Audit Committee

Friday, May 15, 2020 at 8:00 a.m.

5th Floor Board Room, Water Board Building
735 Randolph Street, Detroit, Michigan 48226
GLWater.org

Conference Call Dial-In: Call 866-528-2256 Access Code 9169911

AGENDA

Note: Binder 2 has been combined in agenda order and document was renumbered.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES
   A. April 24, 2020 (Page 1)
5. PUBLIC PARTICIPATION
6. OLD BUSINESS
   A. Recap: April 2020 Water System Refunding and New Money Transaction (Page 5)
   B. Proposed Budget Amendment Policy - Continued Discussion (Page 23)
   C. Municipal Advisor Services Contract CS-002 Update (Page 42)
7. NEW BUSINESS
   A. Drinking Water Revolving Fund Project Plan Submittal for the city of Detroit Water and Sewerage Department Water Main Replacement – FY 2021 Drinking Water Revolving Fund Project Plan (Page 56)
   B. DWSD FY 2021 Budget Update (Page 61)
8. REPORTS
   A. CFO Report (Verbal)
   B. Monthly Financial Report for February 2020 (Page 81)
   C. Quarterly Investment Report (Page 82)
   D. Quarterly Debt Report through March 2020 (Page 115)
9. COMMUNICATIONS
   A. *The Procurement Pipeline* for May 2020 (Page 127)
10. LOOK AHEAD
    Next Audit Committee Meetings
    A. Regular Meeting June 19, 2020 at 8:00 a.m.
11. OTHER MATTERS
12. ADJOURNMENT

Great Lakes Water Authority

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

Meeting Minutes - Draft

Audit Committee

Friday, April 24, 2020	8:00 AM	Telephonic

Telephonic
Call in Number: 1-866-528-2256
Access Code: 9169911

1. Call To Order

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

2. Quorum Call

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

3. Approval of Agenda

Chairman Baker requested a Motion to approve the Agenda.

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

4. Approval of Minutes

A. 2020-140 Approval of Minutes of March 27, 2020

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 4A Audit Committee Meeting Minutes - March 27, 2020

Chairman Baker requested a Motion to approve the March 27, 2020 Audit Committee Meeting Minutes.

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

5. Public Comment

There were no public comments.

6. Old Business

A. 2020-141 Water Residential Assistance Program Evaluation Redesign & Request for Proposal Process

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 6A1 WRAP RFP Process and Proposed Schedule
6A2 Targeted Evaluations Can Help Policymakers Set Priorities _ The Pew Charitable Trusts

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

B. 2020-142 GLWA Fraud & Ethics Hotline Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 6B1 Fraud and Ethics Hotline Report
6B2 GLWA Hotline Brochure
6B3 GLWA Hotline Poster

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

7. New Business

A. 2020-143 Budget Amendment Policy

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 7A1 Proposed Budget Amendment Policy
7A2 Proposed Budget Amendment Policy

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

8. Reports

A. 2020-144 CFO Update

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8A1 CFO Update - 4.21.2020

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

B. 2020-145 Special Report: Operations & Maintenance Budget Impacts of COVID-19; FY 2020 Contingency & Continuity Resources

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8B2 O&M Budget Impacts of COVID-19 Resources

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

C. 2020-146 Monthly Financial Report for January 2020

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8C GLWA Monthly Financial Report January 2020

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

D. 2020-147 Fiscal Year 2018 Shared Services True-Up Update, FY 2019 and Beyond

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8D FY 2018 True Up Status Memo 4.24.2020

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

E. 2020-148 Quarterly Water Residential Assistance Program Report

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 8E Quarterly WRAP Report as of 2.29.2020

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

9. Communication

A. 2020-149 The Procurement Pipeline for April 2020

Sponsors: Nicolette Bateson

Indexes: Finance

Attachments: 9A April 2020 Procurement Pipeline

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

10. Look Ahead

A. The next Audit Committee Meeting is scheduled to be held Friday, May 15, 2020 at 8:00 a.m.

11. Other Matters

None

12. Adjournment

Chairman Baker requested a Motion to Adjourn.

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

There being no further business, the meeting was adjourned at 9:48 a.m.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Nicolette Bateson, CPA
Chief Financial Officer& Treasurer

Re: Recap: April 2020 Water System Refunding and New Money Transaction

Background: Over the course of the past year, the Great Lakes Water Authority has monitored a trend of decreasing interest rates to determine if there were financially feasible bond refunding opportunities to secure a lower annual debt service requirement. In addition, the Detroit Water & Sewerage Department (DWSD) was seeking new money for water system improvement projects in accordance with their five-year capital improvement plan.

Analysis: Based on favorable market conditions, on Thursday, April 30, 2020 a successful bond pricing occurred with a closing on Tuesday, May 10, 2020. Key highlights include the following.

1. **Refunding Savings:** Successfully refinanced $366 million of taxable Water System Bonds resulting in gross cashflow savings of $103.1 million ($66.5 million of present value savings, or an impressive 18.2%) at a very favorable arbitrage yield of 3.36%

2. **Low Cost New Money:** Issued $85.6 million of tax-exempt new money water bonds for DWSD at a premium, achieving a very favorable arbitrage yield of 2.98% for 30-year debt and generating nearly $100 million for DWSD water system capital improvements

3. **Outstanding investor participation:** Over $1.6 billion in orders for the combined total of $443 million in bonds (3.6x oversubscribed). This resulted in a mid-day re-pricing and allowed us to achieve even greater savings for the refunding and to further lower the borrowing rate for the new money bonds for DWSD capital improvements.

4. **Recent Ratings Upgrades Not Impacted by COVID-19:** The recent rating agency upgrades occurred prior to the declaration of emergency as it relates to COVID-19 in Michigan. Pre-pricing updates to rating agencies focused on efforts take to address the impact of COVID-19. A resulting bulletin was issued by Standard & Poor's which noted

GLWA's "efforts to mitigate any revenue losses, including the ability to reprioritize capital projects without weakening environmental compliance, use of cash balances to stabilize operations, the future water charge structure …, and general operating expense adjustments".

The following items are also attached.

- ✓ *Presentation to the Audit Committee Summary of 2020 Water System Financing Results* prepared by Citigroup, Siebert Williams Shank & Co. and PFM Financial Advisors (Attachment 1).
- ✓ Standard and Poor's Global Ratings bulletin dated April 29, 2020 titled, "*Great Lakes Water Authority, MI Ratings Unaffected By COVID-19 Pandemic."* (Attachment 2)
- ✓ GLWA press release dated May 1, 2020 titled, *"GLWA Receives Ratings Upgrades and Executes Money Saving Refunding for Regional System While Generating Funding for Detroit Local Water System Improvements."* (Attachment 3)

The final official statement for the Water Supply System Revenue and Revenue Refunding, Series 2020 Official Statement on the Investor Relations Page of GLWA's website.

Proposed Action: Receive and file report.

Great Lakes Water Authority

Presentation to the Audit Committee
Summary of 2020 Water System Financing Results

May 1, 2020

Executive Summary

The recent bond transactions for the Water System achieved a number of favorable results.

- Successfully refinanced $366 million of Water System Bonds
  - Water system gross cashflow savings of $103.1 million ($66.5 million of present value savings, or 18.2%)
  - This represents the highest level of savings on a percentage basis GLWA has ever achieved on a transaction
- Issued $85.6 million of new money water bonds for the Local System, achieving a very favorable yield of 2.98% for 30-year debt and generating nearly $100 million for Local System capital improvement
- Rating upgrades were achieved from all three rating agencies continuing the Authority's history of rating success since the stand up
  - Senior lien ratings of AA-/A1/A+ for Water and for Sewer
  - Second lien ratings of A+/A2/A for Water and for Sewer
- Extensive outreach to investors, with an electronic roadshow, investor meetings, and one on one investor calls
  - Over 80 investors reached in the outreach process
  - Nearly 50 different institutional investors placed orders totaling $614 million for the tax-exempt Series 2020A&B Bonds and more than 30 different institutional investors placed orders totaling over $1.0 billion for the taxable Series 2020C Bonds
- Achieved all necessary bondholder consents on the DSRF springing amendment for the potential future elimination of the Water System Bond Reserve Funds once GLWA attains two AA category ratings (S&P achieved on the Water System)

citi pfm Siebert Williams Shank

Goals Set . . . Goals Met

The goals for the Series 2020 financing were achieved and provide the Authority with a strong base with which to weather the current COVID-19 crisis and achieve future financial goals.

- Secure Rating Upgrades
- Highlight Strong Financial Results and Expand the Investor Base for GLWA credits
- Lock-in Favorable Interest Rates and Substantial Savings
- Enhance GLWA's Financial Flexibility

Bond Rating Upgrades Attained Since GLWA's Stand Up

As part of the financing process, the Great Lakes Water Authority team sought and received rating improvements from all three rating agencies continuing a history of rating success since the stand up of the Authority.

Sewer System

S&P

Senior Lien	A- (Stable)	3 notch improvement	AA- (Stable)
Second Lien	BBB+ (Stable)	3 notch improvement	A+ (Stable)

Moody's

Senior Lien	Baa3 (Positive)	5 notch improvement	A1 (Stable)
Second Lien	Ba1 (Positive)	5 notch improvement	A2 (Stable)

Fitch

Senior Lien	BBB (Stable)	4 notch improvement	A+ (Stable)
Second Lien	BBB- (Stable)	4 notch improvement	A (Stable)

Water System

S&P

Senior Lien	A- (Stable)	3 notch improvement	AA- (Stable)
Second Lien	BBB+ (Stable)	3 notch improvement	A+ (Stable)

Moody's

Senior Lien	Baa3 (Positive)	5 notch improvement	A1 (Stable)
Second Lien	Ba1 (Positive)	5 notch improvement	A2 (Stable)

Fitch

Senior Lien	BBB (Stable)	4 notch improvement	A+ (Stable)
Second Lien	BBB- (Stable)	4 notch improvement	A (Stable)

citi pfm Siebert Williams Shank

Comprehensive Marketing Outreach

Although a traditional in person roadshow as not possible in light of the COVID-19 crisis, Citi and Siebert utilized an internet roadshow presentation and one-on-one investor calls to educate investors and explain the transaction.

Marketing Outreach

1. Preliminary Official Statement Posted (March 10th)
2. Internet Roadshow (March 10th – April 30th)
   - 81 investors viewed the electronic roadshow
3. Preliminary Official Statement Supplement Posted (April 27th)
   - Provided additional information to potential investors with respect to the impact of COVID-19 on the Authority's operations and financial performance
4. One-on-One Calls with Investors (March 10th – April 30th)
   - Multiple individual one-on-one calls with key investors to address their questions ahead of pricing

Results

- Over $617 million of orders were received for the tax-exempt Series 2020A&B Bonds and $1.0 billion of orders for the taxable Series 2020C Bonds
- 48 distinct institutional investors placed orders on the Series 2020A&B Bonds and 31 distinct institutional investors placed orders on the taxable Series 2020C Bonds
  - Existing holders added to positions
  - New investors came in to buy the System's bonds for the 1st time
  - Variety of account types participated including asset managers, mutual funds, insurance companies, SMAs, and relative value funds
- "Top Tier" investors, including the some of the largest bond funds and insurance companies in the municipal market, came in for significant orders


PRELIMINARY OFFICIAL STATEMENT DATED MARCH 10, 2020

NEW ISSUE–BOOK-ENTRY ONLY See "Ratings" herein.

$ 454,510,000*
GREAT LAKES WATER AUTHORITY
Water Supply System Revenue and Revenue Refunding Bonds
Series 2020

$ 39,375,000* Water Supply System Revenue Senior Lien Bonds Series 2020A

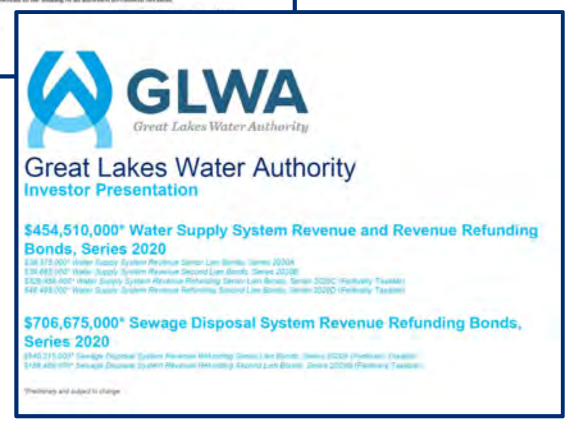
$ 39,685,000* Water Supply System Revenue Second Lien Bonds Series 2020B

$ 328,955,000* Water Supply System Revenue Refunding Senior Lien Bonds Series 2020C (Federally Taxable)

$ 46,495,000* Water Supply System Revenue Refunding Second Lien Bonds Series 2020D (Federally Taxable)

Dated: Date of Delivery Due as shown on inside cover page

Citigroup
Goldman Sachs and Co. LLC
Ramirez & Co., Inc.



Summary of Financing Results

The Series 2020 Bonds were sold at an attractive all-in interest rate and produced a significant amount of debt service savings for the Water System while also funding Local System projects.

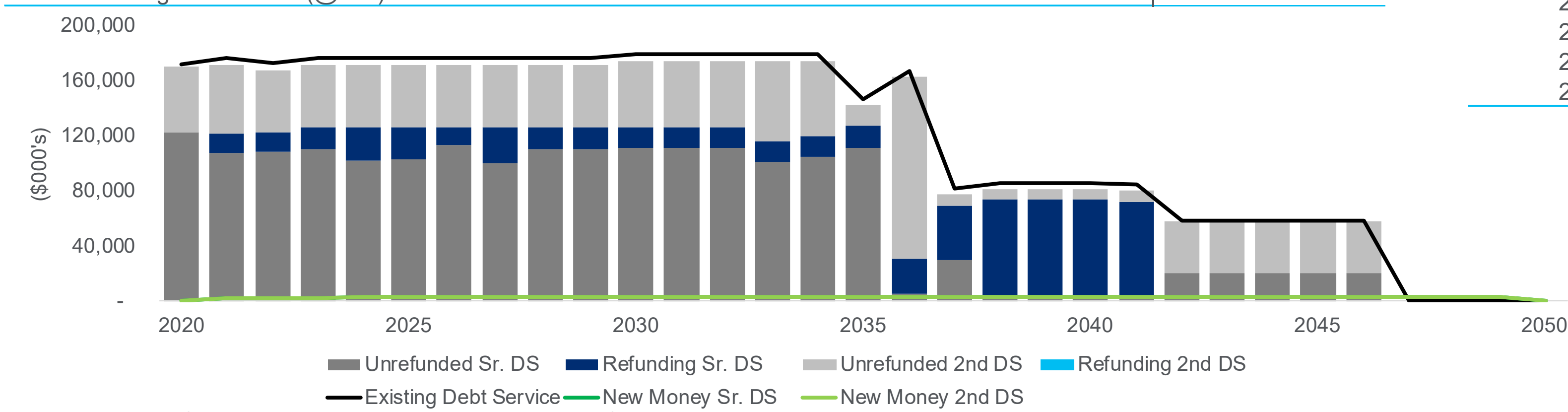
- Issued $463 million of total bonds including $85.6 million of tax-exempt new money bonds for Local System capital improvements and $377.5 million of taxable refunding bonds to achieve debt service savings
  - Bond yield of 2.98% for the tax-exempt Series 2020A&B Bonds
  - Bond yield of 3.36% for the taxable Series 2020C Bonds
  - Overall cost of funds, including costs of issuance, was an attractive 3.48%
- Issued $85.6 million of new money water bonds for the Local System, achieving a very favorable interest costs for 30-year debt and generating nearly $100 million for Local System capital improvement
- $103 million in debt service savings generated to provide future financial flexibility
  – Savings structured for approximately level annual savings with a slight emphasis for near-term years
- Increased debt service coverage levels on the Water System
- Released $10.5 million of Bond Reserve Funds to reduce the amount of refunding bonds issued
- Achieved all necessary bondholder consents on the DSRF springing amendment for the potential future elimination of the Water System Bond Reserve Funds once GLWA attains two AA category ratings (S&P achieved on the Water System)

Series 2020 Financing Results and Cash Flow Savings

Through a combination of refunding structure optimization and aggressive pricing, the refunding was able to achieve $103 million of total debt service savings for the Water System.

	Series 2020A Sr. Lien Tax-Exempt	Series 2020B 2nd Lien Tax-Exempt	Series 2020C Sr. Lien Taxable	Aggregate Series 2020 Issuance
Sources				
Par	42,445,000	43,135,000	377,515,000	463,095,000
Premium	7,554,692	6,851,324	-	14,406,016
Debt Service Fund Release	-	-	7,954,734	7,954,734
Debt Service Reserve Fund Release	-	-	10,548,456	10,548,456
Total Sources	49,999,692	49,986,324	396,018,190	496,004,207
Uses				
Deposit to Escrow Fund	-	-	394,014,099	394,014,099
Deposit for New Money	49,774,335	49,757,320	-	99,531,655
Deposit to Debt Service Reserve Fund	-	-	-	-
Costs of Issuance (inc. UW Disc.)	225,357	229,004	2,004,091	2,458,453
Total Uses	49,999,692	49,986,324	396,018,190	496,004,207
Call Provisions and Refunding Statistics				
Call Provisions	10 Year Par Call	10 Year Par Call	10 Year Par Call	
Refunded Principal			366,025,000	
Cashflow Savings			103,077,566	
Net PV Savings (@ 3%)			66,489,475	
Net PV Savings % Ref. Par (@ 3%)			18.17%	

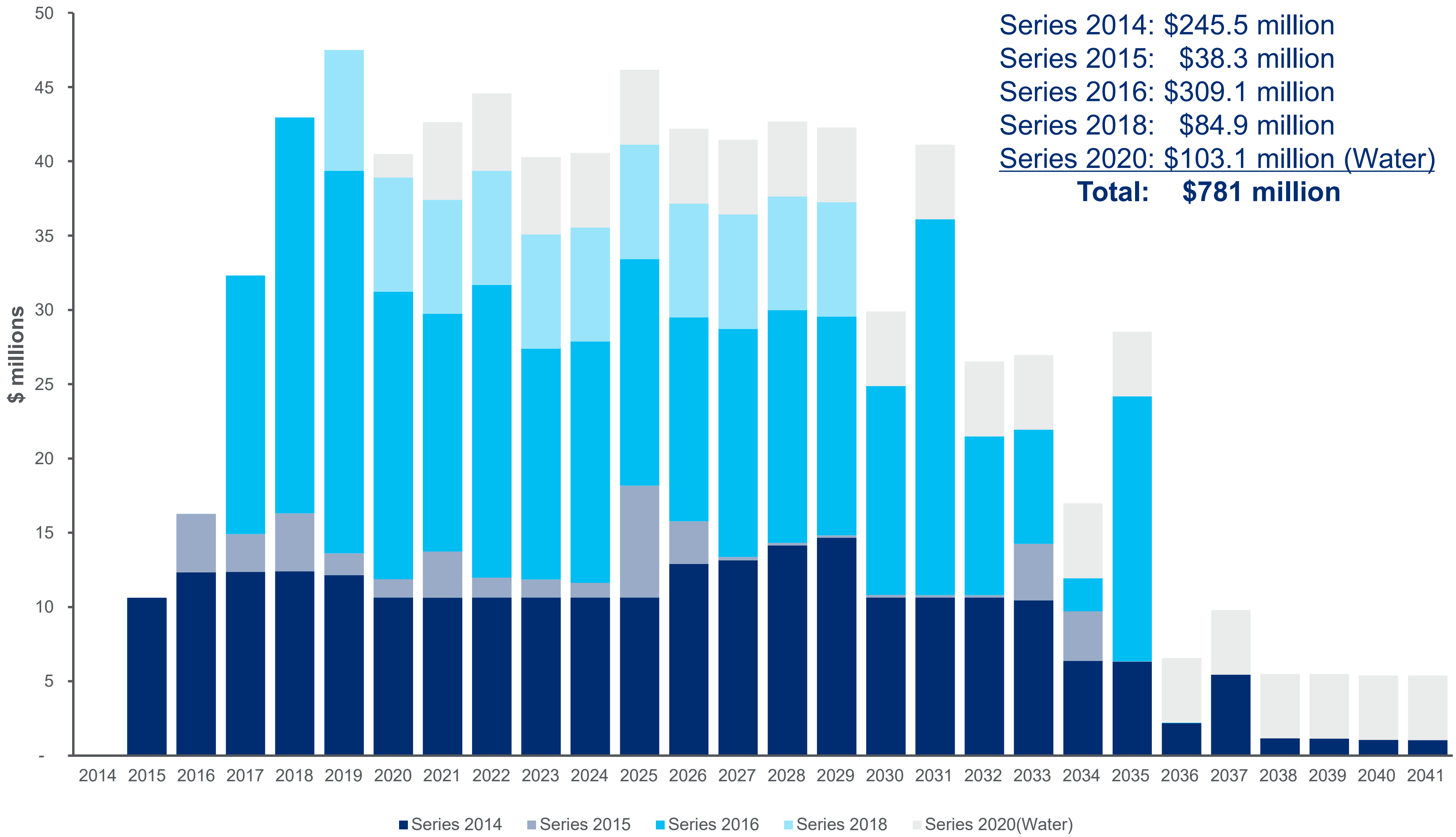
Fiscal Year	Refunding Savings ($000's)
Total	103,080
2020	1,591
2021	5,229
2022	5,225
2023	5,229
2024	5,034
2025	5,036
2026	5,034
2027	5,030
2028	5,036
2029	5,032
2030	5,034
2031	5,034
2032	5,033
2033	5,034
2034	5,036
2035	4,345
2036	4,349
2037	4,347
2038	4,346
2039	4,345
2040	4,349
2041	4,349



Note: For purposes of this analysis reserve releases are treated as an upfront adjustment (reduction) to PV savings

History of Debt Service Savings Achieved Since 2014

Through the leadership of the Authority's management team, the financing team has been able to achieve nearly $781 million of debt service savings for the systems since the tender and refunding transaction in 2014.



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Next Steps for the Sewer System Refunding

- The finance team continues to monitor market conditions for an opportunity to price the Sewer System refunding transaction
  - Due to the longer period until the call date on the majority of Sewer System refunding candidates, current market conditions did not allow for the Authority to meet its desired savings targets
- Should market conditions improve, a process similar to the one utilized for the Water System would likely be utilized for the Sewer System
  - Post a Supplement to the Sewer System Preliminary Official Statement explaining the impact of the COVID-19 crisis on the Sewer System's operations and financial performance
  - Distribute supplement to investors
  - Hold one-on-one conference calls with key investor accounts to answer any questions
  - Price the Sewer System Bonds

Bulletin:

Great Lakes Water Authority, MI Ratings Unaffected By COVID-19 Pandemic

April 29, 2020

NEW YORK (S&P Global Ratings) April 29, 2020--S&P Global Ratings said that the COVID-19 pandemic has not affected its 'AA-' rating on the Great Lakes Water Authority (GLWA), Mich.'s senior-lien water supply system revenue bonds or its 'A+' rating on GLWA's second- and junior-lien water revenue bonds (See the full analysis on GLWA, published March 16, 2020 on RatingsDirect.).

Although some revenue volatility is likely for all its customer classes and delayed collections will be applicable to GLWA's retail customer class (which includes Detroit), we believe that the system's overall net revenues are unlikely to see significant declines related to COVID-19. While we continue to monitor these events, we do not currently expect them to affect the authority's ability to maintain budgetary balance and pay debt service costs. For more information, see our article, "COVID-19's Potential Effects In U.S. Public Finance Vary By Sector" (published March 5, 2020).

Our belief is supported by GLWA's diverse water system revenue base generated from communities that represent about 40% of Michigan's population, and its charge structure that is only 40% variable. We also have observed that the authority has been able to identify additional budgetary adjustments that, in our view, should be able to mitigate its currently estimated $7.4 million revenue shortfall due to the effects of COVID-19.

As the pandemic's effects on future budgets are better understood, we will continue to incorporate into our rating analysis management's efforts to mitigate any revenue losses, including the ability to reprioritize capital projects without weakening environmental compliance, use of cash balances to stabilize operations, the future water charge structure to its member partners, and general operating expense adjustments.

This report does not constitute a rating action.

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FOR IMMEDIATE RELEASE
May 1, 2020

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Ashleigh Chatel / M: 734-626-4252 / ashleigh.chatel@fleishman.com

GLWA RECEIVES RATINGS UPGRADES AND EXECUTES MONEY SAVING REFUNDING FOR REGIONAL SYSTEM WHILE GENERATING FUNDING FOR DETROIT LOCAL WATER SYSTEM IMPROVEMENTS

Positive ratings actions from all three rating agencies in early March; successful bond transaction in April generated $103 million in cashflow savings for the regional water system; historically low long-term borrowing cost for City of Detroit local water system; demonstrates Authority's agility as a result of long-term strategy for sustainability

DETROIT – The Great Lakes Water Authority (GLWA) received positive ratings actions from all three ratings agencies – S&P Global Ratings (S&P), Moody's Investors Service (Moody's) and Fitch Ratings (Fitch) in early March 2020 in anticipation of a bond refunding and new money transaction. That transaction was paused for over a month, as a result of volatile market conditions attributable to the COVID-19 pandemic. Capitalizing on recent investor interest, combined with an acceptable level of market stability, GLWA was able to successfully price $377.5 million of taxable advance refunding bonds to achieve cash flow savings of $103 million on April 30, 2020. In addition, $85 million par value of new tax-exempt bonds were sold to provide $100 million in bond proceeds for City of Detroit Water and Sewerage Department (DWSD) water system improvements. The arbitrage yield of 2.98 percent on the new tax-exempt money borrowing is among the lowest 30-year borrowing rates achieved by GLWA or DWSD.

Positive Ratings Actions – Prior to COVID-19 Pandemic

"The continued positive actions from the three ratings agencies in early March is tangible proof of how successful our collaborative operating philosophy has been to ensuring we achieve our vision of being the provider of choice for water and wastewater services in southeast Michigan," said Sue F. McCormick, CEO, GLWA. "I am extremely proud of our team and am pleased that the rating agencies have recognized that we are an organization getting things done in new and innovative ways."

S&P Global Ratings

S&P affirmed GLWA's senior lien water system at AA- and its second lien water system rating at A+. S&P cited several strengths: as a wholesaler serving a large area, GLWA is not dependent on any single entity to fulfill its financial commitments, comprehensive budgeting practices, and a Capital Improvement Plan (CIP) that is forward-looking and not tied to any regulatory compliance mandates. Both the senior and second liens were assigned a stable outlook.

The rating agency upgraded GLWA's senior lien sewer system rating by one notch to AA- and its second lien sewer system was increased by one notch to A+.

Both the water and sewer senior and second lien bonds were assigned a stable outlook.

Moody's Investors Service

Moody's upgraded both GLWA's water system and sewer system senior lien ratings one notch to A1 and both its second lien ratings one notch to A2. Moody's cited GLWA's strong operating trends, healthy liquidity, and an "experienced management team [that] remains committed to measured revenue growth through annual revenue requirement increases, while at the same time maintaining an affordable rate structure ...".

The ratings outlook for both water and sewer senior and second lien bonds remains stable.

Fitch Ratings

Fitch also upgraded both system bond ratings, raising GLWA's ratings for its water system and sewer system senior lien bonds by one notch to A+, and its second lien bonds by one notch to an A. The credit outlook for both water and sewer senior and second lien bonds is stable.

In its report, Fitch said the improvement in its credit outlook for GLWA, "reflects sustained improvement to the Authority's financial profile," citing stable charge setting practices, accumulation of cash reserves, and prospects for achieving or beating expectations help to insulate GLWA from potential credit risks.

Fitch also cited GLWA's plans to use pay-as-you-go capital funding to moderate debt levels as a key factor in this outlook adjustment.

Post COVID-19 Pandemic - Positive Ratings Actions Remain

Soon after the positive ratings actions in early March 2020, the World Health Organization declared a pandemic on March 11, 2020, following the outbreak of COVID-19, a respiratory disease caused by a novel strain of coronavirus. Then, on March 13, 2020, President Donald Trump declared a national emergency to unlock federal funds to help states and local governments fight the pandemic. Subsequently, on March 28, 2020, President Trump, at the request of Michigan Governor Gretchen Whitmer, declared that a major disaster exists in Michigan. This crisis created to a volatile municipal bond market and varying concerns by credit analysts of water sector financial outlook. GLWA was, therefore, in position to pause the contemplated refunding and new money transaction.

Concurrently, GLWA was proactively managing through the COVID-19 challenges utilizing an emergency management plan framework while focusing on GLWA's long-term operational and financial stability. In addition to expense reductions to offset potential reductions in water sales, at the recommendation of the Authority's administration, the GLWA Board of Directors voted to defer the previously approved service charge increase from July 1, 2020 until October 1, 2020 to support member partner communities who are facing increased expenses and/or cashflow needs due to the pandemic.

As GLWA prepared to return to the bond market this week, the recently upgraded ratings remained in place, despite the events of the previous 45 days. On April 29, 2020 S&P issued a ratings bulletin, *Great Lakes Water Authority, MI Ratings Unaffected by COVID-19 Pandemic* stating that the AA- rating on the senior lien water supply system bonds and the A+ rating on the second-lien revenue bonds has not been affected by the COVID-19 pandemic. S&P noted that GLWA has taken actions to maintain budgetary balance to date and has identified further actions that can be taken when the pandemic's effects on the future becomes clearer.

Successful Bond Transaction Achieves Savings for the Region and Low-Cost Financing for DWSD Water System Capital Improvement Program

GLWA went to market on April 30, 2020, pricing a $463 million bond sale, which included $377.5 million of a taxable refunding of outstanding GLWA water system debt, and approximately $85.5 million par amount in new water system bonds with a premium generating $100 million in funds for Detroit local water system improvements.

As a result of the favorable interest rates on the bonds, the GLWA regional water system will realize a net cash flow savings of approximately $103 million over the life of the refinanced bonds. Closing of the sale is expected by mid-May.

Strong Investor Interest

The Authority's marketing process leading up to the transaction generated over $1.6 billion in investor orders for the $463 million in bonds offered. For the taxable refunding bonds, there was over $1 billion in orders for the $377.5 million in bonds available (almost 2.7 times). For the tax-exempt new money bonds, there was over $617 million in orders for the $85.5 million in bonds available for the tax-exempt new money transaction (almost 7.2 times). This significant market demand by investors allowed GLWA to secure lower yields at final pricing on more than half of the par amount of the bond transactions, thereby further reducing the cost of borrowing.

Nearly 50 separate institutional investors placed orders for the water system refunding and more than 30 institutions placed orders for the Water New Money sale. In addition, retail orders were placed on behalf of several individual retail investors.

"The GLWA bond issue was very well received by the market this week and generated substantial savings for our member partner communities, including DWSD," said Nicolette N. Bateson, Chief Financial Officer and Treasurer, GLWA. "We greatly appreciate the strong investor community interest leading up to this transaction and hope that our commitment to transparency, accessibility, and responsible management of the regional system sets the stage for further participation by these investors in future GLWA transactions."

Lower Cost of Debt

The bond sale demonstrated strong market access at historically low yields over a 30-year period to drive savings for GLWA member partners and the local system. For the regional system refunding, the $103 million in cash flow savings from the refunding translates to a present value of these future savings to be over $66 million. For the new money bonds for the DWSD local system improvements, this week's sale provided the lowest long-term cost of new money borrowing since the Authority's inception on January 1, 2016.

Lease Agreement between the GLWA and DWSD

GLWA leases the regional water and sewer system from the City of Detroit pursuant to the terms of a 40-year lease agreement. The DWSD revenues are pledged to a GLWA master bond ordinance trust for repayment of the bonds issued by GLWA. The new tax-exempt bonds issued will fund local water system improvements outlined in its five-year CIP.

Debt Management Efforts Impact Long-term Sustainability

Since 2014, the GLWA management team, either through GLWA or the predecessor debt obligor DWSD, has executed five refunding transactions (for the water and sewer system combined) that resulted in debt service saving of more than three quarters of a billion dollars ($781 million).

"GLWA is appreciative of its member partner communities for active engagement in the annual review of the financial forecast and participating in the charge setting process" said Jonathan Wheatley, Public Finance Manager, GLWA. "By working together to understand the complexity of GLWA's debt portfolio and its relationship to service charges, we can continue to build upon these cumulative savings to continue to lower the cost of water in the future."

About the Great Lakes Water Authority (GLWA)

The Great Lakes Water Authority (GLWA) is the provider-of-choice for drinking water services to nearly 40 percent and efficient and effective wastewater services to nearly 30 percent of Michigan's population. With the Great Lakes as source water, GLWA is uniquely positioned to provide those it serves with water of unquestionable quality. GLWA also has the capacity to extend its service beyond its 88 member partner communities. As part of its commitment to water affordability, the Authority offers a Water Residential Assistance Program to assist low-income households in participating member communities throughout the system. GLWA's board includes one representative each from Oakland, Macomb and Wayne counties, two representatives from the city of Detroit and one appointed by the Michigan governor to represent customer communities outside of the tri-county area.

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Nicolette Bateson, CPA
Chief Financial Officer& Treasurer

Re: Proposed Budget Amendment Policy – Continued Discussion

Background: The founding legal documents for the Great Lakes Water Authority (GLWA) provide a structure for budget preparation, adoption, and amendment.

Analysis: The complexity of GLWA's financial oversight and management give cause for the Board of Directors to adopt a budget amendment policy.

A draft policy was provided to the Audit Committee on April 24, 2020. Today, the staff is presenting a sample draft report for Audit Committee and review and subsequent comment. The presentation includes initial feedback from the April 24, 2020 meeting.

Attachments:

1. Draft policy (no edits since presented on April 24, 2020)
2. Sample budget amendment report and related budget amendment resolution

Proposed Action: Receive draft policy and related sample budget amendment report, in order to provide feedback of the draft policy and sample report on or before May 22, 2020 for conclusion at a subsequent Audit Committee meeting.

DISCUSSION DRAFT - BUDGET AMENDMENT POLICY

Purpose

The purpose of this budget amendment policy is to define the purpose, reporting, and authorization of budget amendments for the Great Lakes Water Authority (GLWA).

Definitions

Line Item	The highest level of detail in the accounting system which is assigned a budget amount and is used for management of an operational budget. The line item is a four segment general ledger string which includes fund, cost center, account, and function.
Administrative Budget Amendment	A line item level amendment to budgeted amounts which is within the legal spending level authorized by a budget resolution for a given fiscal year.
Account Type	Primary classification of operations and maintenance expenses that is used for budgeting and financial reporting. Identifies the purpose for use of financial resources. Examples include personnel, contractual services, utilities, chemicals, supplies and other expenses, capital program allocation, shared services allocation, centralized services allocation, administrative services allocation, capital outlay, and unallocated reserve.
Appropriation Categories	The purpose for which a spending level authorized by a budget resolution.
Appropriation Level	The legal spending level authorized by a budget resolution.
Board Budget Amendment	An amendment to the annual budget which alters the legal spending level authorized by a budget resolution for a given fiscal year.
Core Purpose	A grouping of line items that describes the core purpose of financial resources that aligns with the revenue charges methodology. Examples include water direct operations, wastewater direct operations, centralized services, and administrative services.
Fiscal Year	The twelve-month period ended June 30th.

GLWA
Great Lakes Water Authority

Policy

1. **Budget Adoption:** The Board of Directors adopts a biennial budget by resolution which specifies appropriation amounts by the following categories and with reference to supporting schedules that include these categories which may be modified annually.

Fund Type for both Water and Sewer Systems	Appropriation Category
General Operating	Revenue Requirement
General Operating	Revenues from Charges
General Operating	Non-operating Revenue
General Operating	Operations & Maintenance Expense
General Operating	Operations & Maintenance Expense – Legacy Pension
General Operating	Debt Service (principal, interest, and required reserves)
General Operating	Accelerated Legacy Pension Allocation
General Operating	Water Residential Assistance Program
General Operating	Lease Payment
General Operating	Improvement & Extension Fund Contribution
General Operating	Operating Reserve Deposit
General Operating	Extraordinary Repair & Replacement Deposit
Improvement & Extension	Revenue Financed Capital Transfers-In
Improvement & Extension	Capital Outlay
Improvement & Extension	Use of Revenue Financed Capital
Construction Bond	Bond Proceeds
Construction Bond	Earnings on Investments
Construction Bond	Grant Revenues
Construction Bond	Contributions in Aid of Construction
Construction Bond	Project Expenditures

2. **Board Budget Amendment:** To the extent that there is a proposed amendment of the budget among the appropriation categories, the matter is brought to the Audit

Committee for review and consideration of a recommendation to the Board of Directors for their consideration for approval. Board Budget Amendments should be brought to the Audit Committee when identified and no less than quarterly.

3. **Reporting:** Transparency and accountability are foundational to GLWA's mission. A quarterly budget amendment report will include the following analysis.

    a. Board Budget Amendments by System and Fund

Appropriation Category	Quarter 1 Budget Amendment through September 30th	Quarter 2 Budget Amendment through December 31st	Quarter 3 Budget Amendment Through March 31st	Quarter 4 Budget Amendment Through May 31st	Total Amended Budget

    b. Administrative Budget Amendments by Account Type

Appropriation Category	Quarter 1 Budget Amendment through September 30th	Quarter 2 Budget Amendment through December 31st	Quarter 3 Budget Amendment Through March 31st	Quarter 4 Budget Amendment Through May 31st	Total Amended Budget

    c. Administrative Budget Amendments by Core Group

Appropriation Category	Quarter 1 Budget Amendment through September 30th	Quarter 2 Budget Amendment through December 31st	Quarter 3 Budget Amendment Through March 31st	Quarter 4 Budget Amendment Through May 31st	Total Amended Budget

4. This policy may be modified as needed pursuant to Audit Committee review and consideration with a recommended action to the Board of Directors for their consideration for approval.

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Date: May 14, 2020

To: Great Lakes Water Authority Audit Committee

From: Lisa L Mancini, Financial Planning & Analysis Manager

Re: FY 2020 Quarterly Budget Amendments through December 31, 2019 and Proposed Budget Amendment Resolution

Background: In accordance with the budget amendment policy, articles, and by-laws for the Great Lakes Water Authority, a quarterly budget amendment report is presented for review by the Audit Committee. If budget amendments are required at the appropriation level as defined by the corresponding fiscal year budget adoption resolution, the Audit Committee will review the proposed budget amendments and forward to the Board of Directors with a recommendation.

Analysis: The budget amendment report is organized in the following manner.

1. **Appropriation Level - Revenue Requirement - Water and Sewer Systems**
    a. *Supplemental Information - Fund Level - Water System and Sewer System*
    b. *Supplemental Information - Enterprise-wide Core Groups*
    c. *Supplemental Information - Enterprise-wide Operations & Maintenance Account Type*
    d. *Supplemental Information - Enterprise-wide Operations & Maintenance Department and Account Level Amendments (see addendum)*

2. **Appropriation Level – Improvement & Extension Fund – Water and Sewer Systems**

3. **Appropriation Level – Construction Bond Fund – Water and Sewer Systems**

A budget amendment resolution reflecting the budget amendments is also attached.

Proposed Action: The Audit Committee recommends that the Board of Directors for the Great Lakes Water Authority adopt the proposed budget resolution for the FY 2020 second quarter budget amendments.

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Appropriation Level - Revenue Requirement – Water System General Operating

Water System	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Suburban Wholesale Customer Charges	$ 309,284,500	$ -	$ -	$ -	$ 309,284,500	$ 158,158,129
Retail Service Charges	21,295,500	-	-	-	21,295,500	10,647,700
Investment Earnings	9,084,200	-	-	-	9,084,200	3,197,600
Other Revenues	-	-	-	-	-	300
Total Revenues	$ 339,664,200	$ -	$ -	$ -	$ 339,664,200	$ 172,003,729
Revenue Requirements						
Operations & Maintenance Expense	$ 131,490,500	$ -	$ -	$ -	$ 131,490,500	$ 63,538,500
General Retirement System Legacy Pension	6,048,000	-	-	-	6,048,000	3,024,000
Debt Service	137,557,600	-	-	-	137,557,600	65,179,570
General Retirement System Accelerated Pension	6,268,300	-	-	-	6,268,300	3,134,148
Extraordinary Repair & Replacement Deposit	-	-	-	-	-	-
Water Residential Assistance Program Contribution	1,698,300	-	-	-	1,698,300	849,150
Lease Payment	22,500,000	-	-	-	22,500,000	11,250,000
Operating Reserve Deposit	3,976,000	-	-	-	3,976,000	1,988,000
Improvement & Extension Fund Transfer Pending	30,125,500	-	-	-	30,125,500	15,062,500
Total Revenue Requirements	$ 339,664,200	$ -	$ -	$ -	$ 339,664,200	$ 164,025,868

There are no proposed amendments to the FY 2020 Water System General Operating budget through the end of the second fiscal quarter as of December 31, 2020.

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

GLWA
Great Lakes Water Authority

Appropriation Level - Revenue Requirement – Sewer System

Sewer System	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Suburban Wholesale Customer Charges	$ 272,323,600	$ -	$ -	$ -	$ 272,323,600	$ 134,204,700
Retail Service Charges	185,807,300	-	-	-	185,807,300	92,903,700
Industrial Waste Control Charges	13,743,600	-	-	-	13,743,600	4,186,300
Pollutant Surcharges	-	-	-	-	-	3,057,400
Investment Earnings	8,730,800	-	-	-	8,730,800	4,141,000
Other Revenues	-	-	-	-	-	246,600
Total Revenues	$ 480,605,300	$ -	$ -	$ -	$ 480,605,300	$ 238,739,700
Revenue Requirements						
Operations & Maintenance Expense	$ 187,057,200	$ -	$ -	$ -	$ 187,057,200	$ 83,639,100
General Retirement System Legacy Pension	10,824,000	-	-	-	10,824,000	5,412,000
Debt Service	215,738,800	-	-	-	215,738,800	104,496,745
General Retirement System Accelerated Pension	11,620,700	-	-	-	11,620,700	5,810,352
Extraordinary Repair & Replacement Deposit	-	-	-	-	-	-
Water Residential Assistance Program Contribution	2,403,000	-	-	-	2,403,000	1,201,500
Lease Payment	27,500,000	-	-	-	27,500,000	13,750,002
Operating Reserve Deposit	-	-	-	-	-	-
DWSD Budget Shortfall Pending	-	-	-	-	-	5,337,016
Improvement & Extension Fund Transfer Pending	25,461,600	-	-	-	25,461,600	12,730,800
Total Revenue Requirements	$ 480,605,300	$ -	$ -	$ -	$ 480,605,300	$ 232,377,515

There are no proposed amendments to the FY 2020 Sewer System General Operating budget through the end of the second fiscal quarter as of December 31, 2020.

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Supplemental Information - Fund Level - Water System and Sewer System

System	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Water System Operations	$ 131,490,500	$ -	$ -	$ -	$ 131,490,500	$ 63,538,500
Wastewater System Operations	187,057,200	-	-	-	187,057,200	83,639,100
Total	**$ 318,547,700**	**$ -**	**$ -**	**$ -**	**$ 318,547,700**	**$147,177,600**

As shown in the table above, there are no budget amendments for transfers of resources between the water and sewer funds. It is unforeseen that such an amendment would occur as each system is accounted for as a stand-alone entity. The purpose of this table is to transparently report that funds from one system do not provide budget support to the other system.

Supplemental Information - Enterprise-wide Core Groups

O&M Major Budget Categories (Core Groups)	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
A Water System Operations	$ 66,021,100	$ -	$ -	$ -	$ 66,021,100	$ 34,024,600
B Wastewater System Operations	115,985,300	-	-	-	115,985,300	53,139,200
C Centralized Services	106,913,500	-	-	-	106,913,500	45,836,300
D Administrative & Other Services	29,627,800	-	-	-	29,627,800	14,177,500
Total	**$ 318,547,700**	**$ -**	**$ -**	**$ -**	**$ 318,547,700**	**$147,177,600**

A subset of the operating funds are core groups that account for A) direct cost of water operations, B) direct cost of sewer operations, C) centralized services (e.g. field services, security, information technology, facilities, and fleet), D) administrative services (e.g. finance, public affairs, general counsel, and organizational development). The costs of the latter two categories are allocated to the water and sewer systems based upon an internal cost allocation plan that is performed on an annual basis. Through the second quarter of FY 2020, there are no amendments that cross the core groups. For more activity within these groups, see *Supplemental Information - Enterprise-wide Operations & Maintenance Department and Account Level Amendments (addendum).*

Supplemental Information - Enterprise-wide Operations & Maintenance Account Type

O&M Expense Categories (Account Type)	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Personnel Costs	$ 105,090,700	$ -	$ (698,125)	$ (698,125)	$ 104,392,575	$ 51,021,900
Utilities	51,333,700	-	(993,000)	(993,000)	50,340,700	26,238,000
Chemicals	13,898,600	-	-	-	13,898,600	7,066,400
Supplies & Other	36,392,000	-	871,020	871,020	37,263,020	16,889,500
Contractual Services	115,306,800	-	(8,294,895)	(8,294,895)	107,011,905	50,054,800
Capital Program Allocation	(5,414,300)	-	1,898,900	1,898,900	(3,515,400)	(1,442,500)
Shared Services	(5,025,100)	-	(64,250)	(64,250)	(5,089,350)	(2,650,500)
Unallocated Reserve	6,965,300	-	7,280,350	7,280,350	14,245,650	-
Total	**$ 318,547,700**	**$ -**	**$ -**	**$ -**	**$ 318,547,700**	**$147,177,600**

[Commentary will be inserted here to explain large amounts such as the decrease in contractual services and increase in unallocated reserve.]

GLWA Great Lakes Water Authority

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Supplemental Information - Unallocated Reserve

O&M Unallocated Reserves	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget
Water System Operations	$ 2,697,200	$ -	$ (2,226,300)	$ (2,226,300)	$ 470,900
Wastewater System Operations	3,264,851	-	3,000,000	3,000,000	6,264,851
Centralized Services	652,983	-	6,726,650	6,726,650	7,379,633
Administrative & Other Services	350,212	-	(220,000)	(220,000)	130,212
Total	**$ 6,965,246**	**$ -**	**$ 7,280,350**	**$ 7,280,350**	**$ 14,245,596**

[Commentary will be inserted here to explain adjustments to unallocated reserve.]

Appropriation Level – Improvement & Extension Fund – Water System

Water Improvement & Extension Fund	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Water System Revenue Transfers In	$ 30,125,500	$ -	$ -	$ -	$ 30,125,500	$ 15,062,500
Earnings on Investments	-	-	-	-	-	1,734,995
Net Use of Reserves	24,999,800	-	(1,173,179)	(1,173,179)	23,826,621	-
Total Revenues	$ 55,125,300	$ -	$ (1,173,179)	$ (1,173,179)	$ 53,952,121	$ 16,797,495
Expenditures						
Water System Revenue Transfers Out	$ -	$ -	$ -	$ -	$ -	$ 2,882,151
Capital Outlay	$ 10,125,300	$ -	$ (1,173,179)	(1,173,179)	8,952,121	2,932,908
Revenue Financed Capital	45,000,000	-	-	-	45,000,000	-
Total Expenditures	$ 55,125,300	$ -	$ (1,173,179)	$ (1,173,179)	$ 53,952,121	$ 5,815,059

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

[Commentary will be inserted here to explain adjustments to Improvement & Extension Fund – Water System.]

