACKING CO.	\$6,204.08	\$6,204.08	\$0.00	\$0.00	\$0.00
WOODWARD AVENUE BREWERS	\$144.24	\$0.00	\$0.00	\$59.06	\$85.18
TOTAL POLLUTANT SURCHARGE ACCOUNTS	\$738,682.48	\$683,835.61	\$12,913.94	\$5,447.50	\$36,485.43

City of Highland Park Billings and Collections

	<u>Water</u>	<u>Sewer</u>	<u>IWC</u>	<u>Cumulative Total</u>
June 30, 2012 Balance	\$ -	\$ 10,207,956	\$ 852,987	\$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	<u>(65,652)</u>	<u>(2,206,211)</u>	<u>-</u>	<u>(2,271,863)</u>
June 30, 2013 Balance	\$ 420,235	\$ 12,989,380	\$ 1,007,431	\$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	<u>-</u>	<u>(1,612,633)</u>	<u>-</u>	<u>(1,612,633)</u>
June 30, 2014 Balance	\$ 1,424,592	\$ 18,357,189	\$ 1,169,382	\$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	<u>-</u>	<u>(1,444,623)</u>	<u>-</u>	<u>(1,444,623)</u>
June 30, 2015 Balance	\$ 2,432,625	\$ 22,465,689	\$ 1,335,121	\$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	<u>-</u>	<u>(2,022,335)</u>	<u>-</u>	<u>(2,022,335)</u>
June 30, 2016 Balance	\$ 3,589,803	\$ 26,055,521	\$ 1,441,551	\$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	<u>-</u>	<u>(2,309,186)</u>	<u>-</u>	<u>(2,309,186)</u>
June 30, 2017 Balance	\$ 4,835,070	\$ 29,548,335	\$ 1,543,550	\$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	<u>-</u>	<u>(4,108,108)</u>	<u>-</u>	<u>(4,108,108)</u>
June 30, 2018 Balance	\$ 6,112,248	\$ 31,097,327	\$ 1,624,022	\$ 38,833,597
FY 2019 Billings	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments	<u>-</u>	<u>(5,241,583)</u>	<u>-</u>	<u>(5,241,583)</u>
June 30, 2019 Balance	\$ 7,351,045	\$ 31,472,844	\$ 1,675,243	\$ 40,499,132
FY 2020 Billings	1,182,639	5,665,400	47,097	6,895,136
FY 2020 Payments	<u>-</u>	<u>(3,026,117)</u>	<u>-</u>	<u>(3,026,117)</u>
June 30, 2020 Balance	\$ 8,533,684	\$ 34,112,127	\$ 1,722,340	\$ 44,368,151
FY 2021 Billings (5 Months)	514,377	2,362,500	19,292	2,896,169
FY 2021 Payments (5 Months)	<u>-</u>	<u>(1,783,080)</u>	<u>-</u>	<u>(1,783,080)</u>
Balance as of November 30, 2020	<u>\$ 9,048,061</u>	<u>\$ 34,691,547</u>	<u>\$ 1,741,632</u>	<u>\$ 45,481,240</u>



Financial Services Audit Committee Communication

Date: February 26, 2021

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.

On a monthly basis, an invoice is prepared. While the intent is for the monthly invoice to represent actual costs, the reality is that the timing of certain vendor invoices and accumulation of internal charges requires a “True-up” process. That being said, the intent is also for the parties to transmit payment on a monthly basis 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.

Table 1 – GLWA as Service Provider (FY 2021 Billings through February 12, 2021)

Summary of Shared Services Billings and Payments				
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	\$ 2,641,886	\$ -	\$ -	\$ 2,641,886
Subtotals	\$ 38,225,700	\$ 4,425,054	\$ 23,003,329	\$ 19,647,426
* 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 February 12, 2021)

Summary of Shared Services Billings and Payments				
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	\$ -	\$ 3,622,245	\$ 1,686,294
FY2019	\$ 4,175,695	\$ -	\$ -	\$ 4,175,695
FY2020	\$ 4,677,356	\$ -	\$ -	\$ 4,677,356
FY2021	\$ 1,020,000	\$ -	\$ 1,015,000	\$ 5,000
Subtotals	\$ 22,447,689	\$ 3,926,060	\$ 15,829,404	\$ 10,544,345

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 the True-Ups in the table below.

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 has agreed to make payments for the Shared Services that have a portion to still be negotiated and agreed to by both parties. DWSD and GLWA Shared Service Teams 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. GLWA has agreed to make payments for the Shared Services that have a portion to still be negotiated and agreed to by both parties.

Table 3 – FY 2018 GLWA as Service Provider

GLWA Provider Shared Service Description	GLWA progress (1-3)	DWSD progress (4-7)	Date sent to DWSD OR expected date to be sent to DWSD
OPS-004 Water Quality	3	9	8/9/2019
OPS-005 Security	3	10	8/5/2019
OPS-005 Security Training	3	5	8/5/2019
OPS-008 Systems Control Center	3	10	11/15/2019
ITS-001 Retail AMR	3	9	10/29/2019
ITS-002 Customer Service Tech Suite	3	9	10/29/2019
ITS-003 See Click Fix	3	9	10/29/2019
ITS-004 WAM	3	9	10/29/2019
ITS-005 Mobile Work Force	3	9	11/6/2019
ITS-006 ESRI-GIS	3	9	10/29/2019
ITS-007 DADS	3	9	10/29/2019
ITS-008 TIBCO	3	9	10/29/2019
ITS-009 IT Infrastructure	3	9	11/6/2019
LS-001-A Joint Litigation and Defense, LS-001-B Environment, LS-002 Environment, LS-003 Contract Drafting	3	9	8/9/2019

Other items to bill not a defined shared service code			
DWSD-R Staff Training by GLWA	3	5	11/6/2019
Bank Fees	3	9	8/9/2019
Public Finance	3	9	11/4/2019

Provider status:

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

Subscriber status:

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
Payment made but not complete due to outstanding amounts to be negotiated.	10
Shared Service not active at this time.	N/A

Table 4 – FY 2018 DWSD as Service Provider

DWSD/City of Detroit Provider Shared Service Description	DWSD progress (1-3)	GLWA Progress (4-7)
OPS-001 Fleet	3	9
OPS-002 Miss Dig	3	9
OPS-003 As Needed Field Services	3	9
OPS-006 Facilities	1	10
DoIT-001 Financial Information Services	N/A	N/A
DoIT-002 Radios	N/A	N/A
DoIT-003 Customer Service Technology Suite	3	9
Other items to bill not a defined shared service code		
Fuel	3	9
WAM Invoices	3	10
IT Help Desk	3	9

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. DWSD has provided

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 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 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 (4-7)	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		2/26/2021
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		2/26/2021
LS-001-A Joint Litigation and Defense, LS-001-B Environment, LS-002 Environment, LS-003 Contract Drafting	N/A		
Other items to bill not a defined shared service code			
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

DWSD/City of Detroit Provider Shared Service Description	DWSD progress (1-3)	GLWA Progress (4-7)
OPS-001 Fleet	1	4
OPS-002 Miss Dig	3	9
OPS-003 As Needed Field Services	3	9
OPS-006 Facilities	1	4
DoIT-001 Financial Information Services	N/A	N/A
DoIT-002 Radios	N/A	N/A
DoIT-003 Customer Service Technology Suite	1	4
Other items to bill not a defined shared service		
Fuel	1	4
WAM Invoices	3	6

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 seven 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 3/1/2021
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
OPS-001	Fleet	DWSD	Terminated on 6/30/2020
ITS-002	Customer Service Tech Suite	GLWA	Terminated on 10/1/18
ITS-001	Retail AMR	GLWA	Terminated on 6/30/19
ITS-003	See Click Fix	GLWA	Terminated on 12/31/18
ITS-006	ESRI GIS	GLWA	Terminated on 6/30/19
OPS-004	Water Quality	GLWA	Terminated on 6/30/19
OPS-007	WWTP IWC Underground Storage Tank	N/A - not needed	
PRO-001	Applications Analyst	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.



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. 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 eleven open State Revolving Fund (SRF) loans, seven for water and four for sewer.
- ✓ Existing proceeds from special revenue bonds will be largely depleted by the end of January 2021. This means that all capital projects will now be funded with Improvement & Extension funds, except for SRF funded projects.
- ✓ Other key items of interest include the following balances as of December 31, 2020.

As of December 31, 2020 (\$ Millions)		
	Water	Sewer
FY 2021 Approved SRF Projects - Table 5	\$296.1	\$58.4
DWSD Obligation Receivable - Table 6	\$546.8	\$397.9
GLWA Outstanding Debt - Table 7	\$2,295.4	\$2,970.0

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. It should be noted existing proceeds from special revenue bonds will be largely depleted by the end of January 2021. This means that all capital projects will now be funded with Improvement & Extension (I&E) funds, except for SRF funded projects. It is expected that the I&E funds will be sufficient to fund the capital program through FY 2022 including an allowance to provide flexibility in the timing of future bond issues.

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
Water					
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
Sewer					
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
Water					
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	\$ -	\$ -
Sewer					
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 December 31, 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
Water Supply System Revenue Bonds			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Stable
Sewage Disposal System Revenue Bonds			
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.

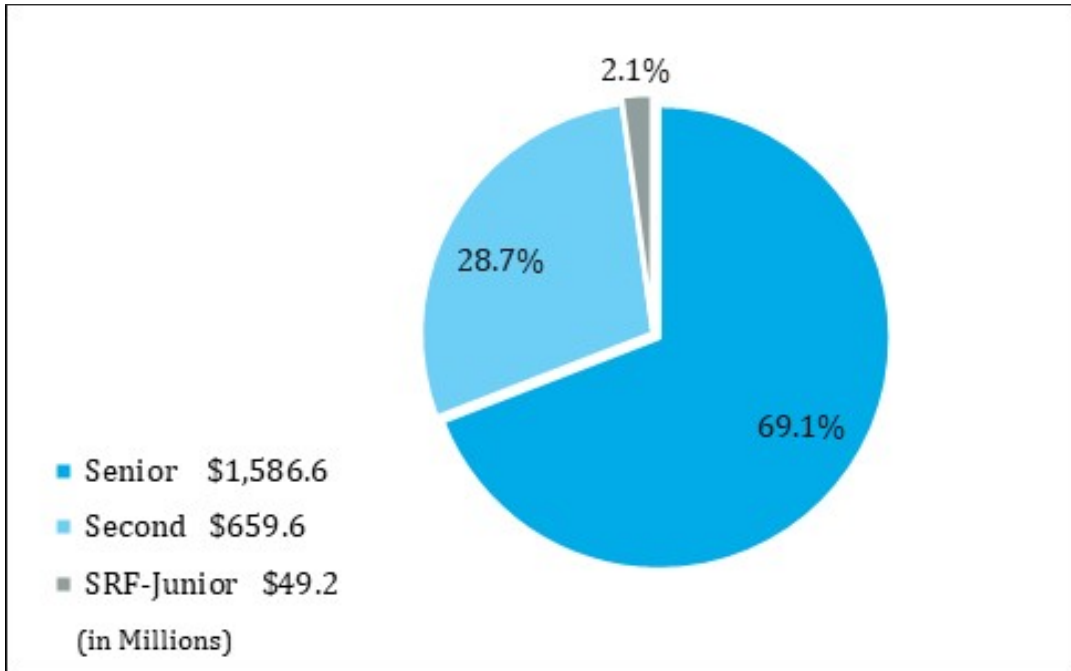


Chart 2 - Debt Type by Lien - Sewer provides a breakdown of the total sewer system debt for both the regional and local systems by lien type.

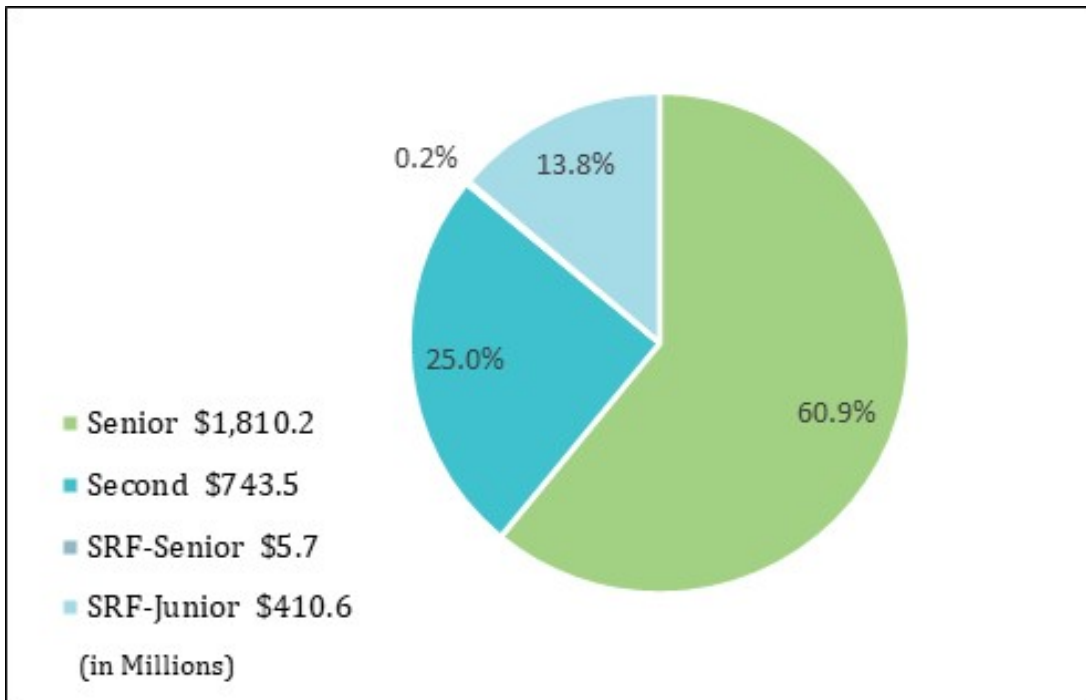


Chart 3 – Annual Debt Service Payments by Lien – Water provides the annual debt service installment requirements for each fiscal year.