Appropriation Level - Improvement & Extension Fund – Sewer System

Sewer Improvement & Extension Fund	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Sewer System Revenue Transfers In	$ 25,461,600	$ -	$ -	$ -	$ 25,461,600	$ 22,151,658
Earnings on Investments	-	-	-	-	-	821,980
Net Use of Reserves	(5,339,400)	-	-	-	(5,339,400)	-
Total Revenues	$ 20,122,200	$ -	$ -	$ -	$ 20,122,200	$ 22,973,638
Expenditures						
Sewer System Revenue Transfers Out	$ -	$ -	$ -	$ -	$ -	$ 1,109,044
Capital Outlay	20,122,200	-	-	-	20,122,200	$ 2,497,457
Revenue Financed Capital	-	-	-	-	-	-
Total Expenditures	$ 20,122,200	$ -	$ -	$ -	$ 20,122,200	$ 3,606,501

[Commentary will be inserted here to explain adjustments to Improvement & Extension Fund – Sewer System.]

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Appropriation Level – Construction Bond Fund – Water System

Water Construction Bond Fund	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Transfer from Improvement & Extension Fund	$ 45,000,000	$ -	$ -	$ -	$ 45,000,000	$ 3,503,485
Bond Proceeds	-	-	-	-	-	-
Grant Revenues (DWRF Loans)	5,531,000	-	-	-	5,531,000	-
Earnings on Investments	1,487,700	-	-	-	1,487,700	811,530
Net Use of Reserves	55,416,600	(15,488,144)	(61,010)	(15,549,154)	39,867,446	-
Total Revenues	$ 107,435,300	$ (15,488,144)	$ (61,010)	$ (15,549,154)	$ 91,886,146	$ 4,315,015
Project Expenditures	$ 107,435,300	$ (15,488,144)	$ (61,010)	$ (15,549,154)	$ 91,886,146	$ 28,971,094
Total Expenditures	$ 107,435,300	$ (15,488,144)	$ (61,010)	$ (15,549,154)	$ 91,886,146	$ 28,971,094

[Commentary will be inserted here to explain adjustments to Construction Bond Fund – Water System.]

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Appropriation Level – Construction Bond Fund – Sewer System

Sewer Construction Bond Fund	FY 2020 Board Adopted Budget	1st Quarter FY 2020 Amendments	2nd Quarter FY 2020 Amendments	Net Adjustment	FY 2020 Amended Budget	FY 2020 Activity Thru 12/31/2019
Revenues						
Transfer from Improvement & Extension Fund	$ -	$ -	$ -	$ -	$ -	$ 13,773,436
Bond Proceeds	78,960,000	-	-	-	78,960,000	-
Grant Revenues (DWRF Loans)	29,342,000	-	-	-	29,342,000	-
Earnings on Investments	41,100	-	-	-	41,100	759,661
Net Use of Reserves	12,766,900	1,558,000	(6,453,995)	(4,895,995)	7,870,905	-
Total Revenues	$ 121,110,000	$ 1,558,000	$ (6,453,995)	$ (4,895,995)	$ 116,214,005	$ 14,533,097
Project Expenditures	$ 121,110,000	$ 1,558,000	$ (6,453,995)	$ (4,895,995)	$ 116,214,005	$ 29,921,811
Total Expenditures	$ 121,110,000	$ 1,558,000	$ (6,453,995)	$ (4,895,995)	$ 116,214,005	$ 29,921,811

[Commentary will be inserted here to explain adjustments to Construction Bond Fund – Sewer System.]

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

ADDENDUM

Supplemental Information –
Enterprise-wide Operations & Maintenance Department and Account Level Amendments

The summary of budget amendments for operations & maintenance department and account level amendments are organized by the four core groups. As noted earlier, the second quarter budget amendment for all core groups nets to zero. GLWA's internal budget directive is for each area, group, and team to manage their needs to an amount within the initial budget. To the extent that is not possible, an amendment is made from the unallocated reserve. If savings are incurred, or an area appears to not require as much funding as established in the original budget, that department's budgeted expenses are reduced, and the unallocated reserve is increased. In administering the budget, there are several refinements to departments and account categories. An explanation of larger items is in the table below for the second quarter (there were no amendments for the first quarter).

Departmental and Account Level Amendments	2nd Quarter	
A Water System Operations	**-**	*Commentary will be added for larger items and/or trends.*
Unallocated Reserve - Water System Operations	**(2,226,300)**	
Unallocated Reserve	(2,226,300)	
Water Director	**10,400**	
Capital Program Allocation	10,400	
COO - Water Operations & Field Services	**13,500**	
Capital Program Allocation	13,500	
Lake Huron Water Plant	**36,900**	
Capital Program Allocation	36,900	
Springwells Water Plant	**84,000**	
Capital Program Allocation	84,000	
Water Works Park	**90,000**	
Capital Program Allocation	90,000	
Water Quality	**91,500**	
Capital Program Allocation	38,500	
Shared Services	53,000	
Southwest Water Plant	**1,900,000**	
Contractual Services	1,900,000	

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Departmental and Account Level Amendments	2nd Quarter
B Wastewater System Operations	**-**
BDF, COF & Hauling	**(1,500,000)**
Contractual Services	(1,500,000)
Wastewater Operations	**(1,000,000)**
Utilities	(1,000,000)
Wastewater Process Control	**(799,090)**
Chemicals	(45,000)
Contractual Services	(500,000)
Personnel Costs	(254,090)
Wastewater Engineering	**(59,517)**
Personnel Costs	(59,517)
Combined Sewer Overflow	**59,517**
Personnel Costs	59,517
Wastewater Laboratories	**299,090**
Chemicals	45,000
Personnel Costs	254,090
Unallocated Reserve - Wastewater System Operations	**3,000,000**
Unallocated Reserve	3,000,000

Commentary will be added for larger items and/or trends.

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Departmental and Account Level Amendments	2nd Quarter	*Commentary will be added for larger items and/or trends.*
C Centralized Services	**-**	
Field Service Operations	**(2,436,200)**	
Capital Program Allocation	63,800	
Contractual Services	(2,500,000)	
Facility Operations	**(1,938,200)**	
Capital Program Allocation	61,800	
Contractual Services	(2,000,000)	
Systems Analytics	**(1,930,000)**	
Contractual Services	(1,900,000)	
Shared Services	(30,000)	
Systems Operations Control	**(1,900,000)**	
Contractual Services	(1,900,000)	
Asset Management	**(1,800,000)**	
Contractual Services	(1,800,000)	
Info Tech Enterprise Asset Mgmt Systems	**(289,831)**	
Contractual Services	(770,823)	
Shared Services	(422,250)	
Supplies & Other	903,242	
Info Tech Business Productivity Systems	**(132,419)**	
Contractual Services	(544,000)	
Supplies & Other	411,581	
Info Technology Project Management Office	**-**	
Contractual Services	(15,000)	
Supplies & Other	15,000	
Office of the CIO	**-**	
Contractual Services	2,000	
Supplies & Other	(2,000)	
Personnel Costs	500	
Supplies & Other	(500)	
Info Technology Infrastructure	**-**	
Contractual Services	500,000	
Supplies & Other	(500,000)	
Systems Planning	**1,000,000**	
Contractual Services	1,000,000	
Capital Improvement Planning	**2,700,000**	
Capital Program Allocation	1,500,000	
Contractual Services	1,200,000	
Unallocated Reserve - Centralized Services	**6,726,650**	
Unallocated Reserve	6,726,650	

SAMPLE Quarterly Budget Amendment Report
FY 2020 Second Quarter
Ending December 31, 2019

Departmental and Account Level Amendments	2nd Quarter
D Administrative & Other Services	-
Transformation	**(369,300)**
Personnel Costs	(375,300)
Supplies & Other	6,000
Unallocated Reserve - Administrative Services	**(220,000)**
Unallocated Reserve	(220,000)
Procurement Director	**(36,996)**
Personnel Costs	(24,500)
Supplies & Other	(12,496)
Chief Financial Officer	**(35,300)**
Contractual Services	127,800
Personnel Costs	(164,000)
Supplies & Other	900
Board of Directors	**(25,400)**
Personnel Costs	(20,100)
Supplies & Other	(5,300)
General Counsel	-
Contractual Services	208
Supplies & Other	(208)
Chief Executive Officer	-
Contractual Services	(14,800)
Supplies & Other	14,800
Chief Administrative Officer	-
Contractual Services	(8,500)
Supplies & Other	8,500
Public Affairs	-
Personnel Costs	(26,800)
Supplies & Other	26,800
Organizational Development	-
Contractual Services	(107,000)
Personnel Costs	5,000
Supplies & Other	102,000
Financial Reporting & Accounting	**3,200**
Contractual Services	1,200
Personnel Costs	12,000
Supplies & Other	(10,000)
Owners' Representative	**10,000**
Contractual Services	50,000
Personnel Costs	(69,225)
Supplies & Other	29,225
Financial Planning & Analysis	**70,000**
Contractual Services	140,000
Personnel Costs	(70,000)
Reporting and Compliance	**71,000**
Personnel Costs	71,000
Data Analytics & Internal Audit	**74,200**
Contractual Services	119,000
Personnel Costs	(44,800)
Public Finance	**88,600**
Contractual Services	72,500
Personnel Costs	17,100
Supplies & Other	(1,000)
Treasury	**123,000**
Contractual Services	(200,000)
Personnel Costs	(12,000)
Shared Services	335,000
Logistics and Materials	**246,996**
Contractual Services	352,520
Personnel Costs	3,000
Supplies & Other	(115,524)
Utilities	7,000

Commentary will be added for larger items and/or trends.

Great Lakes Water Authority

Resolution 2020 - XXX

Resolution Adopting the FY 2020 Second Quarter Budget Amendments

By Board Member:

WHEREAS The Great Lakes Water Authority ("GLWA" or the "Authority") assumed the operation of the regional water and sewer systems on January 1, 2016 (the "Effective Date") pursuant to Water System and Sewer System Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and

WHEREAS In accordance with the by-laws of the GLWA, further defined by its budget amendment policy, the Board shall amend the budget as needed based upon a quarterly report from the chief executive officer; and

WHEREAS The GLWA Board adopted the FY 2020 budget on March 13, 2019 for the twelve-month fiscal year beginning July 1, 2020;

WHREAS Following a review of the budget amendment report for the FY 2020 Second Quarter, the appropriations established with the adoption of the general operating budget for the water system and the sewer systems are amended as shown in the table below;

General Operating				
Appropriation Category	**Water System**		**Sewer System**	
Revenues	**Adopted**	**Amended**	**Adopted**	**Amended**
Suburban Wholesale Customer Charges	$ 309,284,500	No Change	$ 272,323,600	No Change
Retail Service Charges	21,295,500	No Change	185,807,300	No Change
Industrial Waste Control Charges	not applicable	No Change	13,743,600	No Change
Pollutant Surcharges	not applicable	No Change	-	No Change
Investment Earnings	9,084,200	No Change	8,730,800	No Change
Other Revenues	-	No Change	-	No Change
Total Revenues	$ 339,664,200	No Change	$ 480,605,300	No Change
Revenue Requirements				
Operations & Maintenance Expense	$ 131,490,500	No Change	$ 187,057,200	No Change
General Retirement System Legacy Pension	6,048,000	No Change	10,824,000	No Change
Debt Service	137,557,600	No Change	215,738,800	No Change
General Retirement System Accelerated Pension	6,268,300	No Change	11,620,700	No Change
Extraordinary Repair & Replacement Deposit	-	No Change	-	No Change
Water Residential Assistance Program Contribution	1,698,300	No Change	2,403,000	No Change
Lease Payment	22,500,000	No Change	27,500,000	No Change
Operating Reserve Deposit	3,976,000	No Change	-	No Change
DWSD Budget Shortfall Pending	-		-	
Improvement & Extension Fund Transfer	30,125,500	No Change	25,461,600	No Change
Total Revenue Requirements	$ 339,664,200	No Change	$ 480,605,300	No Change

WHREAS Following a review of the budget amendment report for the FY 2020 Second Quarter, the appropriations established with the adoption of the improvement and extension fund budget for the water system and the sewer systems are amended as shown in the table below;

Improvement & Extension Fund				
Appropriation Category	**Water System**		**Sewer System**	
Revenues	**Adopted**	**Amended**	**Adopted**	**Amended**
Transfers In from General Operating	$ 30,125,500	No Change	$ 25,461,600	No Change
Earnings on Investments	-	No Change	-	No Change
Net Use of Reserves	24,999,800	No Change	-	No Change
Total Revenues	$ 55,125,300	No Change	$ 25,461,600	No Change
Expenditures				
Water System Revenue Transfers Out	$ -	No Change	$ -	No Change
Capital Outlay	10,125,300	No Change	20,122,200	No Change
Revenue Financed Capital	45,000,000	No Change	-	No Change
Net Increase in Reserves	-	No Change	5,339,400	No Change
Total Expenditures	$ 55,125,300	No Change	$ 25,461,600	No Change

WHREAS Following a review of the budget amendment report for the FY 2020 Second Quarter, the appropriations established with the adoption of the construction bond fund budget for the water system and the sewer systems are amended as shown in the table below;

Construction Bond Fund				
Appropriation Category	**Water System**		**Sewer System**	
Revenues	**Adopted**	**Amended**	**Adopted**	**Amended**
Transfer from Improvement & Extension Fund	$ 45,000,000	No Change	$ -	No Change
Bond Proceeds	-	No Change	78,960,000	No Change
Grant Revenues (DWRF Loans)	5,531,000	No Change	29,342,000	No Change
Earnings on Investments	1,487,700	No Change	41,100	No Change
Net Use of Reserves	55,416,600	No Change	12,766,900	No Change
Total Revenues	$ 107,435,300	No Change	$ 121,110,000	No Change
Project Expenditures	$ 107,435,300	No Change	$ 121,110,000	No Change
Total Expenditures	$ 107,435,300	No Change	$ 121,110,000	No Change

WHEREAS The GLWA Audit Committee reviewed the budget amendments at its meetings on [date], 2020; and

WHEREAS An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution,

NOW THEREFORE BE IT:

RESOLVED That the GLWA Board approves the FY 2020 Second Quarter Budget Amendments; and be it finally

RESOLVED That the Chief Executive Officer, and the Chief Financial Officer/Treasurer are authorized to take such other action as may be necessary to accomplish the intent of this resolution.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Jon Wheatley, Public Finance Manager

Re: Municipal Advisor Services Contract CS-002 Update

Background: Since March 20, 2015, PFM Financial Advisors, LLC (PFM) has served the Great Lakes Water Authority (GLWA) as its municipal advisor through contract number GLWA CS-002. As a municipal advisor, PFM acts in a fiduciary capacity to assist GLWA with the execution of its water and sewer revenue bond issuances and monitoring of its current debt portfolio. To date, PFM has assisted GLWA with the issuance of 17 new money and refunding bond issues (including state revolving fund bonds), totaling over $2.4 billion. This includes the most recent water refunding and new money transaction on April 30, 2020.

PFM also provides other non-transactional services such as providing feedback on various GLWA agreements and financial policies.

On May 13, 2020, the PFM contract, GLWA CS-002, was extended for one year through March 19, 2021 via Change Order No. 4. Below is a summary of the original contract amount and the change orders. To date GLWA has extended the contract 3 times and has increased the contract amount by $300,000.

<u>**Contract Dates:**</u>

Original Contract Start Date:	March 20, 2015
Initial Contract End Date:	March 19, 2018
Change Order 1 Contract End Date*:	March 19, 2018
Change Order 2 Contract End Date:	March 19, 2019
Change Order 3 Contract End Date:	March 19, 2020
Change Order 4 Contract End Date:	March 19, 2021

**Change Order #1 was a correction of original contract fees, with no time extension*

<u>Contract Estimate</u>

Original Contract Price:	$300,000
Change Order No. 1:	$0
Change Order No. 2:	$100,000
Change Order No. 3:	$100,000
Change Order No. 4:	<u>$100,000</u>
New Contract Total:	$600,000

The current contract for municipal advisor (GLWA CS-002) with PFM will expire on March 19, 2021.

Justification: GLWA's Debt Management Policy states *"GLWA will retain a Registered Municipal Advisor (or advisors) to provide GLWA with a comprehensive analysis of options available to GLWA. The Financial Advisor(s) will advise on the structuring and execution of all debt and debt-related transactions and provide other services as defined by approved contracts."*

GLWA will follow service sector best practices for selecting a municipal advisor in regards to the upcoming solicitation process. Included with this memo is a Government Finance Officers Association (GFOA) "Best Practices" publication titled, *"Selecting and Managing Municipal Advisors."* In the document, the GFOA recommends that issuers select municipal advisors on the basis of merit using a competitive process and that issuers review those relationships periodically. A competitive process using a request for proposals (RFP) or request for qualifications (RFQ) process as applicable allows the issuer to compare the qualifications of proposers and to select the most qualified firm based on the scope of services and evaluation criteria outlined in the solicitation request.

The scope of services for the solicitation process will also be based on service sector standards, in accordance with the role municipal advisors serve in bond transactions. Also included with this memo is a publication by the Municipal Securities Rulemaking Board (MSRB) titled, "*Roles and Responsibilities: The Financing Team in an Initial Municipal Bond Offering"* which outline the services of a municipal advisor as well as the other members of the financing team.

Due to the other solicitations currently being undertaken by the Public Finance Team, the solicitation process for this contract will not begin until September 1, 2020. **Table 1** on the next page outlines the proposed time schedule for the solicitation of the municipal advisor.

Based on this schedule, the new contract will be approved by the GLWA Board of Directors by December 9, 2020 and work will begin by January 1, 2021.

<u>Table 1</u>- *Municipal Advisor Selection Process*

	Week of:
Phase 1 - Solicitation Development	
Draft Front End/Background	9/1/2020
Finalize RFP	9/15/2020
Phase 2 - Advertisement	
Advertise date for RFP	9/15/2020
Questions due	9/29/2020
Pre-proposal conference	10/6/2020
Proposals due	10/20/2020
Phase 3 - Evaluation	
Minimum qualifications verified	10/20/2020
Evaluations due	10/27/2020
Oral interviews	11/3/2020
Additional questions compiled	11/3/2020
Responses from proposers	11/3/2020
Responses distributed to Eval Team	11/3/2020
Evaluation Team final selection	11/10/2020
Phase 4 - Contract Development	
Negotiation	11/10/2020
Preliminary Draft	11/10/2020
Final Draft	11/24/2020
Phase 5 - Board Requirements	
Prepare summary documents	11/10/2020
Audit Committee Review	11/20/2020
Board review/requested approval	12/9/2020
Contract award	
Phase 6 - Project Execution and Management	
Contract execution	12/21/2020
Start work	1/1/2021

Budget Impact: The current contract for municipal advisory services falls within the annual Public Finance budget. The effect on future Public Finance budgets based on the outcome of the proposed competitive procurement process is yet to be determined. It is not expected to be materially different.

Proposed Action: Receive and file.

Government Finance Officers Association

BEST PRACTICE

Selecting and Managing Municipal Advisors

BACKGROUND:

Note: This Best Practice (BP) is one of a group of five relating to the sale of bonds. These five BPs should be read and considered in conjunction with each other because of the interaction of the processes to which they apply. The five BPs are:

Selecting and Managing the Method of Sale of Municipal Bonds
Selecting and Managing Municipal Advisors
Selecting Bond Counsel
Selecting Underwriters for Negotiated Bond Sales
Pricing Bonds in a Negotiated Sale

State and local governments engage municipal advisors to assist in the structuring and issuance of bonds whether through a competitive or a negotiated sale process. While governments may hire municipal advisors for other types of financial transactions, such as investments and swaps, this Best Practice is focused on municipal advisors used primarily in conjunction with a bond sale. A municipal advisor represents the issuer in the sale of bonds, and unlike other professionals involved in a bond sale, has an explicit fiduciary duty to the issuer per the Dodd□Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act).

Additionally, with the implementation of the 2010 Dodd-Frank Act, municipal advisors must register with the Securities and Exchange Commission (SEC) and Municipal Securities Rulemaking Board (MSRB) and meet professional and testing standards. Issuers should be aware that MSRB Rule G-23 prohibits a broker-dealer firm that also provides financial advisory services (in contrast to a non-broker-dealer municipal advisor) from serving as a municipal advisor to the issuer and an underwriter on the same transaction. Finally, it is important for issuers to become familiar with municipal advisor and underwriter responsibilities as discussed in the materials related to the SEC□s Municipal Advisor Rule. Resources to help issuers become familiar with the Rule are included in the references section of this document.

RECOMMENDATION:

The Government Finance Officers Association (GFOA) recommends that issuers hire a municipal advisor prior to the undertaking of a debt financing unless the issuer has sufficient in-house expertise and access to current bond market information. Issuers should assure themselves that the selected municipal advisor has the necessary expertise to assist the issuer in determining the best type of financing for the government, selecting other finance professionals, planning the bond sale and successfully selling and closing the bonds. While a municipal advisor plays a key role on the financing team, it is important to note that the issuer remains in control of the decision making process necessary for the issuance and sale of the bonds or implementing the financing.

The GFOA recommends that issuers select municipal advisors on the basis of merit using a competitive process and that issuers review those relationships periodically. A competitive process using a request for proposals (RFP) or request for qualifications (RFQ) process as applicable allows the issuer to compare the qualifications of proposers and to select the most qualified firm based on the scope of services and evaluation criteria outlined in the RFP. Standards related to the selection and hiring of municipal advisors should also be included in agovernment□s debt management policy. The selection and use of municipal advisors may vary depending on the level of municipal market knowledge, expertise, and experience of the issuer□s staff.

Before starting the RFP process issuers should decide whether the municipal advisor will assist the issuer in determining whether to do a competitive or negotiated sale. Additionally, the issuer should determine if it is seeking one municipal advisor for a specific transaction or a pool of municipal advisors to select from for future transactions. Small governments may be looking to hire a municipal advisor to assist with a single transaction, whereas larger governments may retain a municipal advisor to assist them with a broad scope of work, in addition to possibly creating a pool of advisors to choose from for transactions that the government anticipates doing for a period of time (e.g., 3 years). The RFP then can be carefully written in order to result in the type of relationship desired by the issuer. Additionally, issuers should write the RFP to comply with applicable procurement requirements.

If an issuer is contemplating the possibility of selling bonds through a negotiated sale, the municipal advisor should be retained prior to selecting the underwriter(s). This allows the issuer to have professional services available to advise on the appropriate method of sale, and if a negotiated sale is selected, to prepare the underwriter RFP and assist in the evaluation of the underwriter responses.

No firm should be given an unfair advantage in the RFP process. Procedures should be established for communicating with potential proposers, determining how and over what time period questions will be addressed and determining when contacts with proposers will be restricted.

Due to potential conflicts of interest, the issuer also should enact a policy regarding whether, and under what circumstances, it would permit a firm to serve as an underwriter on one transaction and a municipal advisor on another transaction. Additionally, when an issuer has a municipal advisor and the issuer is considering hiring that advisor to serve as a broker-dealer on a different negotiated bond transaction, the appearance of a conflict may exist.

Furthermore, each government should decide for itself if they choose to use only non-broker-dealer affiliated municipal advisors or municipal advisors affiliated with broker-dealer firms, and incorporate this into their debt management policies.

Request for Proposal Content. The RFP should include at least the following components:

1. The municipal advisor is registered with the SEC and MSRB. Issuers can determine this by visiting the SEC website at https://tts.sec.gov/MATR/index.html and the MSRB□s municipal advisor registration page at http://www.msrb.org/msrb1/pqweb/MARegistrants.asp.
2. A clear and concise description of the scope of work, specifying the length of the contract and indicating whether joint proposals with other firms are acceptable.

3. Clarity on whether the issuer reserves the right to select more than one municipal advisor or to form municipal advisory teams.
4. A requirement that all fee structures be presented in a standard format. Issuers also should ask all proposers to identify which fees are to be proposed on a not-to-exceed basis, describe any conditions attached to their fee proposal, and explicitly state which costs are included in the fee proposal and which costs are to be reimbursed. Any MSRB fees imposed upon municipal advisors should not be passed through to the issuer.
5. A requirement that the proposer provide at least three references from other public-sector clients, preferably from ones that the firm provided similar services to those proposed to be undertaken as the result of the RFP.
6. A description of the objective evaluation and selection criteria and explanation of how proposals will be evaluated.

Requested Proposer Responses. RFPs should request relevant information related to the areas listed below in order to distinguish each firms qualifications and experience, including:

1. Relevant experience of the individuals to be assigned to the issuer, identification of the individual in charge of day-to-day management, and the percentage of time committed for each individual on the account.
2. Relevant experience of the firm with financings of the issuer or comparable issuers and financings of similar size, types and structures, including financings in same state.
3. Discussion of the firms municipal advisory experience necessary to assist issuers with either competitive or negotiated sales.
4. Demonstration of the firms understanding of the issuers financial situation, including ideas on how the issuer should approach financing issues such as bond structures, credit rating strategies and investor marketing strategies.
5. Demonstration of the firms knowledge of local political, economic, legal or other issues that may affect the proposed financing.
6. Discussion of the firms familiarity with GFOAs Best Practices relating to the selling of bonds and the selection of finance professionals.
7. Disclosure of the firms affiliation or relationship with any broker-dealer and whether any personnel of the municipal advisor firm who would provide advice to the issuer were associated with a broker-dealer firm within the two years preceding the RFP.
8. Analytic capability of the firm and assigned individuals and the availability of ongoing training and educational services that could be provided to the issuer.
9. Description of the firms access to sources of current market information to assist in pricing of negotiated sales and information to assist in the issuer in planning and executing competitive sales.
10. Amounts and types of insurance carried, including the deductible amount, to cover errors and omissions, improper judgments, or negligence.
11. Disclosure of any finders fees, fee splitting, payments to consultants, or other contractual arrangements of the firm that could present a real or perceived conflict of interest.
12. Disclosure of any pending investigation of the firm or enforcement or disciplinary actions taken within the past three years by the SEC, FINRA, MSRB, or other regulatory bodies.

Additional Considerations. Issuers should also consider the following in conducting the municipal advisor selection process:

1. Take steps to maximize the number of respondents by posting the RFP on the governments web site, using mailing lists, media advertising, resources of the GFOA and applicable professional directories.

2. Allow adequate time for firms to develop their responses to the RFP. Two weeks should be appropriate for all but the most complicated RFPs.
3. Establish evaluation procedures and a systematic rating process, conduct interviews with proposers, and undertake reference checks. Where practicable, one individual should check all references using a standard set of questions to promote consistency. To remove any appearance of a conflict of interest resulting from political contributions or other activities, elected officials should not be part of the selection team.
4. Document and retain the description of how the selection of the municipal advisor was made and the rankings of each firm.
5. Ensure that federal regulations and any state and local regulations, standards or policies related to the disclosure of gifts, political contributions, or other financial arrangements are met.

Basis of Compensation. Fees paid to municipal advisors should be on an hourly or retainer basis, reflecting the nature of the services to the issuer. Generally, municipal advisory fees should not be paid on a contingent basis to remove the potential incentive for the municipal advisor to provide advice that might unnecessarily lead to the issuance of bonds. GFOA recognizes, however, that this may be difficult given the financial constraints of many issuers. In the case of contingent compensation arrangements, issuers should undertake ongoing due diligence to ensure that the financing plan remains appropriate for the issuer□s needs. Issuers should include a provision in the RFP prohibiting any firm from engaging in activities on behalf of the issuer that produce a direct or indirect financial gain for the municipal advisor, other than the agreed-upon compensation, without the issuer□s informed consent.

Contract for Municipal Advisory Services. Issuers should have a written contract for municipal advisory services that should detail the scope of services and basis of compensation. As part of the RFP package, the issuer may also include a □Form of Contract□ which incorporates elements and provisions conforming to prevailing law and procurement processes and requires RFP respondents to comment on the acceptability of the Form of Contract. The comments on the acceptability of the Form of Contract should be part of the evaluation process. The contract development process should allow for reasonable negotiation over the final terms of the contract. A final negotiated contract should make clear those services that will be included within the basic municipal advisor fee and any services or reimbursable expenses that might be billed separately. Additionally, the contract should be clear that the municipal advisor will only receive compensation for work specifically authorized by the issuer to avoid incurring expenses for work not authorized by the issuer.

References:

- Debt 101: Issuing Bonds and Your Continuing Obligations, 2020.
- GFOA Issue Brief: SEC Municipal Advisor Rule
- SEC Municipal Advisor Rule
- SEC MA Rule Frequently Asked Questions
- Best Practices Optimizing Debt Management, Government Finance Review, February 2013
- GFOA Best Practice: Pricing Bonds in a Negotiated Sale
- GFOA Best Practice: Selecting Bond Counsel
- GFOA Best Practice: Selecting and Managing the Engagement of Underwriters for Negotiated Bond Sales
- GFOA Best Practice: Selecting and Managing the Method of Sale of State and Local Government Bonds
- MSRB Rule G-23

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MSRB

Roles and Responsibilities: The Financing Team in an Initial Municipal Bond Offering

A key part of issuing new debt is to assemble a team that works for the state or local government. Generally, the bond offering process is a coordinated effort among various professionals to finance a state or local government's capital projects. A municipal government can benefit from an understanding of the roles and responsibilities of its deal team.

The bond offering process is a coordinated effort among various professionals to finance a state or local government's capital projects.

Once a state or local government decides to finance a capital project by issuing bonds, it would hire a financing team to finalize the financing plan, develop offering documents, prepare for any rating agency and investor presentations, market the bond offering to investors, price the bonds and close the transaction.

The roles and responsibilities of an issuer's team may vary depending upon the bond offering method of sale — competitive bid, negotiated sale or private placement.

In a negotiated sale, an initial bond offering by an issuer is directly sold to an underwriter or underwriting syndicate selected by the issuer.[1] In addition to the underwriter or underwriting syndicate, the professionals involved in a negotiated municipal bond financing transaction may include municipal advisors, underwriter's counsel, bond counsel, feasibility consultants, credit enhancers, selling group members, auditors, rating agencies, trustees, disclosure counsel and other counsel.

PDF [View a chart of the professionals involved in a negotiated transaction.]

Among the primary points of negotiation for an issuer are the interest rate, call features and purchase price of the issue, as well as covenants or other key terms of the bond documents viewed as important in marketing the new issue.

A competitive bid is a transaction in which potential underwriters submit proposals for the purchase of a new issue of municipal securities and the securities are awarded to the underwriter or underwriting syndicate presenting the best bid according to stipulated criteria set forth in the notice of sale. The underwriting of securities in this manner may also be referred to as a "public sale" or "competitive sale." The professionals that may be involved in competitive transactions include underwriters, municipal advisors, underwriter's counsel, bond counsel, feasibility consultants, credit enhancers, auditors, rating agencies and trustees.

PDF [View a chart of the professionals involved in a competitive transaction.]

The following provides general descriptions of the role, activities and responsibilities of members of a bond financing team in an initial bond offering. Other activities conducted by these professionals will depend on the particular type of transaction, the presence of additional financing team members and any restricted role they perform as the issuer may determine.

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The state or local government selects and manages the financing team.

The State or Local Government

- Defines the financing requirements
- Determines the method of sale
- Sets and implements debt management policies and procedures of the municipality
- Determines available resources for payment of principal and interest of new debt issue
- Selects and manages the financing team
- Prepares offering documents in consultation with the financing team
- Works with the senior manager to determine how orders are filled or allotted[2] to investors from the bond pricing order period
- Determines participation[3] of the senior manager's and syndicate members' liability in a negotiated bond issuance
- Determines the compensation of financing team
- Negotiates with the underwriter the final purchase price of the bonds
- Executes the bond purchase agreement[4] with the senior manager
- Adopts bond resolution and/or executes any trust indenture, loan agreement or other bond financing documents
- Pays principal and interest on the bonds as they become due
- Complies with tax and other covenants included in the bond financing documents
- Submits continuing disclosures to the MSRB's Electronic Municipal Market Access (EMMA®) system under the issuer's continuing disclosure agreement

Municipal Advisor

- Acts in a fiduciary capacity for the state or local government[5]
- Develops requests for proposals and qualifications for underwriters, bond or disclosure counsel, credit enhancement facilities and investment products
- Assists in developing the plan of finance and related transaction timetable
- Identifies and analyzes financing solutions and alternatives for funding capital improvement plan
- Advises on the method of sale, taking into account market conditions and near-term activity in the municipal market
- Assists in preparation of any rating agency strategies and presentations
- Coordinates internal/external accountants, feasibility consultants and escrow agents
- Assists with the selection of underwriters, underwriter compensation issues, syndicate structure and bond allocations
- Assists with negotiated sales, including advice regarding retail order periods and institutional marketing, analysis of comparable bonds and secondary market data
- Assists with competitive bond sales, including preparation of notice of sale and preliminary official statement, bid verification, true interest cost (TIC) calculations and reconciliations/verifications of bidding platform calculations, preparation of notice of sale, obtaining CUSIP numbers
- Prepares preliminary cash flows/preliminary refunding analysis

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- Analyzes whether to use SLGS,[6] open markets and/or agency securities for purposes of investment of bond proceeds
- Manages the escrow bids or reviewing SLGS applications for structuring advance refunding escrow
- Assists in procuring printers, verification agents, etc.
- Verifies cash flow calculations
- Plans and coordinates bond closings
- Prepares any required post-sale reports of bond sales
- Evaluates market conditions and pricing performance of senior manager and co-managers' distribution of bonds

The underwriter has an "arm's-length" relationship with the municipal government.

Bond Counsel

- Drafts bond resolution, indenture, loan agreement and/or other bond financing documents
- Reviews applicable law to confirm the issuer's authority to issue the bonds and its conformity with other legal requirements
- Affirms issuer's authorization of the bond offering
- Discloses and examines litigation that may jeopardize the validity of the bond issue
- Interprets arbitrage regulations and tax law
- Attests to the validity and enforceability of the bonds
- Provides guidance in structuring issues related to tax law
- Confirms tax-exempt status
- Drafts tax certificate

Underwriter (also known as Senior Manager, Lead Manager or Bookrunner)

- Has an "arm's-length" relationship with the municipal government[7]
- Provides proceeds at closing and obtains funds from investors
- Manages the affairs of any underwriting syndicate formed in connection with a new issue
- In a negotiated offering:
  - Works with state or local government and municipal advisor to design the plan of finance
  - Develops the bond structure
  - Assists in determining timing to sell bonds based on market conditions
  - Assists in the development of the bond documents
  - Assists in preparing any rating agency strategy and presentation
  - "Runs numbers" providing quantitative analysis of financing structure
  - Manages the pricing process
  - Executes pre-sale marketing
  - Solicits price views from syndicate members, which provides preliminary pricing indications among underwriters and customers about the offering range of a new issue
- Prepares distribution analysis
  - Works with the state or local government to determine how orders are filled from the bond pricing order period
  - Executes the bond purchase agreement with the municipal government on behalf of the syndicate

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- Submits bid in a competitive sale following evaluation of pricing of comparable issues, discussions with potential investors, accessing supply of bonds in the market or bonds scheduled to come to market, weighing possible competition from other firms

Underwriting Syndicate (also known as Co-Manager(s))

- Has an "arm's-length" relationship with the state or local government
- Under the direction of the senior manager, purchases an initial bond issue from state or local government and offers it for resale to investors
- Provides sufficient capital to purchase an issue
- Shares the risks of underwriting the issue with the senior manager
- Distributes the bonds to investors

The trustee acts in a fiduciary role for the benefit of bondholders and represents the interests of bondholders in the event of a default.

Underwriter's Counsel

- Drafts bond purchase agreement, blue sky memorandum[8] and agreement among underwriters[9]
- Advises underwriters regarding their legal positions with respect to the issue
- Advises underwriters on state and federal securities laws
- Assists underwriters in undertaking due diligence review and provides legal opinion that, based on such review, official statement does not contain misleading information or omit materials information

Rating Agencies

- Assess the credit quality of the bonds
- Assigns rating to the bond issue
- Updates ratings periodically while debt is outstanding

Trustee (also known as Paying Agent, or Registrar)

- Acts in a fiduciary role for the benefit of bondholders in enforcing the terms of the trust indenture
- Transmits principal and interest payments from an issuer of municipal securities to the bondholders
- Holds and invests moneys held in a construction fund, reserve fund or other funds that serve as security for payment of debt service on the bonds
- Maintains records on behalf of the issuer that identify the registered owners of the bonds and related matters
- Represents the interests of bondholders in the event of a default

Depending upon the type of transaction, other deal participants may be retained as required including:

Other Counsel

Other counsel in the bond issuance process may include disclosure counsel, special tax counsel, bank counsel, and borrower's counsel. Such special counsel may be necessary for specific issues that are more complex or have particular characteristics.

Feasibility Consultant

- Writes the feasibility report prepared for revenue bond sales (such as in airport and water and sewer revenue bond offerings) and included in the official statements.

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The report may evaluate the economic viability, or the adequacy of revenues generated by a capital project or program to repay debt. The report generally describes historic and projected demand for the services, economic trends, user base, user fees and rates that generate revenues pledged to cover debt service.

Credit Enhancers

- Support an issuer's credit in exchange for a fee or a premium, in the form of enhancement such as bond insurance or a letter of credit

Selling Group Members

- Assist in the distribution of a new issue of municipal securities
- Acquire new issue securities from the underwriting syndicate but do not participate in residual syndicate profits nor share any liability for unsold bonds

Verification Agent

- Verifies cash flow sufficiency to the call date of the escrow securities to pay principal and interest on refunded bonds

Escrow Agent

- Serves as custodian of funds and holds securities to pay debt service on refunded bonds

Printer

- Prints, or creates the electronic version of, the preliminary and final official statements for distribution to the marketplace

Auditor

- Compiles and examines the municipal government's financial statements upon which the auditor has expressed or disclaimed an opinion

- Reports, audits or investigates a municipal government's financial position and results of operations for a set period of time

Generally, the audit includes: (a) a statement of the scope of the audit; (b) explanatory comments concerning exceptions from generally accepted accounting principles and auditing standards; (c) expression or disclaimer of opinions; (d) explanatory comments concerning verification procedures; (e) financial statements and schedules; and (f) statistical tables, supplementary comments and recommendations.

[1] Private placements also are sold by negotiation and involve the sale by a placement agent directly to institutional or private investors rather than through an offering to the general investing public. Investors purchasing privately placed securities often must meet certain standards of sophistication and also are often required to agree to restrictions as to resale and are sometimes required to provide a private placement letter to that effect.

[2] Allotments are the number of bonds that are actually sold by an underwriter to an investor.

[3] Participation is the portion of a new municipal bond issue, expressed as a percentage of the number of bonds, for which the senior manager and syndicate members have a legal liability, regardless of whether they sell that many bonds. There are two major types of syndication agreements:

Undivided or Eastern Account — A method for determining liability stated in the agreement among underwriters in which each member of the underwriting syndicate is liable for any unsold portion of the issue according to each member's percentage participation in the syndicate. Syndicates most frequently are structured as undivided accounts.

Divided or Western Account — A method for determining liability stated in the agreement among underwriters in which each member of an underwriting syndicate is liable only for the amount of its participation in the issue, and not for any unsold portion of the participation amounts allocated to the other underwriters.

[4] Bond purchase agreement is the contract between an underwriter and issuer setting forth final terms, prices and any other relevant conditions upon which underwriter purchases a new municipal bond issue.

[5] MSRB Rule G-42 sets forth the core elements of the fiduciary duty standard as consistent with the mandates of the Dodd-Frank Act and the federal fiduciary duty imposed on municipal advisors in their relationship with municipal entity clients under Section 15B(c)(1) of the Securities Exchange Act of 1934.

[6] SLGS are U.S. Treasury securities issued under its State and Local Government Series program for purposes of complying with arbitrage rules under the federal tax code.

[7] MSRB Rule G-17 requires dealers to deal fairly with issuers in connection with the underwriting of municipal securities and to disclose to the issuer that its primary role is to purchases securities with a view to distribution in an arm's-length commercial transaction.

[8] Blue sky memorandum specifies the way a specific issue will be treated under state securities laws, usually including all 50 states and U.S. Territories, as well as the steps that must be undertaken to qualify the issue for sale in those jurisdictions.

[9] Agreement among underwriters is a contract among syndicate group members setting forth their rights, duties and underwriter's commitments to each other with respect to a new issue of securities.

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Jon Wheatley, Public Finance Manager

Re: Resolution to Adopt the City of Detroit Water and Sewerage Department Water Main Replacement – FY 2021 Drinking Water Revolving Fund (DWRF) Project Plan

Background: The Great Lakes Water Authority (GLWA) Board secures capital improvement financing for the of Detroit Water and Sewerage Department (DWSD) in accordance with foundational documents related to the establishment of GLWA.

Analysis: Pending review and recommendation from the Audit Committee, the GLWA Board of Directors will be asked to approve the city of Detroit Water and Sewerage Department Water Main Replacement Project Plan for FY 2021 Drinking Water Revolving Fund (DWRF) Project funding at the May 27, 2020 Board meeting.

Key Takeaways:

- The deadline for submitting all DWRF project plans to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) is July 1, 2020.
- Prior to submitting the project plans, a public hearing must be held for the affected area. This requirement was met when a project plan was presented at the DWSD public hearing on April 15, 2020.
- The estimated cost of this project is $20,800,000.
- Debt service on this project is directly allocable to DWSD and is anticipated to begin in FY 2022.

Proposed Action: The GLWA Audit Committee recommends the approval of the Resolution to Adopt the city of Detroit Water and Sewerage Department Water Main Replacement – FY 2021 Drinking Water Revolving Fund Project Plan, as presented.

Resolution to Adopt the city of Detroit Water and Sewerage Department Water Main – FY 2021 Drinking Water Revolving Fund (DWRF) Program

Agenda of: May 27, 2020
Item No.:

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer
Great Lakes Water Authority

DATE: May 27, 2020

RE: **Resolution to Adopt the city of Detroit Water and Sewerage Department Water Main Replacement – FY 2021 Drinking Water Revolving Fund (DWRF) Project Plan**

MOTION

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA) **Approves the attached Resolution for the city of Detroit Water and Sewerage Department (DWSD) Water Main Replacement – FY 2021 Drinking Water Revolving Fund (DWRF) Project Plan;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

DWSD has identified this water main replacement project in its FY 2021 to 2025 Capital Improvement Plan (CIP) for submittal to the Michigan Department of Environment, Great Lakes and Energy (EGLE) for the DWRF financing program for funding in the state's 2021 fiscal year. The deadline for submitting all DWRF project plans to EGLE is July 1, 2020, but prior to submitting the project plans, a public hearing must be held for the affected area.

This project is comprised of replacing aging water main in the Jefferson Chalmers area within the City of Detroit. Construction will include excavation of existing water mains, installation of new pipes, rehabilitation of pipes, replacement of lead service lines between the water main and the water meter, pressure testing, backfill, and right-of-way. The estimated cost of this project is $20,800,000.

The FY 2021 DWRF Project Plan and public hearing for DWSD Water Main Project has been posted on the DWSD website and can be found at:
https://detroitmi.gov/events/public-hearing-jefferson-water-main-replacement.
This project plan was presented at the DWSD public hearing on April 15, 2020.

JUSTIFICATION

Pursuant to Section 7.2(b) of the Regional Water Supply System Lease between the City of Detroit and GLWA, the Authority shall cooperate fully with the City in the implementation of the Detroit Capital Improvement, including financing through the Authority. Therefore, GLWA will submit the local project plan as it will be the DWRF loan applicant. Per notification, from EGLE, GLWA does not need to hold a separate public hearing on the local project, however, the GLWA Board of Directors will need to act on the included resolution at its regularly scheduled meeting on May 27, 2020. The resolution must be approved and signed to ensure that the finalized Project Plan is assembled, printed, and submitted to the EGLE by the deadline of July 1, 2020.

GLWA concurs with the DWSD Water Main Project adoption, and as the DWRF applicant, is seeking low interest loan assistance from the DWRF Program. Although the EGLE interest rate for FY 2021 has not yet been determined, the current year's interest rate of 2.0% (30-year loan) is less than the present conventional rate. Based on the estimated project amount, DWSD could save an estimated $3.9 million in interest costs and avoided issuance costs, based on recently priced new money bonds sold on April 30, 2020 with a 30-year term and 2.98% interest rate. This will afford saving to DWSD and its customers.

BUDGET IMPACT

GLWA will be the loan applicant on DWRF loans issued on behalf of the DWSD, and DWSD will be the DWRF loan recipient as determined by EGLE. All project costs financed by GLWA, on behalf of DWSD, through the DWRF program bonds and resulting principal and interest payments on the bonds will be directly allocable to the DWSD local system. Debt service is anticipated to begin in FY 2022 for this project and will be included as part of the FY 2022 financial plan.

COMMITTEE REVIEW

This matter was reviewed by the GLWA Audit Committee at its meeting on May 15, 2020. It is anticipated that the Audit Committee will recommend approval of the Resolution to Adopt the city of Detroit Water and Sewerage Department Water Main Replacement – FY 2021 Drinking Water Revolving Fund (DWRF) Project Plan as presented.

SHARED SERVICES IMPACT

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

Great Lakes Water Authority
Resolution
RE: Resolution to Adopt the Detroit Water and Sewerage Department (DWSD) Water Main Replacement Final Project Plan
FY 2021 Drinking Water Revolving Fund (DWRF) Project Plan

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

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

Whereas: The DWSD prepared a Drinking Water Revolving Fund (DWRF) Project Plan, which recommends water main replacement and associated appurtenances, including removal of certain lead service lines, in the Jefferson Chalmers area of the City of Detroit;

Whereas: The Project Plan was presented by DWSD at a virtual Public Hearing held on April 15, 2020, and all public comments were considered and addressed;

Whereas: The DWSD formally adopted said Project Plan and agreed to implement the identified selected alternative of water main and lead service line replacements as described in said document;

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

Now Therefore Be It:

Resolved The GLWA Board hereby accepts and approves the DWSD Water Main Replacement DWRF Project Plan as approved by the DWSD BOWC at its April 15, 2020 meeting; and Be It Further

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

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

Resolved That the Chief Executive Officer (CEO) is authorized to transmit the final FY 2021 DWRF Project Plan for the Water Main Replacement project to the Michigan Department of Environment, Great Lakes and Energy on behalf of the GLWA Board of Directors and take all appropriate steps to secure approval of a low interest loan in accordance with the State of Michigan's DWRF procedures so that the project can proceed expeditiously to construction.

GLWA
Great Lakes Water Authority

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Alicia Haskin, Management Professional – Intergovernmental Relations

Re: DWSD FY 2021 Budget Update

Background: At the May 6, 2020 Detroit Water Sewerage Department (DWSD) Finance Committee a presentation was given by Chief Financial Officer (CFO) Tom Naughton regarding the Financial Impact of COVID-19.

Analysis: The presentation (attached) reflected the following.

- The impact on retail collections since January – 31% decline
- New costs DWSD is incurring in response to the pandemic
- Identification of potential cost savings
- Commitments sought for Grant funding and other cost reimbursements
- The cash deficit to GLWA is expected to be approximately $19 Million by June 30, 2020
- DWSD Water and Sewer Capital Improvement Project (CIP) will both remain intact

Subsequent to the above presentation the DWSD and GLWA financial teams met. Our collective COVID-19 operating scenario continues to evolve. Since there are no leading indicators for this scenario, the approach taken by DWSD to be conservative in the forecasts is a sound approach. The GLWA Board will be asked to approve a reallocation of revenue requirements via a budget amendment in June 2020 to the extent the shortfall continues.

Proposed Action: Receive and file this report

DETROIT
Water & Sewerage
Department

CITY OF
DETROIT

Presentation to The Finance Committee of the BOWC

Financial Impact of Covid-19

May 6, 2020

State of Emergency

- March 9: Water Restart Plan (Governor Whitmer & Mayor Duggan)
- March 10: State of Emergency Declared (Governor Whitmer)
- March 11: Worldwide Pandemic Declared (World Health Organization)
- March 13: National Emergency Declared (President Trump)
- March 23: Nonessential Activities Suspended in Michigan (Governor Whitmer)
- March 28: Michigan Disaster Declared (President Trump)
- March 28: Water Service Restoration Ordered for Occupied Residences (Governor Whitmer)

Within weeks, Detroit and Michigan were facing record unemployment

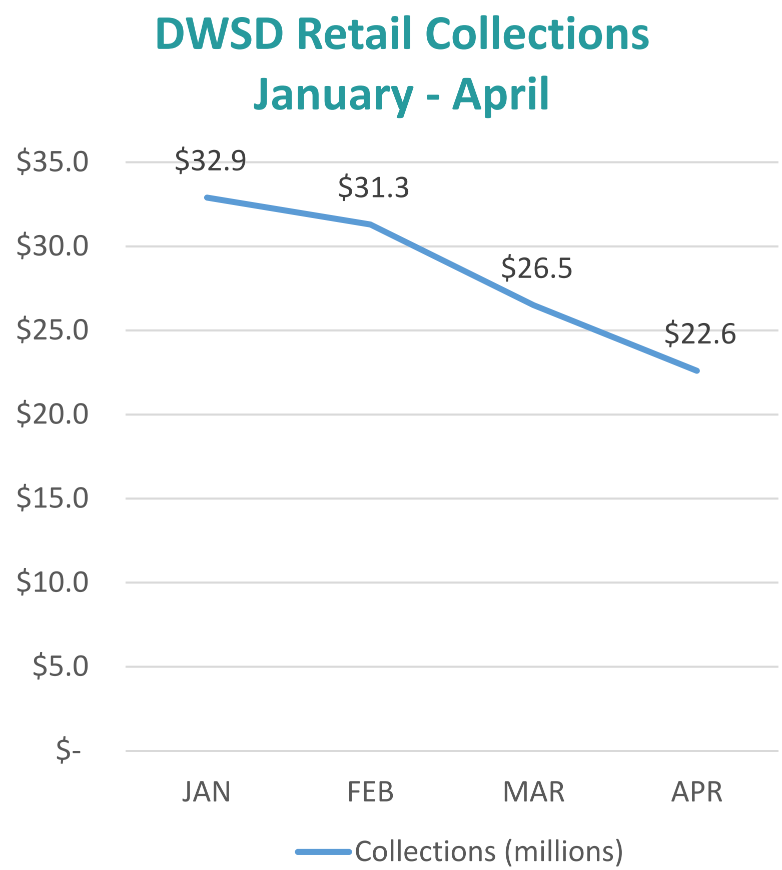
Average Weekly Unemployment Claims in Michigan (3/20 – 4/20)

Last Year	(2019):	5,000
Recent Recession	(2009):	28,000
Covid-19	(2020):	235,000

(Sources, U.S. Dept of Labor @ https://oui.doleta.gov/unemploy/wkclaims/report.asp, and State of Michigan @ https://www.michigan.gov/leo/0,5863,7-336-78421_97241_90031-527111--,00.html)

Within days, DWSD retail collections began to fall

- DWSD Rates and Budgets assume average monthly collections of $31 million to meet all financial obligations
- Actual billed retail revenues for FY 2020 have been trending 1.5% below budget year-to-date
- Early collection shortfalls were offset by credit transfers of O&M budget savings in December and February ($7.1 million)
- April 2020 collections are estimated to drop $10 million from January levels and $9 million below budget requirement ($31.3 million)



DWSD retail cash collections have dropped 31% since January

Customer Class	Retail Collections ($ millions) Jan Actual	Feb Actual	Mar Actual	April Forecast	% Decline
RESIDENTIAL	$ 14.2	$ 15.0	$ 11.8	$ 12.9	9.5%
COMMERCIAL	8.5	8.2	6.9	4.9	42.4%
INDUSTRIAL	4.4	3.6	3.6	2.7	39.3%
TAX EXEMPT	0.5	0.5	0.4	0.3	33.5%
GOVERNMENT	2.4	1.4	1.9	0.3	89.2%
DRAINAGE	2.8	2.7	1.9	1.5	46.0%
Total Collections	**$ 32.9**	**$ 31.3**	**$ 26.5**	**$ 22.6**	**31.4%**

In addition, DWSD began to incur new costs in responding to the pandemic

- Covid-19 Restart Program – Water service restorations
- Personal Protective Equipment
- Emergency plumbing repairs
- Facility cleaning
- Employee symptom scanning
- Remote office technologies
- Communications with public

DWSD controls less than 27% of the budget (Direct Expense = $104.5 million)

NET RETAIL REVENUE		
RETAIL REVENUES		
Commodity sales	$ 394,896,500	101.7%
Industrial Waste	1,700,000	0.4%
Service charges	25,534,700	6.6%
Penalties and fees	2,758,800	0.7%
Miscellaneous revenue	2,700,000	0.7%
Total Retail Revenue	**427,590,000**	**110.1%**
LESS: Bad Debt Expense	(39,212,500)	-10.1%
NET RETAIL REVENUES	**$ 388,377,500**	**100.0%**

NET REVENUE REQUIREMENT		
DIRECT EXPENSE		
Salaries and Wages	$ 35,997,700	9.3%
Employee Benefits	14,706,900	3.8%
Contractual Services	28,452,900	7.3%
Operating Supplies	12,823,000	3.3%
Operating Services	17,535,500	4.5%
Less: Shared Service Revenue	(5,050,000)	-1.3%
Total Direct Expense	**104,466,000**	**26.9%**
INDIRECT EXPENSE		
DWSD Wholesale Charges	209,579,300	54.0%
DWSD Debt Service	59,710,300	15.4%
Net Legacy Costs	14,621,900	3.8%
Total Indirect Expense	**283,911,500**	**73.1%**
NET REVENUE REQUIREMENT	**$ 388,377,500**	**100.0%**

DWSD's average monthly budget for **Direct Expenses** is only **$ 8.7 million**

Management began to identify potential opportunities for cost savings…

- Workforce Savings Plan will reduce personnel costs by $900,000 per month (including payroll tax savings)
  - 212 Employees furloughed
  - 124 Employees on Work Share
  - Highly compensated essential employees take 5% pay cut
- Certain O&M contractual services were suspended
- Supplies and other operating expenses were reduced
- Nonessential I&E Contracts have been deferred
- GLWA delayed FY 2021 rate increases to October 1, 2020
- Considering permanent closures of Customer Service Centers
- **NOTE: Bond-funded construction projects can continue as planned**

And sought commitments for Grant funding and other cost reimbursement

- Wayne Metro has committed $3 million CARES Act assistance by June 30
- Michigan Department of Environment, Great Lakes, and Energy (EGLE) – Grant for water Turn-ons ($500,000)
- The Kresge Foundation – Matching Grant for Water Turn-Ons ($125,000)
- CARES Act allocation for the City of Detroit ($TBD)
- Federal Emergency Management Administration ($TBD)

Federal Emergency Management Agency

FEMA Reimbursement

- Certain costs may be eligible under the *Federal Disaster Reimbursement Program*
- Reimburses up to 75% of specific direct expenses related to a disaster
- Reimbursable Expense Guidance is unclear due to the rarity of a medical emergency. The program typically reimburses for Natural Disasters such as tornados or floods
- Audit of Documentation is stringent is possibly 3-5 years later

The resulting Cash Flow Savings Plan will save $3-4 million per month

COVID-19 CASH FLOW SAVINGS PLAN				
Line	**Cash Flow Savings Plan**	**APRIL**	**MAY**	**JUNE**
	Federal and State Assistance:			
1	CARES Act Funding	$ 1,000,000	$ 1,000,000	$ 1,000,000
2	FEMA Reimbursement	TBD	TBD	TBD
	Work Force Savings:			
3	Furlough	-	689,700	689,700
4	Work Share	-	145,200	145,200
5	O&M Contractual Service Savings	1,297,600	1,212,500	503,100
6	O&M Supplies and Other Operating Savings	1,186,000	1,064,900	817,800
7	Service Center Closures	TBD	TBD	TBD
	Total Monthly Savings	**$ 3,483,600**	**$ 4,112,300**	**$ 3,155,800**

DWSD is participating in the City's Work Force Savings Plan

Work Force Savings Plan				
	Furlough (90% Savings)		Work Share (20% Savings)	
	FTEs	Base Payroll	FTEs	Base Payroll
Administration	-	$ -	3	$ 214,641
Compliance	2	103,696	15	902,765
Technology	-	-	13	951,303
Customer Service	19	850,815	8	420,894
Operations	183	7,767,317	52	3,814,568
Finance	8	474,815	33	2,406,451
Totals	**212**	**$ 9,196,643**	**124**	**$ 8,710,622**
Savings per Month		**$ 689,700**		**$ 145,200**

Affected employees will continue to participate in benefit plans.

O&M nonessential contract spending will be reduced through the end of the year

O&M Contractual Services	Average Monthly Budget	YTD Average Monthly Spending	April Forecast	May Forecast	June Forecast
Administration	$ 142,800	$ 79,400	$ 46,100	$ 66,100	$ 66,100
Compliance	300,900	92,500	90,000	90,000	268,100
Technology	119,600	100,400	95,600	95,600	259,300
Customer Service	48,400	-	-	-	-
Operations	1,165,700	632,400	650,600	565,700	856,300
Finance	572,500	242,400	170,000	320,000	397,000
Totals	**$ 2,349,900**	**$ 1,147,100**	**$ 1,052,300**	**$ 1,137,400**	**$ 1,846,800**
Monthly Budget Savings		**$ 1,202,800**	**$ 1,297,600**	**$ 1,212,500**	**$ 503,100**

Spending for supplies and other operating expenses will also be reduced

O&M Supplies and Other	Average Monthly Budget	YTD Average Monthly Spending	April Forecast	May Forecast	June Forecast
Operating Supplies	$ 94,100	$ 189,000	$ 64,000	$ 77,200	$ 90,400
Other Operating	1,954,700	1,122,200	862,700	982,200	1,211,100
Training, Tuition and Travel	77,300	21,900	1,000	1,800	6,800
Claims and Settlements	-	13,300	12,400	-	-
Capital Expense	-	400	-	-	-
Totals	**$ 2,126,100**	**$ 1,346,800**	**$ 940,100**	**$ 1,061,200**	**$ 1,308,300**
Monthly Budget Savings		**$ 779,300**	**$ 1,186,000**	**$ 1,064,900**	**$ 817,800**

The Cash @ GLWA deficit is expected to approximate $19 million by June 30

	ACTUALS				FORECAST		
	Six Months Ended Dec-19	Month Ended Jan-20	Month Ended Feb-20	Month Ended Mar-20	Month Ended Apr-20	Month Ended May-20	Month Ended Jun-20
	(Amounts in 1,000's)						
Deposits							
Retail Receipts	$ 186,507	$ 32,589	$ 30,965	$ 26,262	$ 22,575	$ 22,575	$ 22,575
Wayne Metro CARES Allocation	-	-	-	-	**1,000**	**1,000**	**1,000**
Trust Interest	35	4	4	5	5	5	5
DWSD Lease Deposit (Debt Service)	4,290	715	715	715	715	715	715
Transfer Budget Savings (incl. Covid-19)	2,600	-	4,500	-	**2,484**	**3,112**	**2,156**
Total Deposits	**193,432**	**33,308**	**36,184**	**26,982**	**25,779**	**26,407**	**25,451**
Transfers from Trust							
GLWA Wholesale	(103,551)	(17,259)	(17,259)	(17,259)	(17,259)	(17,259)	(17,259)
DWSD IWC	(712)	(116)	(124)	(124)	(124)	(124)	(124)
DWSD O&M	(51,003)	(7,667)	(7,667)	(7,667)	(7,667)	(7,667)	(7,667)
DWSD Debt Service	(34,380)	(5,730)	(5,730)	(5,730)	(5,730)	(5,730)	(5,730)
DWSD Pension O & M	(3,564)	(594)	(594)	(594)	(594)	(594)	(594)
DWSD Non-Operating Pension	(3,747)	(625)	(625)	(625)	(625)	(625)	(625)
DWSD WRAP	(383)	(64)	(64)	(64)	(64)	(64)	(64)
Total Transfers	**(197,342)**	**(32,054)**	**(32,062)**	**(32,062)**	**(32,062)**	**(32,062)**	**(32,062)**
Increase (Decrease) in Trust	**(3,910)**	**1,254**	**4,122**	**(5,080)**	**(6,283)**	**(5,655)**	**(6,611)**
Balance at Beginning of Period	2,796	(1,113)	140	4,262	(817)	(7,101)	(12,755)
Balance at End of Period	**$ (1,113)**	**$ 140**	**$ 4,262**	**$ (817)**	**$ (7,101)**	**$ (12,755)**	**$ (19,367)**

Improvement & Extension cash balances may be used to mitigate the deficit

IMPROVEMENT & EXTENSIONS CASH FLOWS			
	April Forecast	May Forecast	June Forecast
GLWA Lease Deposits	$ 3,451,700	$ 3,451,700	$ 3,451,700
GLWA Note Repayment	(1,570,200)	(1,570,200)	(1,570,200)
Forecast Project Spending:			
O&M-Water	(5,000)	(5,000)	(5,000)
O&M-Sewer	-	-	-
I&E-Water	(934,300)	(1,738,000)	(1,790,100)
I&E-Sewer	(1,047,800)	(1,422,400)	(1,276,100)
Total I&E Spending	(3,557,300)	(4,735,600)	(4,641,400)
Net Increase (Decrease) in I&E Cash	**$ (105,600)**	**$ (1,283,900)**	**$ (1,189,700)**

The Water CIP remains intact

Capital Improvement Plan - Water Improvements and Extensions (I&E)
Detroit Water and Sewerage Department
DRAFT 03/11/2020

	Fiscal Year Ending June 30,					
	Estimated	Forecast				
	2020	2021	2022	2023	2024	2025
GLWA Lease Receipts	$ 22,500,000	$ 22,500,000	$ 22,500,000	$ 22,500,000	$ 22,500,000	$ 22,500,000
Less: Post-Bifurcation Debt Service						
Existing Bond and DWRF Debt Service	(3,421,800)	(3,929,900)	(4,147,900)	(4,140,900)	(4,141,200)	(4,148,400)
Future Revenue Bond Debt Service	(754,400)	(4,526,300)	(6,347,200)	(6,347,200)	(6,347,200)	(6,347,200)
Future DWRF Bond Debt Service	-	(403,700)	(2,731,200)	(2,731,200)	(2,731,200)	(2,731,200)
Net Lease Deposits to I&E Fund	18,323,800	13,640,100	9,273,700	9,280,700	9,280,400	9,273,200
Planned Revenue Bond Proceeds	100,000,000	-	-	-	-	-
Planned DWRF Loan Proceeds	-	57,500,000	-	-	-	-
Water Revenue Financed Capital	446,600	149,600	608,100	1,487,700	8,844,400	9,241,900
Net Deposits to I&E and Construction Funds	**118,770,400**	**71,289,700**	**9,881,800**	**10,768,400**	**18,124,800**	**18,515,100**
Bond and DWRF Construction Projects						
Construction Program Management	7,002,000	6,461,200	4,544,900	1,750,000	1,000,000	750,000
Water Mains	33,111,000	46,599,200	28,249,000	21,000,000	13,000,000	15,000,000
Other I&E Projects						
Repair and Maintenance Projects	12,069,000	10,443,000	11,000,000	11,800,000	11,800,000	7,720,000
Meters and Fire Hydrant Replacement	2,000,000	8,530,000	8,701,000	1,000,000	1,000,000	1,000,000
Fleet and Equipment Acquisition	257,000	3,568,600	2,000,000	2,000,000	2,000,000	2,000,000
Facility Improvement Allowance	1,704,000	6,236,000	2,000,000	1,000,000	1,000,000	1,000,000
Information Technology Projects	1,251,500	4,244,000	1,787,500	1,617,500	750,000	750,000
Total Planned Construction and I&E Spending	57,394,500	86,082,000	58,282,400	40,167,500	30,550,000	28,220,000
Net Change in Available Cash	61,375,900	(14,792,300)	(48,400,600)	(29,399,100)	(12,425,200)	(9,704,900)
Available Cash, Beginning of Year	67,500,000	128,875,900	114,083,600	65,683,000	36,283,900	23,858,700
Available Cash, End of Year	**$ 128,875,900**	**$ 114,083,600**	**$ 65,683,000**	**$ 36,283,900**	**$ 23,858,700**	**$ 14,153,800**

As does the Sewer CIP

Detroit Water & Sewerage Department — City of Detroit

Capital Improvement Plan - Sewer Improvements and Extensions (I&E)

Detroit Water and Sewerage Department

DRAFT 03/11/2020

	Fiscal Year Ending June 30,					
	Estimated	**Forecast**				
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
GLWA Lease Receipts	$ 27,500,000	$ 27,500,000	$ 27,500,000	$ 27,500,000	$ 27,500,000	$ 27,500,000
Less: Post-Bifurcation Debt Service						
Existing Bond and SRF Debt Service	(4,988,000)	(5,357,700)	(5,353,900)	(5,346,300)	(5,351,400)	(5,341,000)
Future Revenue Bond Debt Service	-	-	-	-	-	-
Future DWRF Bond Debt Service	-	(80,000)	(457,200)	(890,000)	(1,188,900)	(1,188,900)
GLWA Note Repayment	(18,841,700)	(18,841,700)	(8,441,500)	-	-	-
Net Lease Deposits to I&E Fund	3,670,300	3,220,600	13,247,400	21,263,700	20,959,700	20,970,100
Revenue Bond Proceeds	-	-	-	-	-	-
SRF Loan Proceeds	-	8,000,000	10,000,000	8,628,000	-	-
Sewer Revenue Financed Capital	-	2,290,900	10,934,100	7,422,400	8,146,200	10,193,300
Net Deposits to I&E and Construction Funds	**3,670,300**	**13,511,500**	**34,181,500**	**37,314,100**	**29,105,900**	**31,163,400**
Bond and DWRF Construction Projects						
Construction Program Management	8,997,000	4,140,000	2,795,000	2,000,000	2,000,000	2,000,000
Sewer Line Replacement	24,294,000	26,503,000	24,256,000	18,450,000	11,950,000	12,000,000
Other I&E Projects						
Repair and Maintenance Projects	1,539,000	2,741,000	1,200,000	1,200,000	1,000,000	1,000,000
Green Infrastructure	4,195,000	12,480,000	11,568,000	10,483,000	8,785,000	9,995,000
Fleet and Equipment Acquisition	257,000	3,569,000	2,000,000	2,000,000	2,000,000	2,000,000
Facility Improvement Allowance	3,408,000	6,236,000	2,000,000	2,000,000	2,000,000	2,000,000
Information Technology Projects	2,503,000	4,244,000	1,787,500	1,617,500	1,500,000	1,500,000
Total Planned Construction and I&E Spending	45,193,000	59,913,000	45,606,500	37,750,500	29,235,000	30,495,000
Net Change in Available Cash	(41,522,700)	(46,401,500)	(11,425,000)	(436,400)	(129,100)	668,400
Available Cash, Beginning of Year	122,200,000	80,677,300	34,275,800	22,850,800	22,414,400	22,285,300
Available Cash, End of Year	**$ 80,677,300**	**$ 34,275,800**	**$ 22,850,800**	**$ 22,414,400**	**$ 22,285,300**	**$ 22,953,700**

Thank You

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Monthly Financial Report Binder

February 2020

Presented to the
Great Lakes Water Authority
Audit Committee on May 15, 2020

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Financial Report
Executive Summary Dashboard
for the Month Ended February 29, 2020

Key Financial Metrics

The table below presents a summary of key metrics found in this monthly financial report.

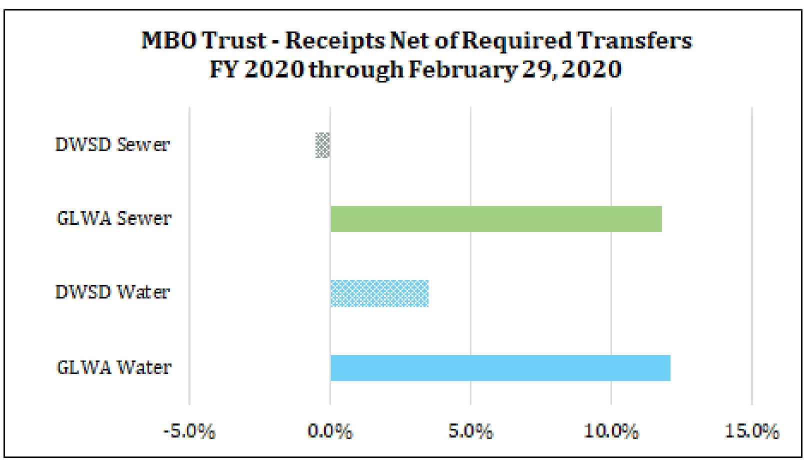
The indicators below focus on a financial risk management lens of preventing a budget shortfall. Green indicates no risk of a budget shortfall; yellow indicates a potential shortfall by year-end; and red indicates a likely budget shortfall by year-end. That being said, each of these variances is monitored by GLWA management and, where appropriate, operating and/or budget priorities are re-evaluated.

As of February 29, 2020				
Metric	FY 2020 Budget	FY 2020 Actual	Variance from Financial Plan	Report Page Reference
Wholesale Water Billed Revenue ($M)	$214.0	$209.5	-2%	40
Wholesale Water Billed Usage (mcf)	9,595,000	9,097,000	-5%	
Wholesale Sewer Billed Revenue ($M)	$178.6	$178.6	0%	42
Wholesale Water Operations & Maintenance ($M)	$87.7	$85.5	-3%	4
Wholesale Sewer Operations & Maintenance ($M)	$124.7	$111.5	-11%	
Investment Income ($M)	$11.6	$13.6	17%	31
Water Prorated Capital Spend w/SRA* ($M)	$72.0	$41.0	-43%	25
Sewer Prorated Capital Spend w/SRA* ($M)	$80.0	$44.0	-45%	

*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

Net cash flow (receipts) is positive for GLWA Water and Sewer. This means that all legal commitments of the MBO Trust and the lease payment are fully funded to date – and that positive cash flow is available for additional capital program funding in subsequent year(s). DWSD Water and Sewer also report positive cash flows for February. DWSD Sewer reported positive net receipts of $4.5 million for February 2020 decreasing the cumulative FY 2020 DWSD Sewer shortfall to $900 thousand. Looking ahead, this shortfall is remedied by a $1 million reduction in the March 1 operations and maintenance transfer.



Prospective COVID-19 financial impacts are being monitored closely and are addressed in the monthly CFO Report section of the May 15, 2020 Audit Committee binder.

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

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 February 2020, the pro-rata benchmark is 66.7% (8 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 2020 revenues are either at or above target and are consistent with the prior year (FY 2019) at the same time. Detailed schedules related to revenues are provided in the *Wholesale Billings, Collections, and Receivables* section of this financial report binder.
2. ***Investment Earnings:*** For *both* systems, investment earnings are below target for FY 2020. July 2019 includes the reversal of the market adjustment from FY 2019 of $1.6 million for the *water* system and $0.6 million for the *sewer* system. Without these adjustments both systems would be above target for FY 2020. Detailed analysis of investment earnings activity to date can be found in the *Cash & Investment Income* section of this financial report binder.
3. ***Other Revenues:*** These are one-time and unusual items that do not fit an established revenue category. Both the *water* and *sewer* systems actual amount will vary from budget due to the nature of the items recorded in this category.

4. ***Operations & Maintenance Expense:*** Actual expenses[1] for *both* systems have variances from the pro-rata benchmark. The *water* system is slightly under the pro-rata benchmark for FY 2020 at 65.0%. The *sewer* system O&M expenses, at 59.6%, is less than the pro-rata benchmark.
5. ***Debt Service:*** *Both* systems are less than the pro-rata benchmark for FY 2020; the water system is at 64.2%; while the *sewer* system is at 65.3%. The activity is based on the payment schedules adjusted for the State Revolving Fund loans that are still being drawn down. In addition, the monies invested in FY 2019 realized a higher return than projected. This gain was applied to the debt requirements which reduced the payments for July and August.
6. ***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 2019, DWSD *sewer* had a shortfall through February 28, 2019, of $9.3 million (FY 2019 ended with a small surplus). In order to achieve the goal of positive, net cash flows for FY 2019, DWSD reduced its *sewer* system O&M transfers in May and June. The transfers reduced were $5,676,792 each for a total of $11,353,584. For FY 2020, the DWSD *water* system has budgetary surplus of $2.4 million and the DWSD *sewer* system has a budgetary shortfall of $0.9 million through February 29, 2020. Looking ahead, this shortfall is remedied by a $1 million reduction in the March 1 operations and maintenance transfer.
7. ***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. Transfers to the I&E Fund from net revenues are now completed monthly.
8. ***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.
9. ***Overall:*** Total revenue requirements for *both* systems are in line with the benchmark.

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

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

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

Water System	FY2019 AMENDED BUDGET	FY 2019 THRU 2/28/2019	Percent Year-to-Date	FY 2020 BOARD ADOPTED BUDGET	FY 2020 AMENDED BUDGET	FY 2020 THRU 2/29/2020	Percent Year-to-Date
Revenues							
Suburban Wholesale Customer Charges	$ 307,383	$ 211,038	68.7%	$ 309,285	$ 309,285	$ 205,151	66.3%
Retail Service Charges	20,181	13,551	67.1%	21,296	21,296	14,197	66.7%
Investment Earnings	9,425	6,326	67.1%	9,084	9,084	4,711	51.9%
Other Revenues	-	25	0.0%	-	-	2	0.0%
Total Revenues	$ 336,989	$ 230,940	68.5%	$ 339,664	$ 339,664	$ 224,061	66.0%
Revenue Requirements							
Operations & Maintenance Expense	$ 121,563	$ 78,250	64.4%	$ 131,491	$ 131,491	$ 85,451	65.0%
General Retirement System Legacy Pension	6,048	4,032	66.7%	6,048	6,048	4,032	66.7%
Debt Service	131,242	87,106	66.4%	137,558	137,558	88,319	64.2%
General Retirement System Accelerated Pension	6,268	4,179	66.7%	6,268	6,268	4,179	66.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	1,673	1,116	66.7%	1,698	1,698	1,132	66.7%
Lease Payment	22,500	15,000	66.7%	22,500	22,500	15,000	66.7%
Operating Reserve Deposit	-	-	0.0%	3,976	3,976	2,651	66.7%
Improvement & Extension Fund Transfer Pending	47,695	31,797	66.7%	30,126	30,126	20,083	66.7%
Total Revenue Requirements	$ 336,989	$ 221,479	65.7%	$ 339,664	$ 339,664	$ 220,847	65.0%
Net Difference		$ 9,461				$ 3,214	
Recap of Net Positive Variance							
Revenue Variance		$ 6,281				$ (2,382)	
Revenue Requirement Variance		3,180				5,596	
Overall Variance		$ 9,461				$ 3,214	

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

Sewer System	FY 2019 AMENDED BUDGET	FY 2019 THRU 2/28/2019	Percent Year-to-Date	FY 2020 BOARD ADOPTED BUDGET	FY 2020 AMENDED BUDGET	FY 2020 THRU 2/29/2020	Percent Year-to-Date
Revenues							
Suburban Wholesale Customer Charges	$ 271,296	$ 183,302	67.6%	$ 272,324	$ 272,324	$ 179,098	65.8%
Retail Service Charges	181,159	122,005	67.3%	185,807	185,807	123,872	66.7%
Industrial Waste Control Charges	15,001	6,106	40.7%	13,744	13,744	5,536	40.3%
Pollutant Surcharges	-	3,756	0.0%	-	-	4,006	0.0%
Investment Earnings	6,879	6,555	95.3%	8,731	8,731	5,596	64.1%
Other Revenues	-	334	0.0%	-	-	300	0.0%
Total Revenues	$ 474,335	$ 322,059	67.9%	$ 480,605	$ 480,605	$ 318,407	66.3%
Revenue Requirements							
Operations & Maintenance Expense	$ 191,079	$ 114,497	59.9%	$ 187,057	$ 187,057	$ 111,480	59.6%
General Retirement System Legacy Pension	10,824	7,216	66.7%	10,824	10,824	7,216	66.7%
Debt Service	208,389	137,595	66.0%	215,739	215,739	140,812	65.3%
General Retirement System Accelerated Pension	11,621	7,747	66.7%	11,621	11,621	7,747	66.7%
Extraordinary Repair & Replacement Deposit	-	-	0.0%	-	-	-	0.0%
Water Residential Assistance Program Contribution	2,374	1,583	66.7%	2,403	2,403	1,602	66.7%
Lease Payment	27,500	18,333	66.7%	27,500	27,500	18,333	66.7%
Operating Reserve Deposit	-	-	0.0%	-	-	-	0.0%
DWSD Budget Shortfall Pending	-	9,252	0.0%	-	-	909	0.0%
Improvement & Extension Fund Transfer Pending	22,548	15,032	66.7%	25,462	25,462	16,974	66.7%
Total Revenue Requirements	$ 474,335	$ 311,254	65.6%	$ 480,605	$ 480,605	$ 305,074	63.5%
Net Difference		$ 10,804				$ 13,333	
Recap of Net Positive Variance							
Revenue Variance		$ 5,835				$ (1,996)	
Revenue Requirement Variance		4,969				15,330	
Overall Variance		$ 10,804				$ 13,333	

Operations & Maintenance Budget – Major Budget Categories

The year-over-year benchmark ratio as of February 29, 2020, is 66.7% (eight months). When comparing FY 2020 to FY 2019 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 2019 AMENDED BUDGET	FY 2019 ACTIVITY THRU 2/28/2019	Percent Year-to-Date	FY 2020 BOARD ADOPTED BUDGET	FY 2020 AMENDED BUDGET	FY 2020 ACTIVITY THRU 2/29/2020	Percent Year-to-Date
Water	$ 66,596	$ 48,777	73.2%	$ 66,021	$ 66,021	$ 46,749	70.8%
Sewer	118,319	73,812	62.4%	115,985	115,985	69,810	60.2%
Centralized	99,045	55,706	56.2%	106,914	106,914	62,114	58.1%
Administrative	28,683	16,678	58.1%	29,628	29,628	18,461	62.3%
Employee Benefits	-	(2,226)	0.0%	-	-	(203)	0.0%
Total O&M Budget	$ 312,642	$ 192,747	61.7%	$ 318,548	$ 318,548	$ 196,931	61.8%

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 61.8% which is reasonably within the pro-rata benchmark of 66.7%. This positive variance equates to a dollar amount of $15.4 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 66.0% through February 2020.

Utilities: The overall category is higher than the benchmark; coming in at 68.2% through February 2020. This variance is not unexpected as usage varies throughout the year.

- **Electric** is higher than the benchmark, coming in at 71.2%. This increase is primarily due to the pumps being required to run longer than normal as a result of the wet weather that Michigan has been experiencing. In addition, 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 53.7% which is lower than the benchmark of 66.7%. A review of the accounts has confirmed that the usage is variable throughout the year. It is anticipated that actuals will come in at the anticipated budgeted amount for FY 2020.
- **Water service** is lower than the benchmark, coming in at 59.8%. 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. Processing efficiencies using the new chemical building has reduced the use of potable water during wet weather events.

Chemicals: This category is on target with the pro-rata benchmark; coming in at 68.0% through February 2020.

Supplies & Other: This category is lower than the benchmark; coming in at 59.6% through February 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.

Contractual Services: The overall category is lower than the benchmark; coming in at 63.2% through February 2020. Variances in this category 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 57.7% through February 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. A new element this year is the addition of contracted AECOM Capital Program Management services. The variance is due to two primary reasons. First, through February 29, 2020, GLWA team member hours posted to projects is 8% less than the prior year. This is due to increased focus on large maintenance projects versus capital projects. Second, no AECOM fees have been incurred that have been identified for capitalization.

Shared Services: This category is higher than the benchmark; coming in at 70.0% through February 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 more accurately reflect the forecasted activity for FY 2020. A budget amendment was entered in December 2019 to adjust the shared services budget to this revised FY 2020 forecast.

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

Expense Categories Entity-wide	FY 2019 AMENDED BUDGET	FY 2019 ACTIVITY THRU 2/28/2019	Percent Year-to-Date at 2/28/2019	FY 2019 ACTIVITY THRU 6/30/2019	Percent Year-to-Date at 6/30/2019	FY 2020 AMENDED BUDGET	FY 2020 PRORATED AMENDED BUDGET (8 MONTHS)	FY 2020 ACTIVITY THRU 2/29/2020	Percent Year-to-Date	PRORATED BUDGET LESS FY 2020 ACTIVITY
Salaries & Wages	$ 63,631	$ 39,581	62.2%	$ 59,922	66.1%	$ 68,233	$ 45,488	$ 42,707	62.6%	$ 2,781
Workforce Development	751	494	65.9%	794	62.3%	1,001	667	668	66.7%	()
Overtime	7,612	5,056	66.4%	7,554	66.9%	6,153	4,102	5,086	82.7%	(984)
Employee Benefits	23,656	16,507	69.8%	21,998	75.0%	22,957	15,305	16,221	70.7%	(916)
Transition Services	8,572	5,509	64.3%	8,322	66.2%	6,048	4,032	4,414	73.0%	(382)
Employee Benefits Fund	-	(2,226)	0.0%	-	0.0%	-	-	(203)	0.0%	203
Personnel Costs	*104,221*	*64,922*	*62.3%*	*98,589*	65.9%	*104,392*	*69,595*	*68,892*	*66.0%*	*703*
Electric	39,019	27,618	70.8%	39,103	70.6%	38,386	25,590	27,325	71.2%	(1,735)
Gas	6,631	4,734	71.4%	6,568	72.1%	6,451	4,300	3,462	53.7%	839
Sewage Service	2,491	1,463	58.7%	2,094	69.9%	1,847	1,231	1,367	74.0%	(136)
Water Service	3,648	2,597	71.2%	3,631	71.5%	3,658	2,439	2,187	59.8%	251
Utilities	*51,789*	*36,411*	*70.3%*	*51,396*	70.8%	*50,341*	*33,560*	*34,341*	*68.2%*	*(781)*
Chemicals	13,385	8,657	64.7%	13,276	65.2%	13,899	9,266	9,446	68.0%	(181)
Supplies & Other	36,226	19,225	53.1%	37,121	51.8%	37,263	24,842	22,222	59.6%	2,620
Contractual Services	100,856	71,662	71.1%	101,873	70.3%	107,012	71,342	67,620	63.2%	3,722
Capital Program Allocation	(3,356)	(2,105)	62.7%	(3,381)	62.3%	(3,515)	(2,344)	(2,029)	57.7%	(315)
Shared Services	(9,005)	(6,025)	66.9%	(7,139)	84.4%	(5,089)	(3,393)	(3,562)	70.0%	169
Unallocated Reserve	18,524	-	0.0%	-	0.0%	14,246	9,497	-	0.0%	9,497
Total Expenses	$ 312,642	$ 192,747	61.7%	$ 291,734	66.1%	$ 318,548	$ 212,365	$ 196,931	61.8%	$ 15,434

The Basic Financial Statements report includes the following four tables.

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

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

The Comparative June 2019 basic financial statements 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 February 29, 2020
($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2019
Assets				
Cash - unrestricted (a)	$ 106,931	$ 138,088	$ 245,019	$ 309,016
Cash - restricted (a)	57,482	70,911	128,394	261,999
Investments - unrestricted (a)	280,479	155,868	436,348	274,246
Investments - restricted (a)	102,781	169,842	272,623	185,831
Accounts Receivable	80,204	77,872	158,076	208,914
Due from (to) Other Funds (b)	1,753	(1,753)	-	2,890
Other Assets (c)	598,412	449,642	1,048,054	1,046,518
Cash Held FBO DWSD Advance (d)	-	287	287	
Capital Assets, net of Depreciation	1,338,209	2,273,376	3,611,585	3,747,784
Land	292,799	123,846	416,645	417,657
Construction Work in Process (e)	184,568	218,531	403,099	368,748
Total assets	3,043,619	3,676,511	6,720,130	6,823,603
Deferred Outflows (f)	91,107	173,031	264,139	273,596
Liabilities				
Liabilities - Short-Term (g)	124,719	160,718	285,436	321,270
Due to (from) Other Funds (b)	-	-	-	2,890
Other Liabilities (h)	2,754	6,356	9,110	9,097
Cash Held FBO DWSD (d)	4,560	-	4,560	2,807
Liabilities - Long-Term (i)	3,032,732	3,743,937	6,776,669	6,853,419
Total liabilities	3,164,765	3,911,010	7,075,775	7,189,483
Deferred Inflows (f)	57,701	52,039	109,740	108,541
Total net position (j)	$ (87,739)	$ (113,507)	$ (201,246)	$ (200,825)

Totals may be off due to rounding

In general, the Statement of Net Position - Draft reflects a mature organization with no unexpected trends. Cash balances as of February 29, 2020 are lower when compared to June 30, 2019 (highlighted in gold on Table 1). This is because of the high liquidity needs at June 30, 2019 to meet annual debt and interest payments, legacy pension obligation payments, and annual operational requirements whereas more funds are being invested as of February 29, 2020.

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, 2019 are reported at market value. The February 29, 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 (to) Other Funds* and *Due to (from) Other Funds* is shown at the gross level 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 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 are only adjusted on an interim basis 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 as a result 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 February 2020 Financial Report Binder. Prior year ending balances are provided in the June 30, 2019 column as a reference for comparative purposes. Explanatory notes follow this statement.

Table 2 – Statement of Revenues, Expenses and Changes in Net Position – All Funds Combined
For the Eight Months ended February 29, 2020
($000)

	Water	Percent of Revenue	Sewage Disposal	Percent of Revenue	Total Business-type Activities	Comparative June 30, 2019
Revenue						
Wholesale customer charges	$ 209,586	93.7%	$ 179,098	57.3%	$ 388,684	$ 584,172
Local system charges	14,197	6.3%	123,872	39.6%	138,069	201,341
Industrial waste charges	-	0.0%	5,536	1.8%	5,536	9,106
Pollutant surcharges	-	0.0%	4,006	1.3%	4,006	5,933
Other revenues	2	0.0%	300	0.1%	303	528
Total Revenues	**$ 223,785**	**100%**	**$ 312,812**	**100%**	**$ 536,597**	**$ 801,079**
Operating expenses						
Operations and Maintenance	85,590	38.2%	112,664	36.0%	198,254	293,863
Depreciation	87,839	39.3%	104,409	33.4%	192,248	309,115
Total operating expenses	**173,428**	**77.5%**	**217,073**	**69.4%**	**390,501**	**602,978**
Operating income	50,357	22.5%	95,739	30.6%	146,096	198,101
Total Nonoperating (revenue) exper	61,215	27.4%	85,303	27.3%	146,518	220,170
Increase/(Decrease) in Net Position	**(10,858)**	**-4.9%**	**10,436**	**3.3%**	**(422)**	**(22,070)**
Net position (deficit), beginning of year	(76,882)		(123,943)		(200,825)	(178,755)
Net position (deficit), end of year	$ (87,739)		$ (113,507)		$ (201,246)	$ (200,825)

Totals may be off due to rounding

Water Fund

- ✓ The decrease in Water Fund Net Position is $10.9 million.
- ✓ Wholesale water customer charges of $209.6 million account for 93.7% of Water System revenues.
- ✓ Operating expenses of $173.4 million represent 77.5% of total operating revenue. Depreciation is the largest operating expense at $87.8 million or 50.6% of operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals $50.4 million or 22.5% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $59.4 million (this equates to the bonded debt interest expense less the offset from DWSD contractual obligation income).

Sewage Disposal Fund

- ✓ The increase in the Sewage Disposal Fund Net Position is $10.4 million.
- ✓ Wholesale customer charges of $179.1 million account for 57.3% of Sewer System revenues. Wholesale customer charges are billed one-twelfth each month based on an agreed-upon historical average "share" of each customer's historical flows which are formally revisited on a periodic basis. The result is no revenue shortfall or overestimation.
- ✓ Local system (DWSD) charges of $123.9 million account for 39.6% of total operating revenues. These are also billed at one-twelfth of the annual revenue requirement.
- ✓ Operating expenses of $217.1 million represent 69.4% of total operating revenue. Depreciation is the largest operating expense at $104.4 million or 48.1% of total operating expense.
- ✓ Operating income after operating expenses (including depreciation) equals $95.7 million or 30.6% of operating revenue.
- ✓ The largest category within nonoperating activities is bonded debt interest expense of $78.7 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 February 2020 Financial Report Binder. Explanatory notes follow this schedule.

Table 3 – Supplemental Schedule of Operations & Maintenance Expenses – All Funds Combined
For the Eight Months ended February 29, 2020
($000)

	Water	Percent of Total	Sewage Disposal	Percent of Total	Total Business-type Activities	Percent of Total
Operating expenses						
Personnel						
Salaries & Wages	15,879	18.6%	31,909	28.3%	47,788	24.1%
Overtime	2,969	3.5%	2,117	1.9%	5,086	2.6%
Benefits	10,126	11.8%	5,891	5.2%	16,017	8.1%
Total Personnel	$ 28,974	33.9%	$ 39,917	35.4%	$ 68,892	34.7%
Utilities						
Electric	17,499	20.4%	9,826	8.7%	27,325	13.8%
Gas	712	0.8%	2,750	2.4%	3,462	1.7%
Sewage	306	0.4%	1,061	0.9%	1,367	0.7%
Water	1	0.0%	2,186	1.9%	2,187	1.1%
Total Utilities	$ 18,518	21.6%	$ 15,823	14.0%	$ 34,341	17.3%
Chemicals	3,592	4.2%	5,854	5.2%	9,446	4.8%
Supplies and other	7,981	9.3%	14,241	12.6%	22,222	11.2%
Contractual services	31,156	36.4%	37,786	33.5%	68,942	34.8%
Capital Adjustment	-	0.0%	-	0.0%	-	0.0%
Capital program allocation	(1,291)	-1.5%	(738)	-0.7%	(2,029)	-1.0%
Shared services allocation	(3,341)	-3.9%	(221)	-0.2%	(3,562)	-1.8%
Operations and Maintenance Expenses	**$ 85,590**	**100.0%**	**$ 112,664**	**100.0%**	**$ 198,254**	**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%).
- ✓ Personnel costs (34.7% of total O&M expenses) include all salaries, wages, and benefits for employees as well as staff augmentation contracts that fill a vacant position (contractual transition services).
- ✓ Contractual services (34.8%) includes:
  - o Water System costs of sludge removal and disposal services at the Northeast, Southwest and Springwells Water Treatment Plants (approximately $5.7 million);
  - o Sewage Disposal System costs for the operation and maintenace of the biosolids dryer facility (approximately $10.3 million); and
  - o Centralized and adminisitrative contractual costs allocated to both systems for information technology, building maintenace, field, planning and other services.

Supplemental Schedule of Nonoperating Expenses – All Funds Combined

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

Table 4 – Supplemental Schedule of Nonoperating Expenses – All Funds Combined For the Eight Months ended February 29, 2020 ($000)

	Water	Sewage Disposal	Total Business-type Activities	Comparative June 30, 2019
Nonoperating (Revenue)/Expense				
Interest income contractual obligation	$ (14,903)	$ (12,128)	$ (27,031)	$ (40,673)
Interest income DWSD Shortfall	-	(939)	(939)	(1,104)
Investment earnings	(5,726)	(5,585)	(11,311)	(26,518)
Other nonoperating revenue	(11)	(10)	(21)	(420)
Interest expense				-
Bonded debt	74,338	90,811	165,149	250,966
Lease obligation	11,666	14,258	25,924	39,264
Other obligations	3,232	1,049	4,280	6,368
Total interest expense	89,235	106,118	195,353	296,597
Other non-capital expense	-	-	-	-
Memoram of Understanding	-	-	-	6,527
Capital Contribution	-	(5,960)	(5,960)	-
Amortization, issuance costs, debt	(10,767)	1,235	(9,531)	(3,995)
Amortization, raw water rights	2,378	-	2,378	3,567
(Gain) loss on disposal of capital assets	(1)	1,179	1,178	(81)
Loss on impairment of capital assets	-	-	-	1,025
Water Residential Assistance Program	1,010	1,392	2,402	2,024
Legacy pension expense	-	-	-	(16,778)
Total Nonoperating (Revenue)/Expense	**$ 61,215**	**$ 85,303**	**$ 146,518**	**$ 220,170**

Totals may be off due to rounding.

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

- ✓ Investment earnings in this report are reflected at book value. Any differences between the Basic Financial report and Cash and Investment section of this Financial Report binder are due to accrued interest and reversal of the market adjustment from FY 2019. FY 2019 market value adjustments for Water and Sewer totaled of $1.6 million and $600 thousand, respectively.
- ✓ Interest expense, the largest category of nonoperating expenses, is made up of three components:
  - Bonded debt;
  - Lease obligation for the regional assets from the City of Detroit; and
  - Other obligations such as an obligation payable to the City of Detroit for an allocation BC Notes related to assumed DWSD liabilities; acquisition of raw water rights related to the KWA Pipeline.