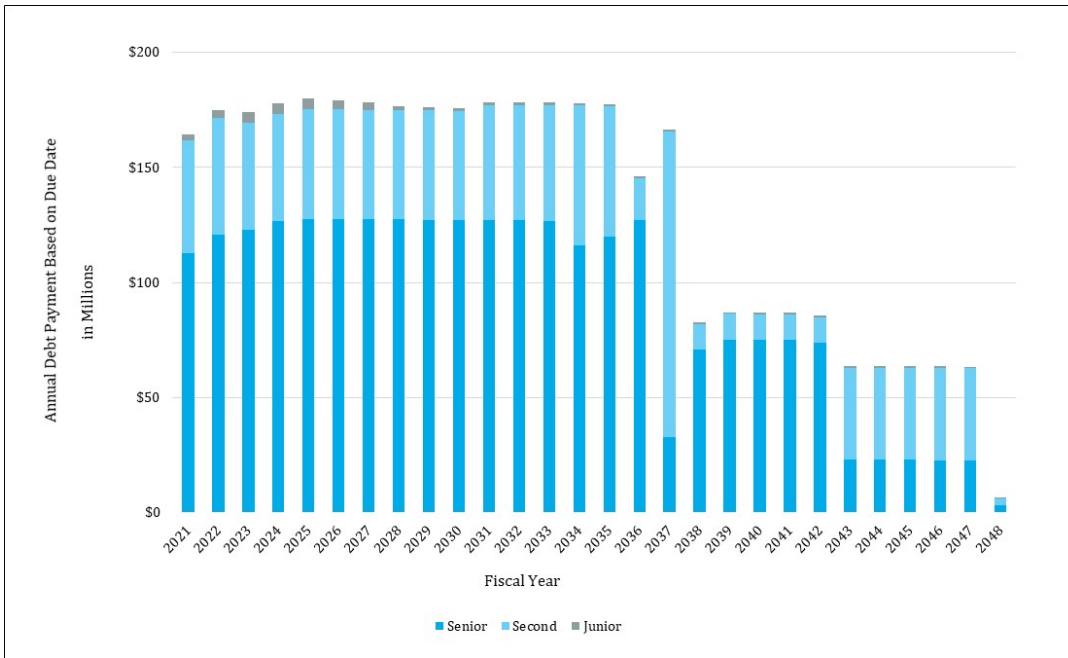
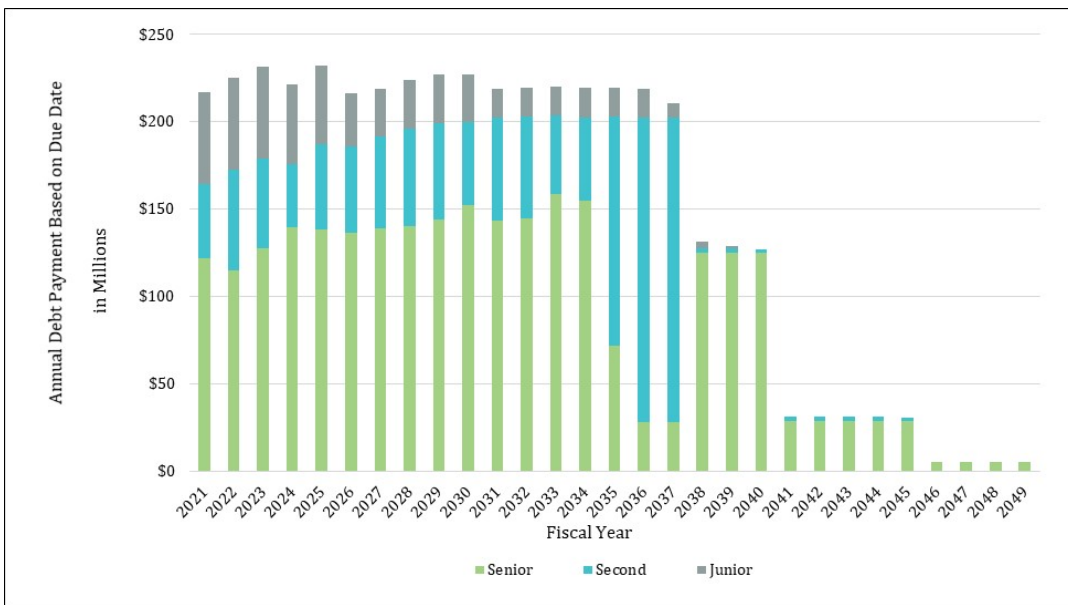


Chart 4 – Annual Debt Service Payments by Lien – Sewer provides the annual debt service installment requirements for each fiscal year.



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 (CWRP) to finance qualified sewage disposal system projects and the State’s Drinking Water Revolving Fund (DWRP) 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 DWRP and CWRP 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 DWRP and July 1 for CWRP) 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 \$49.2 million in outstanding water SRF loans and \$416.3 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)
SRF Water - DWSD Projects			
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
SRF Water - GLWA Projects			
7445-01	Northeast Transmission Phase 1	8/9/2019	\$30.0
7445-02	Northeast Transmission Main - Phase 2a	8/7/2020	\$9.9
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
Total Water			\$109.5
SRF Sewer - DWSD Projects			
5688-01	Sewer Main Rehabilitation/Replacement - Phase 1	9/9/2020	\$4.0
SRF Sewer - GLWA Projects			
5636-01	Rehab Rectangular Primary Clarifiers, Electrical/Mechanical Buildings and Pipe Gallery	8/24/2016	\$51.3
5655-01	Detroit River Interceptor Segment 1	8/23/2018	\$17.5
5655-02	Detroit River Interceptor Segment 2	3/27/2020	\$28.4
Total Sewer			\$101.3

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 December 31, 2020 for each loan. On December 31, 2020, the amount of SRF loans authorized and unissued is \$81.4 million for the Water fund and \$35.9 million for the Sewage Disposal Fund.

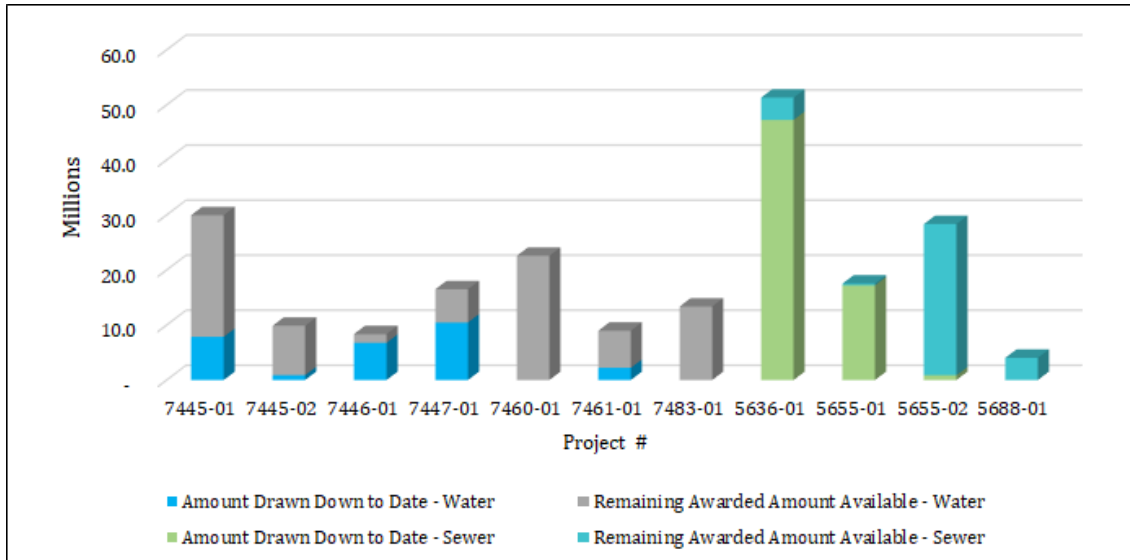


Table 5 - Project Plan Approved by EGLE identifies projects approved by the EGLE but for which applications had not yet been submitted for funding as of December 2020.

Project Owner	Description	Project Total	Anticipated Funding Date
Water SRF			
GLWA	Northeast Transmission Main - Phase 2b	\$ 92,000,000	FY 2023
GLWA	Northeast Transmission Main - Phase 3a	\$ 9,000,000	FY 2021
GLWA	14 Mile Transmission Main Loop - Phase 2	\$ 94,000,000	4Q 2021
GLWA	Northeast Transmission Main - Phase 3b	\$ 80,294,000	FY 2024
GLWA	Water Main Replacement (WS-713)	\$ 20,800,000	4Q 2021
Total Water SRF		\$ 296,094,000	
Sewer SRF			
GLWA	PS-1 Ferric Chloride System Rehabilitation	\$ 10,500,000	2Q 2021
GLWA	Detroit River Interceptor - Financial Segment	\$ 20,000,000	1Q 2022
DWSD	Sewer Main Replacements (WS-917 & WS-918)	\$ 27,900,000	4Q 2021
Total Sewer SRF		\$ 58,400,000	

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 December 31, 2020 by pre-bifurcation, revenue bond and SRF component.

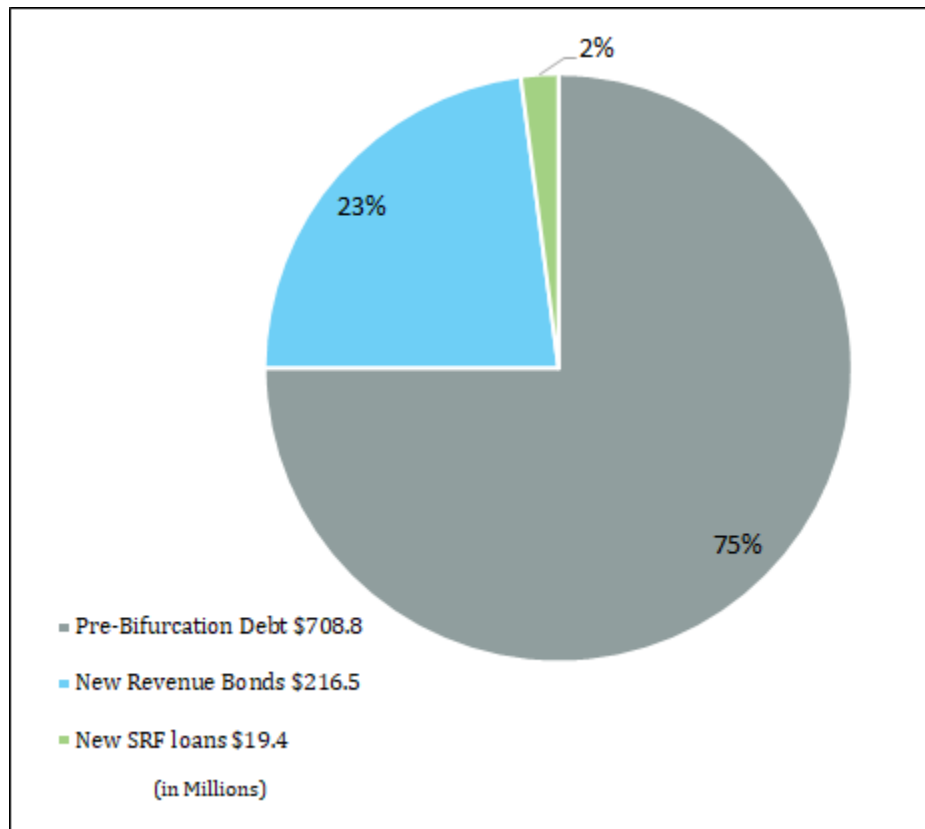


Chart 7 – Obligation Receivable Compared to Total Debt - Water provides context by comparing the Water System Obligation Receivable to the Total Water Debt (excludes unamortized premiums).

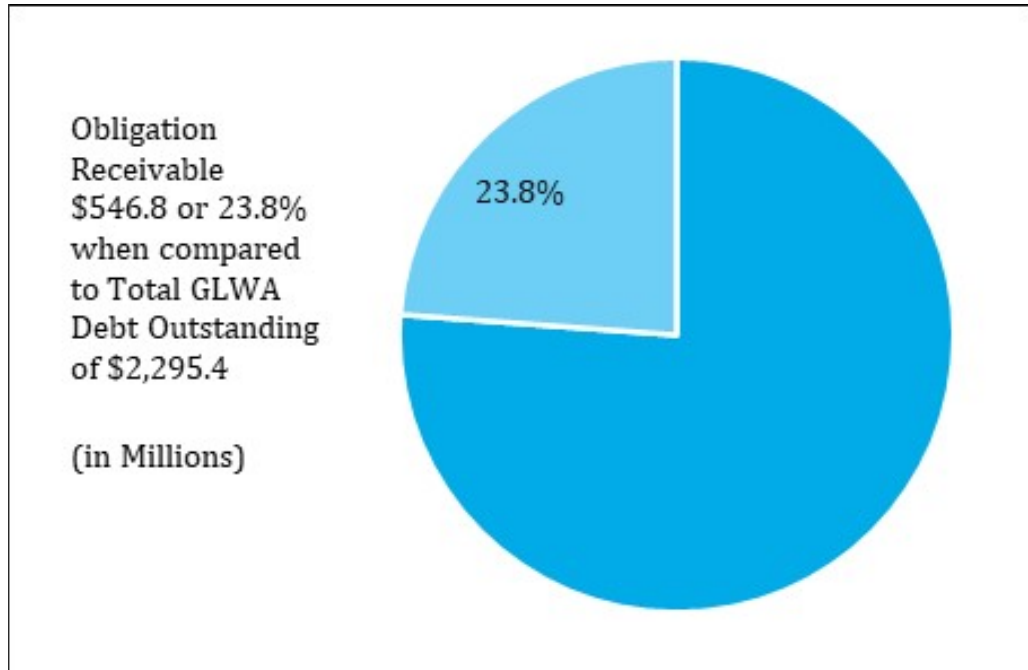


Chart 8 – Obligation Receivable Compared to Total Debt - Sewer provides context by comparing the Sewer System Obligation Receivable to the Total Sewer Debt (excludes unamortized premiums).

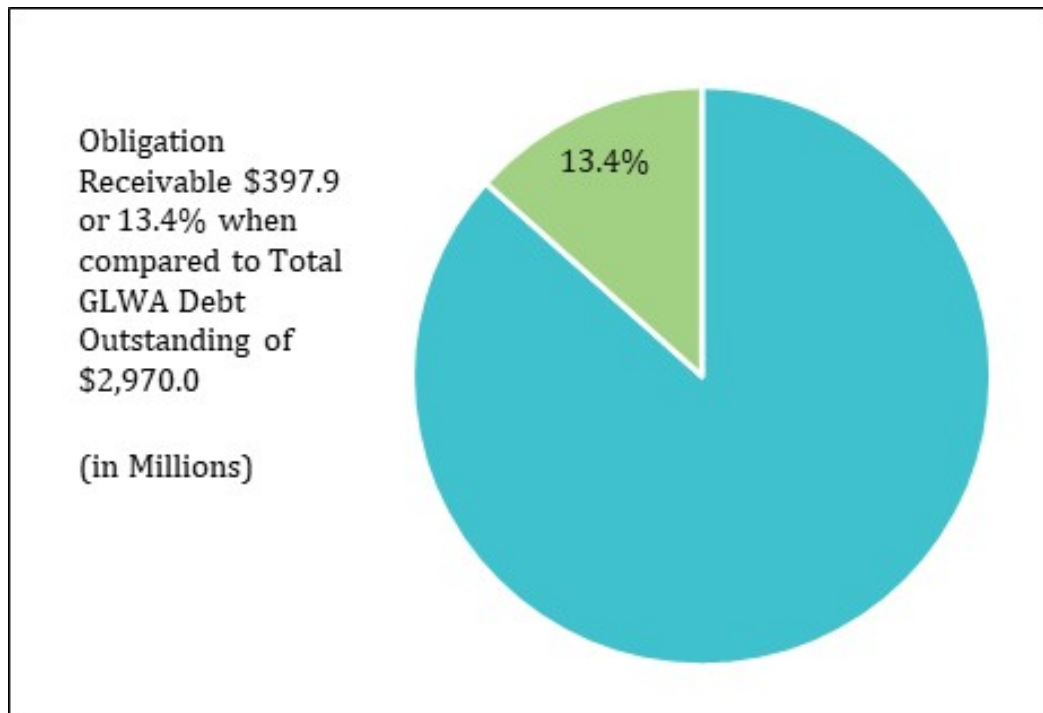


Table 6 - DWSD Obligation Receivable provides obligation receivable detail including fiscal year 2021 beginning balances by debt type and loan issue (for revenue bonds and SRF loans), year-to-date activity and ending balances as of December 31, 2020. Total DWSD debt totals \$974 million. This differs slightly from the total in Chart 8 due to the inclusion of unamortized premiums.