FY 2019 Items of note:

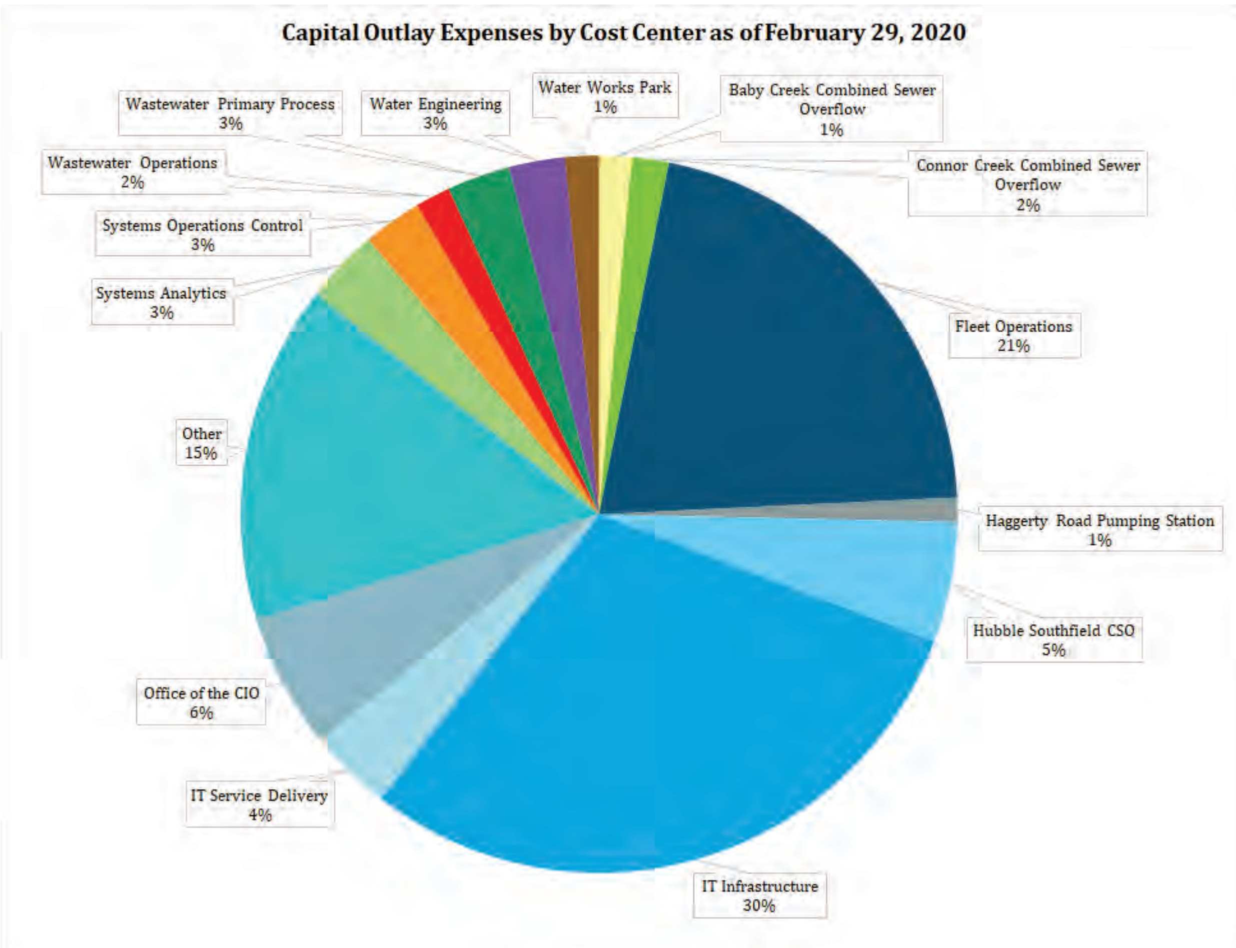
- ✓ Legacy Pension expense is reflected as income due to changes in actuarial assumptions and rates from the June 30, 2018 City of Detroit General Retirement System Component II audited financial statement.
- ✓ Sewer Other Non-operating expense includes the 2018 MOU Item 8a from June 27, 2018 for a final sewer lookback adjustment for DWSD of $6.5 million.

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 February 29, 2020, total capital outlay spend is $10.0 million. Following this chart is a sample list of projects and purchases from the total spend of $10.0 million:



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

Water Operations: Water Works Park South Garage renovation ($171k); actuators ($108k); power monitor ($90k); submersible pressure sensor ($83k); various Water location building improvements ($80k); skid steer loader ($44k); floc mixers ($36k);

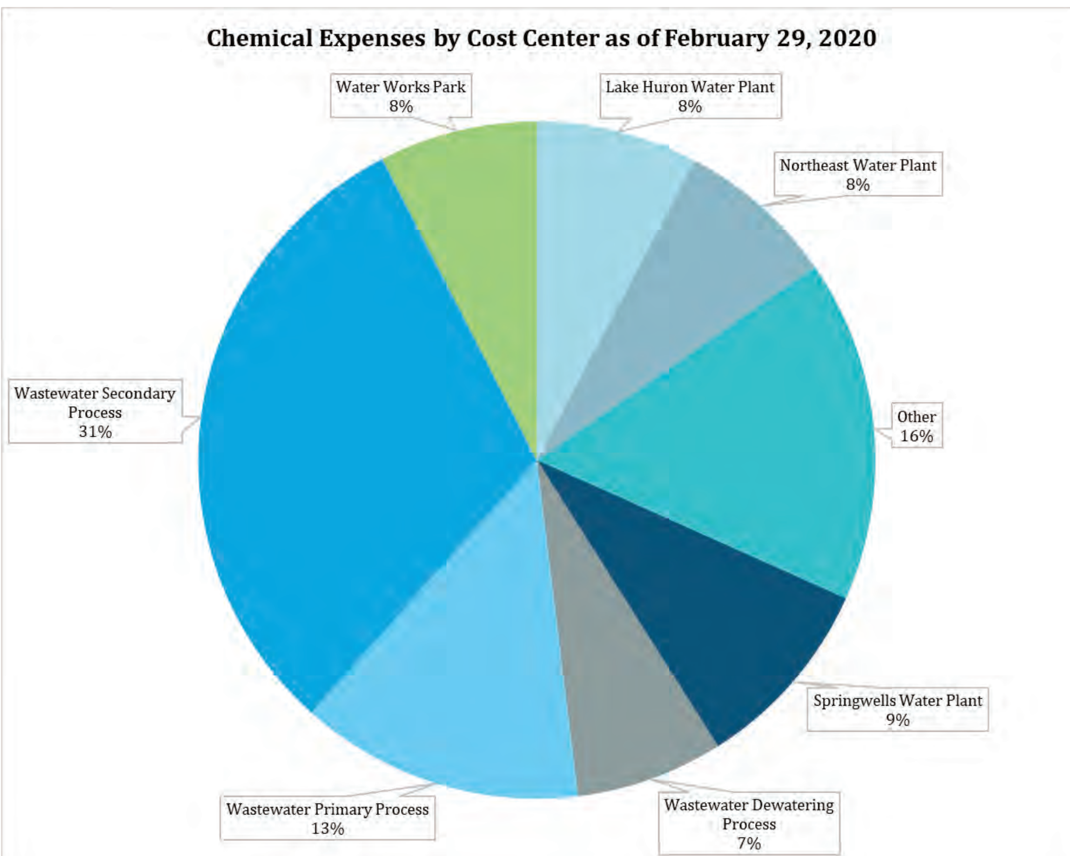
'other' category expenses include: turbid meters ($53k) for Southwest Water Treatment Plant; HVAC controls upgrade ($52k) for the Imlay Pumping Station and condensate main replacement ($45k) for Northeast Water Plant.

Wastewater Operations: Accusonic flow meters ($540k); pumps at various CSO's ($262k); boilers ($131k); Transformer C structure at Water Resource Recovery Facility ($99k); chemical feed pump ($96k); Flygt pump ($78k); water heater for Scum building ($76k); Rotork Actuators ($49k); pumps at WRRF ($48k); skid steer loader ($44k); belt cooker ($44k) and loaders at WRRF ($44k).

Centralized & Administrative Facilities: Low voltage wiring services ($2.2m); trucks and vehicles ($2.1m); IT & 17th floor renovation and furniture ($593k); IT software ($419k); IT computers ($293k); Sewer meter support ($211k); transmitters ($118k); IT premium hardware support ($74k); 2nd Floor furniture at CSF ($49k); multimeter ($49k); 'other' category expenses include: bathroom renovation ($83k) for the Logistics and Materials team.

Chart 2 – Chemical Spend – Water and Sewer System Combined

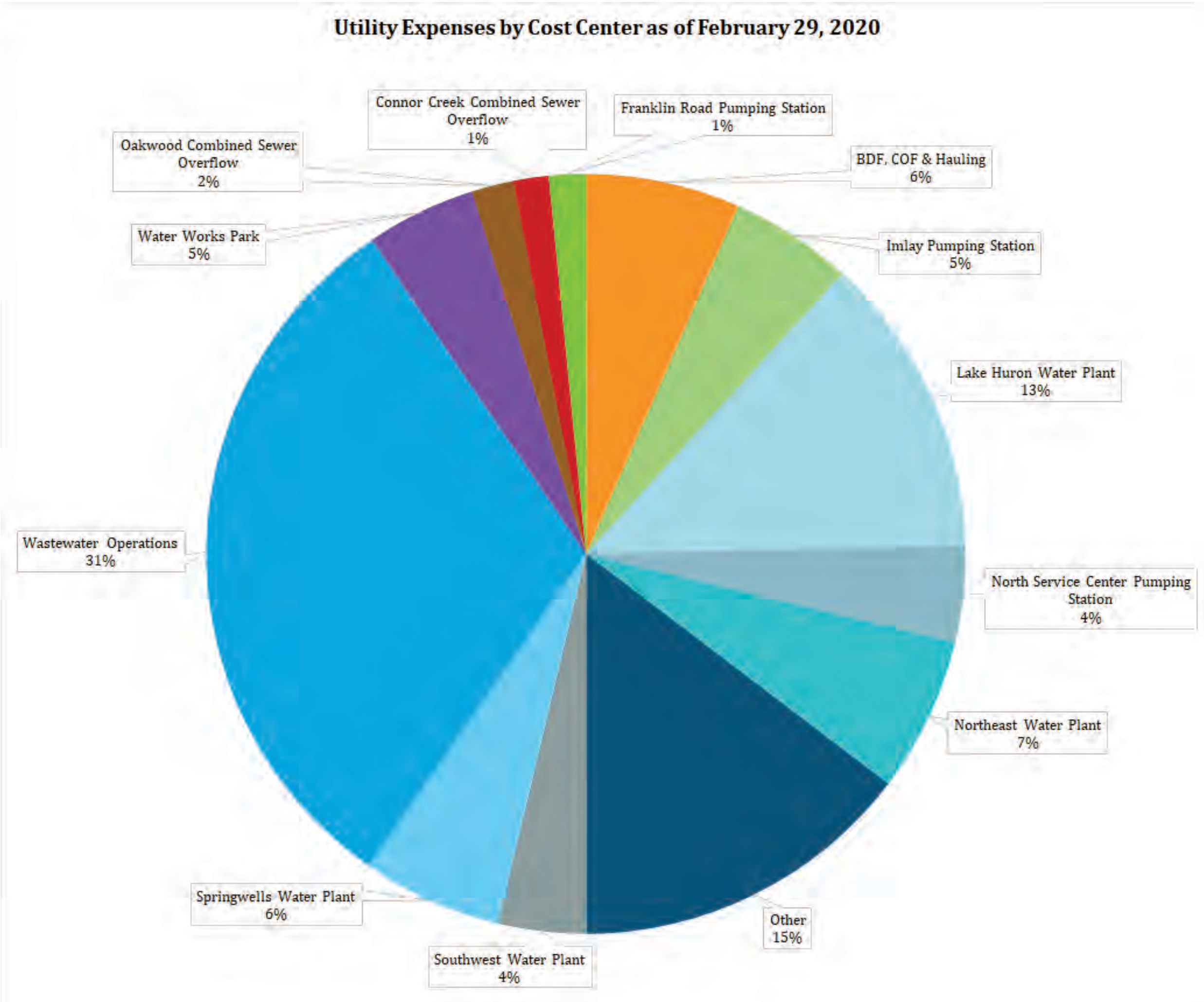
Chemical spend is $9.5 million through February 29, 2020. The allocation is shown in the chart below and remains consistent with prior periods.



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 Spend – Water and Sewer System Combined

Utility spend is $34.3 million through February 29, 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.

There were no changes in accounts from January 2020.

Chart 1 – Bank Reconciliation Completion Status

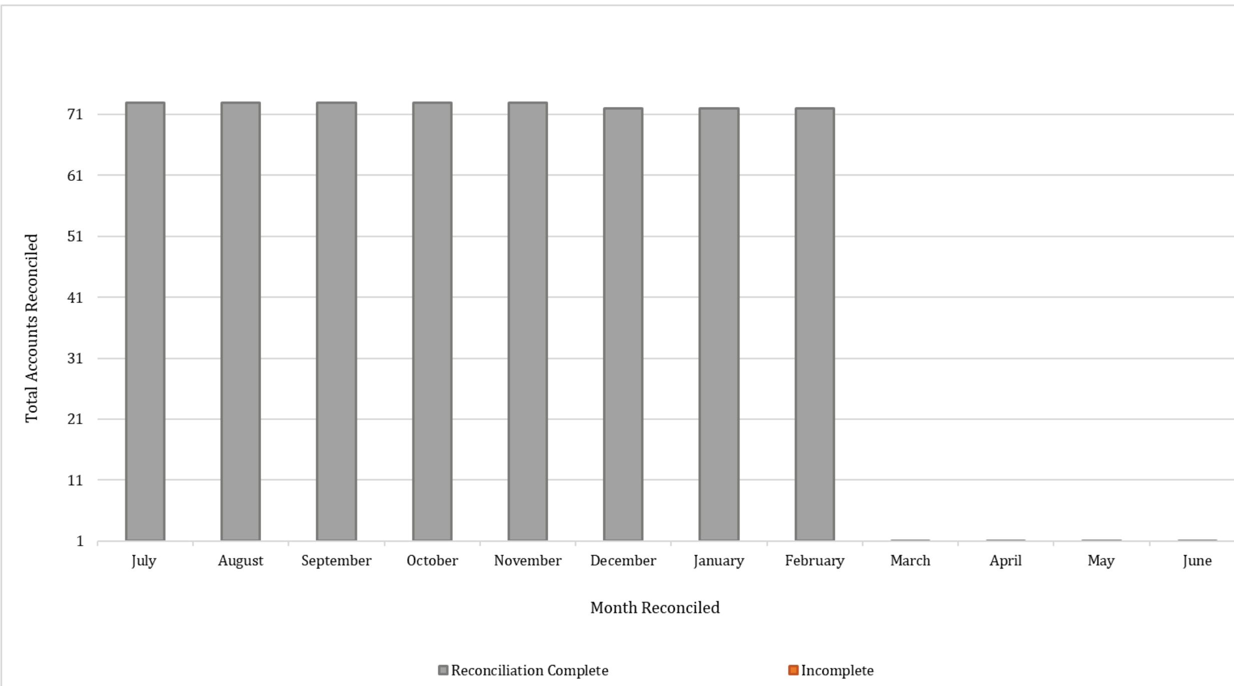


Table 1 – Fiscal Year 2020 GL Cash Account Rollforward

Total GL Cash accounts as of July 1, 2019	71
New GL Cash accounts	2
Inactivated GL Cash accounts	(1)
Total GL Cash accounts as of February 29, 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 Eight Months Ended February 29, 2020

	Water	Sewer	Total
Net Revenue Requirement Budget Variance (a)	$ 3,214	$ 13,333	$ 16,547
Budgetary categories adjustments to financial reporting basis			
Pension delayed accounting election adjustments			
Current year pension transfers/payments recorded as deferral (c)	7,627	13,650	21,277
Prior year pension contribution accounted for in current year (d)	-	-	-
Administrative prepaid adjustment (e)	-	-	-
Debt service (f)	28,884	62,129	91,013
Accelerated pension B&C notes obligation portion (g)	118	264	382
Lease payment (h)	3,334	4,075	7,409
WRAP (i)	122	210	332
DWSD short term allocation (j)	-	909	909
Operating Reserve Deposit (j)	2,651	-	2,651
Improvement & Extension Fund (j)	19,945	15,790	35,735
Nonbudgeted financial reporting categories adjustments			
Depreciation (k)	(87,839)	(104,409)	(192,248)
Amortization (k)	8,389	(1,235)	7,154
Other nonoperating income (k)	12	11	23
Other nonoperating expense (k)	-	-	-
Gain(loss) on disposal of capital assets (k)	1	(1,179)	(1,178)
Raw water rights (l)	1,669	-	1,669
Investment earnings construction fund (m)	1,015	928	1,943
Capital contribution (n)	-	5,960	5,960
Net Position Increase/(Decrease) per Financial Statements (b)	$ (10,858)	$ 10,436	$ (422)

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 2020, the Sewer Improvement and Extension Fund adjustments also reflect $1.2 million in Sewer Improvement and Extension Fund expenses relating to repairs paid for through the Sewer Improvement and Extension Fund. The Water Improvement and Extension Fund also reflects $138 thousand in Water Improvement and Extension expenses relating to repairs paid for through the Water 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.

(n) The capital contribution is a one-time payment made to GLWA by the Oakland Macomb Interceptor Drainage District (OMIDD) as part of a contract amendment to the OMIDD Wastewater Disposal Services Contract.

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

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

Construction Work in Progress

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

This report presents quarterly and monthly CWIP spending against the prorated CIP in total and the CIP adjusted for the SRA. The prorated CIP is calculated by dividing the total fiscal year 2020 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.

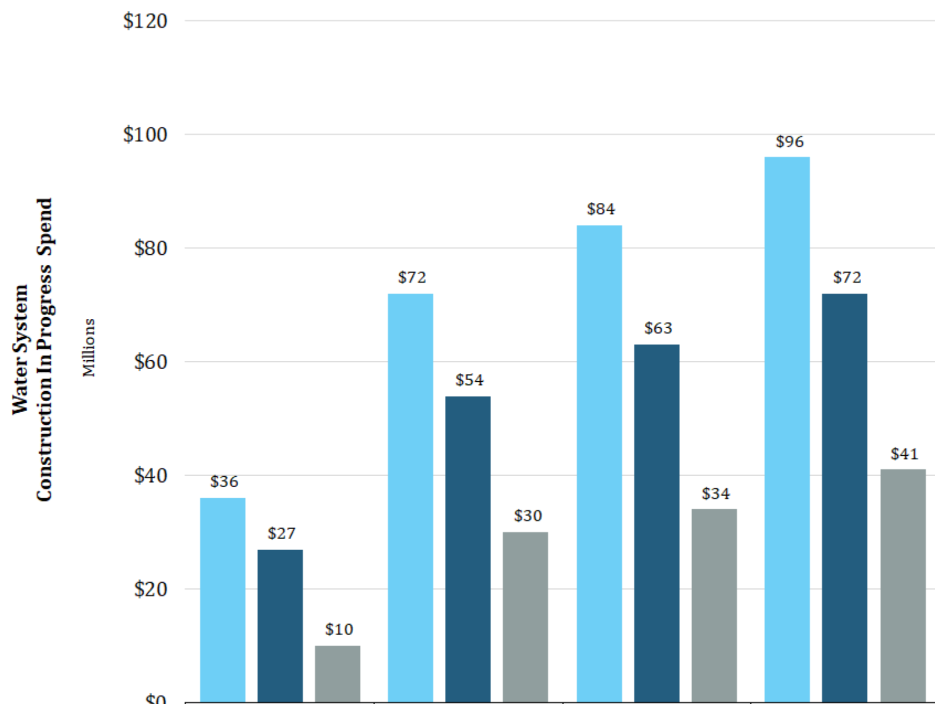
Chart 1 – Water System Construction in Work in Progress Spend

As of February 2020, the Water system incurred over $41 million of construction costs to date. This is 43% of the fiscal year 2020 prorated total CIP through February and 57% of the financial plan which is labeled as the FY 2020 CIP w/SRA in the chart below. It is anticipated that the gap will be reduced by the end of the fiscal year.

Chart 2 – Sewer System Construction in Work in Progress Spend

As of February 2020, the Sewer system incurred over $44 million of construction costs to date. This is 41% of the fiscal year 2020 prorated total CIP through February and 55% of the financial plan which is labeled as the FY 2020 CIP w/SRA in the chart below. It is anticipated that the gap will be reduced by the end of the fiscal year.

Chart 1 – Water System Construction Work in Progress Spend



All Data Prorated	YTD Thru FY 2020 Q1	YTD Thru FY 2020 Q2	YTD Thru 1/31/20	YTD Thru 2/29/20
FY 2020 CIP	$36,000,000	$72,000,000	$84,000,000	$96,000,000
FY 2020 CIP w/ SRA	$27,000,000	$54,000,000	$63,000,000	$72,000,000
Actual CIP Spend	$10,000,000	$30,000,000	$34,000,000	$41,000,000

Chart 2 – Sewer System Construction Work in Progress Spend

All Data Prorated	YTD Thru FY 2020 Q1	YTD Thru FY 2020 Q2	YTD Thru 1/31/20	YTD Thru 2/29/20
FY 2020 CIP	$39,000,000	$81,000,000	$94,000,000	$107,000,000
FY 2020 CIP w/ SRA	$29,000,000	$61,000,000	$71,000,000	$80,000,000
Actual CIP Spend	$14,000,000	$30,000,000	$34,000,000	$44,000,000

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 2020 Water MBO Transfers reflects the required transfers for FY 2020 completed through February 3, 2020. MBO transfers for water totaling $100.1 million have been transferred to GLWA accounts.

Table 2 – GLWA FY 2020 Sewer MBO Transfers reflects the required transfers for FY 2020 completed through February 3, 2020. MBO transfers for sewer totaling $143.6 million have been transferred to GLWA accounts.

Table 3 – GLWA MBO Transfer History reflects historical transfers for FY 2016 through FY 2020 to date.

Table 1 – GLWA FY 2020 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 2020							
July 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
August 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
September 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
October 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
November 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
December 2019	10,957,542	504,000	891,308	165,067	-	-	12,517,917
January 2020	10,957,542	504,000	891,308	165,067	-	-	12,517,917
February 2020	10,957,542	504,000	891,308	165,067	-	-	12,517,917
Total FY 2020	$87,660,336	$4,032,000	$7,130,464	$1,320,536	$0	$0	$100,143,336

Table 2 – GLWA FY 2020 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 2020							
July 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
August 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
September 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
October 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
November 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
December 2019	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
January 2020	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
February 2020	15,588,100	902,000	1,223,959	240,608	-	-	17,954,667
Total FY 2020	$124,704,800	$7,216,000	$9,791,672	$1,924,864	$0	$0	$143,637,336

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 (8 months)	87,660,336	4,032,000	7,130,464	1,320,536	-	-	100,143,336
Life to Date	$513,717,144	$28,202,300	$49,116,256	$9,601,436	$2,686,900	$606,000	$603,930,036

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 (8 months)	124,704,800	7,216,000	9,791,672	1,924,864	-	-	143,637,336
Life to Date	$783,587,992	$50,540,800	$67,219,264	$12,734,460	$8,246,100	$779,600	$923,108,216

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 2020 Water MBO Transfers reflects the required transfers for FY 2020 completed through February 3, 2020. MBO transfers for Water totaling $38.6 million have been transferred to accounts held by DWSD. For FY 2020, DWSD has requested that $3,548,000 of the lease payment be utilized to offset a portion of debt service of which one-twelfth is applied monthly.

Table 5 – DWSD FY 2020 Sewer MBO Transfers reflects the required transfers for FY 2020 completed through February 3, 2020. MBO transfers for Sewer totaling $60.1 million have been transferred to accounts held by DWSD. For FY 2020, DWSD has requested that $5,032,700 of the lease payment be utilized to offset a portion of debt service of which one-twelfth is applied monthly. DWSD has also requested that for December 2019 – June 2020, $1 million be withheld each month from the Operations & Maintenance transfer to address FY 2020 projected shortfall in retail revenue collections. Lastly, Operations & Maintenance transfers of $2.6 million in December 2019 and $4.5 million in February 2020 have been returned from DWSD to address the FY 2020 projected shortfall. This return of funds adjusts the total MBO transfers through February 3, 2020 to $53.0 million.

Table 6 – DWSD MBO and Lease Payment Transfer History reflects historical transfers for FY 2016 through FY 2020 to date.

Table 4 – DWSD FY 2020 Water MBO Transfers

WATER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Water
FY 2020				
July 2019	2,888,533	356,000	1,579,333	4,823,866
August 2019	2,888,533	356,000	1,579,333	4,823,866
September 2019	2,888,533	356,000	1,579,333	4,823,866
October 2019	2,888,533	356,000	1,579,333	4,823,866
November 2019	2,888,533	356,000	1,579,333	4,823,866
December 2019	2,888,533	356,000	1,579,333	4,823,866
January 2020	2,888,533	356,000	1,579,333	4,823,866
February 2020	2,888,533	356,000	1,579,333	4,823,866
Total FY 2020	$23,108,264	$2,848,000	$12,634,664	$38,590,928

Table 5 – DWSD FY 2020 Sewer MBO Transfers

SEWER				
	Operations & Maintenance	Pension	Lease Payment (I&E Fund)	Total Sewer
FY 2020				
July 2019	5,778,625	238,000	1,872,275	7,888,900
August 2019	5,778,625	238,000	1,872,275	7,888,900
September 2019	5,778,625	238,000	1,872,275	7,888,900
October 2019	5,778,625	238,000	1,872,275	7,888,900
November 2019	5,778,625	238,000	1,872,275	7,888,900
December 2019	4,778,625	238,000	1,872,275	6,888,900
January 2020	4,778,625	238,000	1,872,275	6,888,900
February 2020	4,778,625	238,000	1,872,275	6,888,900
March 2020				-
April 2020				-
May 2020				-
June 2020				-
Total MBO Transfers	43,229,000	1,904,000	14,978,200	60,111,200
Adjustment to MBO Transfers				
December 2019	(2,600,000)	-	-	(2,600,000)
February 2020	(4,500,000)	-	-	(4,500,000)
Total FY 2020	36,129,000	$1,904,000	$14,978,200	53,011,200

Table 6 – DWSD MBO and Lease Payment Transfer History

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 (8 months)				
MBO/Lease Requirement	23,108,264	2,848,000	15,000,000	40,956,264
Offset to Debt Service	-	-	(2,365,336)	(2,365,336)
Net MBO Transfer	23,108,264	2,848,000	12,634,664	38,590,928
Life-to-Date				
MBO/Lease Requirement	153,434,268	19,917,100	105,000,000	278,351,368
Offset to Debt Service	-	-	(10,539,436)	(10,539,436)
Total Water	**$153,434,268**	**$19,917,100**	**$94,460,564**	**$267,811,932**

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 (8 months)				
MBO/Lease Requirement	43,229,000	1,904,000	18,333,333	63,466,333
Offset to address shortfall	(7,100,000)	-	-	(7,100,000)
Offset to Debt Service	-	-	(3,355,133)	(3,355,133)
Total MBO Transfer	36,129,000	1,904,000	14,978,200	53,011,200
Life-to-Date				
MBO/Lease Requirement	221,824,812	13,339,800	128,333,333	363,497,945
Offsets	(7,100,000)	-	(36,928,297)	(44,028,297)
Total Sewer	**$214,724,812**	**$13,339,800**	**$91,405,036**	**$319,469,648**

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

This report includes the following:

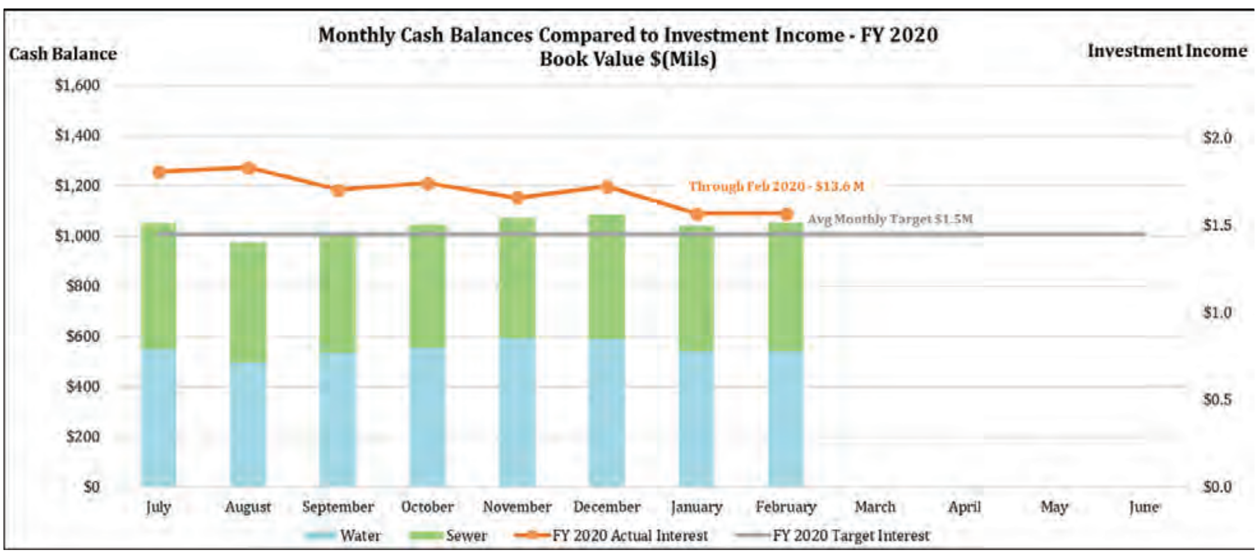
1. Monthly Cash Balances Compared to Investment Income
2. Cash Balance Detail

Monthly Cash Balances Compared to Investment Income

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

Cash and investment balances change each month based on Master Bond Ordinance (MBO) funding requirements, operational needs, capital spending pace, and mandatory debt payments. Investment income fluctuates monthly based on cash and investment balances as well as market conditions and investment strategy. The cumulative investment earnings of $13.6 million through February 2020 is 78% of the FY 2020 target of $17.4 million. As the market environment fluctuates, GLWA will continue to monitor the FY 2020 target.

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



$(Mils)	July	August	September	October	November	December	January	February	March	April	May	June
Water	$549	$494	$536	$555	594	592	541	541				
Sewer	$501	$479	$464	$489	479	493	498	510				
Total	$1,050	$973	$1,000	$1,044	$1,073	$1,085	$1,039	$1,052				
Investment Income	$1.8	$1.8	$1.7	$1.7	$1.7	$1.7	$1.6	$1.6				

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

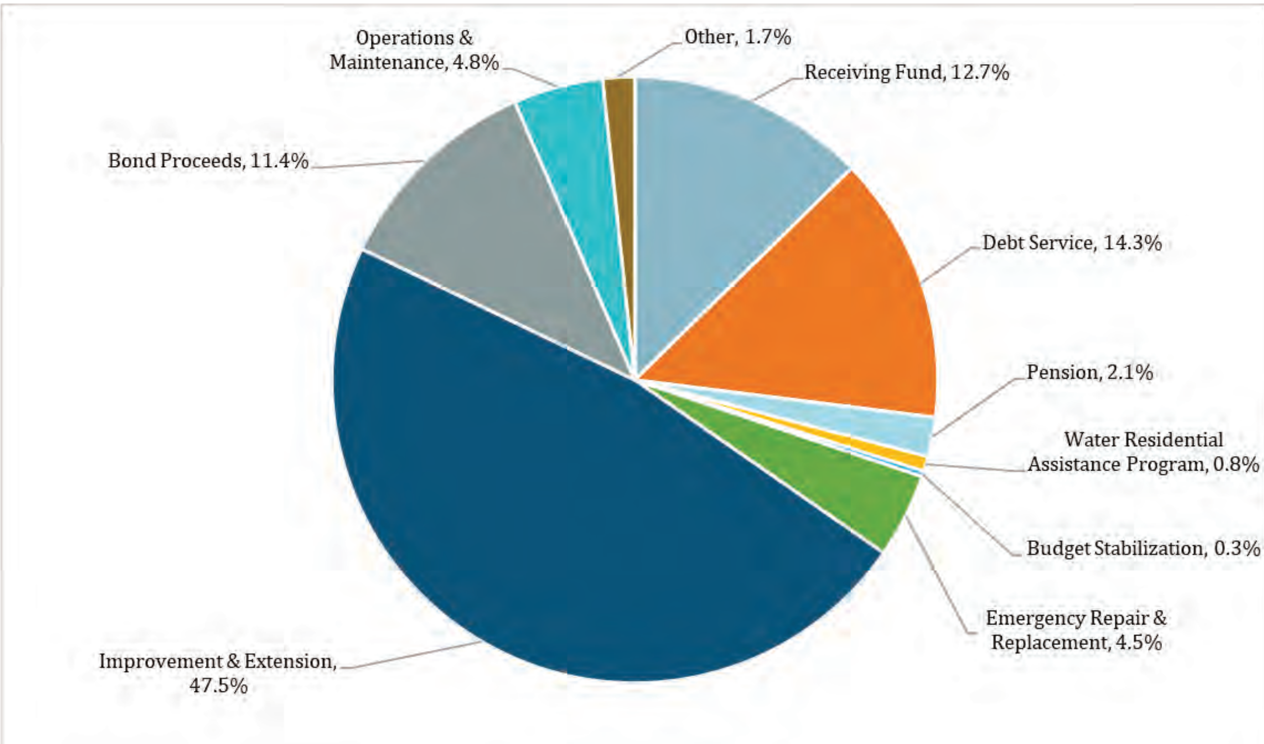
Funds Held Outside Trust:

- 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 February 29, 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 February 29, 2020 is $541 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 February 29, 2020

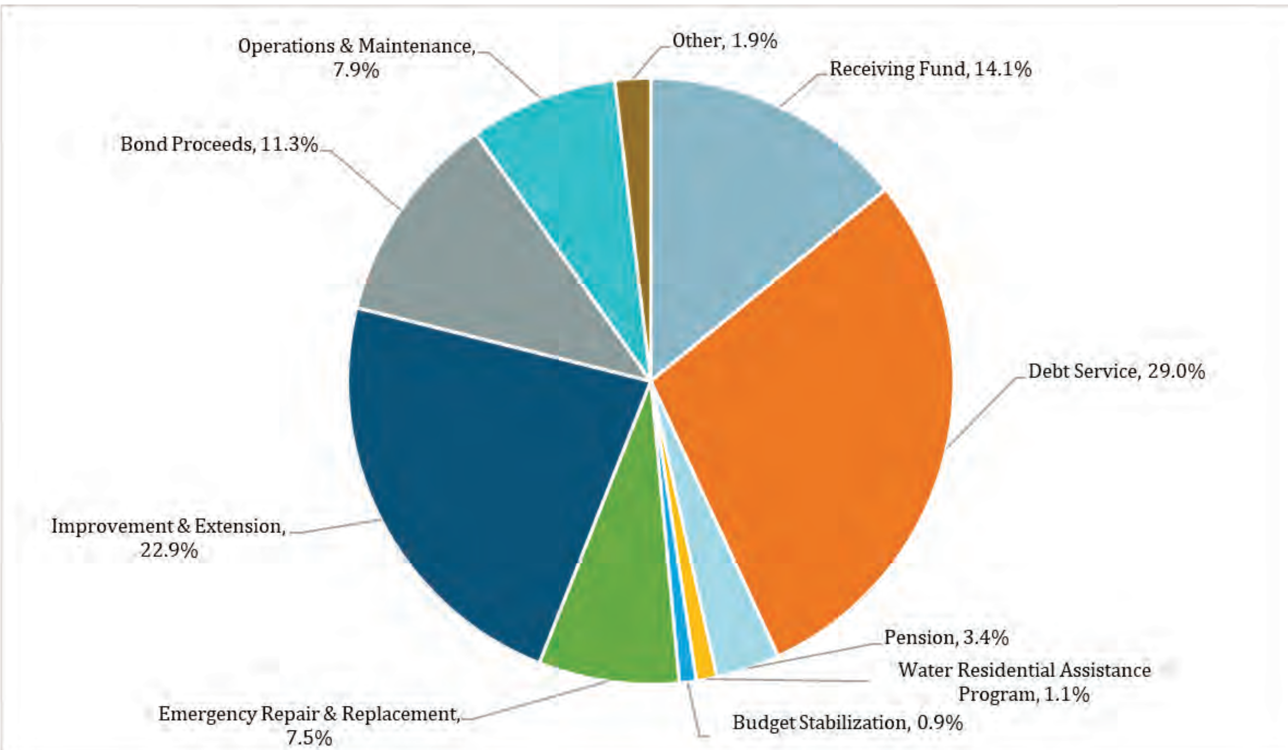


Note: *Due to rounding totals may not equal 100%.*

Chart 3 – Cash Balances - Sewer Funds as of February 29, 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 February 29, 2020 is $510 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 Funds I&E deposits has been less than budget to address 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 February 29, 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 2020 water usage and billed revenue which are provided by DWSD staff. As of February 29, 2020, the DWSD usage was at 91.62% of the budget and billed revenue was at 97.89% 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 – FY 2020 DWSD Retail Water Billings Report

	FY 2020 - Budget/Goal			FY 2020 - Actual			FY 2020 - Variance	
RETAIL WATER CUSTOMERS								
Month (1)	Volume	Revenue	Unit Revenue	Volume	Revenue (2)	Unit Revenue	Volume	Revenue
	Mcf	$	$/Mcf	Mcf	$	$/Mcf	Mcf	$
July	286,871	9,909,302	34.54	267,054	9,802,572	36.71	(19,817)	(106,730)
August	288,810	9,698,584	33.58	259,489	9,601,097	37.00	(29,321)	(97,487)
September	246,846	9,159,992	37.11	228,961	8,811,834	38.49	(17,885)	(348,158)
October	228,814	8,288,490	36.22	217,031	8,578,738	39.53	(11,783)	290,248
November	218,154	8,078,402	37.03	200,432	7,879,694	39.31	(17,722)	(198,708)
December	216,372	7,975,070	36.86	201,225	7,811,106	38.82	(15,147)	(163,964)
January	228,259	8,282,968	36.29	205,993	7,981,382	38.75	(22,266)	(301,586)
February	225,150	8,294,177	36.84	196,490	7,748,377	39.43	(28,660)	(545,800)
March	222,601	8,159,386	36.65					
April	215,049	8,120,879	37.76					
May	230,957	8,499,721	36.80					
June	254,554	9,084,129	35.69					
Total	2,862,437	103,551,100	36.18	1,776,675	68,214,800	38.39	(162,601)	(1,472,185)
Subtotals ytd	*1,939,276*	*69,686,985*	*35.93*	*1,776,675*	*68,214,800*	*38.39*	*(162,601)*	*(1,472,185)*
Achievement of Budget				*91.62%*	*97.89%*			

(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**
March	8,707,578	8,280,635	426,943	5.16%
April	8,475,657	9,226,675	(751,018)	-8.14%
May	8,415,767	8,969,019	(553,252)	-6.17%
June	7,554,457	7,940,939	(386,482)	-4.87%
July	8,093,394	7,858,272	235,122	2.99%
August	8,671,848	8,692,784	(20,936)	-0.24%
September	8,610,801	9,766,449	(1,155,648)	-11.83%
October	9,619,977	9,015,400	604,577	6.71%
November	7,067,667	7,938,517	(870,850)	-10.97%
December	8,597,558	7,297,698	1,299,860	17.81%
January	9,076,091	8,158,817	917,274	11.24%
February	8,281,985	7,927,299	354,686	4.47%
Rolling, 12-Month Total	101,172,780	101,072,504		
Rolling, 12-Month Average	8,431,065	8,422,709		

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 2020 sewer billed revenue which are provided by DWSD staff. As of February 29, 2020, the DWSD usage was at 94.17% of the budget and billed revenue was at 97.51% 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 – FY 2020 DWSD Retail Sewer Billings Report

RETAIL SEWER CUSTOMERS						
	FY 2020 - Budget/Goal		FY 2020 - Actual		FY 2020 - Variance	
Month (1)	Volume	Revenue	Volume	Revenue (2)	Volume	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*
July	251,738	28,535,420	244,810	28,049,707	(6,928)	(485,713)
August	258,984	28,327,270	246,989	28,076,649	(11,995)	(250,621)
September	255,527	26,788,442	215,119	26,430,710	(40,408)	(357,732)
October	227,141	26,444,548	238,202	27,549,787	11,061	1,105,239
November	211,617	25,759,684	188,779	24,726,161	(22,838)	(1,033,523)
December	195,192	25,905,017	186,917	24,853,335	(8,275)	(1,051,682)
January	197,099	26,341,264	190,230	24,857,510	(6,869)	(1,483,754)
February	206,164	26,312,394	187,219	24,524,288	(18,945)	(1,788,106)
March	200,672	26,467,728				
April	204,606	25,894,612				
May	203,480	27,185,600				
June	218,340	27,376,921				
Total	2,630,560	321,338,900	1,698,265	209,068,147	(105,197)	(5,345,892)
Subtotals ytd	*1,803,462*	*214,414,039*	*1,698,265*	*209,068,147*	*(105,197)*	*(5,345,892)*
Achievement of Budget/Goal			*94.17%*	*97.51%*		

(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

Month	Current Year	Prior Year	Variance	Ratio
Sewer				
March	22,111,691	23,015,525	(903,834)	-3.93%
April	20,930,511	16,159,844	4,770,667	29.52%
May	22,807,283	18,341,298	4,465,985	24.35%
June	20,426,151	21,461,926	(1,035,775)	-4.83%
July	20,940,157	27,332,605	(6,392,448)	-23.39%
August	23,175,643	21,746,714	1,428,929	6.57%
September	21,972,754	23,727,505	(1,754,751)	-7.40%
October	26,321,010	23,938,933	2,382,077	9.95%
November	17,546,180	20,624,039	(3,077,859)	-14.92%
December	25,889,823	19,612,154	6,277,669	32.01%
January	23,512,702	21,140,835	2,371,867	11.22%
February	22,682,982	20,758,852	1,924,130	9.27%
Rolling 12-Month Total	268,316,887	257,860,230		
Rolling, 12-Month Average	22,359,741	21,488,353		

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 February 29, 2020 with comparative totals from February 28, 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	Accounts Receivable Balance
Residential	205,389	$ 426.90	$ 13,112,000	$ 6,363,000	$ 16,338,000	$ 51,867,000	$ 87,680,000
			15.0%	*7.3%*	*18.6%*	*59.2%*	*100.0%*
Commercial	20,602	1,518.37	7,059,000	2,153,000	5,403,000	16,667,000	31,282,000
			22.6%	*6.9%*	*17.3%*	*53.3%*	*100.0%*
Industrial	2,112	5,296.16	3,510,000	817,000	1,367,000	5,491,000	11,185,000
			31.4%	*7.3%*	*12.2%*	*49.1%*	*100.0%*
Tax Exempt	3,437	801.08	460,000	137,000	483,000	1,674,000	2,753,000
			16.7%	*5.0%*	*17.5%*	*60.8%*	*100.0%*
Government	64,875	308.95	2,758,000	1,749,000	4,329,000	11,208,000	20,043,000
			13.8%	*8.7%*	*21.6%*	*55.9%*	*100.0%*
Drainage	34,070	780.57	2,250,000	1,344,000	4,404,000	18,596,000	26,594,000
			8.5%	*5.1%*	*16.6%*	*69.9%*	*100.0%*
Subtotal - Active Accounts	**330,485**	**$ 543.25**	**$ 29,148,000**	**$ 12,563,000**	**$ 32,325,000**	**$ 105,502,000**	**$ 179,538,000**
			16.2%	*7.0%*	*18.0%*	*58.8%*	*100.0%*
Inactive Accounts	279,284	98.15	93,000	263,000	1,388,000	25,668,000	27,411,000
			0.3%	*1.0%*	*5.1%*	*93.6%*	*100.0%*
Total	**609,769**	**$ 339.39**	**$ 29,241,000**	**$ 12,826,000**	**$ 33,713,000**	**$ 131,170,000**	**$ 206,949,000**
% of Total A/R			*14.1%*	*6.2%*	*16.3%*	*63.4%*	*100.0%*
Water Fund	231,276	174.99	$ 6,530,000	$ 2,386,000	$ 6,274,000	$ 25,282,000	$ 40,472,000
Sewer Fund	285,992	582.11	$ 22,711,000	$ 10,440,000	$ 27,439,000	$ 105,888,000	$ 166,477,000
Total February 29, 2020	**609,769**	**339.39**	**$ 29,241,000**	**$ 12,826,000**	**$ 33,713,000**	**$ 131,170,000**	**$ 206,949,000**
Water Fund- Allowance							$ (30,703,000)
Sewer Fund- Allowance							$ (103,511,000)
Total February 29, 2020 Bad Debt Allowance							**$ (134,214,000)**
Water Net AR Balance							$ 9,768,000
Sewer Net AR Balance							$ 62,967,000
Total February 29, 2020 Net AR Balance							**$ 72,735,000**
Comparative - February 2019	**588,236**	**304.84**	**$ 27,946,000**	**$ 12,220,000**	**$ 34,119,000**	**$ 105,035,000**	**$ 179,319,000**

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 2020 water billed usage and revenues. As of February 29, 2020, the billed usage was at 94.81% of budget and billed revenue at 97.94% of budget. Billings and usage from the City of Flint *are* included as they were assumed in the FY 2020 Budget.

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

Table 2 - Wholesale Water Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods. The difference in rolling average from current year to prior year reflects the gentle downward trend in water usage over time.

Table 1 –FY 2020 Wholesale Water Billings Report

WHOLESALE WATER CUSTOMERS								
	FY 2020 - Budget/Goal			FY 2020 - Actual			FY 2020 - Variance	
Month (1)	Volume	Revenue	Unit Revenue	Volume	Revenue	Unit Revenue	Volume	Revenue
	Mcf	*$*	*$/Mcf*	*Mcf*	*$*	*$/Mcf*	*Mcf*	*$*
1 July	1,777,138	32,544,400	18.31	1,545,631	30,356,570	19.64	(231,507)	(2,187,830)
2 August	1,549,587	30,383,100	19.61	1,554,426	30,501,606	19.62	4,839	118,506
3 September	1,368,496	28,270,400	20.66	1,257,111	27,278,750	21.70	(111,385)	(991,650)
4 October	1,066,653	25,351,200	23.77	1,026,086	25,007,145	24.37	(40,567)	(344,055)
5 November	917,034	24,049,100	26.22	905,016	23,933,012	26.44	(12,018)	(116,088)
6 December	1,004,420	24,714,000	24.61	983,589	24,535,948	24.95	(20,831)	(178,052)
7 January	1,018,192	24,861,000	24.42	945,874	24,246,312	25.63	(72,318)	(614,688)
8 February	893,007	23,780,800	26.63	878,794	23,689,167	26.96	(14,213)	(91,633)
9 March	1,008,766	24,753,300	24.54					
10 April	948,751	24,262,000	25.57					
11 May	1,073,966	25,549,300	23.79					
12 June	1,383,200	28,595,300	20.67					
Total	14,009,210	317,113,900	22.64	9,096,527	209,548,510	23.04	(498,000)	(4,405,490)
Subtotals ytd	*9,594,527*	*213,954,000*	*22.30*	*9,096,527*	*209,548,510*	*23.04*	*(498,000)*	*(4,405,490)*
Achievement of Budget				*94.81%*	*97.94%*			

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

Table 2 - Wholesale Water Collections

Water				
Month	**Current Year**	**Prior Year**	**Variance**	**Ratio**
March	24,967,265	27,715,696	(2,748,431)	-9.92%
April	23,045,654	18,489,754	4,555,900	24.64%
May	20,749,943	30,447,581	(9,697,638)	-31.85%
June	25,676,458	21,815,013	3,861,445	17.70%
July	23,212,979	21,923,590	1,289,389	5.88%
August	28,808,254	31,920,586	(3,112,332)	-9.75%
September	28,336,152	26,037,313	2,298,839	8.83%
October	25,786,774	27,827,722	(2,040,948)	-7.33%
November	29,245,969	29,238,260	7,709	0.03%
December	23,292,382	27,720,646	(4,428,264)	-15.97%
January	25,470,795	23,430,974	2,039,821	8.71%
February	24,629,768	26,147,082	(1,517,314)	-5.80%
Rolling 12-Month Total	303,222,393	312,714,217		
Rolling, 12-Month Average	25,268,533	26,059,518		

Wholesale Sewer Billings and Collections

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

Service Arrangement Type

Model Contract	11
Emergency	0
Older Contracts	7
Total	18

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

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

Table 3 - Wholesale Sewer Billings shows the FY 2020 sewer billed revenues. As of February 29, 2020, the billed revenue is at 100% of budget.