(In Thousands)

Debt Type	July 1, 2020			Dec 31, 2020
	Beg Balance	Increase	Decrease	End Balance
DWSD Water				
Pre-Bifurcation Debt	\$ 398,320	\$ -	\$ (7,239)	\$ 391,080
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	4,046	-	5,739
SRF 7460-01	-	-	-	-
SRF 7483-01	-	-	-	-
Total DWSD Obligation	550,171	4,046	(7,394)	546,823
Unamortized Premiums	20,391	-	(426)	19,965
Subtotal: Water	570,562	4,046	(7,821)	566,788
DWSD Sewer				
Pre-Bifurcation Debt	323,833	-	(6,125)	317,709
Revenue Bond - 2018A	80,225	-	-	80,225
Total DWSD Obligation	404,058	-	(6,125)	397,934
Unamortized Premiums	9,339	-	(187)	9,152
Subtotal: Sewer	413,397	-	(6,311)	407,086
Total DWSD Debt	\$ 983,959	\$ 4,046	\$ (14,132)	\$ 973,874

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 December 31, 2020. GLWA debt includes financing for both the regional and local share.

(In Thousands)

Debt Type	June 30, 2020			Dec 31, 2020
	Beg Balance	Increase	Decrease	End Balance
Water Fund				
Revenue Bonds	\$ 2,261,935	\$ -	\$ (15,690)	\$ 2,246,245
State Revolving Loans	39,318	11,542	(1,680)	49,180
Total Installment Debt	2,301,253	11,542	(17,370)	2,295,425
Unamortized Premiums / Discounts	191,536	-	(7,707)	183,829
Subtotal: Water	2,492,789	11,542	(25,077)	2,479,254
Sewer Fund				
Revenue Bonds	2,578,220	-	(30,235)	2,547,985
Capital Appreciation bonds	11,335	-	(5,660)	5,675
State Revolving Loans	449,667	5,477	(38,820)	416,323
Total Installment Debt	3,039,222	5,477	(74,715)	2,969,983
Capital Appreciation Bond Discount	(667)	-	331	(337)
Unamortized Premiums / Discounts	65,568	-	(9,609)	55,959
Subtotal: Sewer	3,104,122	5,477	(83,994)	3,025,606
Total Combined, Long Term Debt	\$ 5,596,912	\$ 17,019	\$ (109,070)	\$ 5,504,860

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					Adopted Budget 2021	Adopted Budget 2022
	MBO Required Minimum	Actual 2017	Actual 2018	Actual 2019	Actual 2020		
Rate Covenant Basis							
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
GAAP Basis							
Senior Lien Bonds		2.10	2.12	2.04	1.98		
Senior and second lien bonds		1.63	1.59	1.47	1.46		
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					Adopted	Adopted
	Required	Actual	Actual	Actual	Actual	Budget	Budget
	Minimum	2017	2018	2019	2020	2021	2022
Rate Covenant Basis							
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
GAAP Basis							
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.

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.

As part of the May and June 2020 transactions noted, 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
Total Defeased Water Fund Debt	<u>\$ 366,025,000</u>		

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
Total Defeased Sewage Disposal Fund Debt	<u>\$ 657,245,000</u>		

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.



Financial Services Audit Committee Communication

Date: February 26, 2021

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Quarterly Investment Report through December 31, 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 December 31, 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 December 31, 2020: 0.69%
 - As of September 30, 2020: 0.91%

- Portfolio Allocation in Cash/Money Market Securities:
 - As of December 31, 2020: 51%
 - As of September 30, 2020: 36%

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 – December 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 S&P.
- Liquidity – Great Lakes Water Authority (“GLWA”) has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet liquidity requirements. As of December 31, 2020, about 51% of the funds were held in cash and money market accounts maturing overnight.
- Return – The overall yield at cost decreased to 0.69% as of December 31, 2020 versus 0.91% as of September 30, 2020. The lower yield is reflective of the extremely low interest rate environment. GLWA has earned over \$4.1 million (unaudited) in investment income for the first half of fiscal 2021 on a book value basis. Based on current market assumptions, we expect the investment income for GLWA for FY 2021 to be approximately \$6.9 million.

AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	Yield @ Cost (as of 12/31/20)	Yield @ Market (as of 12/31/20)
Deposit Account	Comerica	\$10,027,143	\$10,027,143	0.01%	0.01%
Deposit Account - Retainage	First Independence	\$19,362,400	\$19,362,400	0.03%	0.03%
Deposit Account – Flint Security Deposit	Chase	\$3,813,910	\$3,813,910	0.10%	0.10%
Deposit Account	Chase	\$36,557,462	\$36,557,462	0.10%	0.10%
Trust Money Market Fund	U.S. Bank	\$404,285,018	\$404,285,018	0.03%	0.03%
Money Market Fund	JP Morgan	\$9,333,592	\$9,333,592	0.02%	0.02%
Local Government Investment Pool	GovMIC	\$9,847,298	\$9,847,298	0.05%	0.05%
Managed Funds	PFM	\$463,189,482	\$468,509,198	1.39%	0.17%
<u>DECEMBER 2020 TOTALS:</u>		<u>\$956,416,305</u>	<u>\$961,736,022</u>	<u>0.69%</u>	<u>0.10%</u>
<u>PREVIOUS QUARTER TOTALS:</u>		<u>\$890,101,099</u>	<u>\$896,868,136</u>	<u>0.91%</u>	<u>0.14%</u>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA. In addition to the above, there also exists surety bonds in the amount of \$324,809,258 as of 12/31/2020.

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 investment 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 0.91% as of September 30, 2020 to 0.69% as of December 31, 2020. The lower yield is a result of investing in a near zero interest rate environment.
- The total portfolio had a market yield of 0.10% at the end of December. Yield at market represents what the market would provide in return if the portfolio was purchased on December 31, 2020 (vs. purchased in prior months / years)
 - The 0.10% yield at market as of 12/31/2020 is favorable compared to the 0.06% yield for the 3-Month U.S. Treasury Bill index. This index is a comparable indicator to the GLWA portfolio.

PORTFOLIO PERFORMANCE – PROJECTIONS

- GLWA earned over \$4.1 million (unaudited) in investment income for fiscal year-to-date 2021 (as of December 31, 2020) on a book value basis.
- Even though the current period earnings are above the figure for the amended budget, we anticipate a significant drop in earnings for the remainder of the year as a result of reinvesting in an extremely low interest rate environment.
- The current forecast for total interest earnings for FY 2021 is \$6.9 million.

** Yield at cost is based on the original cost of the individual investments from the purchase date to maturity. On the other hand, yield at market is calculated on a specific day (in this case, 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

- The 2020 calendar year was a chaotic and tragic one. The coronavirus pandemic ravaged the global economy infecting over 85 million people and killing nearly two million. Governments implemented lockdown measures and injected – alongside their central banks – unprecedented monetary and fiscal stimulus to try to immunize their pandemic-plagued economies. Fueled by monetary and fiscal support, financial markets demonstrated impressive resilience. Though the pandemic has ruptured the fabric of normalcy, optimism in the new year hinges on the success of a global vaccination program.
- The Federal Reserve ended the year by affirming its zero-rate monetary policy and its commitment that monetary policy will continue to support the economy. That support will continue until the recovery is complete and the economy achieves maximum employment and inflation is consistent with the Fed's new 2.0% average over time. Market indicators are for short-term interest rates to stay near zero for the foreseeable future.

ECONOMIC IMPACT ON PORTFOLIO

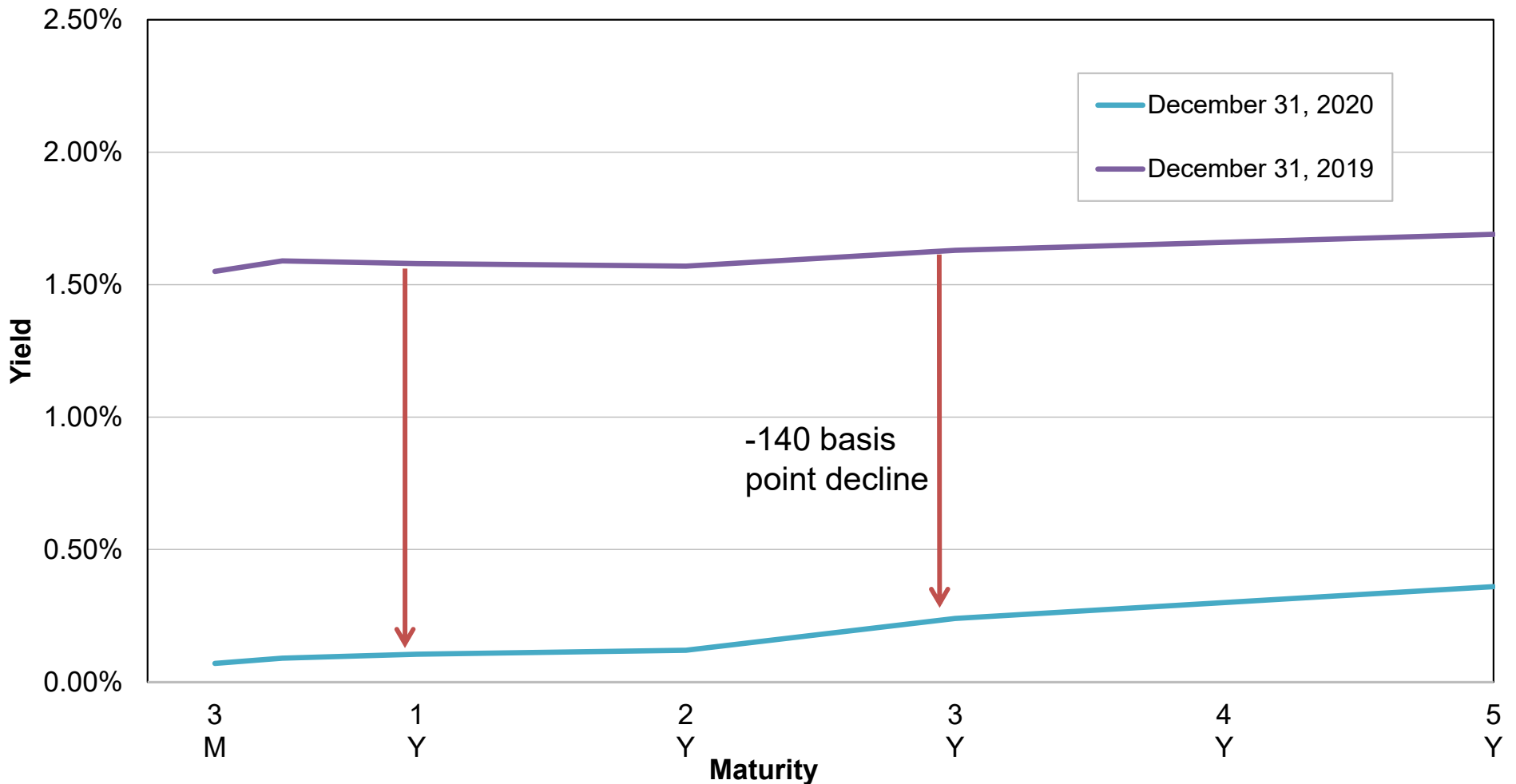
- The U.S. Treasury yield curve steepened modestly as rates on 10 and 30-year maturities rose while shorter-term rates remained anchored near zero. As a result, muted returns of shorter-maturity U.S. Treasuries exceeded the negative returns of those U.S. Treasuries with longer maturities.
- The economic outlook remains uncertain, as the pace and efficacy of the global vaccine battles a major resurgence of virus cases headlining 2021 unknowns; political turmoil in the U.S. adds to the unpredictability.
- Remarkably, the markets have largely discounted the downside. Underlying the recent low market volatility is confidence in the Fed and global central banks that have supported economic stability and expansion.
- In short-term markets, rates are expected to remain low for the next several years. In the near-term, short-term rates may be affected by the scale of Treasury issuance necessary to fund the 2021 federal budget deficit. While the deficit will require trillions of dollars of new Treasury issuance, the focus will be on longer-maturity securities and the Treasury Bill supply is likely to decline, pressuring short-term rates lower.
- Portfolio Impact: As price appreciation upside appears limited due to tight spreads, our expectations are for income to carry the brunt of the load for total returns. Maximizing portfolio income will be a focus of portfolio strategy for GLWA over the foreseeable future, similar to market conditions following the 2008 financial crisis.

Summary Market Overview and Outlook

Interest Rates Remain Low

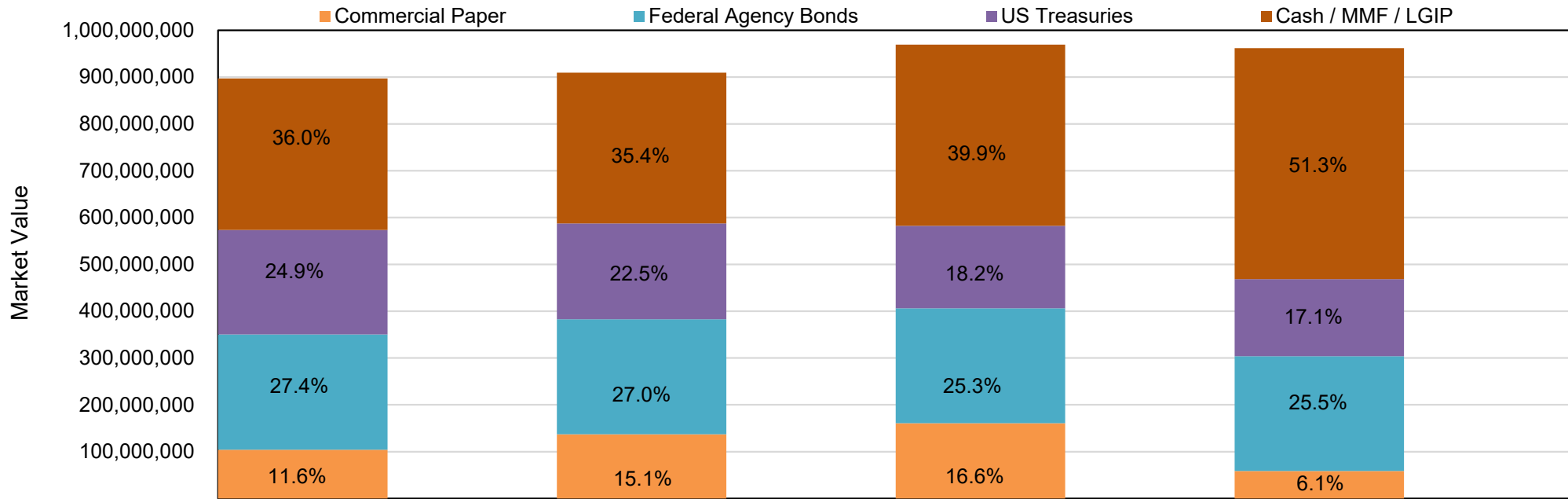
- It should be noted that as a result of the Federal Reserve's current zero interest rate policy, the markets have seen a dramatic drop in fixed-income yields over the past year.

U.S. Treasury Yield Curve



Portfolio Snapshot

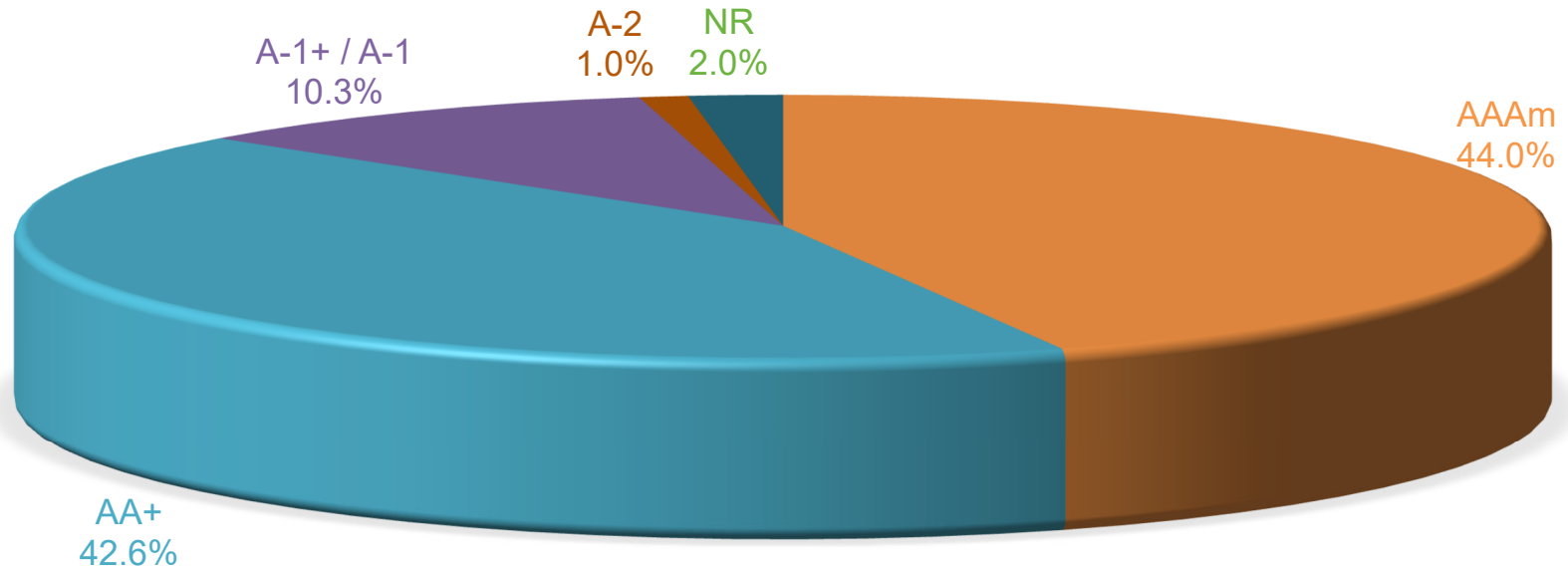
Investments – By Security Type



Security Type	September		October		November		December	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	104,240,180	11.6%	137,329,946	15.1%	160,893,523	16.6%	58,829,073	6.1%
Federal Agencies	245,960,276	27.4%	245,587,808	27.0%	245,343,608	25.3%	245,113,617	25.5%
U.S. Treasuries	223,386,198	24.9%	204,576,006	22.5%	176,241,330	18.2%	164,560,000	17.1%
Cash / MMF / LGIP	323,281,482	36.0%	321,731,345	35.4%	386,618,438	39.9%	493,233,332	51.3%
Total	896,868,136	100.0%	909,225,105	100.0%	969,096,899	100.0%	961,736,022	100.0%

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of December 31, 2020.

Portfolio Snapshot Investments – By Credit Quality

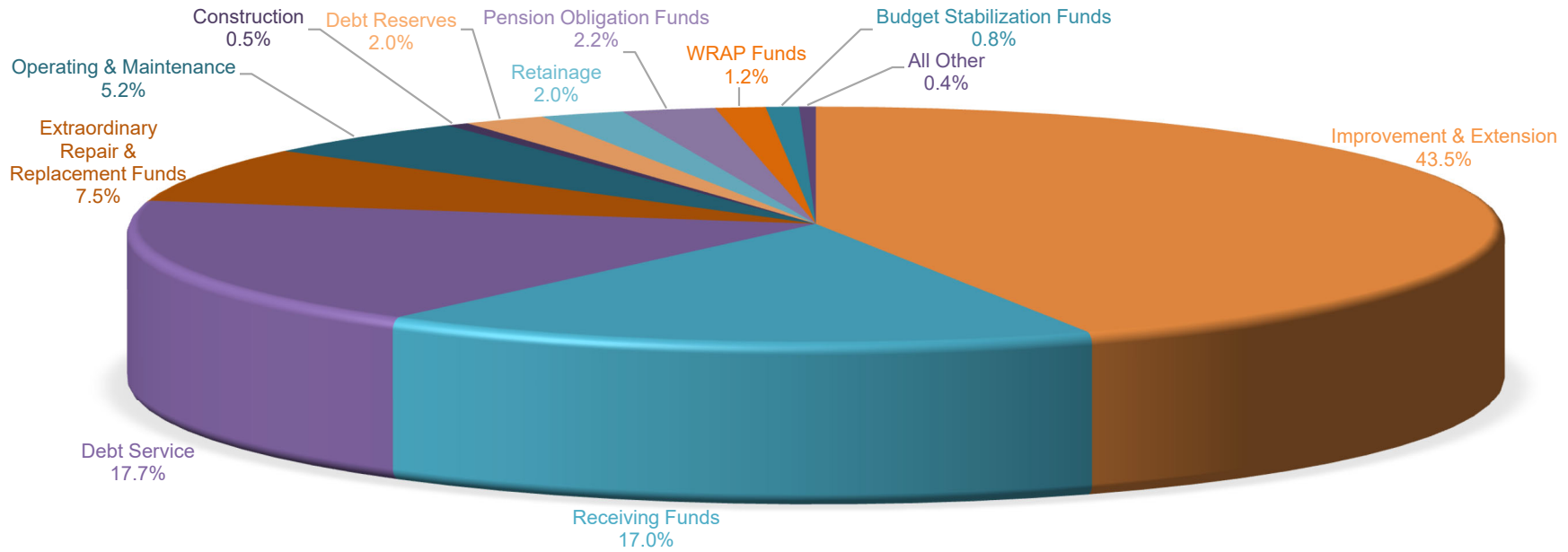


Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	423,465,908	44.0%
AA+	409,671,368	42.6%
A-1 + / A-1	99,209,202	10.3%
A-2	10,027,143	1.0%
NR	19,362,400	2.0%
Totals	961,736,022	100.0%

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of December 31, 2020.

Portfolio Snapshot

Investments – By Account Purpose

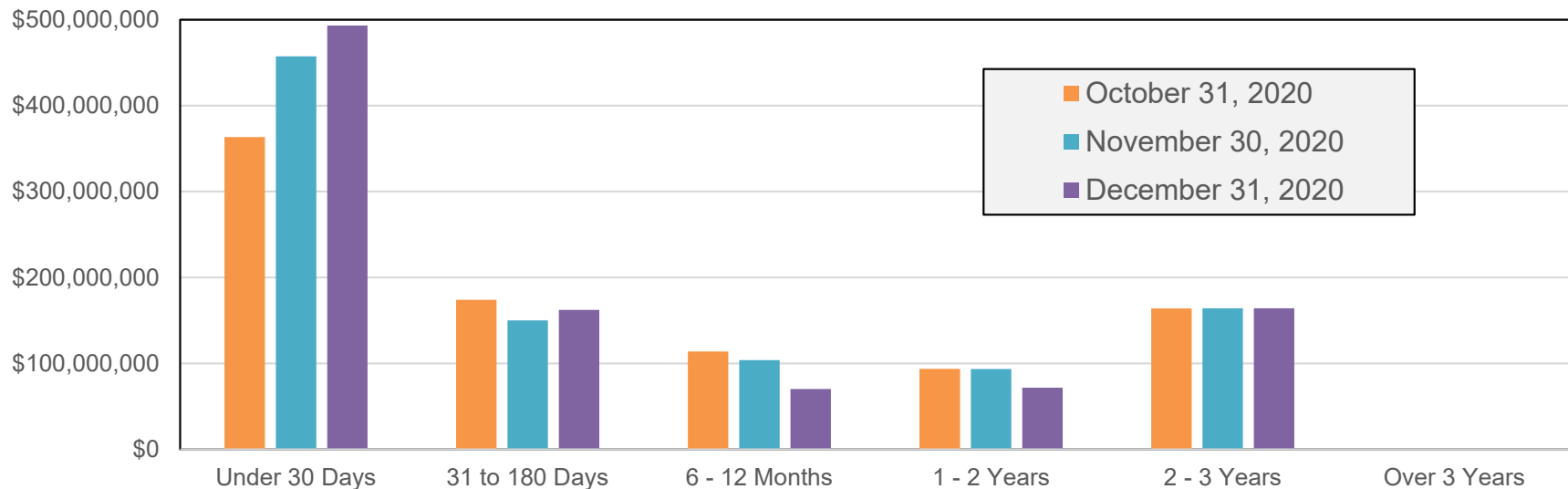


Account Purpose	Value Market	Allocation %	Cost Yield at	Market Yield at	Duration
Improvement & Extension	\$ 417,891,130	43.5%	1.19%	0.13%	1.102 Years
Debt Service	\$ 169,829,238	17.7%	0.18%	0.10%	0.159 Years
Receiving Funds (includes lockbox account)	\$ 163,936,351	17.0%	0.02%	0.02%	0.003 Years
Extraordinary Repair & Replacement Funds	\$ 72,135,164	7.5%	1.21%	0.12%	0.829 Years
Operating & Maintenance	\$ 49,903,027	5.2%	0.05%	0.05%	0.003 Years
Pension Obligation Funds	\$ 21,510,992	2.2%	0.05%	0.05%	0.012 Years
Retainage	\$ 19,362,400	2.0%	0.03%	0.03%	0.003 Years
Debt Reserves	\$ 19,020,101	2.0%	1.51%	0.14%	1.186 Years
WRAP Funds	\$ 11,496,823	1.2%	0.05%	0.04%	0.011 Years
Budget Stabilization Funds	\$ 7,589,851	0.8%	1.33%	0.14%	0.767 Years
Construction	\$ 5,247,033	0.5%	0.10%	0.10%	0.003 Years
Flint Security Deposit Account	\$ 3,813,910	0.4%	0.10%	0.10%	0.003 Years
Total	\$ 961,736,022	100.0%	0.69%	0.10%	0.600 Years

In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of December 31, 2020.

Portfolio Snapshot Investments – By Maturity

Maturity Distribution	October 31, 2020		November 30, 2020		December 31, 2020	
	\$	%	\$	%	\$	%
Under 30 Days	363,472,131	40.0%	457,466,831	47.2%	493,233,332	51.3%
31 to 180 Days	174,018,814	19.1%	150,030,721	15.5%	162,225,195	16.9%
6 - 12 Months	113,968,027	12.5%	103,940,378	10.7%	70,309,207	7.3%
1 - 2 Years	93,756,249	10.3%	93,609,473	9.7%	71,808,205	7.5%
2 - 3 Years	164,009,884	18.0%	164,049,496	16.9%	164,160,083	17.1%
Over 3 Years	-	0.0%	-	0.0%	-	0.0%
Totals	\$ 909,225,105	100.0%	\$ 969,096,899	100.0%	\$ 961,736,022	100.0%



In addition to the totals listed above, there also exists surety bonds in the amount of \$324,809,258 as of December 31, 2020.

Portfolio Snapshot

Investment Accounts – Yield at Cost & Market

	As of December 31, 2020		As of September 30, 2020	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.01%	0.01%	0.01%	0.01%
First Independence	0.03%	0.03%	0.05%	0.05%
Flint Deposit Account	0.10%	0.10%	0.15%	0.15%
JP Morgan Chase	0.10%	0.10%	0.15%	0.15%
Sub-Total Bank Deposits	0.07%	0.07%	0.10%	0.10%
Money Market Funds / LGIPs				
GoMIC	0.05%	0.05%	0.19%	0.19%
U.S. Bank - First American MMF	0.03%	0.03%	0.05%	0.05%
JP Morgan Securities - Blackrock MMF	0.02%	0.02%	0.01%	0.01%
Sub-Total MMF / LGIPs	0.03%	0.03%	0.07%	0.07%
Investment Portfolios				
Sewage SR Debt Serv 5403	0.25%	0.25%	0.23%	0.20%
Sewage SR Res 5400	1.46%	0.15%	1.47%	0.17%
Sew 2nd Debt Serv 5403	0.24%	0.27%	0.23%	0.19%
Sewage 2nd Res 5481	1.80%	0.14%	1.80%	0.15%
Sew SRF Debt Serv 5410	0.21%	0.19%	0.21%	0.25%
Sewage ER & R	1.61%	0.15%	1.79%	0.16%
Sewer Improvement & Extension	1.44%	0.15%	1.50%	0.17%
Sewer Pension Obligation	0.33%	0.17%	0.33%	0.23%
Sewer Wrap Fund	0.24%	0.18%	0.26%	0.18%
Sewer Budget Stabilization Fund	1.77%	0.18%	1.90%	0.16%
Water SR Debt Ser 5503	0.24%	0.26%	0.23%	0.19%
Water SR Reserve 5500	1.80%	0.14%	1.80%	0.15%
Water 2nd Debt Serv 5503	0.25%	0.25%	0.23%	0.20%
Water 2nd Res 5581	1.80%	0.14%	1.80%	0.15%
Water SRF Debt Serv 5575	0.20%	0.21%	0.21%	0.25%
Water ER & R	1.63%	0.15%	1.80%	0.16%
Water Improvement & Extension	1.58%	0.16%	1.67%	0.17%
Water Pension Obligation	0.33%	0.17%	0.33%	0.23%
Water Wrap Fund	0.00%	0.00%	0.25%	0.16%
Water Budget Stabilization Fund	1.77%	0.18%	1.90%	0.16%
Sub-Total Investment Portfolios	1.39%	0.17%	1.39%	0.17%
Grand Total	0.69%	0.10%	0.91%	0.14%