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

Table 4 - Wholesale Sewer Collections shows collections by month for the past 12 months compared to collections for the prior year as well as the calculated difference between the periods. The year-over-year rolling average from FY 2019 to FY 2020 remains consistent.

The shift in wholesale sewer collection patterns is largely attributable to the timing of payments received. There are several large accounts whose payments swing between the end of the current month and the beginning of the next month.

Table 3 – FY 2020 Wholesale Sewer Billings Report

	WHOLESALE SEWER CUSTOMERS					
	FY 2020 - Budget/Goal		FY 2020 - Actual		FY 2020 - Variance	
Month (1)	Volume (2)	Revenue	Volume (2)	Revenue	Volume (2)	Revenue
	Mcf	*$*	*Mcf*	*$*	*Mcf*	*$*
1 July	N/A	22,323,183	N/A	22,323,183	N/A	-
2 August	N/A	22,323,183	N/A	22,323,183	N/A	-
3 September	N/A	22,323,183	N/A	22,323,183	N/A	-
4 October	N/A	22,323,183	N/A	22,323,183	N/A	-
5 November	N/A	22,323,183	N/A	22,323,183	N/A	-
6 December	N/A	22,323,183	N/A	22,323,183	N/A	-
7 January	N/A	22,323,183	N/A	22,323,183	N/A	-
8 February	N/A	22,323,183	N/A	22,323,183	N/A	-
9 March	N/A	22,323,183	N/A		N/A	
10 April	N/A	22,323,183	N/A		N/A	
11 May	N/A	22,323,183	N/A		N/A	
12 June	N/A	22,323,183	N/A		N/A	
Total		267,878,196		178,585,464		-
Subtotals ytd		*178,585,464*		*178,585,464*		-
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**
March	22,388,600	15,552,000	6,836,600	43.96%
April	23,203,703	27,812,417	(4,608,714)	-16.57%
May	9,284,000	15,342,700	(6,058,700)	-39.49%
June	32,639,436	28,810,500	3,828,936	13.29%
July	27,222,400	16,179,117	11,043,283	68.26%
August	35,153,500	28,384,600	6,768,900	23.85%
September	18,833,257	22,672,400	(3,839,143)	-16.93%
October	29,833,760	16,105,200	13,728,560	85.24%
November	19,428,000	28,633,300	(9,205,300)	-32.15%
December	19,999,642	24,440,000	(4,440,358)	-18.17%
January	17,121,812	26,874,927	(9,753,115)	-36.29%
February	23,284,737	13,895,100	9,389,637	67.58%
Rolling 12-Month Total	278,392,848	264,702,261		
Rolling, 12-Month Average	23,199,404	22,058,522		

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 February 29, 2020, Highland Park had a delinquent balance of $42.9 million, including $33.0 million for wastewater treatment services, $1.7 million for industrial waste control services, and $8.2 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 2020 through February 29, 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
March 31, 2019 Balance	7,051,177	32,564,983	1,663,248	41,279,409
April 2019 Billing	99,879	467,900	4,101	571,880
April 2019 Payments	-	(1,089,003)	-	(1,089,003)
April 30, 2019 Balance	7,151,056	31,943,880	1,667,350	40,762,286
May 2019 Billing	98,118	467,900	3,963	569,981
May 2019 Payments	-	-	-	-
May 31, 2019 Balance	7,249,174	32,411,780	1,671,312	41,332,267
June 2019 Billing	101,871	467,900	3,931	573,702
June 2019 Payments	-	(1,406,836)	-	(1,406,836)
June 30, 2019 Balance	7,351,045	31,472,844	1,675,243	40,499,132
July 2019 Billing	104,702	467,900	4,121	576,722
July 2019 Payments	-	-	-	-
July 31, 2019 Balance	7,455,747	31,940,744	1,679,363	41,075,854
August 2019 Billing	106,638	472,500	4,026	583,164
August 2019 Payments	-	-	-	-
August 31, 2019 Balance	7,562,385	32,413,244	1,683,389	41,659,018
September 2019 Billing	108,007	472,500	4,014	584,521
September 2019 Payments	-	(656,657)	-	(656,657)
September 30, 2019 Balance	7,670,392	32,229,087	1,687,403	41,586,882
October 2019 Billing	107,422	472,500	3,933	583,855
October 2019 Payments	-	-	-	-
October 31, 2019 Balance	7,777,814	32,701,587	1,691,336	42,170,737
November 2019 Billing	101,003	472,500	3,948	577,451
November 2019 Payments	-	-	-	-
November 30, 2019 Balance	7,878,817	33,174,087	1,695,284	42,748,188
December 2019 Billing	98,501	472,500	3,845	574,846
December 2019 Payments	-	-	-	-
December 31, 2019 Balance	7,977,318	33,646,587	1,699,129	43,323,034
January 2020 Billing	85,342	472,500	3,853	561,695
January 2020 Payments	-	(1,561,812)	-	(1,561,812)
January 31, 2020 Balance	8,062,660	32,557,275	1,702,982	42,322,916
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	42,892,897

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 February 29, 2020.

Table 7 - Wholesale Accounts Receivable Aging Report, Net of Highland Park is the same summary *without* the past due balances for the City of Highland Park. The small past due balance for Water is due to a payment not received from Lenox Township until March 9, 2020. The past due balance for Sewer is mainly Rouge Valley. Payment in full was posted on March 17, 2020.

Table 8 - Wholesale Accounts Receivable Aging Report, Net of Highland Park and WTUA is a summary *without* the past due balances for the City of Highland Park and net of pending credits for certain Western Township Utilities Authority (WTUA). GLWA received a final agreement from Wayne County in late February to effectuate a transfer retroactive to July 1, 2018 and is working to process credits as required by the end of April 2020.

Table 6 - Wholesale Accounts Receivable Aging Report Summary

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 37,134,120.51	$ 29,164,104.84	$ 196,054.78	$ 200,579.27	$ 7,573,381.62
Sewer	$ 44,864,373.74	$ 7,718,199.50	$ 5,061,400.00	$ 472,500.00	$ 31,612,274.24
IWC	$ 3,678,164.23	$ 637,357.92	$ 73,570.77	$ 38,526.93	$ 2,928,708.61
Pollutant Surcharge	$ 884,626.96	$ 578,435.37	$ 243,064.00	$ 1,151.28	$ 61,976.31
Total	$ 86,561,285.44	$ 38,098,097.63	$ 5,574,089.55	$ 712,757.48	$ 42,176,340.78
	100.00%	44.01%	6.44%	0.82%	48.72%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 28,977,871.70	$ 28,977,476.32	$ 395.38	$ -	$ -
Sewer	$ 11,834,599.50	$ 7,245,699.50	$ 4,588,900.00	$ -	$ -
IWC	$ 1,971,290.71	$ 629,612.65	$ 69,726.02	$ 34,579.09	$ 1,237,372.95
Pollutant Surcharge	$ 884,626.96	$ 578,435.37	$ 243,064.00	$ 1,151.28	$ 61,976.31
Total	$ 43,668,388.87	$ 37,431,223.84	$ 4,902,085.40	$ 35,730.37	$ 1,299,349.26
	100.00%	85.72%	11.23%	0.08%	2.98%

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

	Total	Current	46-74 Days	75-104 Days	>105 Days
Water	$ 28,977,871.70	$ 28,977,476.32	$ 395.38	$ -	$ -
Sewer	$ 11,834,599.50	$ 7,245,699.50	$ 4,588,900.00	$ -	$ -
IWC	$ 595,601.40	$ 560,454.47	$ 35,146.93	$ -	$ -
Pollutant Surcharge	$ 884,626.96	$ 578,435.37	$ 243,064.00	$ 1,151.28	$ 61,976.31
Total	$ 42,292,699.56	$ 37,362,065.66	$ 4,867,506.31	$ 1,151.28	$ 61,976.31
	100.00%	88.34%	11.51%	0.00%	0.15%

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

The Monthly Trust Receipts & Disbursements Report includes the following.

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

GLWA Trust Receipts & Disbursements

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

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

Table 1 – GLWA Net Cash Flows from Trust Receipts & Disbursements provides a summary of cash receipt collections and required MBO transfers by fiscal year as well as a total of all activity for GLWA since inception at January 1, 2016. Fiscal year 2020 reflects eight months of activity to date.

Water fund activity exceeded required MBO disbursements by 14% through February 29, 2020 with a historical ratio of cash receipts exceeding MBO disbursements by 15% since January 1, 2016.

Sewer fund cash receipts exceeded disbursements by 13% through February 29, 2020 with a historical ratio of cash receipts exceeding MBO disbursements by 6% since January 1, 2016. FY 2020 activity is high due in part to a one-time capital contribution of $11.9 million by the Oakland Macomb Interceptor Drainage District in December 2019 as part of a recent contract amendment.

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 to Date	Life-to-Date Total
	Water						
1	Receipts	$ 149,688,711	$ 352,941,909	$ 338,452,001	$ 336,594,234	$ 227,880,851	$1,405,557,706
2	MOU Adjustments	-	-	-	-	-	-
3	Adjusted Receipts	149,688,711	352,941,909	338,452,001	336,594,234	227,880,851	1,405,557,706
4	Disbursements	(146,256,185)	(288,777,985)	(297,064,810)	(289,230,481)	(200,322,036)	(1,221,651,497)
5	Receipts Net of Required Transfers	3,432,526	64,163,924	41,387,191	47,363,753	27,558,815	183,906,209
6	I&E Transfer	-	-	(25,739,700)	(47,695,000)	(20,083,334)	(93,518,034)
7	Net Receipts	$ 3,432,526	$ 64,163,924	$ 15,647,491	$ (331,247)	$ 7,475,481	$ 90,388,175
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*102%*	*122%*	*114%*	*116%*	*114%*	*115%*
	Sewer						
9	Receipts	$ 232,377,715	$ 469,788,882	$ 476,269,761	$ 467,743,744	$ 340,552,149	$1,986,732,251
10	MOU Adjustments	-	-	-	-	-	-
11	Adjusted Receipts	232,377,715	469,788,882	476,269,761	467,743,744	340,552,149	1,986,732,251
12	Disbursements	(219,538,325)	(441,443,340)	(458,903,335)	(453,406,636)	(300,415,340)	(1,873,706,976)
13	Receipts Net of Required Transfers	12,839,390	28,345,542	17,366,426	14,337,108	40,136,809	113,025,275
14	I&E Transfer	-	-	(22,698,100)	(22,547,700)	(16,974,400)	(62,220,200)
15	DWSD Shortfall Advance	(1,285,466)	(28,014,534)	(24,113,034)	-	-	(53,413,034)
16	Shortfall Repayment (principal)	-	-	-	9,367,355	11,622,593	20,989,948
17	Net Receipts	$ 11,553,924	$ 331,008	$ (29,444,708)	$ 1,156,763	$ 34,785,002	$ 18,381,989
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*106%*	*106%*	*104%*	*103%*	*113%*	*106%*
	Combined						
19	Receipts	$ 382,066,426	$ 822,730,791	$ 814,721,762	$ 804,337,978	$ 568,433,000	$3,392,289,957
20	MOU Adjustments	-	-	-	-	-	-
21	Adjusted Receipts	382,066,426	822,730,791	814,721,762	804,337,978	568,433,000	3,392,289,957
22	Disbursements	(365,794,510)	(730,221,325)	(755,968,145)	(742,637,117)	(500,737,376)	(3,095,358,473)
23	Receipts Net of Required Transfers	16,271,916	92,509,466	58,753,617	61,700,861	67,695,624	296,931,484
24	I&E Transfer	-	-	(48,437,800)	(70,242,700)	(37,057,734)	(155,738,234)
25	Shortfall Advance	(1,285,466)	(28,014,534)	(24,113,034)	-	-	(53,413,034)
26	Shortfall Repayment	-	-	-	9,367,355	11,622,593	20,989,948
27	Net Receipts	$ 14,986,450	$ 64,494,932	$ (13,797,217)	$ 825,516	$ 42,260,483	$ 108,770,164
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*104%*	*113%*	*108%*	*108%*	*114%*	*110%*

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

Chart 1 – GLWA 12-Month Net Receipts - Water

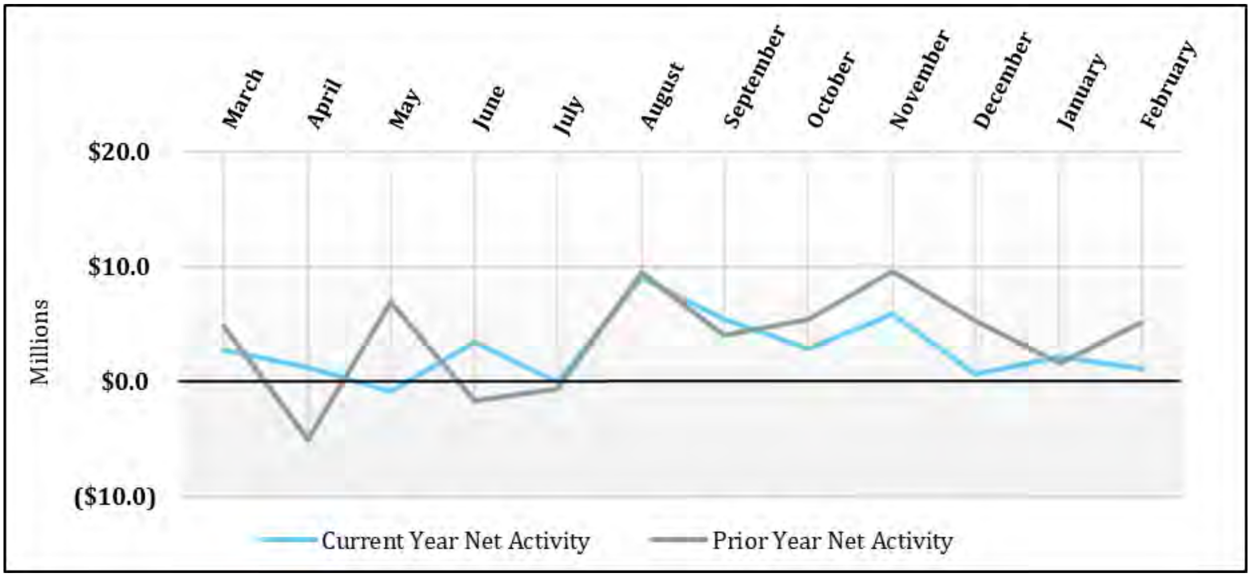
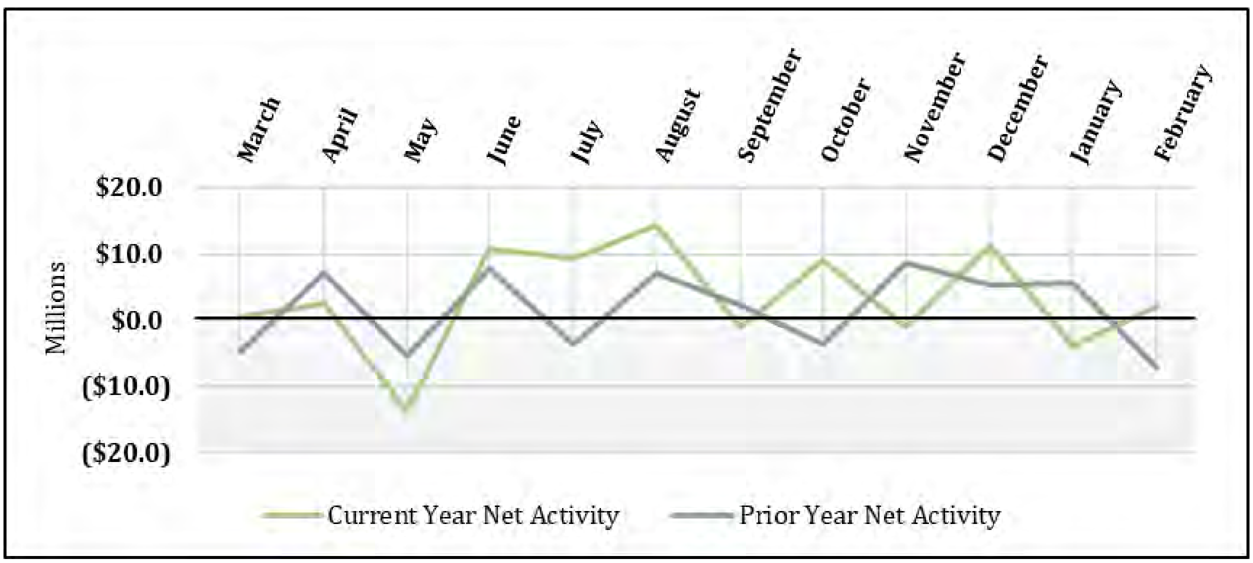


Chart 2 – GLWA 12-Month Net Receipts – Sewer



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 2020 reflects eight months of activity to date.

Water fund cash receipts exceeded required MBO disbursements by 4% through February 29, 2020 with a historical ratio of 3% since January 1, 2016.

Sewer fund cash receipts breakeven with required MBO disbursements through February 29, 2020 with a historic shortfall of 5% since January 1, 2016. DWSD has recognized this issue and proactively implemented plans in December 2019 to resolve the current shortfall.

On December 3, DWSD transferred $2.6 million from Sewer Operations & Maintenance back to the Sewer Receiving Fund. The remaining current year shortfall will be remedied by the end of February 2020 with an additional $4.5 million cash replenishment transfer to GLWA; the DWSD Operations & Maintenance budgeted transfer request was reduced by $1 million for March 2020 to hedge any future cashflow timing issues.

Table 3 – FY 2017 DWSD Loan Receivable - Sewer provides an activity summary of 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 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.

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 to Date	Life-to-Date Total
	Water						
1	Receipts	$ 26,201,881	$ 96,451,105	$ 101,233,147	$ 99,868,219	$ 68,043,881	$ 391,798,233
2	MOU Adjustments	18,446,100	-	-	-	-	18,446,100
3	Adjusted Receipts	44,647,981	96,451,105	101,233,147	99,868,219	68,043,881	410,244,333
4	Disbursements	(47,809,552)	(93,066,144)	(93,049,457)	(97,694,600)	(65,668,328)	(397,288,081)
5	Receipts Net of Required Transfers	(3,161,571)	3,384,961	8,183,690	2,173,619	2,375,553	12,956,252
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)	$ 2,375,553	$ 4,549,172
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*93%*	*104%*	*109%*	*102%*	*104%*	*103%*
	Sewer						
9	Receipts	$ 65,256,734	$ 233,723,367	$ 242,104,791	$ 265,339,797	$ 182,059,393	$ 988,484,082
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	182,059,393	1,050,766,382
12	Disbursements	(122,297,300)	(261,963,973)	(266,217,825)	(271,018,306)	(182,968,761)	(1,104,466,165)
13	Receipts Net of Required Transfers	(1,285,466)	(28,240,606)	(24,113,034)	848,691	(909,368)	(53,699,783)
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	$ (909,368)	$ (286,749)
17	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*99%*	*89%*	*91%*	*100%*	*100%*	*95%*
	Combined						
18	Receipts	$ 91,458,615	$ 330,174,472	$ 343,337,938	$ 365,208,016	$ 250,103,274	$1,380,282,315
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	250,103,274	1,461,010,715
21	Disbursements	(170,106,852)	(355,030,117)	(359,267,282)	(368,712,906)	(248,637,089)	(1,501,754,246)
22	Receipts Net of Required Transfers	(4,447,037)	(24,855,645)	(15,929,344)	3,022,310	1,466,185	(40,743,531)
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)	$ 1,466,185	$ 4,262,423
26	*Ratio of Receipts to Required Disbursements (Line 20/Line 21)*	*97%*	*93%*	*96%*	*101%*	*101%*	*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 unti 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
6/30/2019	Record FY 16 and FY 17 Loan Receivable		29,300,000
2/8/2019	Loan Receivable Payment *(for the months of Jul - Dec)*	4,635,462	24,664,538
2/22/2019	Loan Receivable Payment *(for the months of Jan - Mar)*	2,353,768	22,310,770
4/15/2019	Loan Receivable Payment *(for the month of Apr)*	789,990	21,520,780
5/8/2019	Loan Receivable Payment *(for the month of May)*	792,705	20,728,075
6/7/2019	Loan Receivable Payment *(for the month of June)*	795,430	19,932,645
7/5/2019	Loan Receivable Payment *(for the month of July)*	798,164	19,134,480
8/8/2019	Loan Receivable Payment *(for the month of August)*	800,908	18,333,572
9/6/2019	Loan Receivable Payment *(for the month of September)*	803,661	17,529,911
10/2/2019	Loan Receivable Payment *(for the month of October)*	806,424	16,723,487
11/4/2019	Loan Receivable Payment *(for the month of November)*	809,196	15,914,291
12/3/2019	Loan Receivable Payment *(for the month of December)*	811,978	15,102,314
1/6/2020	Loan Receivable Payment *(for the month of January)*	814,769	14,287,545
2/4/2020	Loan Receivable Payment *(for the month of February)*	817,570	13,469,975
		15,830,025	**13,469,975**

Table 4 – FY 2017 DWSD Loan Receivable Payments - Sewer

Date	Transaction	Principal	Interest	Total Paid
2/8/2019	Loan Receivable Payment *(for the months of Jul - Dec)*	4,635,462	564,636	5,200,098
2/22/2019	Loan Receivable Payment *(for the months of Jan - Mar)*	2,353,768	246,280	2,600,049
4/15/2019	Loan Receivable Payment *(for the month of Apr)*	789,990	76,693	866,683
5/8/2019	Loan Receivable Payment *(for the month of May)*	792,705	73,978	866,683
6/7/2019	Loan Receivable Payment *(for the month of June)*	795,430	71,253	866,683
7/5/2019	Loan Receivable Payment *(for the month of July)*	798,164	68,518	866,683
8/8/2019	Loan Receivable Payment *(for the month of August)*	800,908	65,775	866,683
9/6/2019	Loan Receivable Payment *(for the month of September)*	803,661	63,022	866,683
10/2/2019	Loan Receivable Payment *(for the month of October)*	806,424	60,259	866,683
11/4/2019	Loan Receivable Payment *(for the month of November)*	809,196	57,487	866,683
12/3/2019	Loan Receivable Payment *(for the month of December)*	811,978	54,705	866,683
1/6/2020	Loan Receivable Payment *(for the month of January)*	814,769	51,914	866,683
2/4/2020	Loan Receivable Payment *(for the month of February)*	817,570	49,113	866,683
		15,830,025	**1,503,634**	**17,333,659**

Table 5 – FY 2018 DWSD Loan Receivable - Sewer

Date	Transaction	Amount	Balance
6/30/2019	Record FY 18 Loan Receivable		24,113,034
7/15/2019	Loan Receivable Payment *(for the month of July)*	638,978	23,474,056
8/8/2019	Loan Receivable Payment *(for the month of August)*	640,686	22,833,370
9/6/2019	Loan Receivable Payment *(for the month of September)*	642,400	22,190,970
10/2/2019	Loan Receivable Payment *(for the month of October)*	644,118	21,546,852
11/4/2019	Loan Receivable Payment *(for the month of November)*	645,840	20,901,012
12/3/2019	Loan Receivable Payment *(for the month of December)*	647,567	20,253,445
1/6/2020	Loan Receivable Payment *(for the month of January)*	649,299	19,604,146
2/4/2020	Loan Receivable Payment *(for the month of February)*	651,035	18,953,111
		5,159,923	**18,953,111**

Table 6 – FY 2018 DWSD Loan Receivable Payments - Sewer

Date	Transaction	Principal	Interest	Total Paid
7/15/2019	Loan Receivable Payment *(for the month of July)*	638,978	64,482	703,460
8/8/2019	Loan Receivable Payment *(for the month of August)*	640,686	62,774	703,460
9/6/2019	Loan Receivable Payment *(for the month of September)*	642,400	61,060	703,460
10/2/2019	Loan Receivable Payment *(for the month of October)*	644,118	59,342	703,460
11/4/2019	Loan Receivable Payment *(for the month of November)*	645,840	57,620	703,460
12/3/2019	Loan Receivable Payment *(for the month of December)*	647,567	55,893	703,460
1/6/2020	Loan Receivable Payment *(for the month of January)*	649,299	54,161	703,460
2/4/2020	Loan Receivable Payment *(for the month of February)*	651,035	52,425	703,460
		5,159,923	**467,757**	**5,627,680**

Chart 3 – DWSD 12-Month Net Receipts - Water

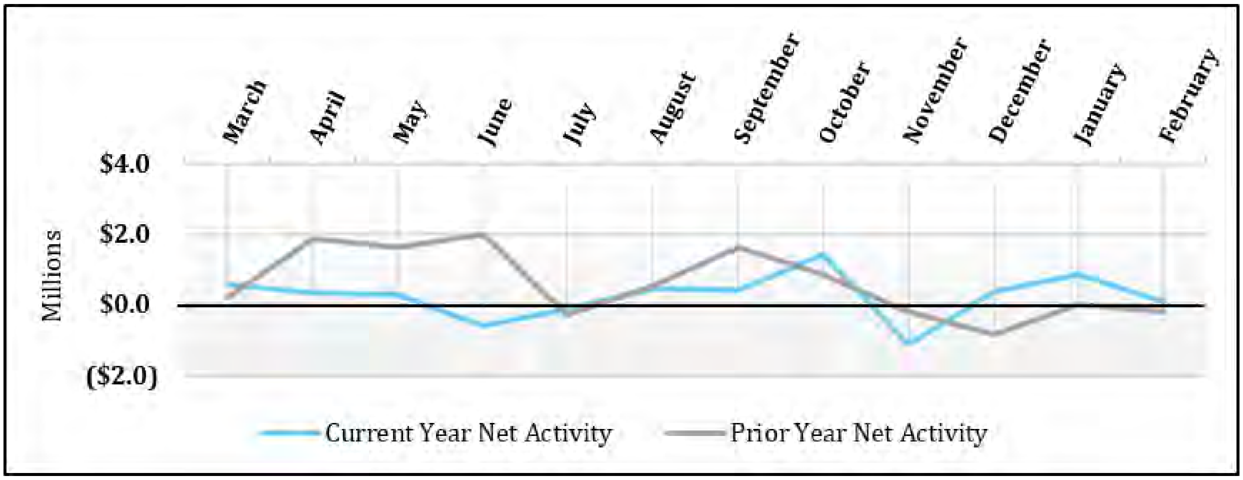
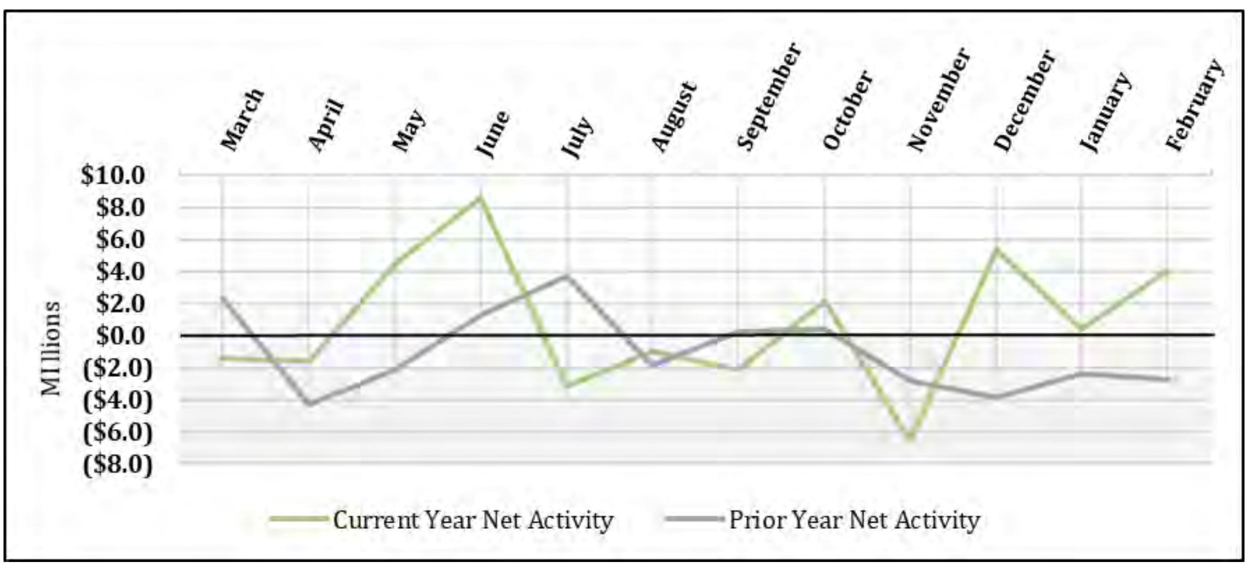


Chart 4 – DWSD 12-Month Net Receipts – Sewer



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 7 – 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 2020 reflects eight months of activity to date.

Water fund cash receipts exceeded required MBO disbursements by 11% through February 29, 2020 with a historical ratio of cash receipts exceeding MBO disbursements by 12% since January 1, 2016.

Sewer fund cash receipts exceeded required MBO disbursements by 8% through February 29, 2020 and with a historical ratio of cash receipts exceeding MBO disbursements by 2% since January 1, 2016.

Table 7 – Combined Net Cash Flows from Trust Receipts & Disbursements

		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020 to Date	Life-to-Date Total
	Water						
1	Receipts	$ 175,890,592	$ 449,393,014	$ 439,685,148	$ 436,462,453	$ 295,924,732	$1,797,355,939
2	MOU Adjustments	18,446,100	-	-	-	-	18,446,100
3	Adjusted Receipts	194,336,692	449,393,014	439,685,148	436,462,453	295,924,732	1,815,802,039
4	Disbursements	(194,065,737)	(381,844,129)	(390,114,267)	(386,925,081)	(265,990,364)	(1,618,939,578)
5	Receipts Net of Required Transfers	270,955	67,548,885	49,570,881	49,537,372	29,934,368	196,862,461
6	I&E Transfer	-	-	(25,739,700)	(56,102,080)	(20,083,334)	(101,925,114)
7	Net Receipts	$ 270,955	$ 67,548,885	$ 23,831,181	$ (6,564,708)	$ 9,851,034	$ 94,937,347
8	*Ratio of Receipts to Required Disbursements (Line 3/Line 4)*	*100%*	*118%*	*113%*	*113%*	*111%*	*112%*
	Sewer						
9	Receipts	$ 297,634,449	$ 703,512,249	$ 718,374,552	$ 733,083,541	$ 522,611,542	$2,975,216,333
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	522,611,542	3,037,498,633
12	Disbursements	(341,835,625)	(703,407,313)	(725,121,160)	(724,424,942)	(483,384,101)	(2,978,173,141)
13	Receipts Net of Required Transfers	11,553,924	104,936	(6,746,608)	15,185,799	39,227,441	59,325,492
14	I&E Transfer	-	-	(22,698,100)	(22,547,700)	(16,974,400)	(62,220,200)
15	Shortfall Advance	-	-	-	-	-	-
16	Shortfall Repayment (principal)	-	-	-	9,367,355	11,622,593	20,989,948
17	Net Receipts	$ 11,553,924	$ 104,936	$ (29,444,708)	$ (7,361,901)	$ 33,875,634	$ 18,095,240
18	*Ratio of Receipts to Required Disbursements (Line 11/Line 12)*	*103%*	*100%*	*99%*	*102%*	*108%*	*102%*
	Combined						
19	Receipts	$ 473,525,041	$1,152,905,263	$1,158,059,700	$1,169,545,994	$ 818,536,274	$4,772,572,272
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	818,536,274	4,853,300,672
22	Disbursements	(535,901,362)	(1,085,251,442)	(1,115,235,427)	(1,111,350,023)	(749,374,465)	(4,597,112,719)
23	Receipts Net of Required Transfers	11,824,879	67,653,821	42,824,273	64,723,171	69,161,809	256,187,953
24	I&E Transfer	-	-	(48,437,800)	(78,649,780)	(37,057,734)	(164,145,314)
25	Shortfall Advance	-	-	-	-	-	-
26	Shortfall Repayment	-	-	-	9,367,355	11,622,593	20,989,948
27	Net Receipts	$ 11,824,879	$ 67,653,821	$ (5,613,527)	$ (4,559,254)	$ 43,726,668	$ 113,032,587
28	*Ratio of Receipts to Required Disbursements (Line 21/Line 22)*	*102%*	*106%*	*104%*	*106%*	*109%*	*106%*

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$375,476.08	$375,476.08	$0.00	$0.00	$0.00
ASH TOWNSHIP	$68,751.73	$68,751.73	$0.00	$0.00	$0.00
BELLEVILLE	$25,859.27	$25,859.27	$0.00	$0.00	$0.00
BERLIN TOWNSHIP	$57,420.72	$57,420.72	$0.00	$0.00	$0.00
BROWNSTOWN TOWNSHIP	$280,088.40	$280,088.40	$0.00	$0.00	$0.00
BRUCE TOWNSHIP	$25,663.98	$25,663.98	$0.00	$0.00	$0.00
BURTCHVILLE TOWNSHIP	$23,482.89	$23,482.89	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$794,245.83	$794,245.83	$0.00	$0.00	$0.00
CENTER LINE	$38,817.83	$38,817.83	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$327,342.23	$327,342.23	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$590,919.94	$590,919.94	$0.00	$0.00	$0.00
COMMERCE TOWNSHIP	$265,950.08	$265,950.08	$0.00	$0.00	$0.00
DEARBORN	$813,835.49	$813,835.49	$0.00	$0.00	$0.00
DEARBORN HEIGHTS	$297,646.11	$297,646.11	$0.00	$0.00	$0.00
EASTPOINTE	$257,747.37	$257,747.37	$0.00	$0.00	$0.00
ECORSE	$120,884.48	$120,884.48	$0.00	$0.00	$0.00
FARMINGTON	$79,630.21	$79,630.21	$0.00	$0.00	$0.00
FARMINGTON HILLS	$688,189.77	$688,189.77	$0.00	$0.00	$0.00
FERNDALE	$86,590.77	$86,590.77	$0.00	$0.00	$0.00
FLAT ROCK	$108,208.27	$108,208.27	$0.00	$0.00	$0.00
FLINT	$306,273.17	$306,273.17	$0.00	$0.00	$0.00
FRASER	$98,069.94	$98,069.94	$0.00	$0.00	$0.00
GARDEN CITY	$134,914.52	$134,914.52	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
GIBRALTAR	$27,386.20	$27,386.20	$0.00	$0.00	$0.00
GREENWOOD TOWNSHIP	$50,080.79	$50,080.79	$0.00	$0.00	$0.00
GROSSE ILE TOWNSHIP	$84,221.18	$84,221.18	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$113,732.62	$113,732.62	$0.00	$0.00	$0.00
GROSSE POINTE SHORES	$44,533.23	$44,533.23	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$113,734.26	$113,734.26	$0.00	$0.00	$0.00
HAMTRAMCK	$66,107.76	$66,107.76	$0.00	$0.00	$0.00
HARPER WOODS	$63,469.05	$63,469.05	$0.00	$0.00	$0.00
HARRISON TWP	$123,463.56	$123,463.56	$0.00	$0.00	$0.00
HAZEL PARK	$60,077.40	$60,077.40	$0.00	$0.00	$0.00
HIGHLAND PARK	$8,156,248.81	$186,628.52	$195,659.40	$200,579.27	$7,573,381.62
HURON TOWNSHIP	$116,853.92	$116,853.92	$0.00	$0.00	$0.00
IMLAY CITY	$104,785.65	$104,785.65	$0.00	$0.00	$0.00
IMLAY TOWNSHIP	$1,333.30	$1,333.30	$0.00	$0.00	$0.00
INKSTER	$100,032.34	$100,032.34	$0.00	$0.00	$0.00
KEEGO HARBOR	$23,808.90	$23,808.90	$0.00	$0.00	$0.00
LAPEER	$123,912.06	$123,912.06	$0.00	$0.00	$0.00
LENOX TOWNSHIP	$46,693.56	$46,298.18	$395.38	$0.00	$0.00
LINCOLN PARK	$193,096.20	$193,096.20	$0.00	$0.00	$0.00
LIVONIA	$880,653.43	$880,653.43	$0.00	$0.00	$0.00
MACOMB TWP	$898,847.59	$898,847.59	$0.00	$0.00	$0.00
MADISON HEIGHTS	$149,227.82	$149,227.82	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
MAYFIELD TOWNSHIP	$3,421.77	$3,421.77	$0.00	$0.00	$0.00
MELVINDALE	$104,745.03	$104,745.03	$0.00	$0.00	$0.00
NEW HAVEN	$29,048.45	$29,048.45	$0.00	$0.00	$0.00
NOCWA	$1,720,208.19	$1,720,208.19	$0.00	$0.00	$0.00
NORTHVILLE	$67,296.62	$67,296.62	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$414,595.07	$414,595.07	$0.00	$0.00	$0.00
NOVI	$666,433.84	$666,433.84	$0.00	$0.00	$0.00
OAK PARK	$116,508.20	$116,508.20	$0.00	$0.00	$0.00
OAKLAND CO DR COM	$7,174.56	$7,174.56	$0.00	$0.00	$0.00
PLYMOUTH	$86,118.12	$86,118.12	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$337,076.63	$337,076.63	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$256,483.80	$256,483.80	$0.00	$0.00	$0.00
RIVER ROUGE	$62,978.84	$62,978.84	$0.00	$0.00	$0.00
RIVERVIEW	$71,641.34	$71,641.34	$0.00	$0.00	$0.00
ROCKWOOD	$22,745.67	$22,745.67	$0.00	$0.00	$0.00
ROMEO	$19,542.36	$19,542.36	$0.00	$0.00	$0.00
ROMULUS	$352,118.13	$352,118.13	$0.00	$0.00	$0.00
ROSEVILLE	$214,794.45	$214,794.45	$0.00	$0.00	$0.00
ROYAL OAK TOWNSHIP	$15,514.98	$15,514.98	$0.00	$0.00	$0.00
SHELBY TOWNSHIP	$1,041,516.53	$1,041,516.53	$0.00	$0.00	$0.00
SOCWA	$3,554,218.78	$3,554,218.78	$0.00	$0.00	$0.00
SOUTH ROCKWOOD	$9,212.50	$9,212.50	$0.00	$0.00	$0.00
SOUTHGATE	$181,460.18	$181,460.18	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- WATER ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ST. CLAIR SHORES	$259,545.91	$259,545.91	$0.00	$0.00	$0.00
STERLING HEIGHTS	$2,288,818.30	$2,288,818.30	$0.00	$0.00	$0.00
SUMPTER TOWNSHIP	$54,192.64	$54,192.64	$0.00	$0.00	$0.00
SYLVAN LAKE	$18,391.53	$18,391.53	$0.00	$0.00	$0.00
TAYLOR	$760,660.44	$760,660.44	$0.00	$0.00	$0.00
TRENTON	$139,393.33	$139,393.33	$0.00	$0.00	$0.00
TROY (SEOC)	$1,077,608.99	$1,077,608.99	$0.00	$0.00	$0.00
UTICA	$43,740.99	$43,740.99	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$270,008.17	$270,008.17	$0.00	$0.00	$0.00
VILLAGE OF ALMONT	$18,768.59	$18,768.59	$0.00	$0.00	$0.00
WALLED LAKE	$62,571.48	$62,571.48	$0.00	$0.00	$0.00
WARREN	$829,173.31	$829,173.31	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$166,761.80	$166,761.80	$0.00	$0.00	$0.00
WAYNE	$272,665.56	$272,665.56	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (C-O)	$1,581,591.87	$1,581,591.87	$0.00	$0.00	$0.00
WESTLAND	$490,411.53	$490,411.53	$0.00	$0.00	$0.00
WIXOM	$189,479.78	$189,479.78	$0.00	$0.00	$0.00
WOODHAVEN	$131,737.86	$131,737.86	$0.00	$0.00	$0.00
YCUA	$1,715,435.68	$1,715,435.68	$0.00	$0.00	$0.00
TOTAL WATER ACCOUNTS	$37,134,120.51	$29,164,104.84	$196,054.78	$200,579.27	$7,573,381.62

GLWA Aged Accounts Receivable- SEWER ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$142,400.00	$71,200.00	$71,200.00	$0.00	$0.00
CENTER LINE	$86,099.50	$86,099.50	$0.00	$0.00	$0.00
DEARBORN	$0.00	$0.00	$0.00	$0.00	$0.00
EVERGREEN-FARMINGTON	$0.00	$0.00	$0.00	$0.00	$0.00
FARMINGTON	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
GROSSE POINTE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
HAMTRAMCK	$332,900.00	$332,900.00	$0.00	$0.00	$0.00
HARPER WOODS	$18,300.00	$18,300.00	$0.00	$0.00	$0.00
HIGHLAND PARK	$33,029,774.24	$472,500.00	$472,500.00	$472,500.00	$31,612,274.24
MELVINDALE	$127,800.00	$127,800.00	$0.00	$0.00	$0.00
OAKLAND COUNTY GWK DD	$0.00	$0.00	$0.00	$0.00	$0.00
OMID	$0.00	$0.00	$0.00	$0.00	$0.00
REDFORD TOWNSHIP	$21,900.00	$21,900.00	$0.00	$0.00	$0.00
ROUGE VALLEY	$9,027,000.00	$4,513,500.00	$4,513,500.00	$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	$8,400.00	$4,200.00	$4,200.00	$0.00	$0.00
TOTAL SEWER ACCOUNTS	**$44,864,373.74**	**$7,718,199.50**	**$5,061,400.00**	**$472,500.00**	**$31,612,274.24**

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ALLEN PARK	$3,065.66	$3,065.66	$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	$0.00	$0.00	$0.00	$0.00	$0.00
BINGHAM FARMS	$0.00	$0.00	$0.00	$0.00	$0.00
BIRMINGHAM (E-F)	$2,306.85	$2,306.85	$0.00	$0.00	$0.00
BIRMINGHAM (SEOC)	$5,291.39	$5,291.39	$0.00	$0.00	$0.00
BLOOMFIELD HILLS	$0.00	$0.00	$0.00	$0.00	$0.00
BLOOMFIELD TOWNSHIP	$7,128.42	$7,128.42	$0.00	$0.00	$0.00
CANTON TOWNSHIP	$721,091.86	$36,253.88	$18,126.94	$18,126.94	$648,584.10
CENTER LINE	$3,501.68	$3,501.68	$0.00	$0.00	$0.00
CHESTERFIELD TOWNSHIP	$23,137.79	$23,137.79	$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	$131.88	$131.88	$0.00	$0.00	$0.00
CLAWSON	$2,626.26	$2,626.26	$0.00	$0.00	$0.00
CLINTON TOWNSHIP	$24,310.65	$24,310.65	$0.00	$0.00	$0.00
DEARBORN	$105,440.79	$70,293.86	$35,146.93	$0.00	$0.00
DEARBORN HEIGHTS	$8,979.53	$8,979.53	$0.00	$0.00	$0.00
DETROIT METRO WC AIRPORT	$202.80	$202.80	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EASTPOINTE	$12,299.82	$12,299.82	$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	$4,715.10	$4,715.10	$0.00	$0.00	$0.00
GARDEN CITY	$5,803.46	$5,803.46	$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	$302.51	$302.51	$0.00	$0.00	$0.00
GROSSE POINTE WOODS	$2,458.95	$2,458.95	$0.00	$0.00	$0.00
HAMTRAMCK	$3,968.12	$3,968.12	$0.00	$0.00	$0.00
HARPER WOODS	$1,725.49	$1,725.49	$0.00	$0.00	$0.00
HARRISON TWP	$3,035.24	$3,035.24	$0.00	$0.00	$0.00
HAZEL PARK	$3,074.11	$3,074.11	$0.00	$0.00	$0.00
HIGHLAND PARK	$1,706,873.52	$7,745.27	$3,844.75	$3,947.84	$1,691,335.66
HUNTINGTON WOODS	$272.09	$272.09	$0.00	$0.00	$0.00
INDEPENDENCE (C-O) ADMIN	$2,324.59	$2,324.59	$0.00	$0.00	$0.00
INKSTER	$5,286.32	$5,286.32	$0.00	$0.00	$0.00
KEEGO HARBOR	$0.00	$0.00	$0.00	$0.00	$0.00
LAKE ORION	$763.88	$763.88	$0.00	$0.00	$0.00
LATHRUP	$2,673.58	$2,673.58	$0.00	$0.00	$0.00
LENOX TOWNSHIP	$309.27	$309.27	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
LIVONIA	$38,229.49	$38,229.49	$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	$6,812.39	$6,812.39	$0.00	$0.00	$0.00
NEW HAVEN	$584.74	$584.74	$0.00	$0.00	$0.00
NORTHVILLE	$1,522.69	$1,522.69	$0.00	$0.00	$0.00
NORTHVILLE TOWNSHIP	$173,014.79	$8,696.74	$4,348.37	$4,348.37	$155,621.31
NOVI	$16,572.14	$16,572.14	$0.00	$0.00	$0.00
OAK PARK	$6,469.32	$6,469.32	$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)	$3,494.92	$3,494.92	$0.00	$0.00	$0.00
ORION TOWNSHIP (C-O) ADMIN	$(4.65)	$(4.65)	$0.00	$0.00	$0.00
OXFORD TOWNSHIP	$961.61	$961.61	$0.00	$0.00	$0.00
OXFORD VILLAGE	$1,196.52	$1,196.52	$0.00	$0.00	$0.00
PLEASANT RIDGE	$260.26	$260.26	$0.00	$0.00	$0.00
PLYMOUTH	$(3,707.86)	$(3,707.86)	$0.00	$0.00	$0.00
PLYMOUTH TOWNSHIP	$481,582.66	$24,207.56	$12,103.78	$12,103.78	$433,167.54
REDFORD TOWNSHIP	$10,608.35	$10,608.35	$0.00	$0.00	$0.00
ROCHESTER HILLS	$17,472.91	$17,472.91	$0.00	$0.00	$0.00
ROMULUS	$880.49	$880.49	$0.00	$0.00	$0.00
ROSEVILLE	$14,001.65	$14,001.65	$0.00	$0.00	$0.00
ROYAL OAK	$13,094.12	$13,094.12	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- IWC ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
ROYAL OAK TOWNSHIP	$0.00	$0.00	$0.00	$0.00	$0.00
SHELBY TOWNSHIP	$12,014.21	$12,014.21	$0.00	$0.00	$0.00
SOUTHFIELD (E-F)	$27,073.80	$27,073.80	$0.00	$0.00	$0.00
SOUTHFIELD (SEOC)	$3,711.24	$3,711.24	$0.00	$0.00	$0.00
ST. CLAIR SHORES	$22,951.89	$22,951.89	$0.00	$0.00	$0.00
STERLING HEIGHTS	$60,189.35	$60,189.35	$0.00	$0.00	$0.00
TROY (E-F)	$365.04	$365.04	$0.00	$0.00	$0.00
TROY (SEOC)	$35,574.50	$35,574.50	$0.00	$0.00	$0.00
UTICA	$2,854.41	$2,854.41	$0.00	$0.00	$0.00
VAN BUREN TOWNSHIP	$1,755.91	$1,755.91	$0.00	$0.00	$0.00
VILLAGE OF FRANKLIN	$0.00	$0.00	$0.00	$0.00	$0.00
WASHINGTON TOWNSHIP	$1,358.76	$1,358.76	$0.00	$0.00	$0.00
WATERFORD TOWNSHIP DPW (ADMI	$2,961.90	$2,961.90	$0.00	$0.00	$0.00
WAYNE	$4,770.87	$4,770.87	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP (E-F)	$12,097.02	$12,097.02	$0.00	$0.00	$0.00
WEST BLOOMFIELD TWP. (C-O) A	$451.26	$451.26	$0.00	$0.00	$0.00
WESTLAND	$21,547.50	$21,547.50	$0.00	$0.00	$0.00
TOTAL IWC ACCOUNTS	$3,678,164.23	$637,357.92	$73,570.77	$38,526.93	$2,928,708.61