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 extremely low-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 December 31, 2020

	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$961,736,022	0.10%	0.60 Years	220 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		0.03%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		0.06%	0.15 Years	55 Days
BoA / ML 6-Month Treasury Index		0.08%	0.40 Years	146 Days
BoA / ML 1-Year Treasury Index		0.12%	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		0.18%	2.59 Years	945 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	\$295,931,791	0.22%	1.00 Years	388 Days
DuPage Water Commission, IL	\$159,843,186	0.56%	2.39 Years	1,246 Days
Fairfax County Water Authority, VA	\$171,916,807	0.28%	1.99 Years	763 Days
Metro Wastewater Reclamation District, CO	\$300,884,626	0.27%	2.29 Years	891 Days
Metropolitan Water District of Southern California, CA	\$569,369,563	0.42%	0.53 Years	258 Days
Philadelphia Water Department, PA	\$195,087,926	0.22%	0.90 Years	345 Days
San Bernardino Valley Municipal Water District, CA	\$370,810,351	0.24%	1.86 Years	689 Days
Tohopekaliga Water Authority, FL	\$157,247,800	0.63%	1.86 Years	943 Days
Truckee Meadows Water Authority, NV	\$105,646,238	0.24%	2.07 Years	787 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)

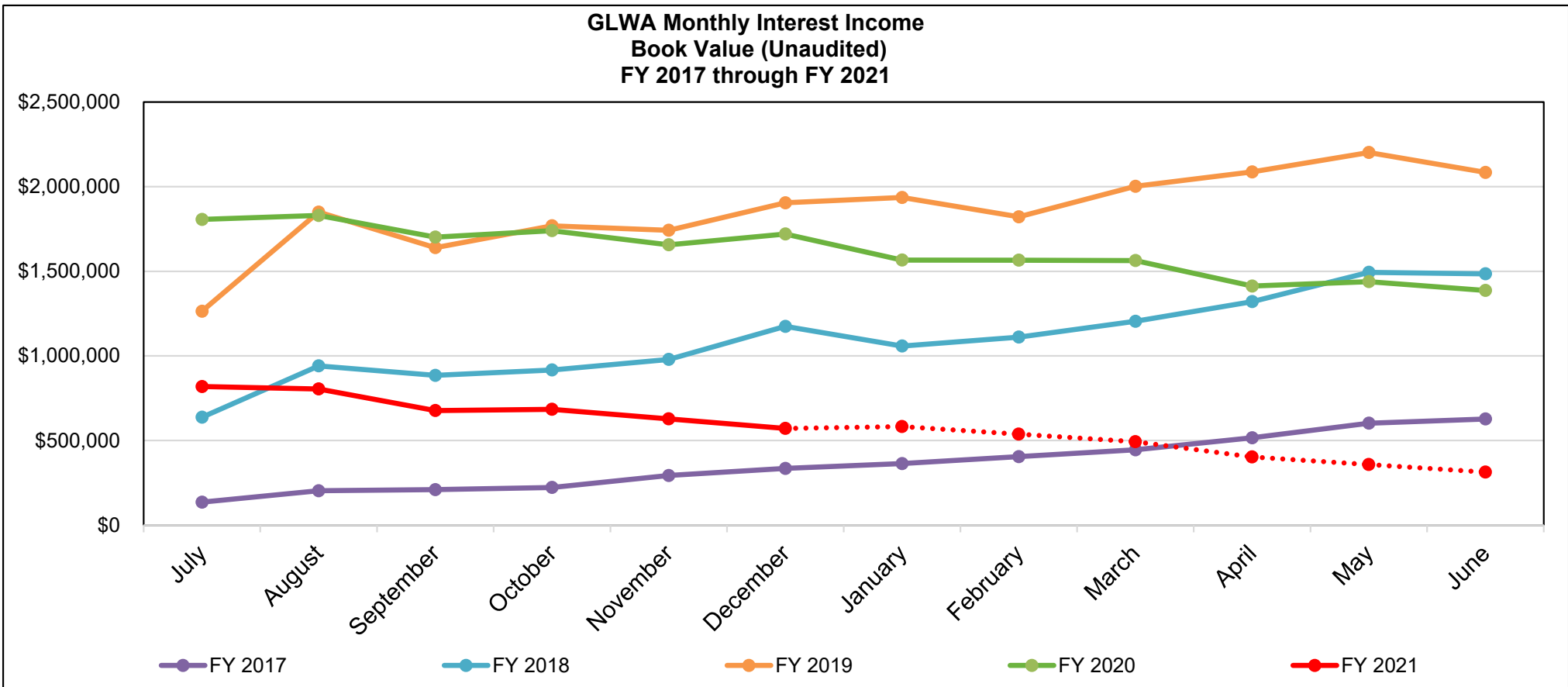
Month	Interest Earned During Period	Realized Gain / Loss	Investment Income
July 2020	\$819,118.39	\$0.00	\$819,118.39
August 2020	\$804,779.94	\$0.00	\$804,779.94
September 2020	\$677,008.40	\$0.00	\$677,008.40
October 2020	\$684,428.35	\$0.00	\$684,428.35
November 2020	\$628,192.58	\$0.00	\$628,192.58
December 2020	\$571,545.59	\$0.00	\$571,545.59
<u>FY 2021 Y-T-D</u>	<u>\$4,185,073.25</u>	<u>\$0.00</u>	<u>\$4,185,073.25</u>

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

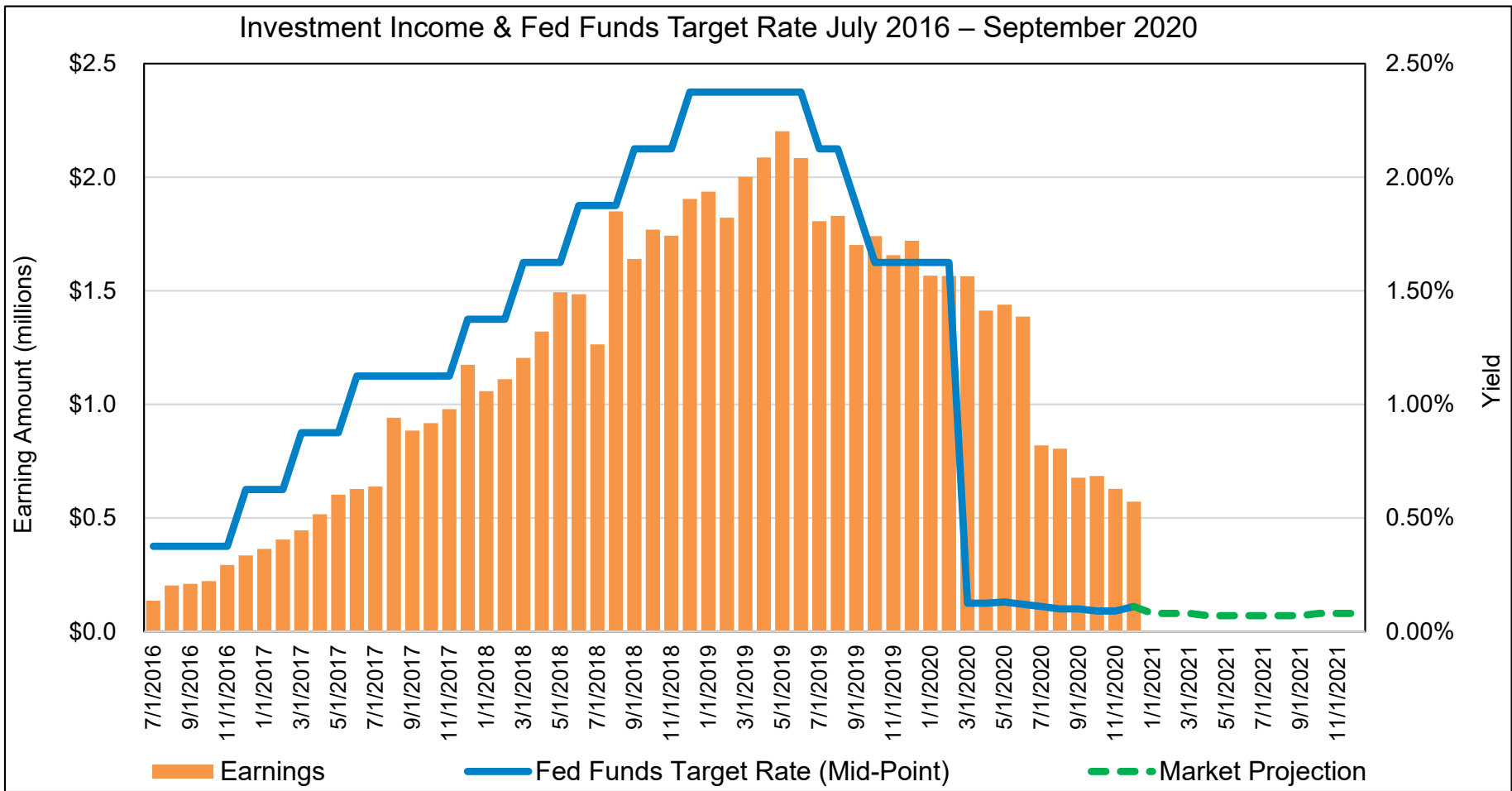
- GLWA earned \$4,185,073 in investment income for the 2021 fiscal year-to-date on a book value basis compared to \$10,456,107 for the first six months of fiscal year 2020.
- Projected total investment income for fiscal year 2021 is expected to be approximately \$6.9 million, which is below than what was seen in previous years as the market anticipates the Fed Funds target rate to be near zero through 2023.



Portfolio Snapshot

Monthly Investment Income Compared to Fed Funds Rate

- Due to 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.
- As a result of many investment-grade fixed income sectors trading at or near pre-pandemic lows and the consensus that the Fed’s zero interest rate policy will remain intact for the foreseeable future, investment income expectations for 2021 are tempered relative to the exceptional interest earned in prior years.



Appendix I: Portfolio Holdings

Portfolio Holdings As of December 31, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Short-Term Bank Deposits / MMF / LGIP									
COMERICA BANK		\$ 10,027,143	1/1/2021	12/31/2020	0.01%	\$ 10,027,143	1	\$ -	\$ 10,027,143
FIRST INDEPENDENCE BANK		19,362,400	1/1/2021	12/31/2020	0.03%	19,362,400	1	-	19,362,400
FLINT DEPOSIT ACCOUNT		3,813,910	1/1/2021	12/31/2020	0.10%	3,813,910	1	-	3,813,910
JP MORGAN CHASE		36,557,462	1/1/2021	12/31/2020	0.10%	36,557,462	1	-	36,557,462
GovMIC		9,847,298	1/1/2021	12/31/2020	0.05%	9,847,298	1	-	9,847,298
U.S. BANK - FIRST AMERICAN MMF		404,285,018	1/1/2021	12/31/2020	0.03%	404,285,018	1	-	404,285,018
JP MORGAN SECURITIES - BLACKROCK MMF		9,333,592	1/1/2021	12/31/2020	0.02%	9,333,592	1	-	9,333,592

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 December 31, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
MUFG Bank LTD NY 0 2/1/2021	62479LP17	\$ 1,000,000	2/1/2021	8/10/2020	0.24%	\$ 998,833	32	\$ -	\$ 999,940
ABN AMRO Funding LLC 0 3/2/2021	00084BQ23	394,000	3/2/2021	9/4/2020	0.21%	393,589	61	-	393,925
ABN AMRO Funding LLC 0 3/2/2021	00084BQ23	4,924,000	3/2/2021	9/4/2020	0.21%	4,918,859	61	-	4,923,064
Toyota Motor Credit 0 3/12/2021	89233GQC3	400,000	3/12/2021	7/16/2020	0.33%	399,124	71	-	399,888
Toyota Motor Credit 0 3/12/2021	89233GQC3	650,000	3/12/2021	7/16/2020	0.33%	648,576	71	-	649,818
MUFG Bank LTD NY 0 3/19/2021	62479LQK4	603,000	3/19/2021	10/6/2020	0.17%	602,533	78	-	602,813
BNP Paribas NY 0 3/19/2021	09659BQK9	5,337,000	3/19/2021	10/6/2020	0.19%	5,332,381	78	-	5,335,346
Natixis Bank NY 0 3/19/2021	63873JQK9	5,282,000	3/19/2021	11/17/2020	0.23%	5,277,883	78	-	5,280,363
CitiGroup Global Markets 0 5/28/2021	17327ASU2	2,500,000	5/28/2021	9/3/2020	0.23%	2,495,735	148	-	2,497,900
CitiGroup Global Markets 0 5/28/2021	17327ASU2	7,500,000	5/28/2021	9/3/2020	0.23%	7,487,206	148	-	7,493,700
CitiGroup Global Markets 0 5/28/2021	17327ASU2	2,500,000	5/28/2021	9/3/2020	0.23%	2,495,735	148	-	2,497,900
CitiGroup Global Markets 0 5/28/2021	17327ASU2	7,500,000	5/28/2021	9/3/2020	0.23%	7,487,206	148	-	7,493,700
Natixis Bank NY 0 6/18/2021	63873JTJ9	4,602,000	6/18/2021	11/17/2020	0.26%	4,594,921	169	-	4,597,168
Natixis Bank NY 0 6/18/2021	63873JTJ9	6,260,000	6/18/2021	11/17/2020	0.26%	6,250,370	169	-	6,253,427
Natixis Bank NY 0 6/18/2021	63873JTJ9	924,000	6/18/2021	11/17/2020	0.26%	922,579	169	-	923,030
Natixis Bank NY 0 6/18/2021	63873JTJ9	8,088,000	6/18/2021	11/17/2020	0.26%	8,075,558	169	-	8,079,508
Cooperatieve Rabobank 0 8/3/2021	21687AV34	417,000	8/3/2021	11/17/2020	0.24%	416,280	215	-	416,341

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 December 31, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Federal Agencies									
FHLMC 2.375 2/16/2021	3137EAEL9	\$ 3,500,000	2/16/2021	8/8/2018	2.79%	\$ 3,465,210	47	\$ 31,172	\$ 3,509,380
FHLMC 2.375 2/16/2021	3137EAEL9	20,000,000	2/16/2021	8/8/2018	2.79%	19,801,200	47	178,125	20,053,600
FHLMC 2.375 2/16/2021	3137EAEL9	250,000	2/16/2021	8/9/2018	2.78%	247,563	47	2,227	250,670
FHLMC 2.375 2/16/2021	3137EAEL9	685,000	2/16/2021	8/9/2018	2.78%	678,321	47	6,101	686,836
FNMA 2.5 4/13/2021	3135G0U27	3,500,000	4/13/2021	8/8/2018	2.82%	3,471,685	103	18,958	3,523,205
FNMA 2.5 4/13/2021	3135G0U27	20,000,000	4/13/2021	8/8/2018	2.82%	19,838,200	103	108,333	20,132,600
FNMA 2.5 4/13/2021	3135G0U27	250,000	4/13/2021	8/9/2018	2.81%	247,985	103	1,354	251,658
FNMA 2.5 4/13/2021	3135G0U27	3,400,000	4/13/2021	8/8/2018	2.81%	3,372,698	103	18,417	3,422,542
FNMA 2.5 4/13/2021	3135G0U27	685,000	4/13/2021	8/9/2018	2.81%	679,479	103	3,710	689,542
FNMA 2.5 4/13/2021	3135G0U27	5,750,000	4/13/2021	8/8/2018	2.81%	5,703,828	103	31,146	5,788,123
FHLB 2.25 6/11/2021	3130A1W95	10,000,000	6/11/2021	7/11/2019	1.94%	10,058,200	162	12,500	10,091,300
FHLB 2.25 6/11/2021	3130A1W95	25,000,000	6/11/2021	7/11/2019	1.94%	25,145,500	162	31,250	25,228,250
FHLB 1.875 7/7/2021	3130AGLD5	3,715,000	7/7/2021	6/10/2019	1.96%	3,708,982	188	33,667	3,748,621
FHLB 1.875 7/7/2021	3130AGLD5	3,910,000	7/7/2021	6/10/2019	1.96%	3,903,666	188	35,434	3,945,386
FHLMC 2.375 1/13/2022	3137EADB2	10,000,000	1/13/2022	7/11/2019	1.89%	10,118,700	378	110,833	10,231,200
FHLMC 2.375 1/13/2022	3137EADB2	25,000,000	1/13/2022	7/11/2019	1.89%	25,296,750	378	277,083	25,578,000
FHLB 2.125 6/10/2022	313379Q69	10,000,000	6/10/2022	7/11/2019	1.92%	10,059,200	526	12,396	10,288,600
FHLB 2.125 6/10/2022	313379Q69	25,000,000	6/10/2022	7/11/2019	1.92%	25,148,000	526	30,990	25,721,500
FHLMC 0.375 5/5/2023	3137EAER6	6,000,000	5/5/2023	6/5/2020	0.38%	6,000,060	855	3,500	6,030,780
FHLMC 0.375 5/5/2023	3137EAER6	14,650,000	5/5/2023	6/5/2020	0.38%	14,650,147	855	8,546	14,725,155
FNMA 0.25 5/22/2023	3135G04Q3	10,000,000	5/22/2023	6/5/2020	0.36%	9,968,400	872	2,708	10,023,600
FNMA 0.25 5/22/2023	3135G04Q3	25,000,000	5/22/2023	6/5/2020	0.36%	24,921,000	872	6,771	25,059,000
FNMA 0.25 5/22/2023	3135G04Q3	240,000	5/22/2023	6/5/2020	0.35%	239,292	872	65	240,566
FNMA 0.25 5/22/2023	3135G04Q3	3,400,000	5/22/2023	6/5/2020	0.35%	3,389,970	872	921	3,408,024
FNMA 0.25 5/22/2023	3135G04Q3	670,000	5/22/2023	6/5/2020	0.35%	668,024	872	181	671,581
FNMA 0.25 5/22/2023	3135G04Q3	5,750,000	5/22/2023	6/5/2020	0.35%	5,733,038	872	1,557	5,763,570
FHLMC 0.25 6/26/2023	3137EAES4	3,150,000	6/26/2023	7/2/2020	0.29%	3,146,189	907	109	3,156,836
FNMA 0.25 7/10/2023	3135G05G4	1,250,000	7/10/2023	7/16/2020	0.29%	1,248,425	921	1,484	1,252,988
FNMA 0.25 7/10/2023	3135G05G4	1,650,000	7/10/2023	7/16/2020	0.29%	1,647,921	921	1,959	1,653,944

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 December 31, 2020

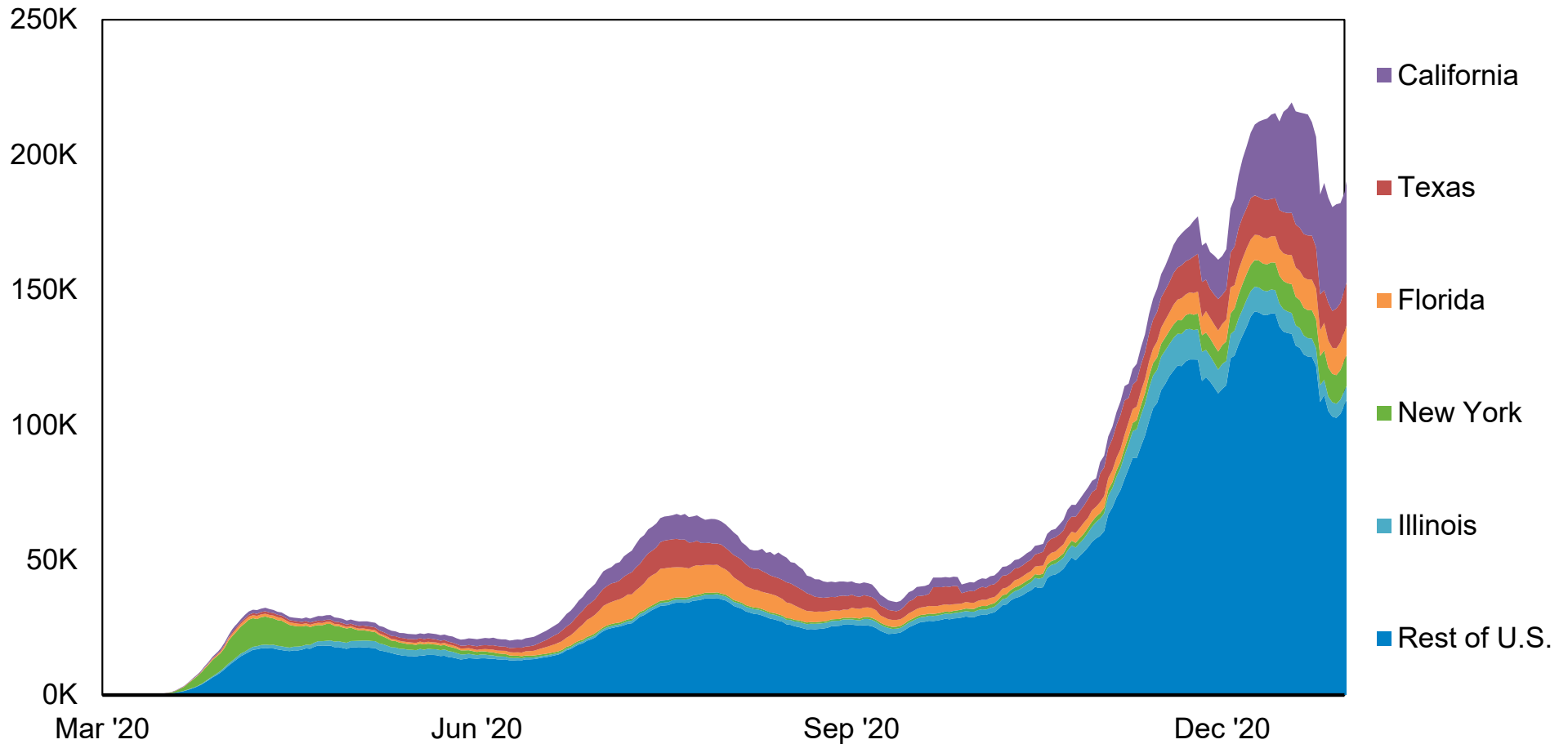
DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 2.625 5/15/2021	9128284P2	\$ 245,000	5/15/2021	2/7/2019	2.49%	\$ 245,708	135	\$ 817	\$ 247,239
T-Note 2.625 5/15/2021	9128284P2	3,455,000	5/15/2021	2/7/2019	2.49%	3,464,852	135	11,525	3,486,579
T-Note 2.625 5/15/2021	9128284P2	700,000	5/15/2021	2/7/2019	2.49%	702,023	135	2,335	706,398
T-Note 2.625 5/15/2021	9128284P2	5,685,000	5/15/2021	2/7/2019	2.49%	5,701,211	135	18,963	5,736,961
T-Note 1.25 10/31/2021	912828T67	10,000,000	10/31/2021	7/11/2019	1.83%	9,870,703	304	21,064	10,093,000
T-Note 1.25 10/31/2021	912828T67	2,500,000	10/31/2021	7/11/2019	1.83%	2,467,676	304	5,266	2,523,250
T-Note 1.25 10/31/2021	912828T67	17,500,000	10/31/2021	9/6/2019	1.55%	17,388,574	304	36,861	17,662,750
T-Note 1.25 10/31/2021	912828T67	270,000	10/31/2021	9/6/2019	1.55%	268,313	304	569	272,511
T-Note 1.25 10/31/2021	912828T67	3,405,000	10/31/2021	9/6/2019	1.55%	3,383,586	304	7,172	3,436,667
T-Note 1.25 10/31/2021	912828T67	730,000	10/31/2021	9/6/2019	1.55%	725,438	304	1,538	736,789
T-Note 1.25 10/31/2021	912828T67	5,765,000	10/31/2021	9/6/2019	1.55%	5,728,744	304	12,143	5,818,615
T-Note 2.625 12/15/2021	9128285R7	2,700,000	12/15/2021	7/10/2019	1.80%	2,752,945	349	3,115	2,764,233
T-Note 2.625 12/15/2021	9128285R7	1,500,000	12/15/2021	7/10/2019	1.80%	1,529,414	349	1,731	1,535,685
T-Note 2.625 12/15/2021	9128285R7	6,050,000	12/15/2021	7/10/2019	1.80%	6,168,637	349	6,981	6,193,930
T-Note 2.625 12/15/2021	9128285R7	10,900,000	12/15/2021	7/10/2019	1.80%	11,113,742	349	12,577	11,159,311
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	745	103,329	15,418,350
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	745	103,329	15,418,350
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	804	14,779	10,081,300
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	804	29,558	20,162,600
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	804	369	252,033
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	804	5,040	3,437,723
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	804	1,017	693,593
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	804	8,520	5,811,869
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	957	-	10,447,290
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	957	-	10,447,290

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

U.S. Surpasses 20 Million Confirmed Coronavirus Cases

New Cases Reported Daily 7-Day Moving Average



Source: John Hopkins University Coronavirus Resource Center, PFM calculations; as of 12/31/2020.

Fed Reaffirms Commitment to Support the Economy

December

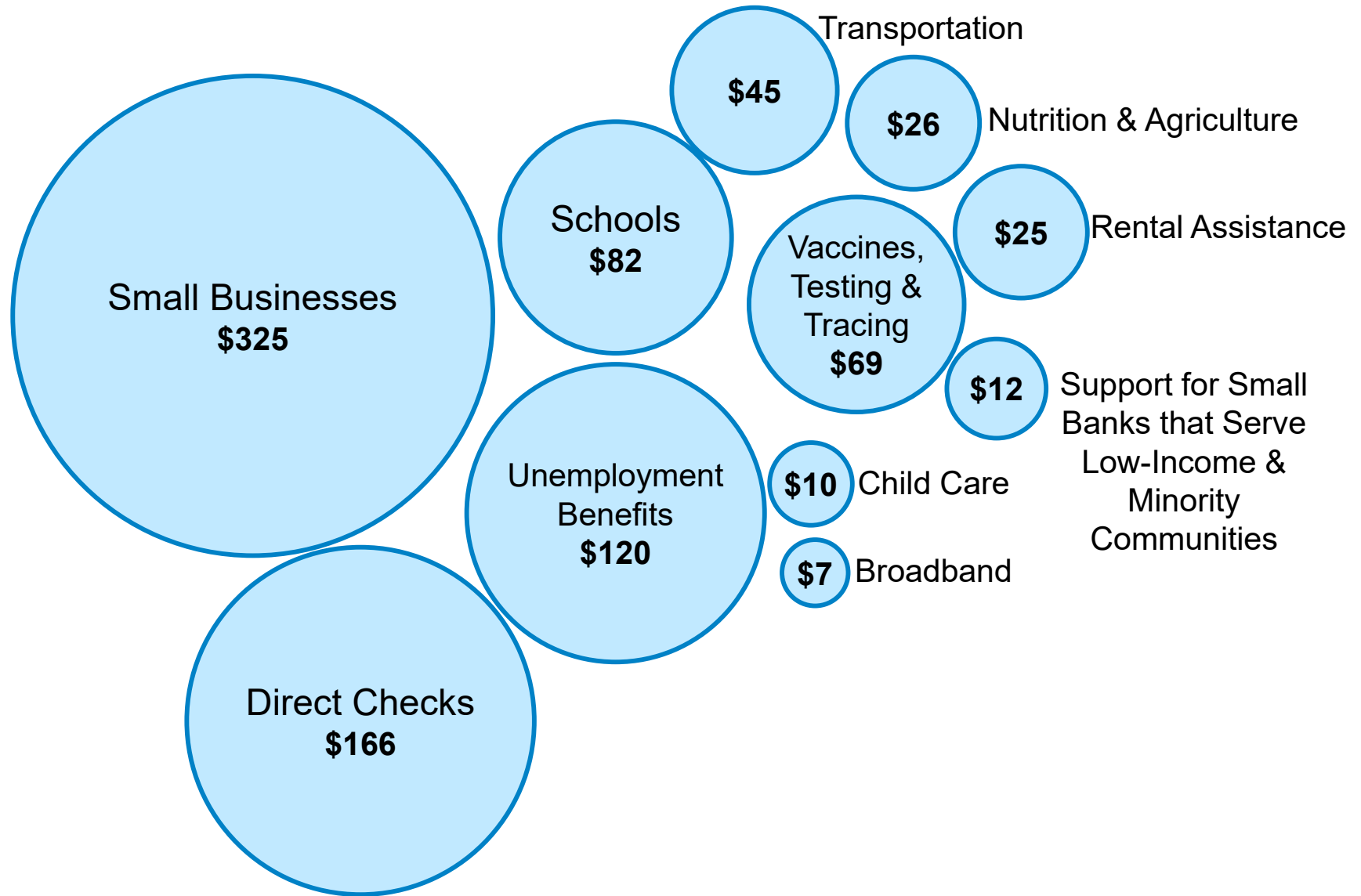
16

- ***Economic activity and employment have continued to recover but remain well below their levels at the beginning of the year...*** Overall financial conditions remain accommodative, in part reflecting policy measures to support the economy and the flow of credit to U.S. households and businesses.
- The path of the economy ***will depend significantly on the course of the virus***. The ongoing public health crisis will continue to weigh on economic activity, employment, and inflation in the near term, and poses ***considerable risks to the economic outlook*** over the medium term.
- With inflation running persistently below this longer-run goal, the Committee will aim to achieve inflation moderately above 2.0% for some time so that inflation averages 2.0% over time and longer-term inflation expectations remain well anchored at 2.0%. ***The Committee expects to maintain an accommodative stance of monetary policy until these outcomes are achieved.***
- In addition, the Federal Reserve will ***continue*** to increase its holdings of ***U.S. Treasury securities by at least \$80 billion per month and of Federal Agency mortgage-backed securities by at least \$40 billion per month*** until substantial further progress has been made toward the Committee's maximum employment and price stability goals.