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
3M COMPANY	$3,897.51	$3,897.51	$0.00	$0.00	$0.00
A & R PACKING CO., LLC	$5,204.74	$5,204.74	$0.00	$0.00	$0.00
AACTRON	$0.00	$0.00	$0.00	$0.00	$0.00
ACADEMY PACKING CO.	$0.00	$0.00	$0.00	$0.00	$0.00
ACME RUSTPROOF	$28.06	$28.06	$0.00	$0.00	$0.00
AEVITAS SPECIALITY SERVICES	$34,325.19	$23,618.10	$10,707.09	$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
ALEXANDER & HORNUNG	$0.00	$0.00	$0.00	$0.00	$0.00
ALGAL SCIENTIFIC CORPORATION	$16,533.05	$0.00	$0.00	$0.00	$16,533.05
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.	$13,739.53	$13,739.53	$0.00	$0.00	$0.00
ATWATER IN THE PARK	$0.00	$0.00	$0.00	$0.00	$0.00
AUTOMOTIVE FINISH	$0.00	$0.00	$0.00	$0.00	$0.00
AXLE BREWING COMPANY, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
B. NEKTAR MEADERY	$0.00	$0.00	$0.00	$0.00	$0.00
BAFFIN BREWING COMPANY	$568.45	$98.00	$0.00	$0.00	$470.45
BARON INDUSTRIES	$848.59	$848.59	$0.00	$0.00	$0.00
BARTZ BAKERY	$0.00	$0.00	$0.00	$0.00	$0.00
BASTONE BREWERY	$65.20	$65.20	$0.00	$0.00	$0.00
BATCH BREWING COMPANY	$184.80	$184.80	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
BAYS MICHIGAN CORPORATION	$4.83	$4.83	$0.00	$0.00	$0.00
BEIRUT BAKERY, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
BETTER MADE SNACK FOOD	$13,158.69	$13,158.69	$0.00	$0.00	$0.00
BLACK LOTUS BREWING CO.	$61.25	$0.00	$0.00	$0.00	$61.25
BOZEK'S MARKET	$130.92	$130.92	$0.00	$0.00	$0.00
BREW DETROIT	$4,482.99	$4,482.99	$0.00	$0.00	$0.00
BROADWAY MKT CORNED BEEF	$17.08	$17.08	$0.00	$0.00	$0.00
BROOKS BREWING, LLC.	$249.81	$141.75	$0.00	$0.00	$108.06
BROWN IRON BREWHOUSE	$0.00	$0.00	$0.00	$0.00	$0.00
CADILLAC STRAITS BREWING CO.	$41.34	$41.34	$0.00	$0.00	$0.00
CANTON BREW WORKS	$0.00	$0.00	$0.00	$0.00	$0.00
CAPITAL REPRODUCTIONS	$1.51	$1.51	$0.00	$0.00	$0.00
CF BURGER CREAMERY	$12,874.84	$12,874.84	$0.00	$0.00	$0.00
CHILANGO'S BAKERY	$1,646.26	$56.30	$30.56	$83.64	$1,475.76
CINTAS CORP. - MACOMB TWP.	$0.00	$0.00	$0.00	$0.00	$0.00
CINTAS CORPORATION	$25,212.44	$25,212.44	$0.00	$0.00	$0.00
CINTAS CORPORATION	$11,572.49	$11,572.49	$0.00	$0.00	$0.00
CITY LAUNDRY, INC.	$9.74	$9.74	$0.00	$0.00	$0.00
CLASSIC CONTAINER CORP.	$0.00	$0.00	$0.00	$0.00	$0.00
COCA-COLA REFRESHMENTS USA,	$1,551.71	$1,551.71	$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 02/29/20

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
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.	$0.00	$0.00	$0.00	$0.00	$0.00
DARLING INGREDIENTS, INC.	$10,346.50	$10,346.50	$0.00	$0.00	$0.00
DAVE'S SAUSAGE FACTORY 2	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN BREWING	$27.80	$27.80	$0.00	$0.00	$0.00
DEARBORN SAUSAGE	$0.00	$0.00	$0.00	$0.00	$0.00
DEARBORN SAUSAGE CO., INC.	$0.00	$0.00	$0.00	$0.00	$0.00
DETROIT BEER CO.	$102.59	$102.59	$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	$2,851.98	$2,851.98	$0.00	$0.00	$0.00
DETROIT SAUSAGES CO INC	$17.08	$17.08	$0.00	$0.00	$0.00
DETRONIC INDUSTRIES, INC.	$72.54	$72.54	$0.00	$0.00	$0.00
DIFCO LABORATORIES, INC.	$35,766.24	$26,482.54	$9,283.70	$0.00	$0.00
DIVERSIFIED CHEM TECH. INC.	$142.05	$142.05	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$2,182.15	$2,182.15	$0.00	$0.00	$0.00
DOMESTIC UNIFORM RENTAL	$863.42	$863.42	$0.00	$0.00	$0.00
DOWNEY BREWING COMPANY	$42.00	$42.00	$0.00	$0.00	$0.00
E.W. GROBBEL'S SONS, INC.	$4,875.04	$4,875.04	$0.00	$0.00	$0.00
EASTERN MARKET BREWING COMPA	$181.55	$181.55	$0.00	$0.00	$0.00
ENVIROSOLIDS, L.L.C.	$23,565.68	$0.00	$23,565.68	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
EQ DETROIT, INC.	$2,586.23	$2,586.23	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$10,267.49	$10,267.49	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
EQ DETROIT, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
ETON ST BREWERY- GRIFFIN CLA	$2,536.55	$2,536.55	$0.00	$0.00	$0.00
EXTRUDE HONE CORPORATION	$148.52	$148.52	$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.	$16,863.11	$16,863.11	$0.00	$0.00	$0.00
FORD NEW MODEL PROGRAM	$1,251.11	$1,251.11	$0.00	$0.00	$0.00
FOUNDERS BREWING COMPANY	$42.28	$42.28	$0.00	$0.00	$0.00
FRESH-PAK	$161.15	$161.15	$0.00	$0.00	$0.00
FRESH-PAK	$0.00	$0.00	$0.00	$0.00	$0.00
G2O ENERGY, LLC	$2,591.09	$2,591.09	$0.00	$0.00	$0.00
GENERAL LINEN SUPPLY CO.	$1,575.18	$1,575.18	$0.00	$0.00	$0.00
GLOBAL TITANIUM, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$(16.01)	$0.00	$0.00	$0.00	$(16.01)
GRANITE CITY FOOD & BREWERY	$53.43	$53.43	$0.00	$0.00	$0.00
GRANITE CITY FOOD & BREWERY	$185.02	$85.95	$0.00	$0.00	$99.07
GREAT BARABOO BREWING CO.	$0.00	$0.00	$0.00	$0.00	$0.00
HACIENDA MEXICAN FOODS	$3,642.79	$910.34	$530.32	$629.58	$1,572.55
HENKEL CORPORATION	$127.92	$127.92	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
HOME STYLE FOOD INC.	$4,141.90	$4,141.90	$0.00	$0.00	$0.00
HOMEGROWN BREWING COMPANY	$56.44	$56.44	$0.00	$0.00	$0.00
HOODS CLEANERS	$211.33	$0.00	$0.00	$0.00	$211.33
HOUGHTON INTERNATIONAL INC.	$407.26	$407.26	$0.00	$0.00	$0.00
HOUGHTON INTERNATIONAL INC.	$174.54	$174.54	$0.00	$0.00	$0.00
HOUGHTON INTERNATIONAL INC.	$2,738.63	$2,738.63	$0.00	$0.00	$0.00
HUNTINGTON CLEANERS	$0.00	$0.00	$0.00	$0.00	$0.00
IDP, INC.	$410.89	$241.10	$169.79	$0.00	$0.00
INDUSTRIAL METAL COATING	$683.55	$683.55	$0.00	$0.00	$0.00
ISLAMIC SLAUGHTER HOUSE	$1,428.67	$1,428.67	$0.00	$0.00	$0.00
ITALIAN BUTTER BREAD STICKS	$6.44	$1.61	$4.83	$0.00	$0.00
J & G FOOD PRODUCTS, INC.	$17.08	$17.08	$0.00	$0.00	$0.00
JAMEX BREWING CO.	$81.07	$40.69	$0.00	$0.00	$40.38
KAR NUT PRODUCTS	$0.00	$0.00	$0.00	$0.00	$0.00
KOWALSKI SAUSAGES, CO.	$1,845.29	$1,845.29	$0.00	$0.00	$0.00
KUHNHENN BREWING	$0.00	$0.00	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$1,355.57	$1,355.57	$0.00	$0.00	$0.00
LA MICHOACANA FLOUR TORTILLA	$96.42	$96.42	$0.00	$0.00	$0.00
LEAR CORPORATION DBA EAGLE (	$3,351.60	$3,351.60	$0.00	$0.00	$0.00
LIBERTY STREET PROD. BREWERY	$0.00	$0.00	$0.00	$0.00	$0.00
LILY'S SEAFOOD GRILL & BREWE	$0.00	$0.00	$0.00	$0.00	$0.00
MACDERMID, INC.	$2,353.42	$2,353.42	$0.00	$0.00	$0.00
MCCLURE'S PICKLES	$9,446.27	$446.27	$228.51	$357.55	$8,413.94

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

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	$170.76	$170.76	$0.00	$0.00	$0.00
METROPOLITAN BAKERY	$1,409.06	$1,409.06	$0.00	$0.00	$0.00
MIBA HYDRAMECHANICA CORP.	$187.83	$187.83	$0.00	$0.00	$0.00
MICHIGAN DAIRY	$126,365.59	$126,365.59	$0.00	$0.00	$0.00
MICHIGAN PROD. MACHINING	$0.00	$0.00	$0.00	$0.00	$0.00
MICHIGAN SOY PRODUCTS CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MIDWEST WIRE PRODUCTS, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
MILANO BAKERY	$775.63	$775.63	$0.00	$0.00	$0.00
MILTON CHILI CO.	$0.00	$0.00	$0.00	$0.00	$0.00
MINNIE MARIE BAKERS, INC	$3,112.45	$3,112.45	$0.00	$0.00	$0.00
MISTER UNIFORM & MAT RENTALS	$42.78	$6.63	$1.40	$2.09	$32.66
MOTOR CITY BREWING WORKS	$1,313.13	$178.07	$0.00	$0.00	$1,135.06
NATIONAL CHILI COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
NORTH CENTER BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
NORTHERN LAKES SEAFOOD & MEA	$30.53	$30.53	$0.00	$0.00	$0.00
OAKWOOD BAKERY	$163.29	$163.29	$0.00	$0.00	$0.00
PARKER'S HILLTOP BREWER & SP	$0.00	$0.00	$0.00	$0.00	$0.00
PELLERITO FOODS INC.	$2,459.84	$2,459.84	$0.00	$0.00	$0.00
PEPSI COLA, INC.	$42,367.34	$42,367.34	$0.00	$0.00	$0.00
PERSONAL UNIFORM SERVICE, IN	$43.72	$43.72	$0.00	$0.00	$0.00
PETRO ENVIRON TECH, INC.	$0.00	$0.00	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
PINE TREE ACRES, INC.	$73,558.01	$73,558.01	$0.00	$0.00	$0.00
PLATING SPEC	$0.00	$0.00	$0.00	$0.00	$0.00
POWER VAC OF MICHIGAN, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
PREMIER PLATING, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
PRODUCTION SPRING, LLC.	$202.76	$0.00	$202.76	$0.00	$0.00
QUALA SERVICES, LLC	$1,347.08	$1,347.08	$0.00	$0.00	$0.00
RAY'S ICE CREAM CO.	$0.00	$0.00	$0.00	$0.00	$0.00
RED SPOT PAINT #409139	$0.00	$0.00	$0.00	$0.00	$0.00
RIVER ROUGE BREWING COMPANY	$0.00	$0.00	$0.00	$0.00	$0.00
ROAK BREWING CO. LLC	$1,937.72	$1,180.47	$0.00	$0.00	$757.25
ROCHESTER MILLS BEER COMPANY	$285.99	$285.99	$0.00	$0.00	$0.00
ROCHESTER MILLS PROD BREWERY	$2,796.81	$1,253.77	$0.00	$0.00	$1,543.04
ROYAL OAK BREWERY	$(885.14)	$0.00	$0.00	$0.00	$(885.14)
RTT	$27,772.36	$0.00	$0.00	$0.00	$27,772.36
SEAFARE FOODS, INC.	$93.58	$93.58	$0.00	$0.00	$0.00
SHERWOOD BREWING COMPANY	$1,034.82	$100.35	$0.00	$0.00	$934.47
SMITH-WATKINS, LLC	$0.00	$0.00	$0.00	$0.00	$0.00
SPRAYTEK, INC.	$43.73	$43.73	$0.00	$0.00	$0.00
SUPERNATURAL SPIRITS & BREWI	$75.08	$75.08	$0.00	$0.00	$0.00
SWEETHEART BAKERY, INC.	$2,029.41	$159.74	$79.87	$78.42	$1,711.38
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	$62.66	$21.00	$0.00	$0.00	$41.66

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
TURRI'S ITALIAN FOODS	$0.00	$0.00	$0.00	$0.00	$0.00
TURRI'S ITALIAN FOODS	$198,259.49	$0.00	$198,259.49	$0.00	$0.00
U-METCO, INC.	$2,636.33	$2,636.33	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$58,639.57	$58,639.57	$0.00	$0.00	$0.00
UNCLE RAYS SNACKS, LLC	$1,912.48	$1,912.48	$0.00	$0.00	$0.00
UNIQUE LINEN SERVICES, INC.	$0.00	$0.00	$0.00	$0.00	$0.00
UNITED FISH DISTRIBUTORS	$9.00	$9.00	$0.00	$0.00	$0.00
UNITED LINEN SERVICE, LLC.	$288.78	$288.78	$0.00	$0.00	$0.00
UNITED MEAT & DELI	$0.00	$0.00	$0.00	$0.00	$0.00
URBANREST BREWING COMPANY	$70.39	$70.39	$0.00	$0.00	$0.00
US ECOLOGY MICHIGAN	$416.09	$416.09	$0.00	$0.00	$0.00
US ECOLOGY ROMULUS, INC.	$5,813.13	$5,813.13	$0.00	$0.00	$0.00
USHER OIL SERVICES	$4,799.15	$4,799.15	$0.00	$0.00	$0.00
VALICOR ENVIROMENTAL SERVICE	$1,527.55	$1,527.55	$0.00	$0.00	$0.00
VERNDALE PRODUCTS	$6,949.22	$6,949.22	$0.00	$0.00	$0.00
VERNDALE PRODUCTS, INC.	$3,232.67	$3,232.67	$0.00	$0.00	$0.00
VERNOR FOOD PRODUCTS	$(36.26)	$0.00	$0.00	$0.00	$(36.26)
WIGLEY'S MEAT PROCESS	$617.57	$617.57	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$981.84	$981.84	$0.00	$0.00	$0.00
WINTER SAUSAGE MFG. CO.	$159.37	$159.37	$0.00	$0.00	$0.00
WOLVERINE PACKING CO	$7,920.23	$7,920.23	$0.00	$0.00	$0.00
WOLVERINE PACKING CO.	$3,278.49	$3,278.49	$0.00	$0.00	$0.00

GLWA Aged Accounts Receivable- POLLUTANT SURCHARGE ACCOUNTS

Balances as of 02/29/20

Customer Name	Total Due	Current	46 - 74 Days	75 - 104 Days	>105 Days
WOODWARD AVENUE BREWERS	$85.18	$85.18	$0.00	$0.00	$0.00
TOTAL POLLUTANT SURCHARGE ACCOUNTS	**$884,626.96**	**$578,435.37**	**$243,064.00**	**$1,151.28**	**$61,976.31**

City of Highland Park Billings and Collections

	Water	Sewer	IWC	Cumulative Total
June 30, 2012 Balance	$ -	$ 10,207,956	$ 852,987	$ 11,060,943
FY 2013 Billings	485,887	4,987,635	154,444	5,627,966
FY 2013 Payments	(65,652)	(2,206,211)	-	(2,271,863)
				-
June 30, 2013 Balance	$ 420,235	$ 12,989,380	$ 1,007,431	$ 14,417,046
FY 2014 Billings	1,004,357	6,980,442	161,951	8,146,750
FY 2014 Payments	-	(1,612,633)	-	(1,612,633)
				-
June 30, 2014 Balance	$ 1,424,592	$ 18,357,189	$ 1,169,382	$ 20,951,163
FY 2015 Billings	1,008,032	5,553,123	165,739	6,726,894
FY 2015 Payments	-	(1,444,623)	-	(1,444,623)
				-
June 30, 2015 Balance	$ 2,432,625	$ 22,465,689	$ 1,335,121	$ 26,233,435
FY 2016 Billings	1,157,178	5,612,167	106,431	6,875,776
FY 2016 Payments	-	(2,022,335)	-	(2,022,335)
				-
June 30, 2016 Balance	$ 3,589,803	$ 26,055,521	$ 1,441,551	$ 31,086,875
FY 2017 Billings	1,245,267	5,802,000	101,999	7,149,265
FY 2017 Payments	-	(2,309,186)	-	(2,309,186)
				-
June 30, 2017 Balance	$ 4,835,070	$ 29,548,335	$ 1,543,550	$ 35,926,954
FY 2018 Billings	1,277,179	5,657,101	80,472	7,014,752
FY 2018 Payments	-	(4,108,108)	-	(4,108,108)
June 30, 2018 Balance	$ 6,112,248	$ 31,097,327	$ 1,624,022	$ 38,833,597
FY 2019 Billings (12 Months)	1,238,797	5,617,100	51,220	6,907,117
FY 2019 Payments (12 Months)	-	(5,241,583)	-	(5,241,583)
June 30, 2019 Balance	$ 7,351,045	$ 31,472,844	$ 1,675,243	$ 40,499,132
FY 2020 Billings (8 Months)	805,204	3,775,400	31,631	4,612,235
FY 2020 Payments (8 Months)	-	(2,218,469)	-	(2,218,469)
Balance as of February 29, 2020	**$ 8,156,249**	**$ 33,029,775**	**$ 1,706,874**	**$ 42,892,897**

Financial Services
Audit Committee Communication

Date: May 15, 2020

To: Great Lakes Water Authority Audit Committee

From: Deirdre Henry, Treasury Manager

Re: Quarterly Investment Report through March 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 March 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 to Market at Cost compared to market index:
  - As of March 31, 2020: 0.66% vs 0.08% (3-Month Treasury Index)
  - As of December 31, 2019: 1.56% vs 1.51% (3-Month Treasury Index)

- Portfolio Allocation in Cash/Money Market Securities
  - As of March 31, 2020: 32%
  - As of December 31, 2019: 42%

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 – March 2020

Table of Contents

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 98% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by Standard & Poor's.
- Liquidity – Great Lakes Water Authority ("GLWA") has continued to monitor its portfolio with the goal of limiting the allocation to cash and bank deposit accounts and maximizing the use of short-term investments to meet liquidity requirements. As of March 31, 2020, only 32% of the total assets were held in cash and money market accounts maturing overnight.
- Return – The overall market yield decreased to 0.66% as of March 31, 2020 versus 1.56% as of December 31, 2019. The lower yield is a result of the declining interest rate environment that is prevalent in the market. GLWA earned $15.2 million (unaudited) in investment income for fiscal year-to-date on a book value basis. Based on current interest rate environment, the income earned for the previous quarter, and assuming GLWA maintains the same investable balances for the remainder of the fiscal year, we are projecting earnings of approximately $17.4 million in earnings for FY 2020.

AVAILABLE FUNDS (Unaudited)

Type	Financial Institution	Book Value	Market Value	YTM @ Market *(as of 3/31/20)*
Deposit Account	Comerica	$3,630,752	$3,630,752	0.15%
Deposit Account - Retainage	First Independence	$15,226,727	$15,226,727	0.05%
Deposit Account – Flint Security Deposit	Chase	$3,811,619	$3,811,619	0.34%
Deposit Account	Chase	$12,185,221	$12,185,221	0.34%
Trust Money Market Fund	U.S. Bank	$156,074,869	$156,074,869	0.37%
Money Market Fund	JP Morgan	$53,261,853	$53,261,853	0.79%
Local Government Investment Pool	GovMIC	$107,953,094	$107,953,094	1.36%
Managed Funds	PFM	$749,502,063	$759,841,669	0.64%
TOTAL		***$1,101,646,198***	***$1,111,985,803***	***0.66%***

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 $324,309,258 as of 3/31/2020.

Investment Strategy

GLWA INVESTMENT STRATEGY

- The aggregate portfolio is in compliance with GLWA's investment policy and Michigan Public Act 20.

- To date, GLWA has continued to invest its funds in a mixture of short and intermediate-term investments to ensure adequate liquidity to cover upcoming debt and pension payments.

- The aggregate portfolio was yielding 0.66% at the end of March.*

  - This compares to the 0.08% yield of the Bank of America / Merrill Lynch 3-Month U.S. Treasury Bill Index as of 3/31/2020, which is a comparable market indicator.
  - It should be noted that due to the impact of COVID-19, the Federal Reserve cut rates at two emergency meetings to a new target range of 0.00% to 0.25%, and as a result of the Fed's new zero interest rate policy, the markets saw a dramatic drop in Treasury yields over the last few weeks of March.

- GLWA continues to implement a very disciplined investment plan to provide improved safety and diversification and putting every dollar to work.

- PFM Asset Management LLC ("PFM"), GLWA's investment advisor, will continue to actively manage long-term portfolios with full discretion and align short-term balances with expected liabilities, subject to GLWA's investment policy and state statutes.

- GLWA will continue to work with PFM to identify strategies in this extremely low interest rate environment to maximize future investment income while meeting the objectives of safety and liquidity.

- Assuming GLWA maintains similar investable balances during this low interest rate environment, the interest income earnings projection for FY 2020 will be approximately $17.4 million.

** Current market yield as of March 31, 2020.*

Summary Market Overview and Outlook

ECONOMIC HIGHLIGHTS UPDATE

- U.S. economic conditions are characterized by: severe uncertainty caused by the growing COVID-19 pandemic; virtual shutdown of many segments of the economy likely forcing the U.S. into a recession; massive job losses and deteriorating consumer confidence; and significant volatility in all markets.
- The Fed cut the target Fed Funds rate by 150 basis points in two steps to 0.00% – 0.25%. In addition, the Fed responded rapidly to liquidity challenges in the bond market, implementing major lending facilities and conducting large scale asset purchases "in the amounts needed to support smooth market functioning and effective transmission of monetary policy."
- The U.S. Congress passed the Coronavirus Aid, Relief, and Economic Security ("CARES") Act, a $2 trillion stimulus package that provides aid to individuals, small and large businesses, state and local governments, and the health care industry.

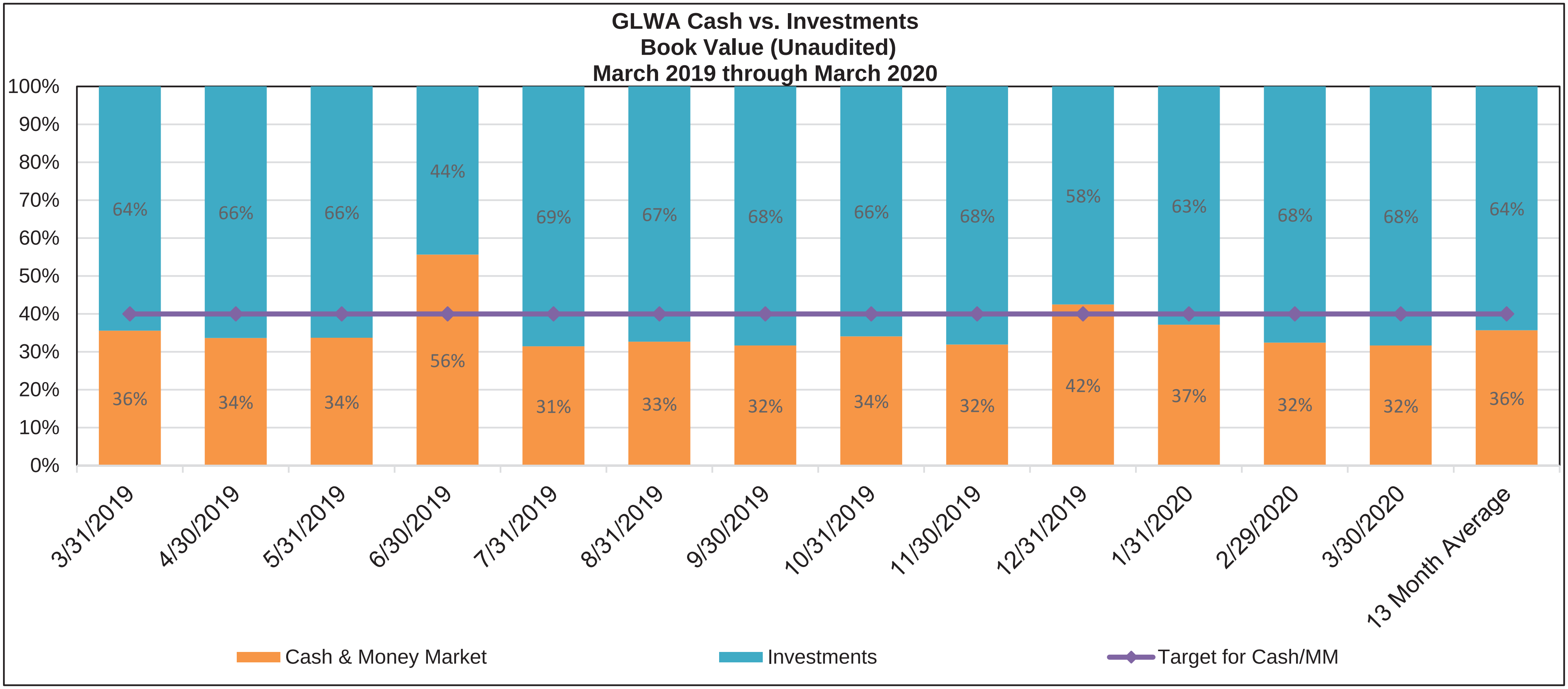
ECONOMIC IMPACT ON PORTFOLIO

- U.S. Treasury yields plunged during March in the wake of the Fed's rate cuts and a broad flight-to-quality. Short-term yields settled near 0.00% and long-term rates fell to record lows with the 10-year Treasury well below 1.00%. At the same time, yield spreads on all non-government securities widened sharply, causing corporate, municipal and securitized sectors to far underperform Treasuries.
- The Fed's market support programs are just starting to impact the markets. There mere announcement calmed the markets, and the central bank's pledge to "act as appropriate to support the economy" provides further support in the face of the novel coronavirus outbreak. This should lead to moderating volatility in the coming months.
- Federal Agency yield spreads increased during March to their widest levels in over 10 years. Given the sector's high quality and liquidity, PFM viewed wider spreads as an opportunity to add to Agency allocations.
- In the money market space, yield spreads on commercial paper investments widened sharply, but issuers began to re-enter the market in late March, supported by the Fed's liquidity support measures. PFM believes the prudent action is to remain cautious and vigilant with regards to commercial paper investments.

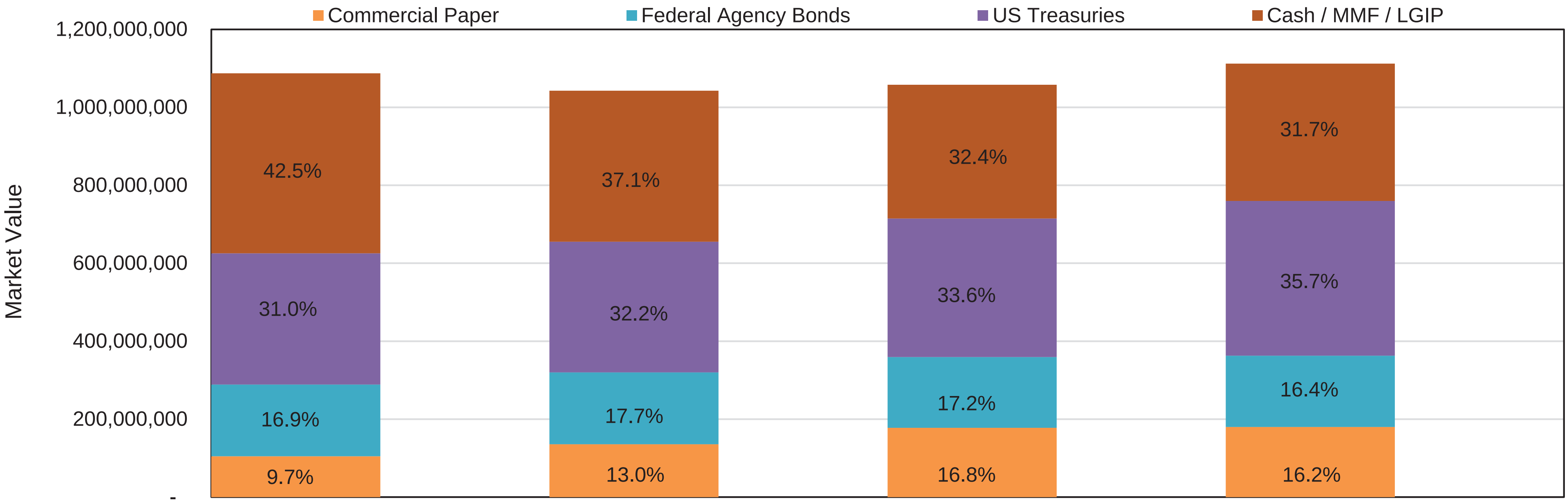
Portfolio Mix
Cash / Money Market vs. Investments

- GLWA's liquidity requirements fluctuate each month based on operational requirements, capital funding, and debt payments. Based on a review of historical activity and refinement of cash flow projections, GLWA has set a target ratio of 40% cash & money market accounts and 60% investments for the portfolio holdings. The 13-month average at the end of December of 2019 was ahead of the target.

- The chart below compares the monthly allocation of the portfolio holdings to the 13-month average and the target. The allocation between cash and investments will vary each month based on liquidity requirements. For March of 2020, 32% of the portfolio was invested in cash & money market accounts. This percentage is lower than December due to the Authority's efficient management of funds.



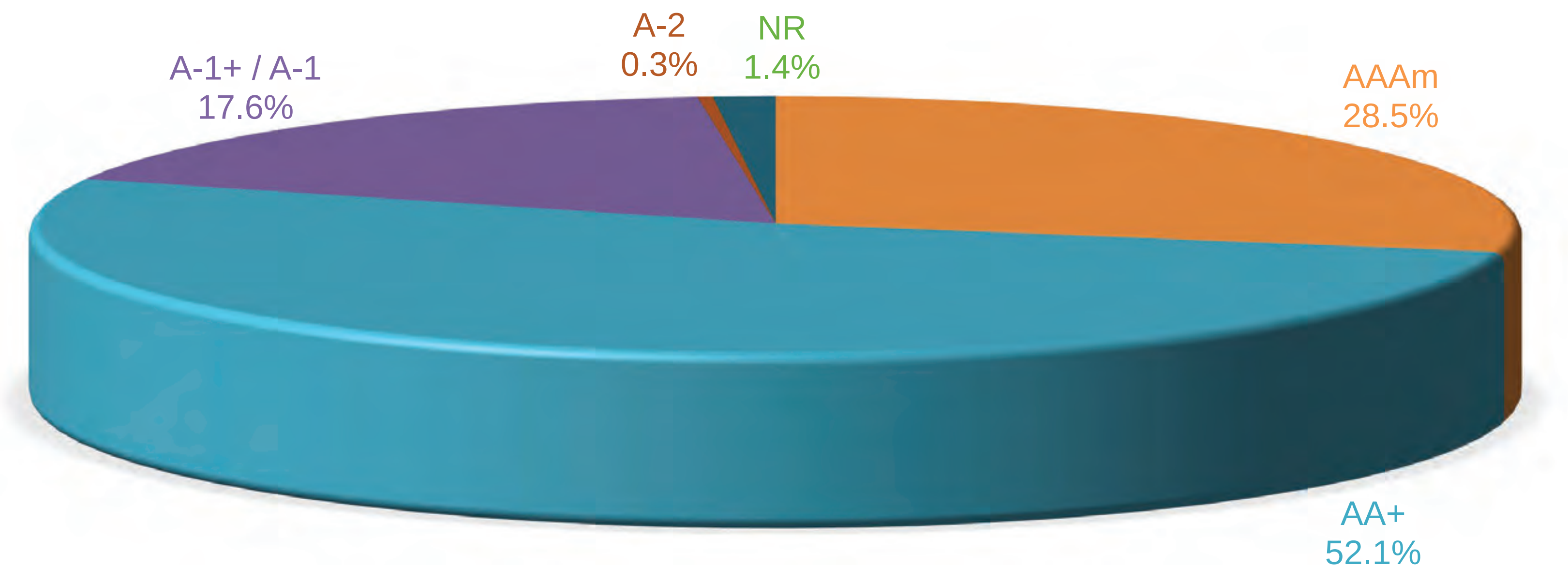
Investments – By Security Type



Security Type	December Market Value	December Asset Allocation	January Market Value	January Asset Allocation	February Market Value	February Asset Allocation	March Market Value	March Asset Allocation
Commercial Paper	104,960,206	9.7%	135,645,833	13.0%	177,965,359	16.8%	180,085,293	16.2%
Federal Agencies	183,805,199	16.9%	184,309,789	17.7%	181,466,233	17.2%	182,803,984	16.4%
U.S. Treasuries	336,598,575	31.0%	335,345,112	32.2%	355,494,225	33.6%	396,952,391	35.7%
Cash / MMF / LGIP	462,071,256	42.5%	387,307,611	37.1%	342,843,990	32.4%	352,144,134	31.7%
Total	**1,087,435,236**	**100.0%**	**1,042,608,345**	**100.0%**	**1,057,769,808**	**100.0%**	**1,111,985,803**	**100.0%**

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

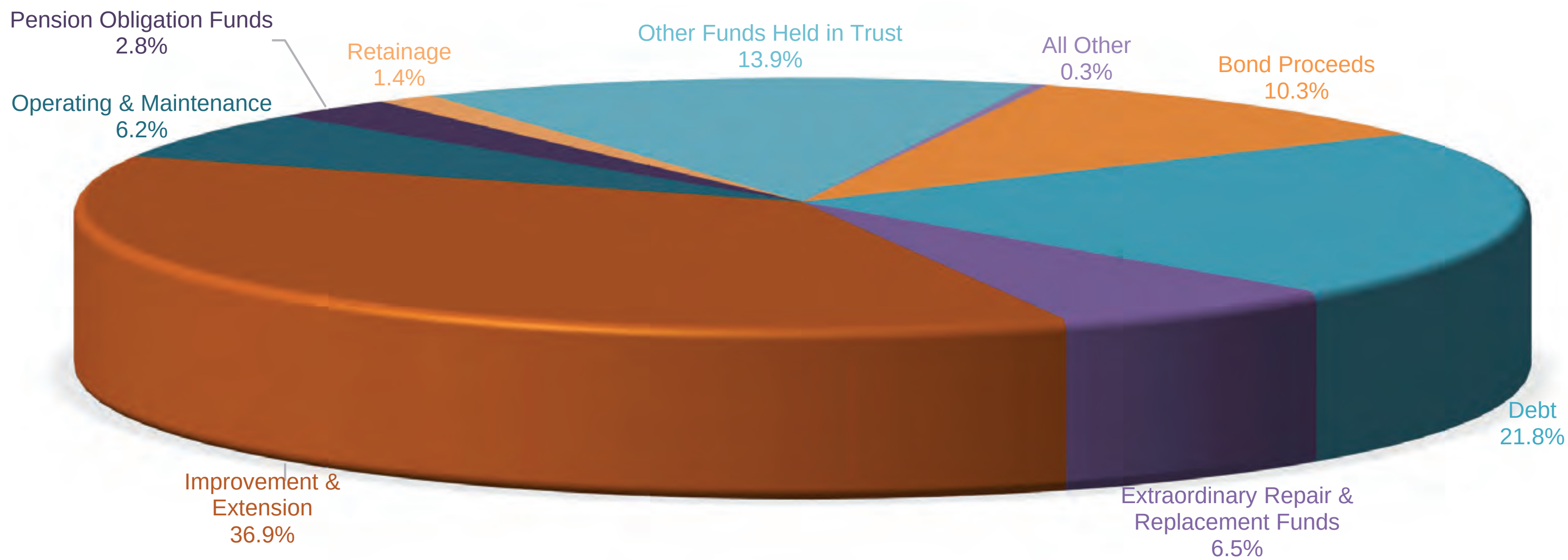
Investments – By Credit Quality



Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	317,289,816	28.5%
AA+	579,756,376	52.1%
A-1 + / A-1	196,082,133	17.6%
A-2	3,630,752	0.3%
NR	15,226,727	1.4%
Totals	**1,111,985,803**	**100.0%**

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

Investments – By Account Purpose



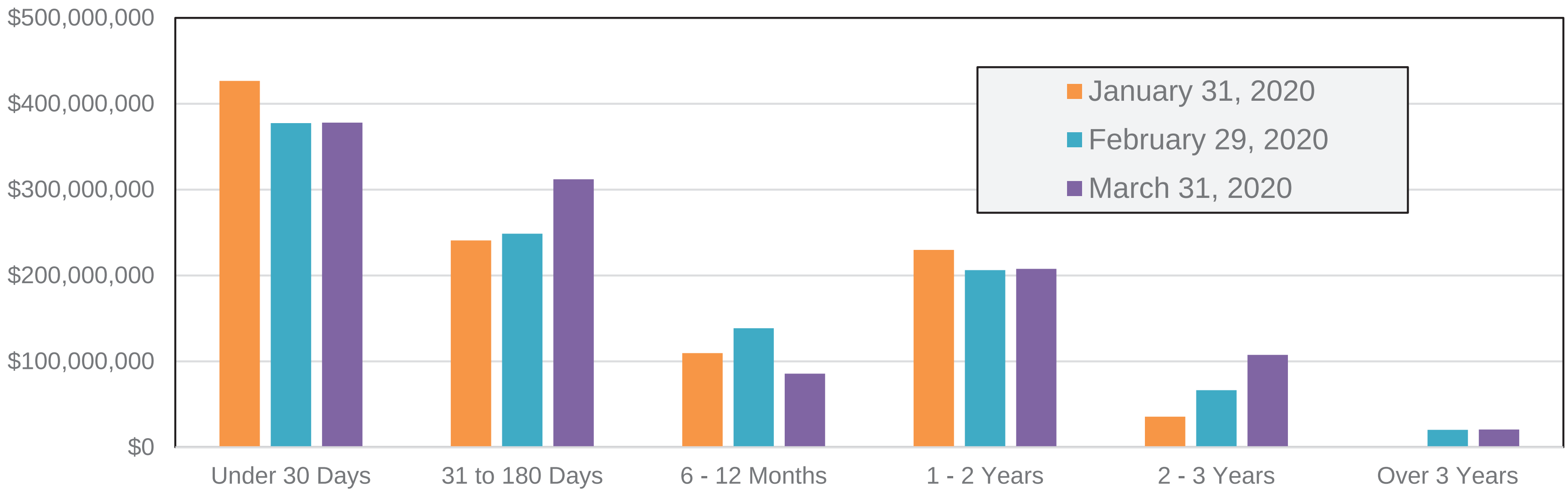
Account Purpose		Market Value	% Allocation
Bond Proceeds	$	114,084,645	10.3%
Debt	$	241,895,771	21.8%
Extraordinary Repair & Replacement Funds	$	72,758,068	6.5%
Improvement & Extension	$	409,937,404	36.9%
Operating & Maintenance	$	69,032,643	6.2%
Pension Obligation Funds	$	30,977,542	2.8%
Retainage	$	15,226,727	1.4%
Other Funds Held in Trust	$	154,261,385	13.9%
All Other	$	3,811,619	0.3%
Total	**$**	**1,111,985,803**	**100.0%**

Other Funds Held in Trust		Market Value	% Allocation
Budget Stabilization Funds	$	7,669,590	5.0%
Receiving Funds	$	136,086,073	88.2%
WRAP Funds	$	10,505,722	6.8%
Total	**$**	**154,261,385**	**100.0%**

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020. "All Other" funds includes the Flint Security Deposit account which is held on behalf of the City of Flint and do not belong to GLWA.

Investments – By Maturity

Maturity Distribution		January 31, 2020	%		February 29, 2020	%		March 31, 2020	%
Under 30 Days	$	426,668,251	40.9%	$	377,535,147	35.7%	$	378,053,948	34.0%
31 to 180 Days		240,904,368	23.1%		248,695,716	23.5%		311,952,361	28.1%
6 - 12 Months		109,666,307	10.5%		138,567,889	13.1%		85,778,294	7.7%
1 - 2 Years		229,747,504	22.0%		206,230,007	19.5%		207,857,379	18.7%
2 - 3 Years		35,621,915	3.4%		66,433,394	6.3%		107,619,445	9.7%
Over 3 Years		-	0.0%		20,307,655.20	1.9%		20,724,375.00	1.9%
Totals	**$**	**1,042,608,345**	**100.0%**	**$**	**1,057,769,808**	**100.0%**	**$**	**1,111,985,803**	**100.0%**



In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

Investment Accounts – Yield at Cost & Market

	As of March 31, 2020		As of December 31, 2019	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.15%	0.15%	0.18%	0.18%
First Indenpedence	0.05%	0.05%	0.05%	0.05%
Flint Deposit Account	0.34%	0.34%	0.80%	0.80%
JP Morgan Chase	0.34%	0.34%	0.80%	0.80%
Sub-Total Bank Deposits	**0.19%**	**0.19%**	**0.42%**	**0.42%**
Money Market Funds / LGIPs				
GovMIC	1.36%	1.36%	1.75%	1.75%
U.S. Bank - First American MMF	0.37%	0.37%	1.48%	1.48%
JP Morgan Securities - Blackrock MMF	0.79%	0.79%	1.52%	1.52%
Sub-Total MMF / LGIPs	**0.78%**	**0.78%**	**1.55%**	**1.55%**
Investment Portfolios				
Sewage SR Debt Serv 5403	1.67%	1.54%	1.83%	1.84%
Sewage SR Res 5400	1.69%	0.24%	1.69%	1.61%
Sew 2nd Debt Serv 5403	1.61%	1.47%	1.85%	1.79%
Sewage 2nd Res 5481	1.74%	0.25%	1.74%	1.60%
Sew SRF Debt Serv 5410	1.94%	1.32%	1.88%	1.84%
Sewage ER & R	2.20%	0.32%	2.47%	1.63%
Sewer Improvement & Extension	1.80%	0.37%	2.10%	1.63%
Sewer Pension Obligation	1.52%	0.37%	1.75%	1.60%
Sewer Wrap Fund	1.52%	1.44%	1.91%	1.78%
Sewer Budget Stabilization Fund	2.28%	0.32%	2.53%	1.63%
Sewer Bond Fund	1.61%	1.82%	2.06%	1.84%
Sewer O&M Pension Sub Account	2.00%	0.37%	2.00%	1.58%
Water SR Debt Ser 5503	1.66%	1.52%	1.83%	1.83%
Water SR Reserve 5500	2.18%	0.27%	2.19%	1.61%
Water 2nd Debt Serv 5503	1.66%	1.45%	1.83%	1.83%
Water 2nd Res 5581	1.84%	0.24%	1.84%	1.61%
Water SRF Debt Serv 5575	2.03%	1.57%	1.94%	1.85%
Water ER & R	2.19%	0.32%	2.44%	1.62%
Water Improvement & Extension	2.06%	0.39%	2.30%	1.63%
Water Pension Obligation	1.53%	0.37%	1.75%	1.60%
Water Wrap Fund	1.50%	1.35%	1.86%	1.78%
Water Budget Stabilization Fund	2.28%	0.32%	2.53%	1.63%
Water Bond Fund	2.33%	0.82%	2.42%	1.66%
Water O&M Pension Sub Account	2.00%	0.37%	2.00%	1.58%
Sub-Total Investment Portfolios	**1.91%**	**0.64%**	**2.16%**	**1.66%**
Grand Total	***1.53%***	***0.66%***	***1.85%***	***1.56%***

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.

Demonstration of Yield to Maturity vs. Duration

- 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 types of funds (e.g., bond proceeds, debt service, etc.) and duration of the overall portfolios listed below as well as the various differences in permitted investments and allowable credit capacity in state statutes (i.e., the ability or non-ability to invest in long-term corporate credit) will have a direct impact on the corresponding yields at market.
- 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 inverted yield curve environment.
- GLWA does not have a potential for a longer duration portfolio when compared to other similar water entities/utilities as the Authority's covenants limits and restricts its ability in managing assets to a longer-term strategy.