Source: Federal Reserve.

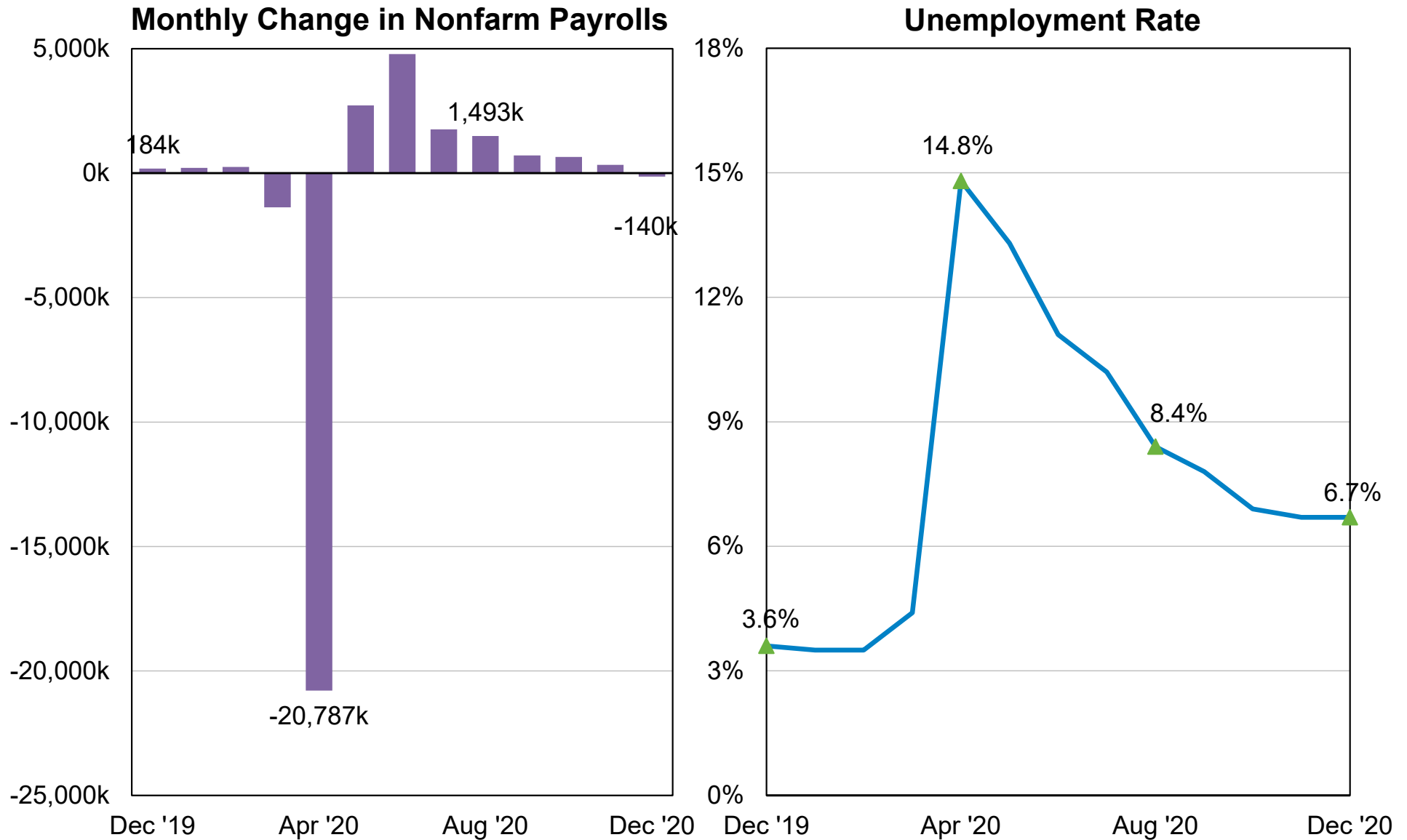
Congress Passes a \$900 Billion Pandemic Relief Package

Emergency Relief Package, in billions



Source: WSJ and Congressional aides, as of 12/21/2020.

Jobs Decline for the First Time Since April

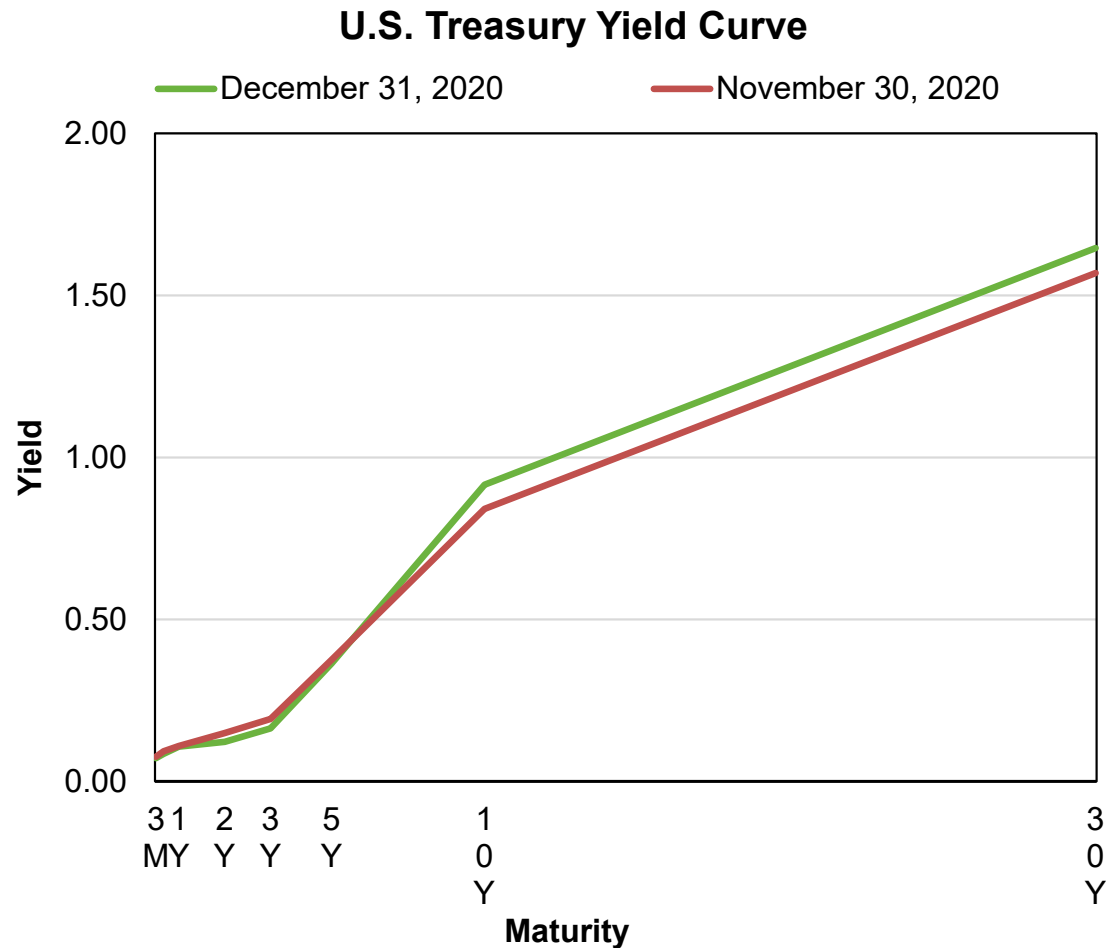


Source: Bloomberg, as of December 31, 2020.

Yield Curve Steepens in December

- U.S. Treasuries advanced modestly across the curve in December, erasing the slight decline from the prior month
- Treasuries traded in a very narrow range for most of December

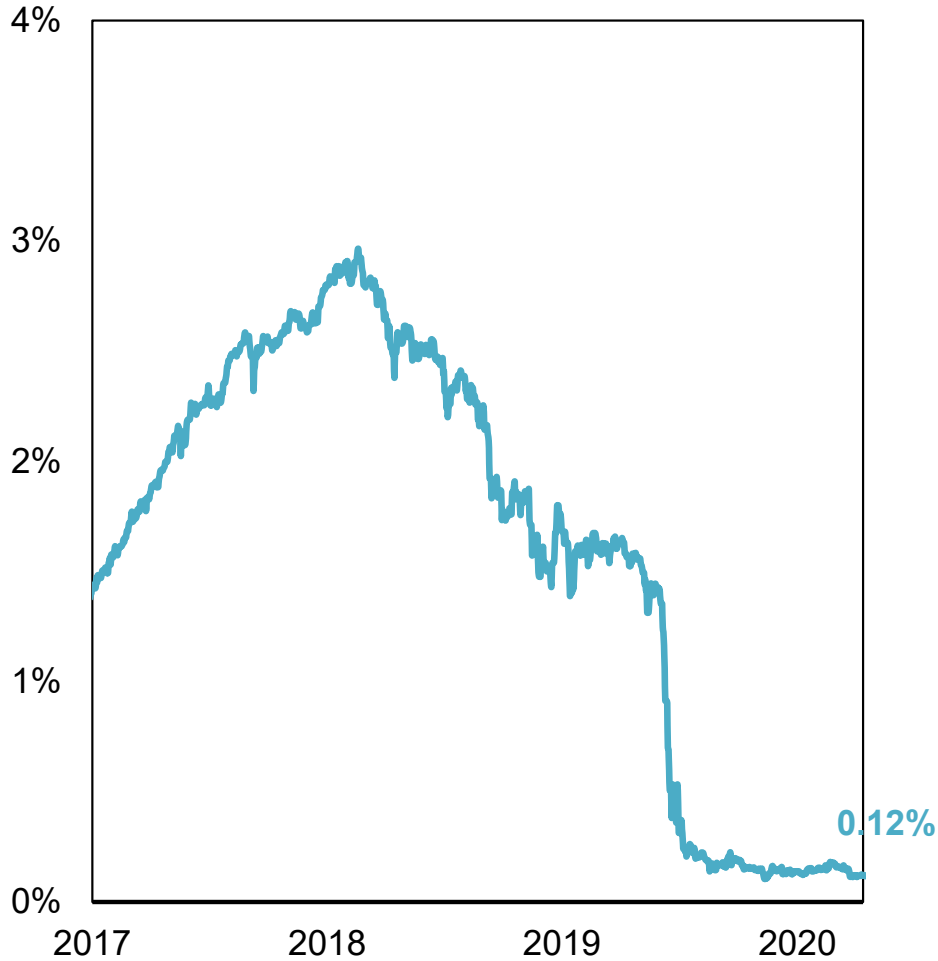
	11/30/2020	12/31/2020	Change
3 month	0.08%	0.07%	0.00%
6 month	0.09%	0.09%	-0.01%
1 year	0.11%	0.11%	0.00%
2 year	0.15%	0.12%	-0.03%
3 year	0.19%	0.16%	-0.03%
5 year	0.38%	0.36%	-0.01%
10 year	0.84%	0.92%	0.08%
30 year	1.57%	1.65%	0.08%



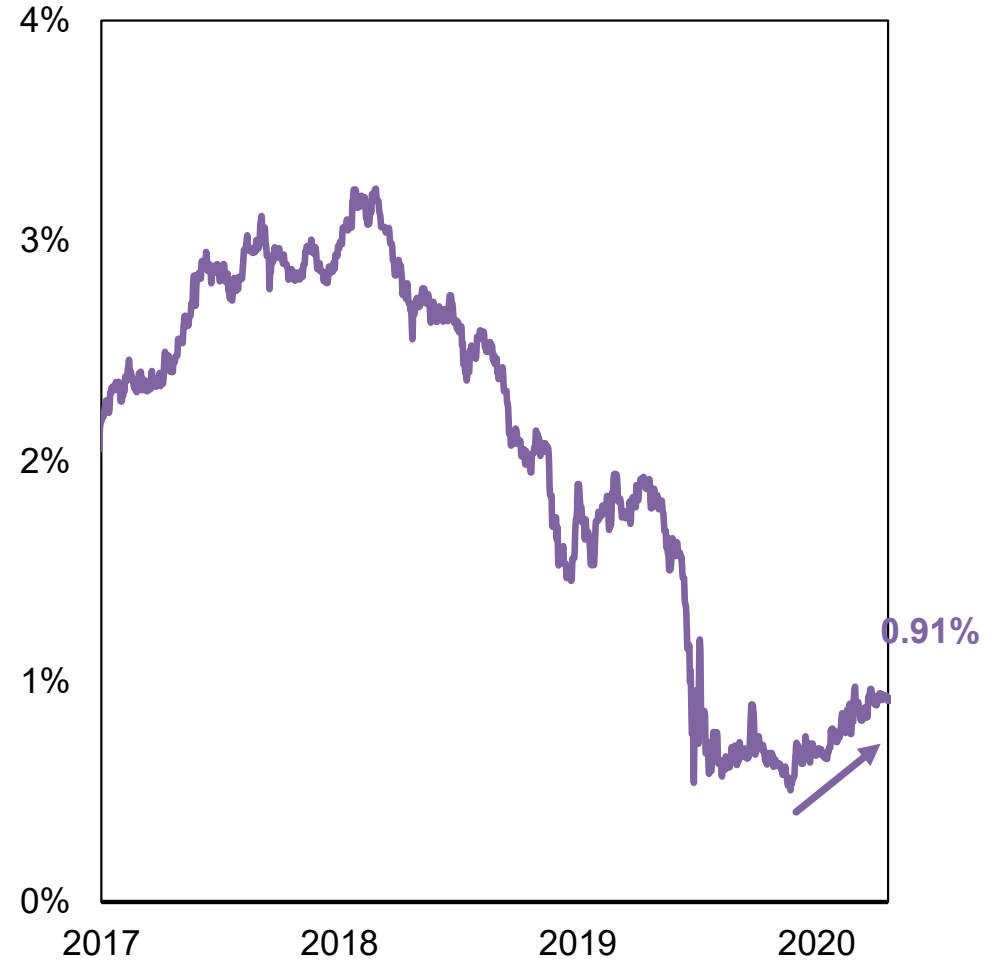
Source: Bloomberg, as of 11/30/2020 and 12/31/2020, as indicated.

Treasury Yields Continue to Trade in a Narrow Range

2-Year Treasury Yield



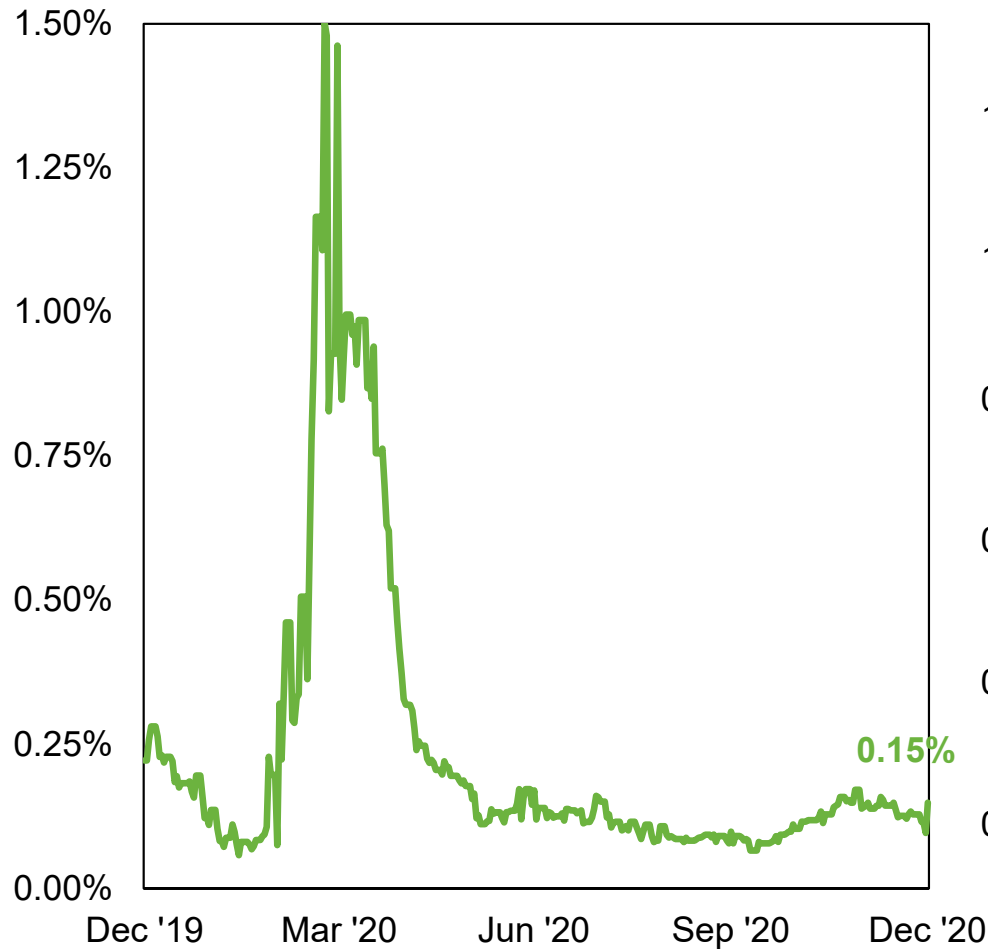
10-Year Treasury Yield



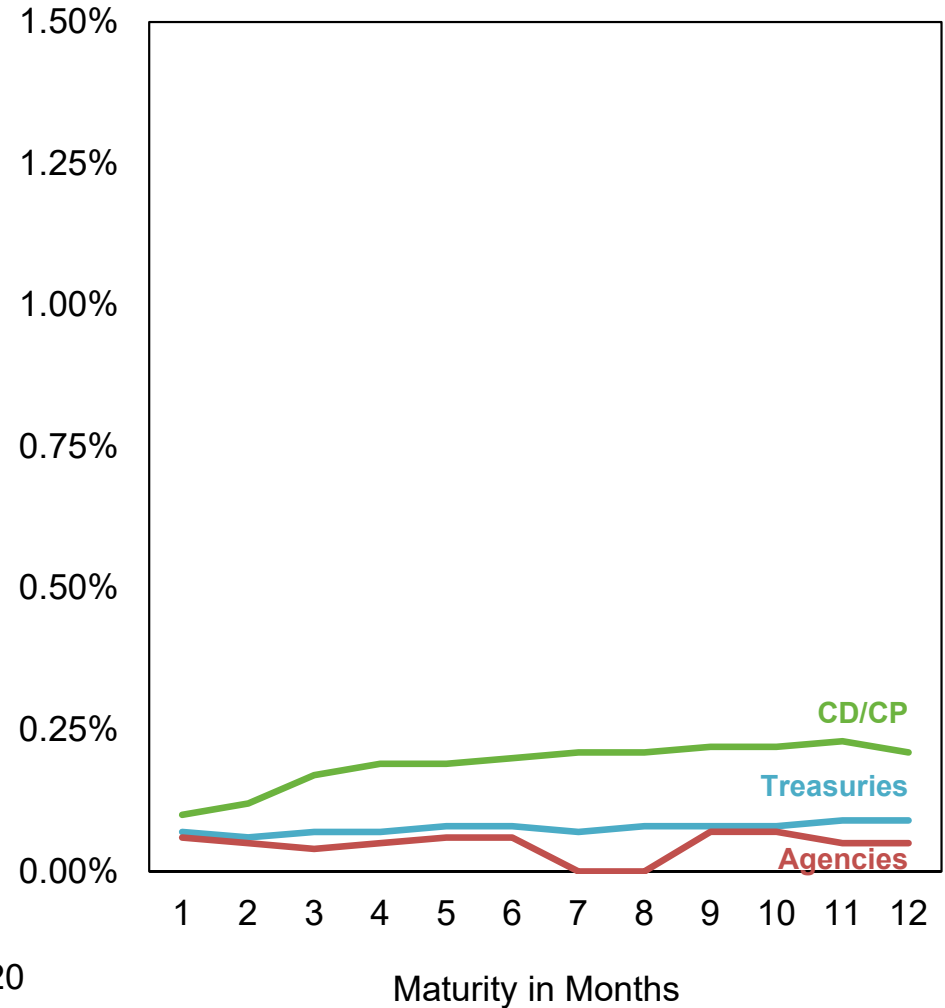
Source: Bloomberg, as of 12/31/2020.

Yield Spreads Remain Near Historic Lows

Yield Spread on 6-month Commercial Paper over T-Bill



Money Market Yield Curves



Source (left): Federal Reserve Bank of St. Louis FRED Database, as of 12/31/2020. Source (right): PFM Trading Desk, as of 12/31/2020.

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Economic conditions during the fourth quarter of 2020 were characterized by the following:
 - Concern around resurgence of global coronavirus cases was met with approval and commencement of a worldwide vaccination implementation initiative.
 - After a contentious presidential election, Joe Biden is set to take office in 2021.
 - Multi-month contested fiscal stimulus efforts came to fruition near year-end as the President signed a second round of aid.
 - Federal Reserve zero interest rate policy expected for the foreseeable future.
 - U.S. GDP growth bounced off the COVID-induced second quarter slowdown of -31.4% to the tune of +33.4%.
 - While the labor market improved from record detraction in the year, the pace of improvement has slowed, as job growth, the unemployment rate, and new jobless claims point to stagnation.

- Changes in U.S. Treasury yields over the quarter took on a tale of two curves. The front-end of the yield curve (maturities less than five years) was essentially unchanged over the quarter, as the Fed's zero interest rate policy anchored short-maturity yields. Meanwhile, yields on maturities beyond five years increased by 10 to 25 basis points (0.10% to 0.25%), resulting in a steeper curve – the spread between the 10 and 2-year Treasury yield reached a 3-year high near year-end.
 - As a result, short to intermediate-term U.S. Treasury index returns were only slightly positive, while longer-duration indexes were notably negative. Despite the steeper curve over the final quarter of 2020, calendar year returns for U.S. Treasuries were firmly positive and strong from a historical perspective.
 - Diversification away from U.S. Treasuries was again additive to performance in the fourth quarter. Following two consecutive quarters of significant spread retracement in the second and third quarters, most sectors continued to inch tighter as investors sought all outlets to additional yield. As a result, most investment-grade fixed income sectors generated positive excess returns relative to similar duration Treasuries.

Fixed Income Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Our strategy for the fourth quarter encompassed the following:
 - Considering the widespread retracement of most spread products back to pre-pandemic levels and the swath of concern regarding global economic conditions, many strategic themes remained consistent from the third quarter: maintain core allocations in most sectors, match benchmark duration extensions, and limit undue credit risk from issuers subject to broader headwinds in the face of global uncertainty.
 - As a result of many sector allocations being maintained over the quarter amid light seasonal supply and in some instances, opportunistic selling, U.S. Treasury allocations generally inched higher. We preferred this natural increase during the fourth quarter as portfolios build up buying power heading into the new year and the expectation for supply to pick back up as 2021 funding cycles commence.
 - After months of consistent supply and attractive cross-sector relative value, the river began to run dry in the Federal Agency sector. Limited new issuance towards year-end slowed new purchases in the sector. However, meaningful additions in prior periods helped boost portfolio returns, as non-callable Agency securities provided positive excess returns relative to similar-duration U.S. Treasury securities in the fourth quarter.
 - Following several consecutive summer months of near single-digit yield spreads, short-term credit (commercial paper) bounced in value during the fourth quarter, as issuers opted to finance longer-term debt at such low borrowing rates and investors turned their focus to extending durations out the curve. As a result, attractive opportunities became available to increase allocations to CP in portfolios and boost interest earnings potential

- As 2020 finds its way to the rearview mirror, the uncertainties of 2021 come into focus. The significant fiscal and central bank intervention to maintain the smooth functioning of the financial markets was critical in 2020; however, the “how” and the “when” of the unwinding of these programs as well as the rollout and efficacy of a global vaccine implementation initiative will most certainly shape 2021’s global economic growth trajectory and recovery progress.
 - Considering the economic uncertainties that remain, we plan on structuring portfolios to have neutral durations relative to their respective benchmarks.

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.

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

Business Inclusion and Diversity (B.I.D.) Program: Creating a Successful Diversity Plan

Under GLWA's Business Inclusion and Diversity (BID) Program, launched on February 1, 2021, a Diversity Plan for solicitations budgeted at \$1 million or more will be a mandatory requirement.

A successful Diversity Plan will:

- ✓ Outline the vendor's efforts to maximize opportunities for participation by small, minority-owned, and disadvantaged business enterprise subcontractors;
- ✓ Include reporting that indicates the businesses recommended for award, percentage of contract award, as well as any additional businesses contacted and why they declined;
- ✓ Include a copy of the vendor's and their subcontractor's B.I.D. certifications, if applicable; and
- ✓ Be no more than three single-spaced pages in 11pt font, and include an executive summary detailing key points.

The Diversity Plan must be specific to each solicitation. Additional information related to the vendor organization's diversity and inclusion efforts should also be included.

Vendor B.I.D. Certifications & Assessment

GLWA's objective is to make it easy to participate in our solicitations. For this reason, we will accept vendor certifications from a federal agency, the state of Michigan, or a Michigan local unit of government. See below for examples of the certifications GLWA is seeking from vendors:

- Disadvantaged Business Enterprise (DBE)
- Minority-owned Business Enterprise (MBE)
- Small Business Enterprise (SBE)
- Woman-owned Business Enterprise (WBE)

Please note this list is not all-inclusive; vendors may include other types of widely recognized certification programs in their Diversity Plans.

Scoring the Diversity Plan

The Diversity Plan will be scored as pass/fail. If a vendor does not submit a Diversity Plan, their proposal or bid response will be deemed nonresponsive.

Resources for Finding Diverse Subcontractors

While GLWA will not be maintaining a list of certified vendors, we do recommend the following resources for finding small, minority-owned, and disadvantaged business subcontractors:

1. U.S. Small Business Administration (SBA) [Dynamic Small Business Search](#) enables vendors to search for businesses by location and size as well as by capacity, certifications, and minimum bonding levels;
2. State of Michigan [SIGMA Vendor Self Service](#) (VSS) allows vendors to register to do business with the state of Michigan;
3. [System for Award Management](#) (SAM) allows vendors to register to do business with the US government.

GLWA also encourages vendors to attend pre-bid and pre-proposal meetings for additional business networking opportunities. Note that pre-bid and pre-proposal attendee lists are posted in Bonfire.

Where to Meet GLWA

GLWA attends vendor outreach events throughout southeast Michigan. We welcome you to join us at the Southwest Michigan PTAC "Coffee & Contracting" Zoom webinar on April 14, 2021 from 9-9:30am. [Event registration link](#).

What's Coming Down the Pipe?

Current Solicitations: Be sure to register in [Bonfire](#) for new solicitations and contract award information. *Upcoming Procurements: Next Three to Nine Months* - See page 2

Visit GLWA online! See the Vendors page at www.glwater.org or contact us via email at procurement@glwater.org.

Upcoming Solicitations February 2021

Category	Description	Budget Estimate
Water System (next three months)		
Maintenance Services	5-Year Sludge Removal and Disposal Services at Northeast, Springwell's & Southwest Water Treatment Plant (WTPs)	\$55,000,000
Maintenance Services	Skilled Trades Contract	TBD
Engineering	North Service Center Pumping Station Improvements (CIP #132016)	\$10,000,000
Construction	Phase II – 14 Mile Transmission Loop Project (CIP #122013)	\$91,000,000
Construction	Northeast WTP Flocculator Improvements (CIP #112006)	\$11,000,000
Construction	Springwells Water Treatment Plant Medium Voltage Electrical System Replacement (CIP #114002 Project B)	\$45,000,000
Design Build	Belle Isle Seawall Rehabilitation (CIP #116005)	\$1,740,000
CMAR	96-Inch Water Transmission Main Relocation Project, Construction Manager-At-Risk (CIP #122004)	\$150,000,000
Wastewater System (next three months)		
Construction	Rehabilitation of Outfalls – Phase III (B-39) (CIP #260508)	\$7,000,000
Design	Control System Upgrade – St. Aubin, Leib, and 7 Mile CSO Facilities (CIP #360619)	TBD
Construction	Oakwood HVAC Improvements (CSO) (CIP #260618)	TBD
Professional Services	Development of CAD and Engineering Standards (TOES)	TBD
Professional Services	Virtual Tour and Laser Scanning Services	TBD
Construction	Connor Creek Dike Improvements (CSO) (CIP #260621)	TBD
Design	WRRF Rehabilitation of the Circular Primary Clarifier Scum Removal System (CIP #211009)	\$2,000,000
Water System (next four to nine months)		
Design Build	WTP Ovation Workstation Upgrade Project (CIP #170303)	TBD
Progressive Design Build	Lake Huron WTP Instrumentation and Filter Control Improvements (CIP #111006)	\$5,400,000
Design	Reservoir Inspection, Design, Construction Administration, and RPR Services (CIP #170802)	\$5,400,000
Wastewater System (next four to nine months)		
Design	St. Aubin Disinfection and Screening Improvements (CIP #260617) (CSO)	TBD
Maintenance	Low-Voltage Wiring	\$7,500,000
Design	Leib Screening & Disinfection Facility Improvements for Meldrum Diversion (CIP #274001) (CSO)	TBD
Design	Oakwood CSO Facility Improvements for NWI Diversion (CIP #278001) (CSO)	TBD
Design	Pilot Netting Facility Project (CIP #270001) (CSO)	TBD
Design Build	Baby Creek Outfall Improvements Projects (CIP #277001)	TBD
Construction	Rehabilitation of CSO Outfall Backwater Gates (CIP #260510)	\$5,000,000
Construction	CSO Generator Improvements (Controls upgrades, Generator modifications) (CSO) (CIP #260600)	TBD
Construction	Hubbell Southfield CSO Basin Pipe Hanger Replacement (CIP #260600)	TBD
Enterprise (next four to nine months)		
Information Technology	Project Management Information System	TBD

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

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