	As of March 31, 2020			
	Market Value	*YTM @ Market*	*Effective Duration*	*Weighted Average Maturity*
GLWA				
Great Lakes Water Authority	$1,111,985,803	0.66%	0.71 Years	264 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		1.15%	0.08 Years	30 Days
BoA / ML 3-Month Treasury Index		0.08%	0.16 Years	58 Days
BoA / ML 6-Month Treasury Index		0.09%	0.41 Years	150 Days
BoA / ML 1-Year Treasury Index		0.09%	0.91 Years	332 Days
BoA / ML 1-3 Year Treasury Index		0.20%	1.85 Years	675 Days
BoA / ML 1-5 Year Treasury Index		0.25%	2.66 Years	971 Days
Peer Analysis (Water Entities / Utilities)				
District of Columbia Water & Sewer Authority, DC	$348,534,146	0.63%	0.88 Years	343 Days
DuPage Water Commission, IL	$147,980,152	0.77%	2.33 Years	1,309 Days
Fairfax County Water Authority, VA	$169,569,584	0.59%	2.05 Years	773 Days
Metro Wastewater Reclamation District, CO	$185,185,300	1.11%	2.29 Years	946 Days
Metropolitan Water District of Southern California, CA	$699,735,506	1.46%	0.57 Years	238 Days
Philadelphia Water Department, PA	$209,765,912	0.88%	0.97 Years	358 Days
San Bernardino Valley Municipal Water District, CA	$365,347,305	0.87%	1.80 Years	675 Days
Tohopekaliga Water Authority, FL	$154,434,430	1.23%	1.90 Years	995 Days
Truckee Meadows Water Authority, NV	$108,186,469	0.56%	2.02 Years	765 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.

Monthly Investment Income (Book Value)

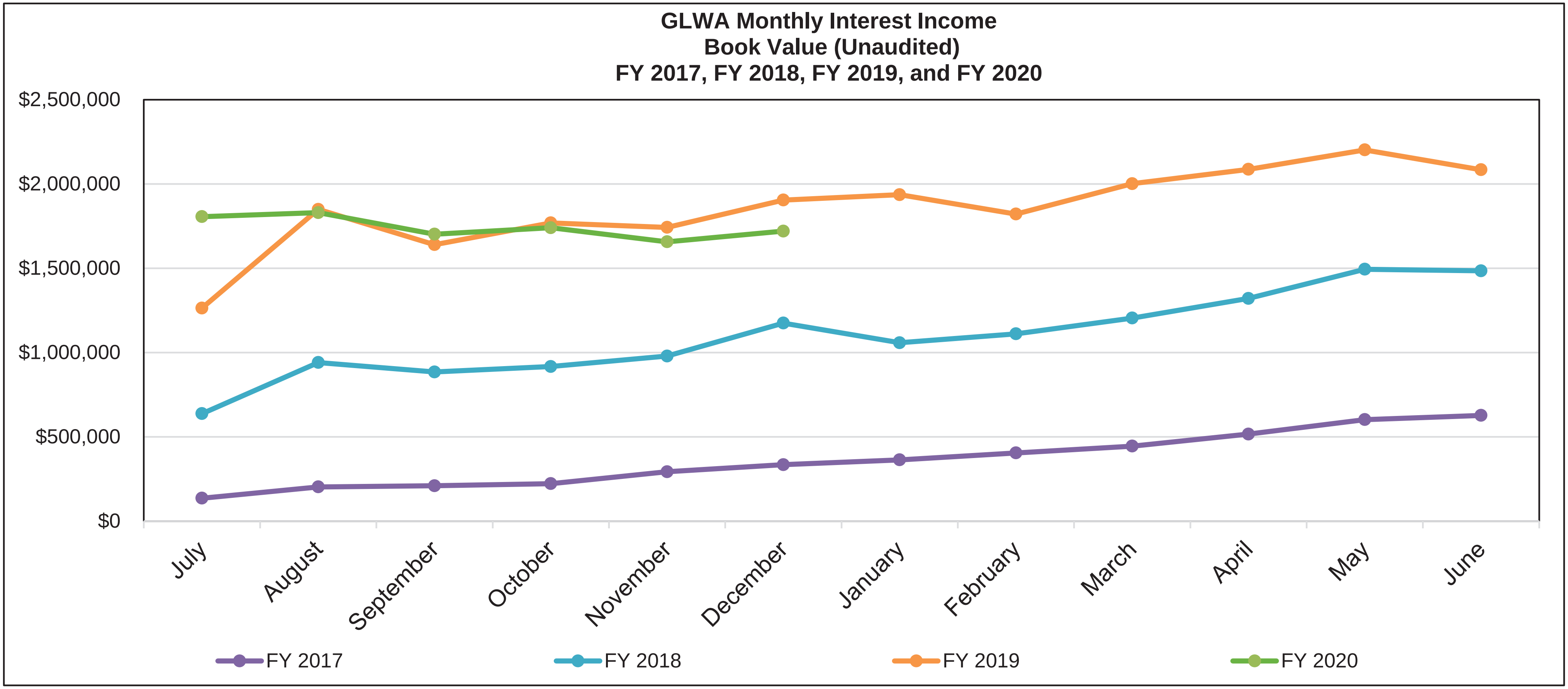
FY 2020 INVESTMENT INCOME BY MONTH (Unaudited)

Month	Interest Earned During Period	Realized Gain / Loss	Investment Income
July 2019	$1,763,209.65	$43,136.83	$1,806,346.48
August 2019	$1,829,826.44	$0.00	$1,829,826.44
September 2019	$1,700,961.33	$1,005.57	$1,701,966.90
October 2019	$1,740,610.53	$0.00	$1,740,610.53
November 2019	$1,656,964.78	$0.00	$1,656,964.78
December 2019	$1,720,392.03	$0.00	$1,720,392.03
January 2020	$1,566,652.22	$0.00	$1,566,652.22
February 2020	$1,565,502.42	$0.00	$1,565,502.42
March 2020	$1,563,729.94	$0.00	$1,563,729.94
FY 2020 Y-T-D	***$15,107,849.34***	***$44,142.40***	***$15,151,991.74***

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.

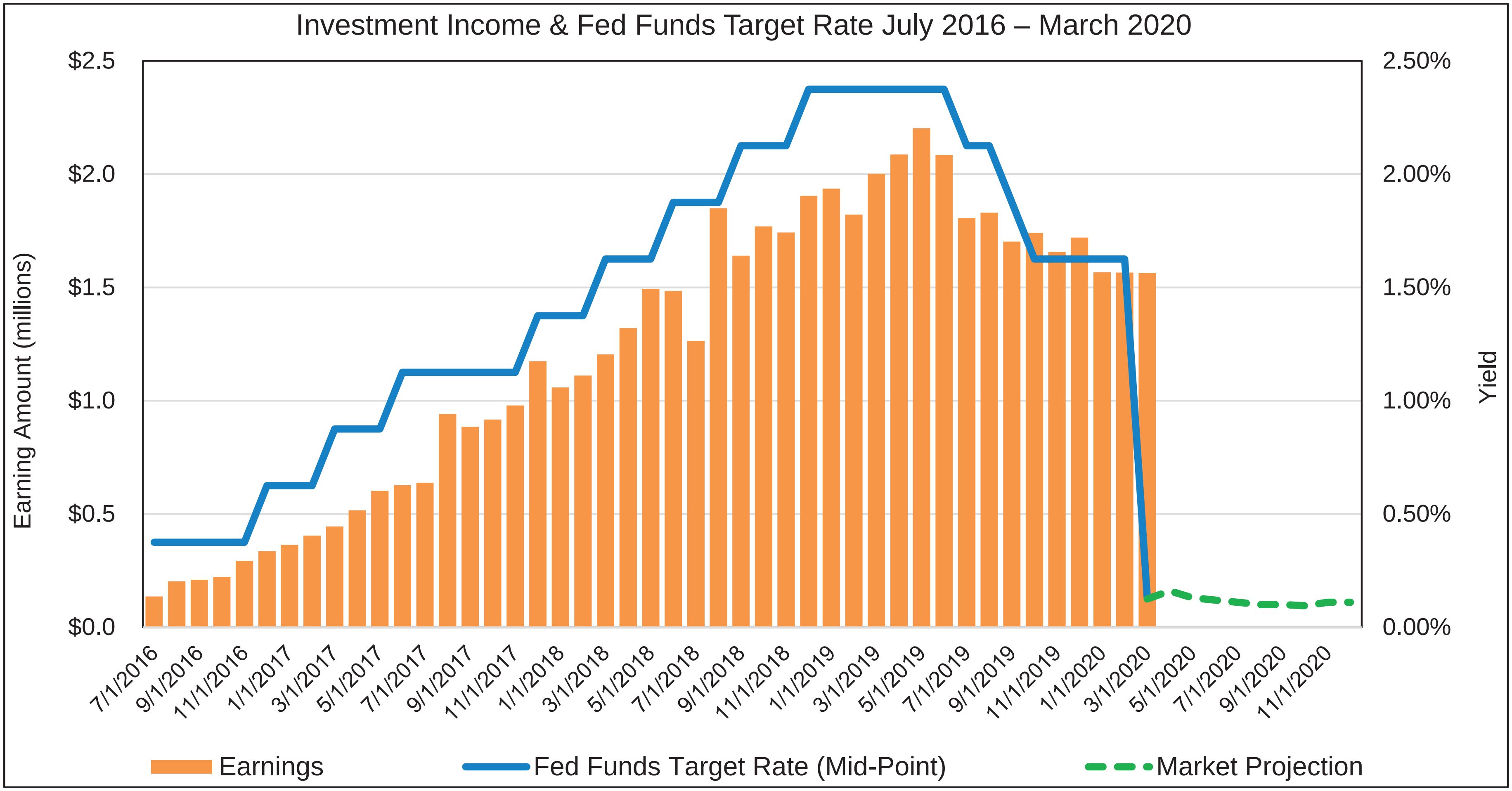
Year-Over-Year Investment Income

- GLWA has earned $15,151,992 in investment income for fiscal year 2020 on a book value basis compared to $15,928,947 for the first six months of fiscal year 2019.
- Projected investment income for fiscal year 2020 is $17.4 million as the market expects the overnight lending rate to be maintained at its current range of 0.00% to 0.25% through the end of the fiscal year.



Monthly Investment Income Compared to Fed Funds Rate

- As a result of the short-term duration of GLWA's portfolio, it is heavily impacted by changes in the Fed Funds rate; the chart below illustrates that GLWA's investment income has consistently followed the trend of the Fed Funds target rate.
- According to effective Fed Funds futures, the market expects the overnight lending rate to be maintained at its current target range of 0.00% to 0.25% through 2021; based on the historical trend, the most recent cuts in the Fed Funds rate will translate into lower interest earnings for GLWA.



Appendix I:
Portfolio Holdings

Portfolio Holdings
As of March 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		$ 3,630,752	4/1/2020	3/31/2020	0.15%	$ 3,630,752	1	$ -	$ 3,630,752
FIRST INDEPENDENCE BANK		15,226,727	4/1/2020	3/31/2020	0.05%	15,226,727	1	-	15,226,727
FLINT DEPOSIT ACCOUNT		3,811,619	4/1/2020	3/31/2020	0.34%	3,811,619	1	-	3,811,619
JP MORGAN CHASE		12,185,221	4/1/2020	3/31/2020	0.34%	12,185,221	1	-	12,185,221
GovMIC		107,953,094	4/1/2020	3/31/2020	1.36%	107,953,094	1	-	107,953,094
U.S. BANK - FIRST AMERICAN MMF		156,074,869	4/1/2020	3/31/2020	0.37%	156,074,869	1	-	156,074,869
JP MORGAN SECURITIES - BLACKROCK MMF		53,261,853	4/1/2020	3/31/2020	0.79%	53,261,853	1	-	53,261,853

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

Portfolio Holdings
As of March 31, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Credit Agricole NY 0 4/1/2020	22533TD11	$ 1,000,000	4/1/2020	12/16/2019	1.83%	$ 994,591	1	$ -	$ 1,000,000
MUFJ Securities 0 4/1/2020	62479LD10	1,150,000	4/1/2020	2/7/2020	1.62%	1,147,206	1	-	1,150,000
Toyota Motor Credit 0 4/1/2020	89233GD11	1,010,000	4/1/2020	11/20/2019	1.87%	1,003,060	1	-	1,010,000
MUFG Bank NY 0 5/1/2020	62479LE19	1,000,000	5/1/2020	2/7/2020	1.65%	996,173	31	-	998,990
Credit Agricole NY 0 5/1/2020	22533TE10	1,000,000	5/1/2020	12/16/2019	1.83%	993,074	31	-	998,990
Skandinav Enskilda Bank 0 5/27/2020	83050TET4	250,000	5/27/2020	3/12/2020	1.25%	249,340	57	-	249,398
Toyota Motor Credit 0 6/1/2020	89233GF19	175,000	6/1/2020	2/7/2020	1.69%	174,061	62	-	174,531
Toyota Motor Credit 0 6/1/2020	89233GF19	1,000,000	6/1/2020	2/7/2020	1.69%	994,633	62	-	997,320
BNP Paribas NY 0 6/19/2020	09659BFK1	2,850,000	6/19/2020	1/3/2020	1.81%	2,826,193	80	-	2,840,111
JPMorgan Securities 0 6/19/2020	46640PFK4	4,053,000	6/19/2020	10/8/2019	1.85%	4,000,463	80	-	4,038,936
Natixis Bank NY 0 6/19/2020	63873JFK1	398,000	6/19/2020	11/13/2019	1.90%	393,448	80	-	396,619
Apple Inc 0 6/19/2020	03785DFK7	9,900,000	6/19/2020	3/23/2020	1.09%	9,873,622	80	-	9,865,647
BNP Paribas NY 0 6/19/2020	09659BFK1	7,475,000	6/19/2020	1/3/2020	1.81%	7,412,559	80	-	7,449,062
Credit Agricole 0 6/19/2020	22533TFK7	6,897,000	6/19/2020	12/6/2019	1.81%	6,829,785	80	-	6,873,067
JPMorgan Securities 0 6/19/2020	46640PFK4	10,495,000	6/19/2020	10/8/2019	1.85%	10,358,959	80	-	10,458,582
Lloyds Bank PLC 0 6/19/2020	53943RFK0	10,392,000	6/19/2020	2/7/2020	1.66%	10,328,652	80	-	10,355,940
Natixis Bank NY 0 6/19/2020	63873JFK1	1,208,000	6/19/2020	11/13/2019	1.90%	1,194,185	80	-	1,203,808
Natixis Bank NY 0 6/19/2020	63873JFK1	3,123,000	6/19/2020	1/6/2020	1.83%	3,097,092	80	-	3,112,163
Apple Inc 0 6/19/2020	03785DFK7	3,169,000	6/19/2020	3/23/2020	1.09%	3,160,556	80	-	3,158,004
BNP Paribas NY 0 6/19/2020	09659BFK1	4,195,000	6/19/2020	1/3/2020	1.81%	4,159,958	80	-	4,180,443
JPMorgan Securities 0 6/19/2020	46640PFK4	3,886,000	6/19/2020	10/8/2019	1.85%	3,835,628	80	-	3,872,516
Lloyds Bank PLC 0 6/19/2020	53943RFK0	3,847,000	6/19/2020	2/7/2020	1.66%	3,823,549	80	-	3,833,651
BNP Paribas NY 0 6/19/2020	09659BFK1	7,480,000	6/19/2020	1/3/2020	1.81%	7,417,517	80	-	7,454,044
JPMorgan Securities 0 6/19/2020	46640PFK4	11,779,000	6/19/2020	10/8/2019	1.85%	11,626,315	80	-	11,738,127
Lloyds Bank PLC 0 6/19/2020	53943RFK0	8,601,000	6/19/2020	2/7/2020	1.66%	8,548,570	80	-	8,571,155

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

Portfolio Holdings
As of March 31, 2020

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Natixis Bank NY 0 6/19/2020	63873JFK1	3,921,000	6/19/2020	11/13/2019	1.90%	3,876,157	80	-	3,907,394
Natixis Bank NY 0 6/19/2020	63873JFK1	4,489,000	6/19/2020	1/6/2020	1.83%	4,451,760	80	-	4,473,423
Pfizer Inc 0 6/24/2020	71708EFQ3	1,500,000	6/24/2020	2/24/2020	1.61%	1,491,933	85	-	1,491,554
Pfizer Inc 0 6/24/2020	71708EFQ3	1,750,000	6/24/2020	2/24/2020	1.61%	1,740,589	85	-	1,740,146
IBM Corporation 0 6/25/2020	45920FFR4	1,000,000	6/25/2020	3/12/2020	1.05%	996,938	86	-	996,270
IBM Corporation 0 6/25/2020	45920FFR4	740,000	6/25/2020	3/12/2020	1.05%	737,734	86	-	737,240
Apple Inc 0 7/1/2020	03785DG18	3,820,000	7/1/2020	3/23/2020	1.09%	3,808,434	92	-	3,805,904
Cooperatieve | Rabobank 0 7/1/2020	21687AG15	4,017,000	7/1/2020	12/6/2019	1.79%	3,975,919	92	-	4,002,177
Toyota Motor Credit 0 7/1/2020	89233GG18	1,250,000	7/1/2020	1/6/2020	1.88%	1,238,569	92	-	1,245,388
Toyota Motor Credit 0 7/1/2020	89233GG18	4,017,000	7/1/2020	2/7/2020	1.69%	3,989,818	92	-	4,002,177
Cooperatieve | Rabobank 0 7/1/2020	21687AG15	3,550,000	7/1/2020	12/6/2019	1.79%	3,513,695	92	-	3,536,901
Apple Inc 0 7/1/2020	03785DG18	550,000	7/1/2020	3/23/2020	1.09%	548,335	92	-	547,971
Apple Inc 0 7/1/2020	03785DG18	10,855,000	7/1/2020	3/23/2020	1.09%	10,822,133	92	-	10,814,945
Cooperatieve | Rabobank 0 7/1/2020	21687AG15	11,675,000	7/1/2020	12/6/2019	1.79%	11,555,604	92	-	11,631,919
Toyota Motor Credit 0 7/1/2020	89233GG18	1,983,000	7/1/2020	2/7/2020	1.69%	1,969,582	92	-	1,975,683
MUFG Bank NY 0 7/1/2020	62479LG17	260,000	7/1/2020	2/7/2020	1.67%	258,262	92	-	259,041
Svenska Handelsbanken 0 7/28/2020	86960JGU3	1,000,000	7/28/2020	3/12/2020	1.00%	996,167	119	-	995,210
MUFG Bank NY 0 8/25/2020	62479LHR9	1,500,000	8/25/2020	2/24/2020	1.61%	1,487,800	147	-	1,492,421
MUFG Bank NY 0 8/25/2020	62479LHR9	1,750,000	8/25/2020	2/24/2020	1.61%	1,735,767	147	-	1,741,157
MUFG Bank NY 0 9/18/2020	62479LJJ5	245,000	9/18/2020	1/3/2020	1.91%	241,686	171	-	243,728
MUFG Bank NY 0 9/18/2020	62479LJJ5	245,000	9/18/2020	2/7/2020	1.68%	242,469	171	-	243,728
Pfizer Inc 0 9/18/2020	71708EJJ5	250,000	9/18/2020	3/23/2020	2.51%	246,917	171	-	248,703
BNP Paribas NY 0 9/18/2020	09659BJJ0	3,750,000	9/18/2020	2/7/2020	1.65%	3,711,967	171	-	3,730,538
MUFG Bank NY 0 9/18/2020	62479LJJ5	5,119,000	9/18/2020	1/3/2020	1.91%	5,049,763	171	-	5,092,432
Pfizer Inc 0 9/18/2020	71708EJJ5	5,175,000	9/18/2020	3/23/2020	2.51%	5,111,187	171	-	5,148,142

In addition to the totals listed above, there also exists surety bonds in the amount of $324,309,258 as of March 31, 2020.

Portfolio Holdings
As of March 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 2.5 4/23/2020	3137EAEM7	$ 3,750,000	4/23/2020	6/28/2018	2.56%	$ 3,746,288	23	$ 41,146	$ 3,754,219
FHLB 2.625 5/28/2020	3130AECJ7	3,750,000	5/28/2020	6/28/2018	2.57%	3,753,825	58	33,633	3,761,618
FHLMC 2.375 2/16/2021	3137EAEL9	3,500,000	2/16/2021	8/8/2018	2.79%	3,465,210	322	10,391	3,558,590
FHLMC 2.375 2/16/2021	3137EAEL9	20,000,000	2/16/2021	8/8/2018	2.79%	19,801,200	322	59,375	20,334,800
FHLMC 2.375 2/16/2021	3137EAEL9	250,000	2/16/2021	8/9/2018	2.78%	247,563	322	742	254,185
FHLMC 2.375 2/16/2021	3137EAEL9	685,000	2/16/2021	8/9/2018	2.78%	678,321	322	2,034	696,467
FNMA 2.5 4/13/2021	3135G0U27	3,500,000	4/13/2021	8/8/2018	2.82%	3,471,685	378	40,833	3,577,980
FNMA 2.5 4/13/2021	3135G0U27	20,000,000	4/13/2021	8/8/2018	2.82%	19,838,200	378	233,333	20,445,600
FNMA 2.5 4/13/2021	3135G0U27	250,000	4/13/2021	8/9/2018	2.81%	247,985	378	2,917	255,570
FNMA 2.5 4/13/2021	3135G0U27	3,400,000	4/13/2021	8/8/2018	2.81%	3,372,698	378	39,667	3,475,752
FNMA 2.5 4/13/2021	3135G0U27	685,000	4/13/2021	8/9/2018	2.81%	679,479	378	7,992	700,262
FNMA 2.5 4/13/2021	3135G0U27	5,750,000	4/13/2021	8/8/2018	2.81%	5,703,828	378	67,083	5,878,110
FHLB 2.25 6/11/2021	3130A1W95	10,000,000	6/11/2021	7/11/2019	1.94%	10,058,200	437	68,750	10,220,300
FHLB 2.25 6/11/2021	3130A1W95	25,000,000	6/11/2021	7/11/2019	1.94%	25,145,500	437	171,875	25,550,750
FHLB 1.875 7/7/2021	3130AGLD5	3,715,000	7/7/2021	6/10/2019	1.96%	3,708,982	463	16,253	3,784,322
FHLB 1.875 7/7/2021	3130AGLD5	3,910,000	7/7/2021	6/10/2019	1.96%	3,903,666	463	17,106	3,982,961
FHLMC 2.375 1/13/2022	3137EADB2	10,000,000	1/13/2022	7/11/2019	1.89%	10,118,700	653	51,458	10,350,700
FHLMC 2.375 1/13/2022	3137EADB2	25,000,000	1/13/2022	7/11/2019	1.89%	25,296,750	653	128,646	25,876,750
FHLB 2.125 6/10/2022	313379Q69	10,000,000	6/10/2022	7/11/2019	1.92%	10,059,200	801	65,521	10,384,300
FHLB 2.125 6/10/2022	313379Q69	25,000,000	6/10/2022	7/11/2019	1.92%	25,148,000	801	163,802	25,960,750

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Portfolio Holdings
As of March 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 0 8/15/2023	912833LM0	$ 10,500,000	8/15/2023	2/7/2020	1.41%	$ 9,992,745	1,232	$ -	$ 10,368,960
T-Note 0.5 3/15/2023	912828ZD5	10,000,000	3/15/2023	3/16/2020	0.58%	9,977,344	1,079	2,174	10,063,300
T-Note 1.25 10/31/2021	912828T67	10,000,000	10/31/2021	7/11/2019	1.83%	9,870,703	579	52,198	10,167,200
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	1,020	46,978	15,513,300
T-Note 1.75 10/31/2020	912828WC0	4,915,000	10/31/2020	11/20/2019	1.64%	4,919,992	214	35,917	4,962,626
T-Note 2 11/30/2020	912828A42	3,500,000	11/30/2020	8/8/2018	2.72%	3,444,082	244	23,333	3,545,115
T-Note 2 11/30/2020	912828A42	6,100,000	11/30/2020	9/6/2019	1.74%	6,119,539	244	40,667	6,178,629
T-Note 2.125 8/31/2020	912828VV9	3,500,000	8/31/2020	8/8/2018	2.69%	3,460,762	153	6,265	3,529,120
T-Note 2.125 8/31/2020	912828VV9	5,000,000	8/31/2020	7/11/2019	1.95%	5,009,570	153	8,950	5,041,600
T-Note 2.375 4/30/2020	9128284J6	3,500,000	4/30/2020	4/30/2019	2.40%	3,499,043	30	34,712	3,506,405
T-Note 2.5 5/31/2020	9128284Q0	3,500,000	5/31/2020	8/8/2018	2.66%	3,489,883	61	29,167	3,513,825
T-Note 2.5 5/31/2020	9128284Q0	4,750,000	5/31/2020	7/11/2019	2.02%	4,770,039	61	39,583	4,768,763
T-Note 0 8/15/2023	912833LM0	10,500,000	8/15/2023	2/7/2020	1.41%	9,992,745	1,232	-	10,368,960
T-Note 0.5 3/15/2023	912828ZD5	20,000,000	3/15/2023	3/16/2020	0.58%	19,954,688	1,079	4,348	20,126,600
T-Note 1.25 10/31/2021	912828T67	2,500,000	10/31/2021	7/11/2019	1.83%	2,467,676	579	13,049	2,541,800
T-Note 1.25 10/31/2021	912828T67	17,500,000	10/31/2021	9/6/2019	1.55%	17,388,574	579	91,346	17,792,600
T-Note 1.5 1/15/2023	912828Z29	15,000,000	1/15/2023	2/7/2020	1.39%	15,045,703	1,020	46,978	15,513,300
T-Note 1.75 10/31/2020	912828WC0	13,595,000	10/31/2020	11/20/2019	1.64%	13,608,807	214	99,348	13,726,736
T-Note 2 11/30/2020	912828A42	20,000,000	11/30/2020	8/8/2018	2.72%	19,680,469	244	133,333	20,257,800
T-Note 2.125 8/31/2020	912828VV9	20,000,000	8/31/2020	8/8/2018	2.69%	19,775,781	153	35,802	20,166,400
T-Note 2.375 4/30/2020	9128284J6	15,000,000	4/30/2020	4/30/2019	2.40%	14,996,484	30	148,764	15,027,450
T-Note 2.5 5/31/2020	9128284Q0	20,000,000	5/31/2020	8/8/2018	2.66%	19,942,188	61	166,667	20,079,000
T-Note 1.875 6/30/2020	912828VJ6-1	3,750,000	6/30/2020	6/28/2018	2.52%	3,703,271	91	17,578	3,765,234
T-Note 1.875 12/15/2020	9128283L2	2,070,000	12/15/2020	7/10/2019	1.91%	2,069,030	259	11,347	2,096,206
T-Note 2.625 12/15/2021	9128285R7	2,700,000	12/15/2021	7/10/2019	1.80%	2,752,945	624	20,720	2,810,943
T-Note 0.5 3/15/2023	912828ZD5	250,000	3/15/2023	3/16/2020	0.59%	249,336	1,079	54	251,583
T-Note 1.25 10/31/2021	912828T67	270,000	10/31/2021	9/6/2019	1.55%	268,313	579	1,409	274,514
T-Note 2 11/30/2020	912828A42	250,000	11/30/2020	8/9/2018	2.72%	246,006	244	1,667	253,223
T-Note 2.125 8/31/2020	912828VV9	250,000	8/31/2020	8/9/2018	2.69%	247,188	153	448	252,080
T-Note 2.5 5/31/2020	9128284Q0	250,000	5/31/2020	8/9/2018	2.66%	249,297	61	2,083	250,988
T-Note 2.625 5/15/2021	9128284P2	245,000	5/15/2021	2/7/2019	2.49%	245,708	410	2,421	251,862
T-Note 0.5 3/15/2023	912828ZD5	3,410,000	3/15/2023	3/16/2020	0.59%	3,400,942	1,079	741	3,431,585
T-Note 1.25 10/31/2021	912828T67	3,405,000	10/31/2021	9/6/2019	1.55%	3,383,586	579	17,773	3,461,932
T-Note 2 11/30/2020	912828A42	3,400,000	11/30/2020	9/17/2018	2.81%	3,341,828	244	22,667	3,443,826
T-Note 2.125 8/31/2020	912828VV9	3,400,000	8/31/2020	8/8/2018	2.69%	3,361,883	153	6,086	3,428,288
T-Note 2.5 5/31/2020	9128284Q0	3,400,000	5/31/2020	8/8/2018	2.66%	3,390,172	61	28,333	3,413,430
T-Note 2.625 5/15/2021	9128284P2	3,455,000	5/15/2021	2/7/2019	2.49%	3,464,852	410	34,135	3,551,775
T-Note 1.5 6/15/2020	912828XU9-1	635,000	6/15/2020	7/10/2019	2.00%	632,098	76	2,785	636,488

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Portfolio Holdings
As of March 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 1.5 6/15/2020	912828XU9-2	355,000	6/15/2020	7/10/2019	1.99%	353,391	76	1,557	356,026
T-Note 1.5 6/15/2020	912828XU9-2	1,784,000	6/15/2020	9/6/2019	1.82%	1,779,679	76	7,823	1,789,156
T-Note 1.5 6/15/2020	912828XU9-2	928,000	6/15/2020	10/10/2019	1.66%	926,985	76	4,070	930,682
T-Note 1.5 6/15/2020	912828XU9-2	887,000	6/15/2020	11/20/2019	1.58%	886,619	76	3,890	889,563
T-Note 1.5 6/15/2020	912828XU9-2	922,000	6/15/2020	12/16/2019	1.59%	921,604	76	4,043	924,665
T-Note 1.5 6/15/2020	912828XU9-2	891,000	6/15/2020	1/14/2020	1.56%	890,756	76	3,907	893,575
T-Note 1.5 6/15/2020	912828XU9-2	890,000	6/15/2020	2/7/2020	1.55%	889,826	76	3,903	892,572
T-Note 1.5 6/15/2020	912828XU9-2	885,000	6/15/2020	3/11/2020	0.47%	887,385	76	3,881	887,558
T-Note 1.875 6/30/2020	912828VJ6-2	1,740,000	6/30/2020	7/3/2018	2.54%	1,717,638	91	8,156	1,747,673
T-Note 1.875 6/30/2020	912828VJ6-2	2,760,000	6/30/2020	10/30/2018	2.81%	2,718,061	91	12,938	2,772,172
T-Note 2.625 12/15/2021	9128285R7	7,100,000	12/15/2021	7/10/2019	1.80%	7,239,227	624	54,487	7,391,739
T-Note 1.625 6/30/2020	912828XH8	9,705,000	6/30/2020	10/11/2017	1.61%	9,709,928	91	39,427	9,741,782
T-Note 2.625 12/15/2021	9128285R7	20,350,000	12/15/2021	7/10/2019	1.80%	20,749,051	624	156,170	21,186,182
T-Note 0.5 3/15/2023	912828ZD5	688,000	3/15/2023	3/16/2020	0.59%	686,173	1,079	150	692,355
T-Note 1.25 10/31/2021	912828T67	730,000	10/31/2021	9/6/2019	1.55%	725,438	579	3,810	742,206
T-Note 2 11/30/2020	912828A42	685,000	11/30/2020	8/9/2018	2.72%	674,056	244	4,567	693,830
T-Note 2.125 8/31/2020	912828VV9	685,000	8/31/2020	8/9/2018	2.69%	677,294	153	1,226	690,699
T-Note 2.5 5/31/2020	9128284Q0	685,000	5/31/2020	8/9/2018	2.66%	683,073	61	5,708	687,706
T-Note 2.625 5/15/2021	9128284P2	700,000	5/15/2021	2/7/2019	2.49%	702,023	410	6,916	719,607
T-Note 1.375 9/15/2020	9128282V1	5,134,000	9/15/2020	12/6/2019	1.62%	5,124,374	168	3,069	5,163,880
T-Note 1.375 9/15/2020	9128282V1	79,000	9/15/2020	1/3/2020	1.60%	78,877	168	47	79,460
T-Note 0.5 3/15/2023	912828ZD5	5,765,000	3/15/2023	3/16/2020	0.59%	5,749,687	1,079	1,253	5,801,492
T-Note 1.25 10/31/2021	912828T67	5,765,000	10/31/2021	9/6/2019	1.55%	5,728,744	579	30,092	5,861,391
T-Note 2 11/30/2020	912828A42	5,750,000	11/30/2020	9/17/2018	2.81%	5,651,621	244	38,333	5,824,118
T-Note 2.125 8/31/2020	912828VV9	5,750,000	8/31/2020	8/8/2018	2.69%	5,685,537	153	10,293	5,797,840
T-Note 2.5 5/31/2020	9128284Q0	5,750,000	5/31/2020	8/8/2018	2.66%	5,733,379	61	47,917	5,772,713
T-Note 2.625 5/15/2021	9128284P2	5,685,000	5/15/2021	2/7/2019	2.49%	5,701,211	410	56,167	5,844,237
T-Note 1.5 6/15/2020	912828XU9-1	1,140,000	6/15/2020	7/10/2019	2.00%	1,134,790	76	4,999	1,142,672
T-Note 1.5 6/15/2020	912828XU9-2	299,000	6/15/2020	7/10/2019	1.99%	297,645	76	1,311	299,864
T-Note 1.5 6/15/2020	912828XU9-2	2,449,000	6/15/2020	9/6/2019	1.82%	2,443,069	76	10,739	2,456,078
T-Note 1.5 6/15/2020	912828XU9-2	1,267,000	6/15/2020	10/10/2019	1.66%	1,265,614	76	5,556	1,270,662
T-Note 1.5 6/15/2020	912828XU9-2	1,217,000	6/15/2020	11/20/2019	1.58%	1,216,477	76	5,337	1,220,517
T-Note 1.5 6/15/2020	912828XU9-2	1,265,000	6/15/2020	12/16/2019	1.59%	1,264,456	76	5,547	1,268,656
T-Note 1.5 6/15/2020	912828XU9-2	1,223,000	6/15/2020	1/14/2020	1.56%	1,222,666	76	5,363	1,226,534
T-Note 1.5 6/15/2020	912828XU9-2	1,222,000	6/15/2020	2/7/2020	1.55%	1,221,761	76	5,359	1,225,532
T-Note 1.5 6/15/2020	912828XU9-2	1,215,000	6/15/2020	3/11/2020	0.47%	1,218,275	76	5,328	1,218,511
T-Note 1.625 6/30/2020	912828XH8	4,565,000	6/30/2020	2/27/2017	1.54%	4,578,374	91	18,545	4,582,301
T-Note 1.625 6/30/2020	912828XH8	6,560,000	6/30/2020	10/11/2017	1.61%	6,563,331	91	26,650	6,584,862
T-Note 2.625 12/15/2021	9128285R7	10,900,000	12/15/2021	7/10/2019	1.80%	11,113,742	624	83,649	11,347,881

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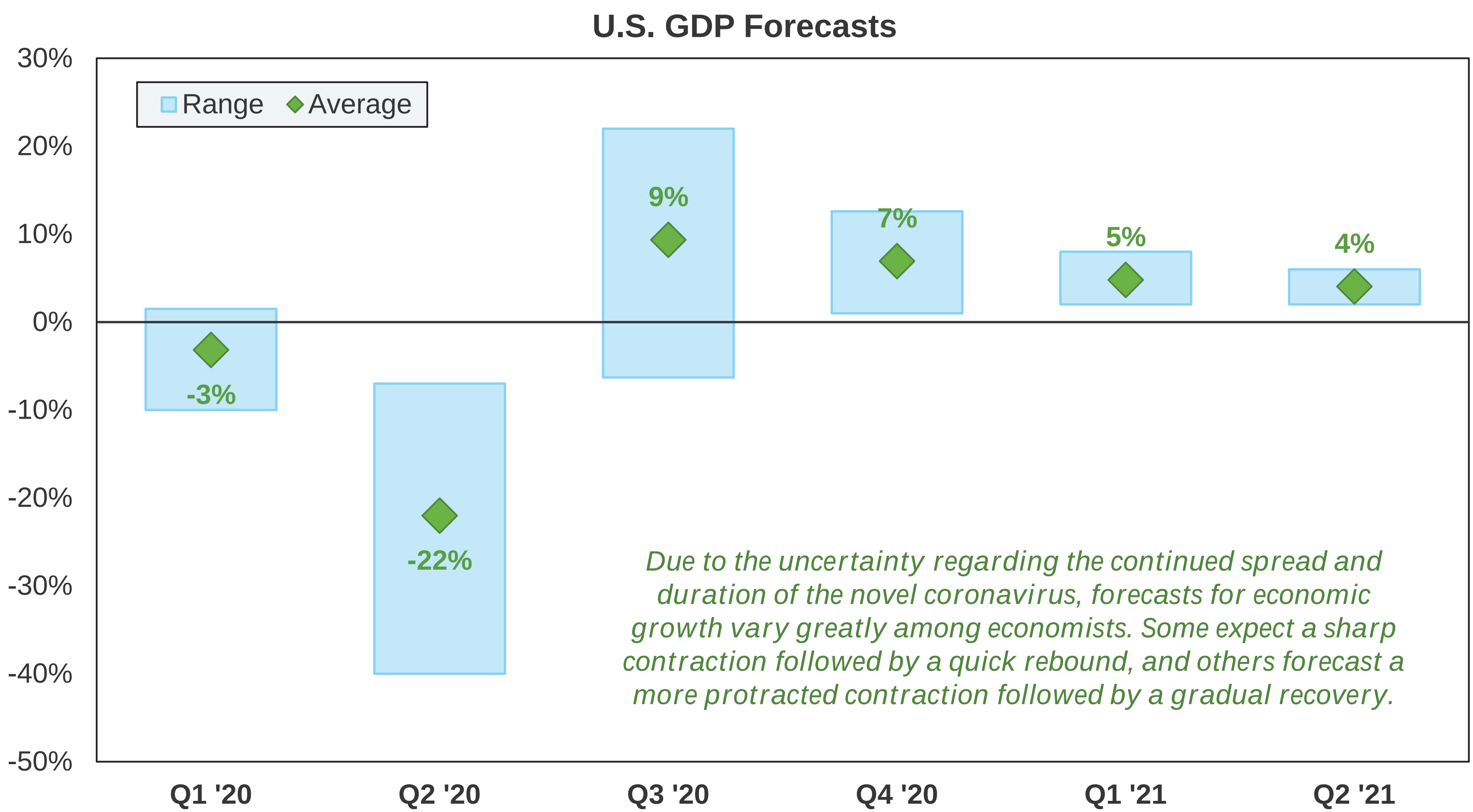
Appendix II:
Economic Update

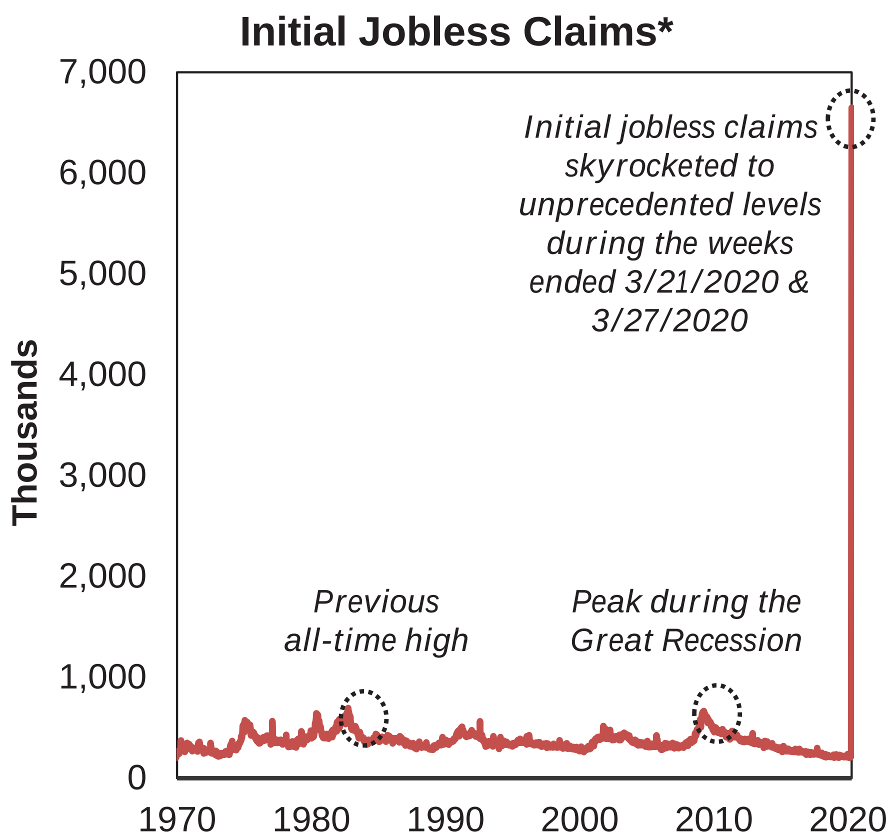
U.S. Economy Projected to Contract in the Near-Term

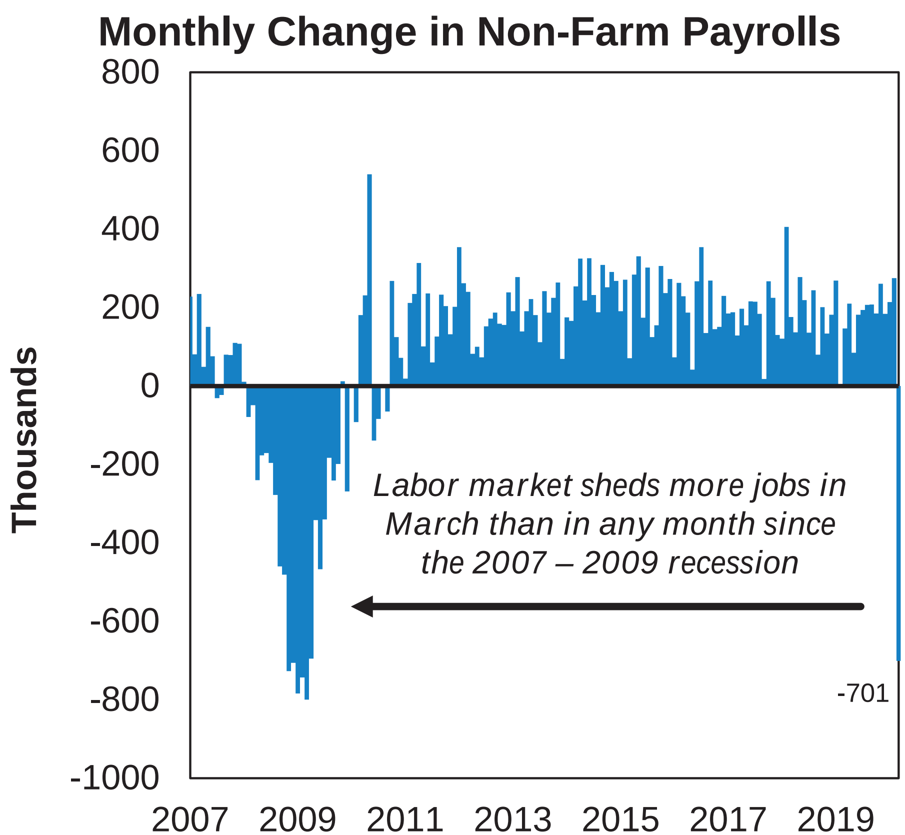


Source: Bloomberg, as of 3/31/2020.

U.S. Economy Posts Record Job Losses in March

- The initial jobless claims report showed 6.65 million Americans filed for unemployment benefits for the week ended March 28th, far exceeding the consensus estimate of 3.76 million, and nearly doubling the previous record set last week, which was revised up to 3.31 million
- California recorded the largest initial jobless claims, followed by Pennsylvania then New York; about 6.0% of the U.S. labor force has filed for jobless claims in the last two weeks of March, up from 0.3% at the end of February



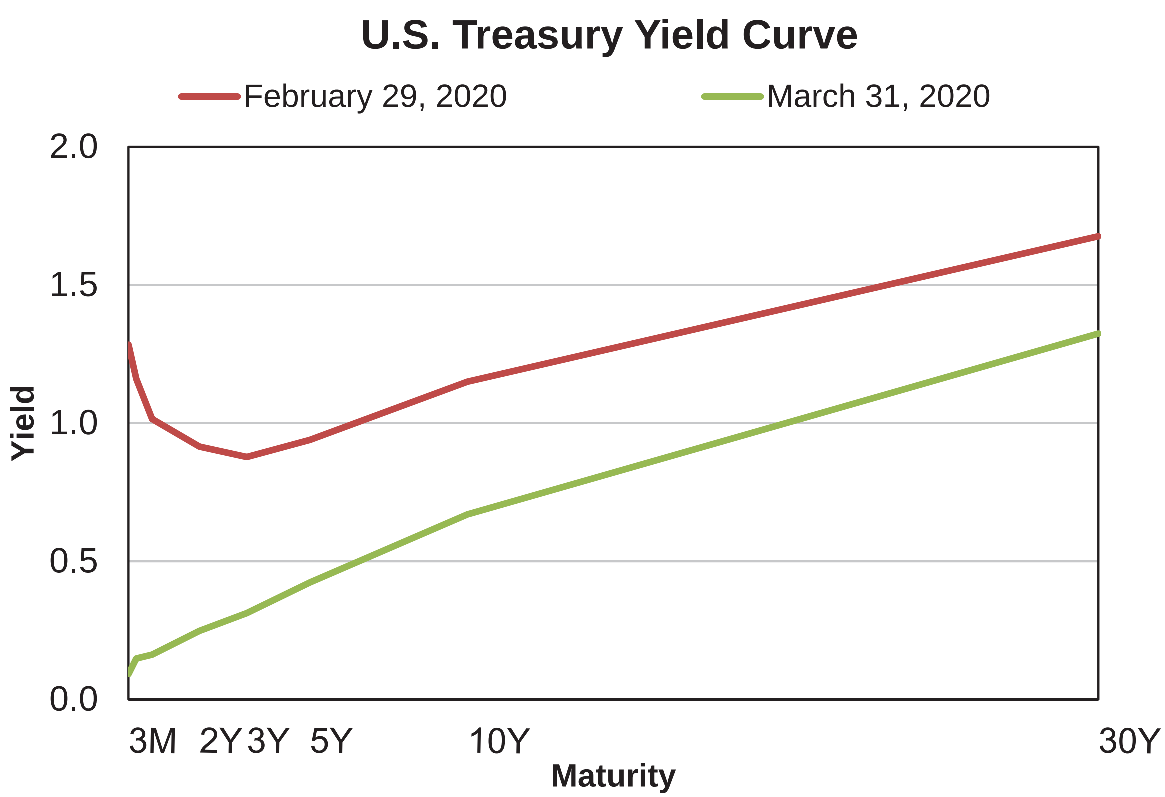


Source: Bloomberg, as of 3/31/2020. *Seasonally adjusted.

Yield Curve Falls, Especially Short-Term Securities

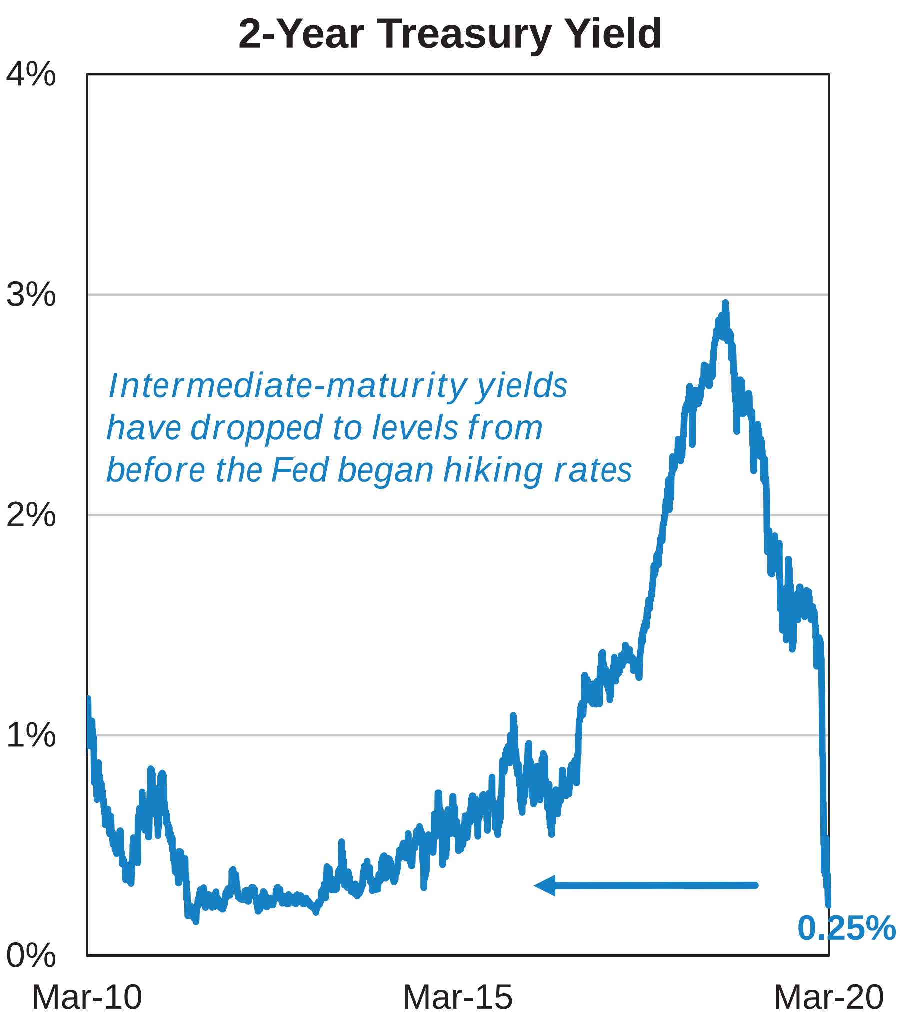
- Following two March rate cuts totaling 150 basis points, U.S. Treasury rates drastically declined in March
- White House officials seek to prepare the nation for what is expected to be a challenging couple of weeks, providing little optimism for investors; also pressuring Treasury yields is the fact that nearly 90% of Americans are under stay-at-home measures, making for a bleak business environment

	2/29/2020	3/31/2020	Change
3 month	1.28%	0.09%	-1.19%
6 month	1.16%	0.15%	-1.01%
1 year	1.02%	0.16%	-0.85%
2 year	0.92%	0.25%	-0.67%
3 year	0.88%	0.31%	-0.57%
5 year	0.94%	0.42%	-0.52%
10 year	1.15%	0.67%	-0.48%
30 year	1.68%	1.32%	-0.35%



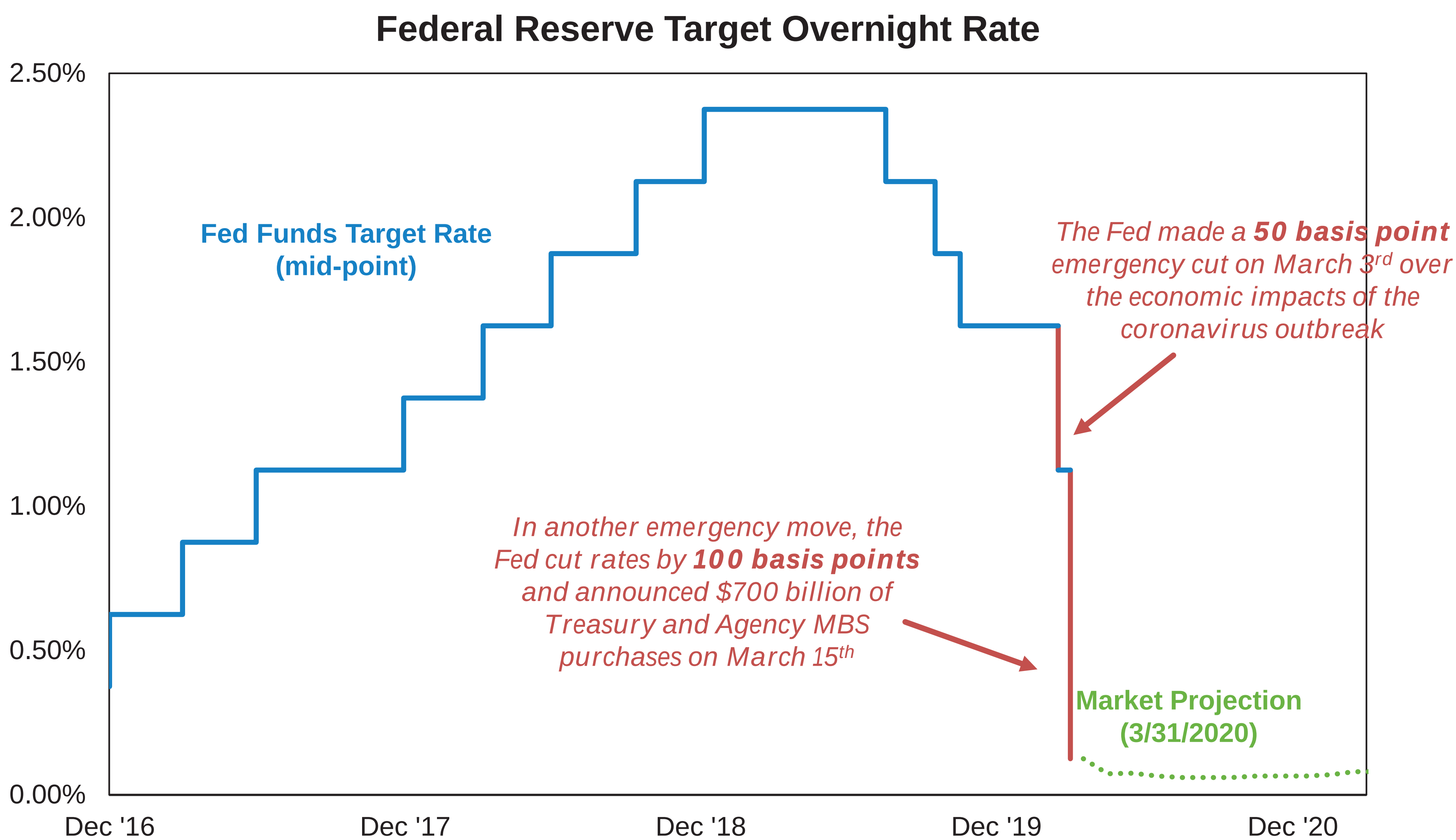
Source: Bloomberg, as of 3/31/2020.

Rates Plummet Due to Coronavirus Outbreak



Source: Bloomberg, as of 3/31/2020.

Fed Delivers Two Emergency Rate Cuts in Early March



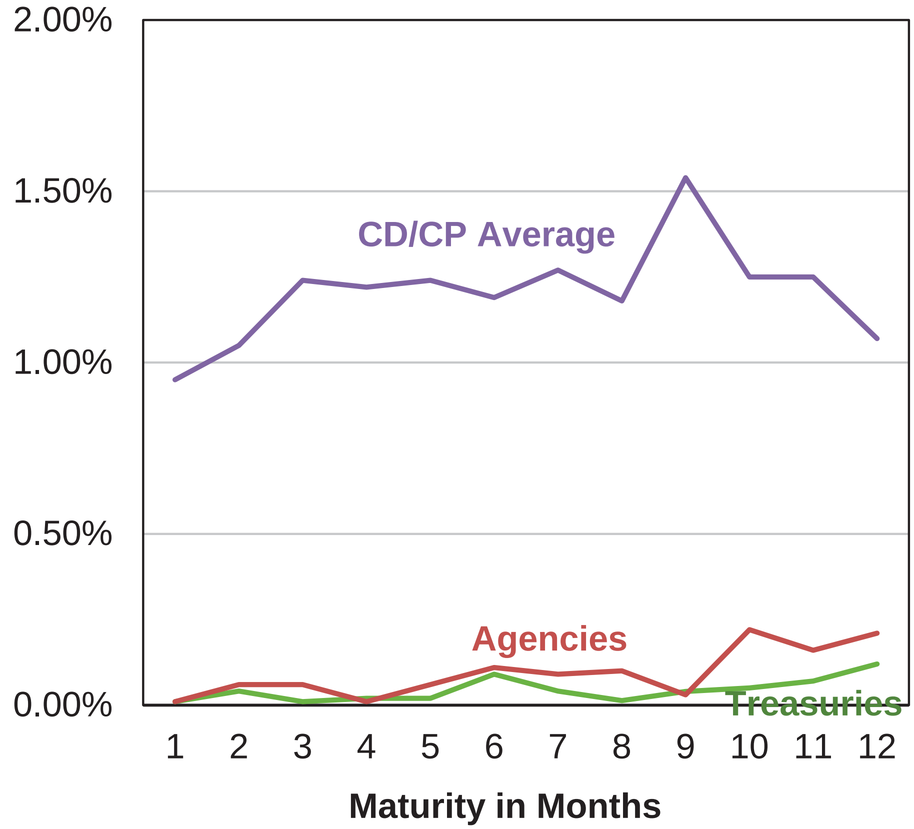
Source: Bloomberg. Market Projection as of 3/31/2020.

Short-Term Credit Spreads Elevated and Volatile

- The Fed's new Commercial Paper Funding Facility (CPFF) will become operational in the first half of April 2020
- The purpose of the CPFF is to enhance the liquidity of the commercial paper market by increasing the availability of term commercial paper funding to issuers and by providing greater assurance to both issuers and investors that firms / municipalities will be able to roll over their maturing commercial paper

Yield Spread on 6-Month Commercial Paper Over T-Bill

Money Market Yield Curves



Source: Bloomberg, PFM Trading Desk, as of 3/31/2020. Not a specific recommendation. Actual yields may vary by issue.

Fixed Income
Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Although the U.S. economy entered the year on a strong footing, that deteriorated quickly as the COVID-19 pandemic took hold across the globe, including the U.S.
  - This created a threefold crisis: (1) a global health crisis; (2) a virtual economic shutdown in the U.S. and elsewhere; and (3) unprecedented moves in the financial markets.
  - The immediate impact of the pandemic on global economies made typical economic indicators, most of which are backward-looking, essentially irrelevant.

- The Federal Reserve responded aggressively by:
  - Cutting rates at two emergency meetings to the new target range of 0.00% to 0.25%,
  - Initiating unlimited bond buying (quantitative easing) of various security types, and
  - Dusting off and adding to their playbook of market support programs from the 2008 – 2009 financial crisis to cushion the potential blow on the financial markets.

- Treasury yields plunged in response to the Fed's new zero interest rate policy, with longer-term Treasury yields reaching new historic lows.
  - These moves led to positive returns on Treasury indexes; however, in a move reminiscent of 2008, yield spreads on all other asset classes spiked as investors grappled with unprecedented uncertainty.

Fixed Income
Market Overview and Outlook

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- Our strategy for the first quarter of 2020 included the following elements:
  - PFM took a proactive response to the emerging crises and fast-moving markets by shifting portfolio strategies to emphasize safety and liquidity, as well as holding frequent, ad-hoc Credit and Investment Committee meetings to assess emerging news and market trends.
  - We also moved to improve the liquidity profile of portfolios by increasing our target allocation of U.S. Treasuries and Agencies and reassessing our clients' potential near-term cash needs.
  - After several quarters of reducing Federal Agency allocations due to unattractive levels, yield spreads widened to levels not seen since 2009; PFM therefore viewed this as an opportunity to begin adding to Agency allocations to capture value on one of the safest and most liquid asset classes.
  - Like their longer-term counterparts, short-term commercial paper credit spreads widened sharply due to credit and liquidity concerns; we partially returned to the CP market in a cautious manner late in the quarter, emphasizing the largest, strongest banks and industrial issuers.

- U.S. economic fundamentals are expected to deteriorate significantly in the second quarter of 2020 as the full effect of COVID-19 materializes.
  - The real question is the duration of the economic shutdown and the speed and trajectory of the eventual recovery.

- Our outlook for the major fixed-income investment-grade sectors are as follows:
  - Federal Agencies currently offer value, materially less credit risk, and better liquidity than most other sectors; moving into the second quarter, we will likely target increased allocations to Agencies.
  - The commercial paper market sector faces numerous challenges and uncertainties and we believe the prudent action is to remain cautious and vigilant until longer-term economic consequences are better understood and market liquidity stabilizes.

Disclosure

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

Debt Summary
for the Quarter Ended March 31, 2020

The Quarterly Debt Summary Report includes the following:

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

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 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 retail system improvements. Accordingly, DWSD records an "obligation payable" for a like amount.

GLWA maintains detailed records of all debt issuances and how that 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 eight open State Revolving Fund (SRF) loans, three for water and five for sewer.
- ✓ Note that these amounts are prior to a water system refunding and new money transaction which priced on April 30, 2020.
- ✓ Specific key items of interest are in the table below with balances as of March 31, 2020.

As of March 31, 2020 ($ Millions)	Water	Sewer
FY 2020 Approved SRF Projects - **Table 5**	$261.4	$38.6
DWSD Obligation Receivable - **Table 6**	$470.3	$408.4
GLWA Outstanding Debt - **Table 7**	$2,248.9	$3,031.2

Look Ahead - Five Year Capital Financing Plan

The following tables summarize the projected Capital Improvement Program (CIP) funding to be provided by proceeds received from the issuance of new revenue bonds and draws on committed SRF loans. *The financing plan is dynamic and changes with the pace of capital spending and alignment with refunding opportunities.* These schedules are based upon the FY 2020 to FY 2024 Capital Improvement Plan (CIP) for the regional system by the GLWA Board of Directors and for the local system 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 Financing Needs FY 2020 – FY 2024

Projected Funding Needs for Regional System	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Water					
Revenue Bonds	$ -	$ -	$ 62,000,000	$ 56,000,000	$ 56,000,000
SRF loan draws	5,531,000	18,367,000	24,115,000	29,615,000	29,994,000
Total projected funding Water	$ 5,531,000	$ 18,367,000	$ 86,115,000	$ 85,615,000	$ 85,994,000
Sewer					
Revenue Bonds	$ 84,000,000	$ 87,000,000	$ 91,000,000	$ 69,000,000	$ 13,000,000
SRF loan draws	29,342,000	8,280,000	1,343,000	-	-
Total projected funding Sewer	$ 113,342,000	$ 95,280,000	$ 92,343,000	$ 69,000,000	$ 13,000,000

Table 2 - DWSD Projected Bond Financing Needs FY 2020 – FY 2024

Projected Funding Needs for Local System					
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Water					
Revenue Bonds	$ 100,000,000		$ 50,000,000	$ -	$ 50,000,000
SRF loan draws	$ 4,020,000	$ 12,040,000	$ -	$ -	$ -
Total projected funding Water	$ 104,020,000	$ 12,040,000	$ 50,000,000	$ -	$ 50,000,000
Sewer					
Revenue Bonds	$ -	$ -	$ 50,000,000	$ -	$ -
SRF loans draws	$ -	$ -	$ -	$ -	$ -
Total projected funding Sewer	$ -	$ -	$ 50,000,000	$ -	$ -

Note: *Information presented based on the FY 2020 and FY 2021 Biennial Budget and Five Year Financial Plan. This table will be updated in the next quarterly debt report after feasibility reports from recent bond transactions are final and the FY 2021 and FY 2022 Biennial Budget and Five Year Financial Plan is available.*

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 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 nearly $2.3 billion in water system debt and nearly $3.1 billion in sewer system debt for a combined total of $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.

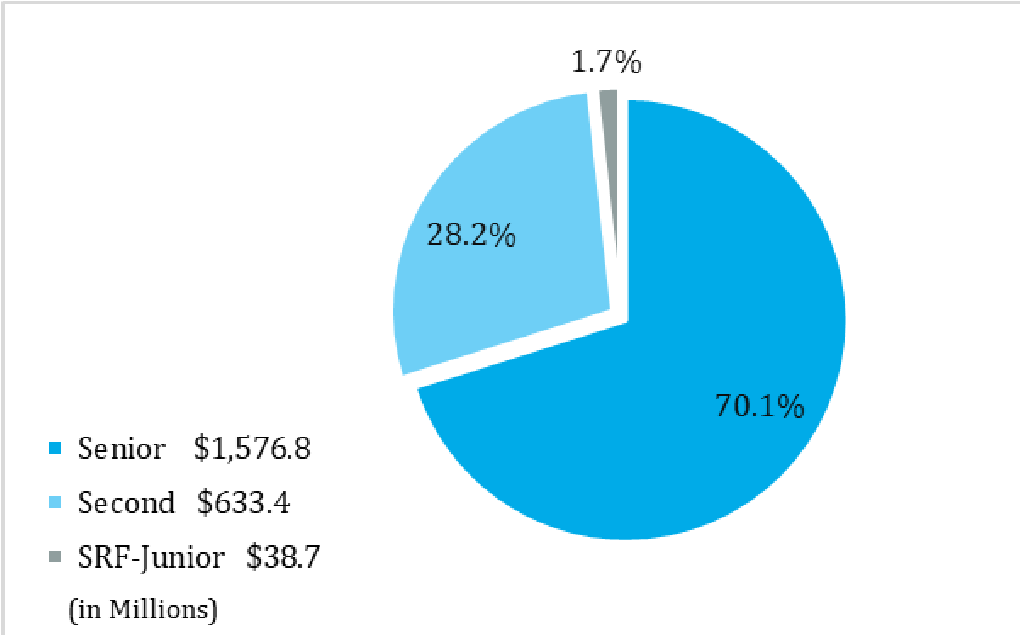


Chart 2 - Debt Type by Lien – Sewer provides a breakdown of the total sewer system debt for both the regional and local systems by lien type.

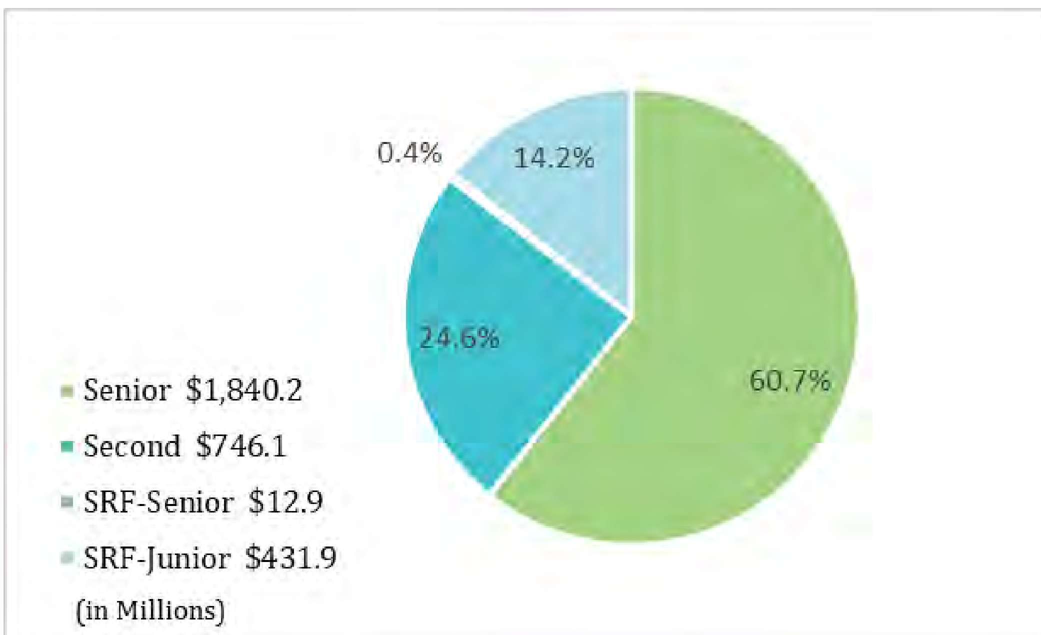


Chart 3 – Annual Debt Service Payments by Lien – Water provides the amortization schedule of combined annual debt service requirements by due dates within the fiscal year.

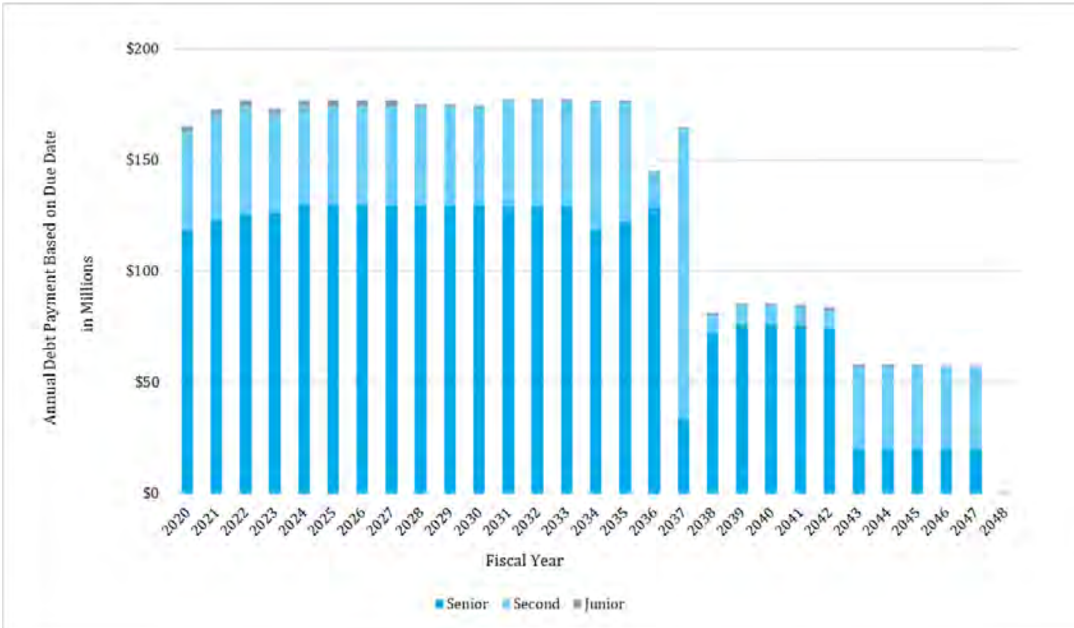
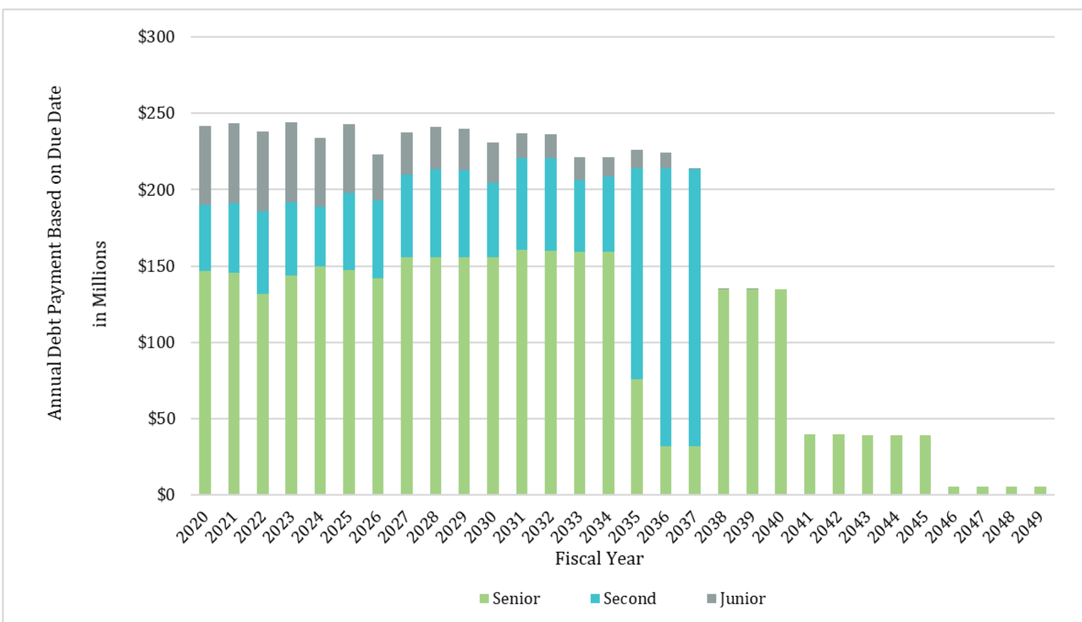


Chart 4 – Annual Debt Service Payments by Lien – Sewer provides the amortization schedule of combined annual debt service requirements by due dates within the fiscal year.



Note: *Approximately one-half of the Senior and Second lien bonds are due the first day of the fiscal year and is actually paid by June 30 annually. Charts 3 & 4 accurately reflect the amounts due annually, but this information will differ from the yearend Comprehensive Annual Financial Report which requires a different manner of reporting.*

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

These loan programs have interest rates that are well below open market interest rates (usually between 2.0% and 2.5%) and are repaid over 20-30 years. 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 Michigan Department of Environment, Great Lakes, and Energy ("EGLE", and formerly known as the Michigan Department of Environmental Quality or MDEQ) for each project by the annual submission date (May 1 for DWRF and July 1 for CWRF) in order to be considered for the State's funding pool for the following fiscal year.

State Revolving Fund Loans: GLWA's strategy is to maximize its use of SRF loans to finance qualified capital projects. GLWA currently has over $38.7 million in outstanding water SRF loans and $444.8 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
SRF Water - GLWA Projects			
7445-01	Northeast Transmission Phase 1	8/9/2019	$30.0
7446-01	Lake Huron Sludge System-Raw Sludge Clarifiers	5/17/2019	$8.3
		Total Water	**$54.8**
SRF Sewer - GLWA Projects			
5635-01	Aeration System Improvements	8/24/2016	$19.3
5636-01	Rehab Rectangular Primary Clarifiers, Electrical/Mechanical Buildings and Pipe Gallery	8/24/2016	$51.3
5651-01	RRO Disinfection (Phase II)	3/13/2015	$38.5
5655-01	Detroit River Interceptor Segment 1	8/23/2018	$17.5
5655-02	Detroit River Interceptor Segment 2	3/27/2020	$28.4
		Total Sewer	**$155.0**

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 March 31, 2020 for each loan. On March 31, 2020, the amount of SRF loans authorized and unissued is $ 44.4 million for the Water Fund and $ 50.8 million for the Sewage Disposal Fund.

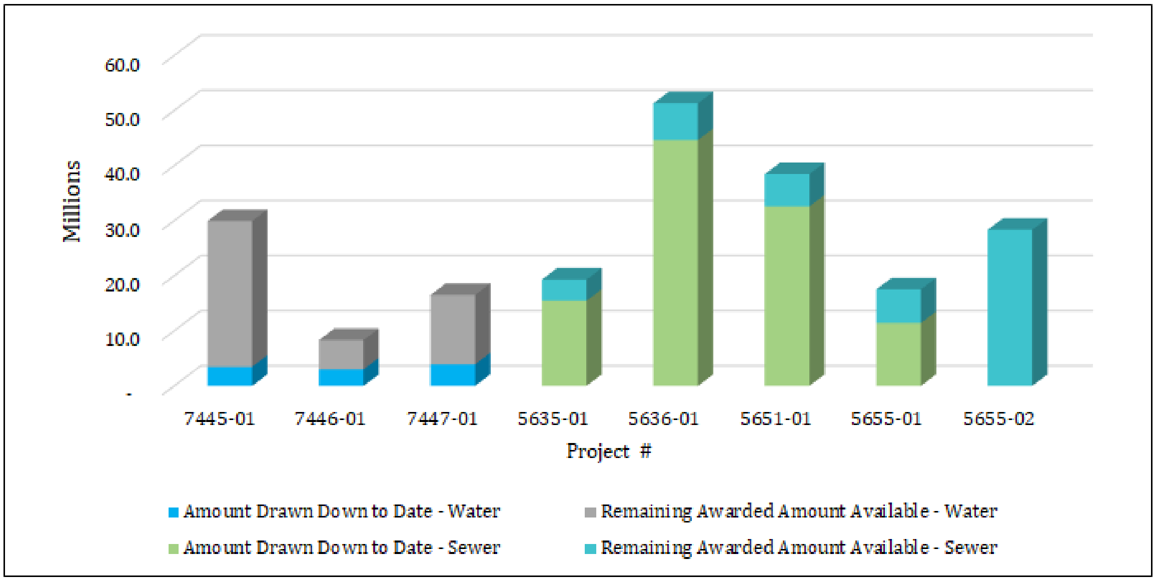


Table 5 - Project Plan Approved by EGLE identifies projects approved by the EGLE but for which applications have not yet been submitted for funding.

Project Owner	Description	Project Total	Anticipated Funding Date
Water SRF			
DWSD	Water Main Replacement (WS-710 & WS-711)	$ 20,104,468	2Q 2020
GLWA	Northeast Transmission Main - Phase 2a	$ 10,000,000	3Q 2020
GLWA	Northeast Transmission Main - Phase 2b	$ 92,000,000	FY 2022
GLWA	Northeast Transmission Main - Phase 3	$ 60,000,000	FY 2021
GLWA	14 Mile Transmission Main Loop - Phase 1	$ 8,400,000	3Q 2020
GLWA	14 Mile Transmission Main Loop - Phase 2	$ 46,000,000	FY 2021
DWSD	Water Main Replacement (WS-715 & WS-718)	$ 24,865,000	3Q 2020
Total Water SRF		**$ 261,369,468**	
Sewer SRF			
GLWA	PS-1 Ferric Chloride System Rehabilitation	$ 13,045,000	2Q 2020
DWSD	Sewer Main Rehabilitation/Replacement - Phase 1	$ 25,600,000	3Q 2020
Total Sewer SRF		**$ 38,645,000**	

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

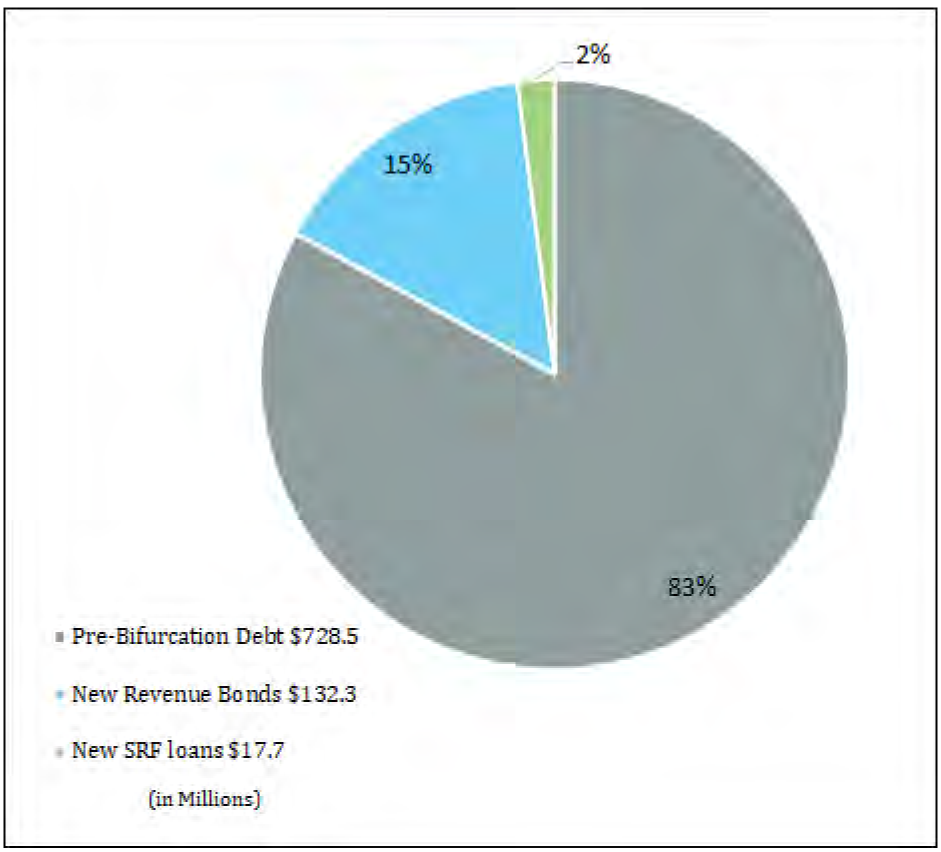


Chart 7 – Obligation Receivable Compared to Total Debt - Water provides context by comparing the Water System Obligation Receivable to the Total Water Debt (excludes unamortized premiums).

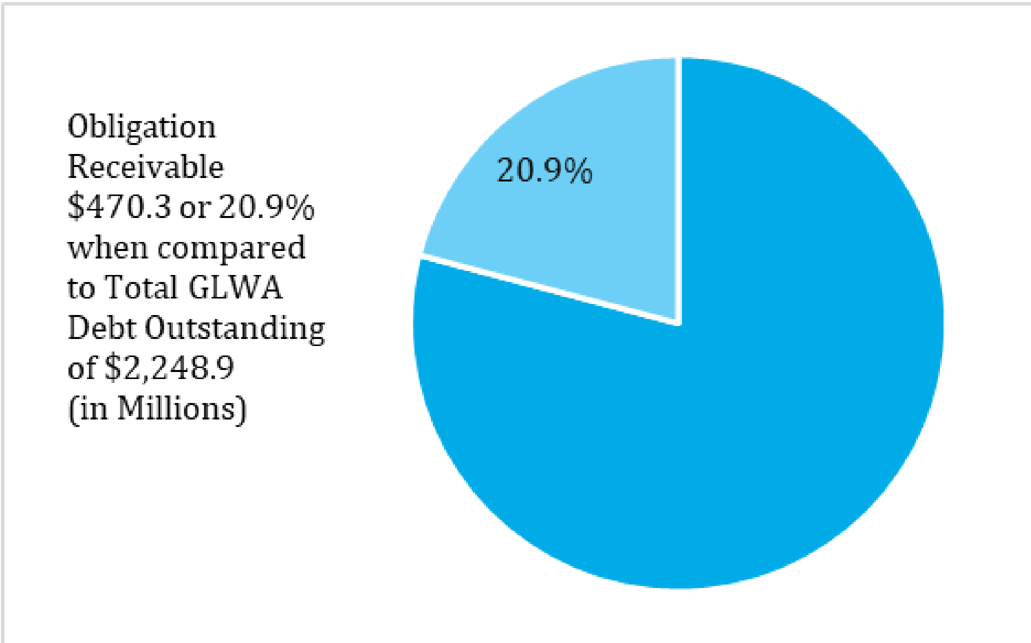


Chart 8 – Obligation Receivable Compared to Total Debt - Sewer provides context by comparing the Sewer System Obligation Receivable to the Total Sewer Debt (excludes unamortized premiums).

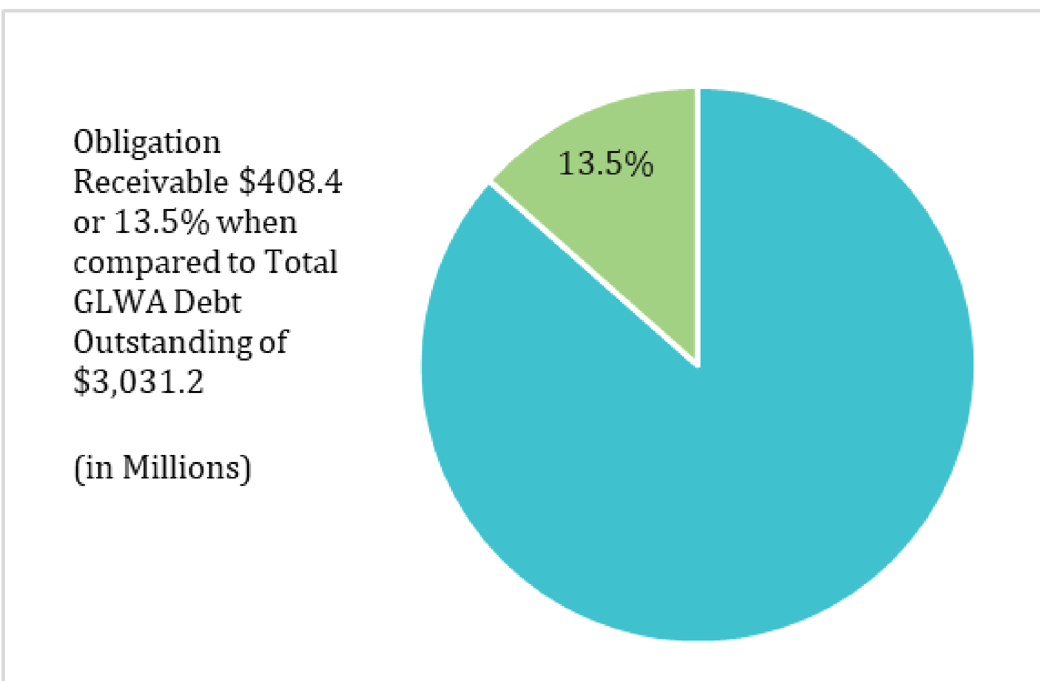


Table 6 - DWSD Obligation Receivable provides obligation receivable detail including fiscal year 2020 beginning balances by debt type and loan issue (for revenue bonds and SRF loans), year-to-date activity and ending balances as of March 31, 2020. Total DWSD debt totals $894 million. This differs slightly from the total in Chart 8 due to the inclusion of unamortized premiums.

(In Thousands)

Debt Type	July 1, 2019 Beg Balance	Increase	Decrease	March 31, 2020 End Balance
DWSD Water				
Pre-Bifurcation Debt	$ 412,141	$ -	$ (10,366)	$ 401,775
Revenue Bond - 2016A	17,725	-	-	17,725
Revenue Bond - 2016B	33,015	-	-	33,015
SRF 7412-01	5,084	-	(121)	4,963
SRF 7413-01	3,299	-	(80)	3,219
SRF 7414-01	5,420	388	(150)	5,658
SRF 7447-01	-	3,909	-	3,909
Total DWSD Obligation	476,683	4,296	(10,717)	470,263
Unamortized Premiums	6,127		(106)	6,021
Subtotal: Water	***482,810***	***4,296***	***(10,822)***	***476,284***
DWSD Sewer				
Pre-Bifurcation Debt	335,575	-	(8,806)	326,769
Revenue Bond - 2018A	81,595	-		81,595
Total DWSD Obligation	417,170	-	(8,806)	408,364
Unamortized Premiums	9,687	-	(261)	9,427
Subtotal: Sewer	***426,857***	***-***	***(9,066)***	***417,790***
Total DWSD Debt	**$ 909,667**	**$ 4,296**	**$ (19,889)**	**$ 894,074**

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 2020 beginning balances by debt type and loan issues, year-to-date activity, and ending balances as of March 31, 2020. GLWA debt includes financing for both the regional and local share.

(In Thousands)

Debt Type	June 30, 2019 Beg Balance	Increase	Decrease	March 31, 2020 End Balance
		Water Fund		
Revenue Bonds	$ 2,220,320	$ -	$ (10,205)	$ 2,210,115
State Revolving Loans	29,861	10,795	(1,915)	38,741
Total Installment Debt	2,250,181	10,795	(12,120)	2,248,856
Unamortized Premiums / Discounts	246,241	-	(12,832)	233,409
Subtotal: Water	***2,496,422***	***10,795***	***(24,952)***	***2,482,265***
		Sewer Fund		
Revenue Bonds	2,604,390	-	(29,415)	2,574,975
Capital Appreciation bonds	14,780	-	(3,445)	11,335
State Revolving Loans	474,177	20,387	(49,675)	444,890
Total Installment Debt	3,093,347	20,387	(82,535)	3,031,200
Capital Appreciation Bond Discount	(1,402)	-	735	(667)
Unamortized Premiums / Discounts	159,807	-	(4,918)	154,889
Subtotal: Sewer	***3,251,752***	***20,387***	***(86,718)***	***3,185,421***
Total Combined, Long Term Debt	**$ 5,748,174**	**$ 31,182**	**$ (111,670)**	**$ 5,667,686**

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.

Table 8: Debt Service Coverage Ratios provides a summary of the debt service coverage ratios for the water and sewer systems as reported in the Comprehensive Annual Financial Report (CAFR) for 2016, 2017, 2018 and 2019 as well as ratios based on the adopted FY 2020 Budget. Debt service coverage is calculated by dividing the Net Revenues for the fiscal year of calculation by the debt service installment requirements on bonds for such fiscal year all for such priority of lien and any higher priority of lien.

Water Fund - Debt Type	MBO Required Minimum	Actual 2016	Actual 2017	Actual 2018	Actual 2019	Adopted Budget 2020
Senior Lien Bonds	1.20	2.11	2.03	2.03	2.04	1.94
Senior and second lien bonds	1.10	1.59	1.57	1.52	1.47	1.40
All bonds, including SRF junior lien	1.00	1.58	1.56	1.51	1.45	1.38

Sewage Disposal - Debt Type	MBO Required Minimum	Actual 2016	Actual 2017	Actual 2018	Actual 2019	Adopted Budget 2020
Senior Lien Bonds	1.20	2.33	2.32	2.11	2.10	2.11
Senior and second lien bonds	1.10	1.72	1.73	1.61	1.61	1.61
All bonds, including SRF junior lien	1.00	1.43	1.39	1.29	1.28	1.26

Potential Refunding Opportunities

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.

On April 30, 2020, GLWA negotiated the pricing of $377.5 million of water supply system taxable refunding bonds, which refunds $366 million in outstanding water supply system bonds. The cashflow savings over the remaining life of the refunded bonds is $103.1 million. In addition, GLWA also priced $85.6 million in new money tax exempt water supply system bonds on behalf of DWSD to fund the local system water capital improvement program. Both transactions are scheduled to close on May 12, 2020 and will be included in the June 30, 2020 Quarterly Debt Report. GLWA continues to monitor the savings level on the sewage disposal system refunding transaction.

Procurement Pipeline

Great Lakes Water Authority (313) 964-9157 **www.glwater.org** **May 2020 -Volume 15**

Welcome to the May edition of *The Procurement Pipeline*, a monthly newsletter designed to bring you informative updates on doing business with the Great Lakes Water Authority (GLWA). This edition of *The Pipeline* focuses on how GLWA is continuing to operate despite the impacts of the COVID-19 pandemic. As we look forward to the months ahead, we remain focused on our mission: *To exceed our customers' expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting healthy communities and economic growth.*

Business as a *New Normal* at GLWA — Governor Whitmer's **MI Safe Start Plan** outlines a phased approach to re-engage the Michigan economy. Like other organizations, GLWA is evaluating how this plan impacts business processes, safety

protocol, and vendor activity. During this period of careful transition, we want to assure our vendor community that we are committed to sustaining business while also providing for the safety of all our team members, partners, and vendors. For now, the following modifications, previously reported to you, remain in place.

- All emergency COVID-19 measures (including visitors' questionnaires, temperature screenings, and mandatory face-coverings at all GLWA facilities) are in effect
- Critical Infrastructure Vendor letters have been issued to those vendors working on projects that must continue
- Bidders' conferences will continue via Skype invitation
- Accounts Payable will continue to be processed weekly. If you have not already, we encourage you to sign up for GLWA Direct to You! so that you can receive your payments electronically. Contact accounts.payable@glwater.org
- Many projects at GLWA have continued, some at a slower pace, and a few have been paused. In each case, the GLWA Project Managers are communicating with vendors regarding the status of contracted projects in process

We encourage our vendors to continue reading *The Pipeline* for further up-to-date information about GLWA's ongoing response to the COVID-19 pandemic, and to send us any questions, comments, or concerns please contact us via email. Thank you for your cooperation as we work to maintain operations while preserving the health and safety of our team.

Audit Bonfire Registrations for Accuracy and Current Vendor Contact Information — During these critical times, we want to ensure that our vendor representatives are receiving *The Procurement Pipeline* and other important communications on doing business with GLWA. Recently, we discovered that many vendors have created multiple registrations with different company names and/or registrations in the name of former employees. Since Bonfire is our link to the vendor community, it is critical that complete, accurate and consistent information be maintained. We, therefore, strongly encourage all vendors to please review your Bonfire accounts to confirm that:

1. **The correct corporate name is used for your Bonfire registration** – vendors should provide their full and unabbreviated company name; and
2. **The contact information associated with your Bonfire registration is correct –** vendors should update this information regularly to reflect employee turnover.

We appreciate your assistance with maintaining clear and open lines of communication. For any inquiries, please contact us via email.

What's Coming Down the Pipe?

Current Solicitations: Be sure to register in Bonfire to monitor new solicitations and contract awards.

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 May 2020

Category	Description	Budget Estimate
Water System (next three months)		
Design Build	Southwest Water Treatment Plant Chlorine Scrubber and Raw Water Screen Replacement (CIP #113006)	$6,000,000
Construction	2001456 SPWTP 1958 Settled Water Conduit and Loading Dock Concrete – Springwells Water Treatment Plant (CIP #114016)	$1,652,000
Maintenance Services	5-Year Sludge Removal and Disposal Services at Northeast, Springwell's & Southwest Water Plants	$55,000,000
Construction	1904231 – Flocculator Improvements – Northeast Water Treatment Plant (CIP #112006)	$2,700,000
Wastewater System (next three months)		
Design	Oakwood HVAC Improvements	$500,000
Construction	Baby Creek Gate Repair	$155,000
Construction	Baby Creek Chemical Feed Tank Repair	$250,000
Water System (next four to nine months)		
Design Build	7 Mile/Nevada Water Transmission Main Rehab and Flow Control Station (CIP #122017)	$5,000,000
Engineering	North Service Center Pumping Station Improvements (CIP #132016)	$10,000,000
Construction	Springwells Water Treatment Plant Medium Voltage Electrical System Replacement (CIP #114002 Project B)	$30,000,000
Wastewater System (next four to nine months)		
Progressive Design Build	Baby Creek Outfall Improvements Projects (CIP #277001)	TBD
Design	St. Aubin Chemical Disinfection & Screening Improvements	TBD
Design	Control System Upgrade – St. Aubin, Lieb, and 7 Mile CSO Facilities	TBD
Maintenance	Crane Services	TBD
Services	Actuator Maintenance	TBD
Maintenance	UPS Maintenance and Repair Services (CSO/WRRF)	TBD
Enterprise (next four to nine months)		
IT	Project Management Information System	TBD
Facilities	HVAC Repairs and Maintenance	TBD

Vendors should continue to monitor Bonfire for solicitation updates.

Acronyms – Facilities	
WRRF	Water Resource Recovery Facility
CSO	Combined Sewer Overflow