

The Semiannual Debt Report includes the following:

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

## 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 semiannually.
- ✓ GLWA has twenty-two active State Revolving Fund (SRF) loans, ten for water and twelve for sewer. On behalf of DWSD, GLWA is administering three projects for water and three for sewer.
- ✓ GLWA completed a refunding transaction for water and sewer in June 2024.
- ✓ Other key items of interest include the following balances as of March 31, 2025.

As of March 31, 2025 (\$ Millions)		
	Water	Sewer
FY 2025 Approved SRF Projects - <b>Table 5</b>	\$51.2	\$74.2
DWSD Obligation Receivable - <b>Table 6</b>	\$518.7	\$337.6
GLWA Outstanding Debt - <b>Table 8</b>	\$2,517.4	\$2,734.3

## Background

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

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

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

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

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

## Look Ahead - Five Year Capital Financing Plan

The following tables summarize the projected Capital Improvement Program (CIP) funding to be provided by proceeds received from the issuance of new revenue bonds and draws on committed SRF loans. *The financing plan is dynamic and changes with the pace of capital spending and alignment with refunding opportunities.*

**Table 1 - GLWA Projected Financing FY 2025 – FY 2029** provides a breakdown of projected financing based on the FY 2025 and FY 2026 Biennial Budget adopted by the GLWA Board of Directors and the related Five-Year Financial Plan.

Projected Funding Needs for Regional System					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<b>Water</b>					
Revenue Bonds	\$ 230,000,000	\$ 222,000,000	\$ 290,000,000	\$ 209,000,000	\$ 138,000,000
SRF loan draws	\$ 61,643,600	\$ 1,369,200	\$ -	\$ -	\$ -
Total projected funding Water	\$ 291,643,600	\$ 223,369,200	\$ 290,000,000	\$ 209,000,000	\$ 138,000,000
<b>Sewer</b>					
Revenue Bonds	\$ 50,000,000	\$ 101,000,000	\$ 125,000,000	\$ 111,000,000	\$ 83,000,000
SRF loan draws	\$ 69,374,100	\$ 52,936,600	\$ 99,745,500	\$ 103,800,000	\$ 93,684,600
Total projected funding Sewer	\$ 119,374,100	\$ 153,936,600	\$ 224,745,500	\$ 214,800,000	\$ 176,684,600

**Table 2 - DWSD Projected Funding FY 2025 – FY 2029** provides a breakdown of projected financing based on the current, approved local system CIP presented to the DWSD board at the October 2, 2024 Board of Water Commissioners meeting. It is important to note the amounts represented in revenue bonds reflect the funding needs by year and not a revenue bond transaction for each year. GLWA and DWSD coordinate the timing for additional revenue bonds to ensure efficiency in the debt management process.

Projected Funding Needs for Local System					
	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<b>Water</b>					
Revenue Bonds	\$ 44,200,000	\$ 56,740,000	\$ 26,750,000	\$ 17,250,000	\$ 12,250,000
SRF loan draws	\$ 10,000,000	\$ 20,000,000	\$ 20,000,000	\$ 15,000,000	\$ 15,000,000
Total projected funding Water	\$ 54,200,000	\$ 76,740,000	\$ 46,750,000	\$ 32,250,000	\$ 27,250,000
<b>Sewer</b>					
Revenue Bonds	\$ 13,250,000	\$ 26,550,000	\$ 35,250,000	\$ 19,250,000	\$ 2,250,000
SRF loans draws	\$ -	\$ 58,480,000	\$ 37,760,000	\$ 12,960,000	\$ 10,000,000
Total projected funding Sewer	\$ 13,250,000	\$ 85,030,000	\$ 73,010,000	\$ 32,210,000	\$ 12,250,000

## 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.

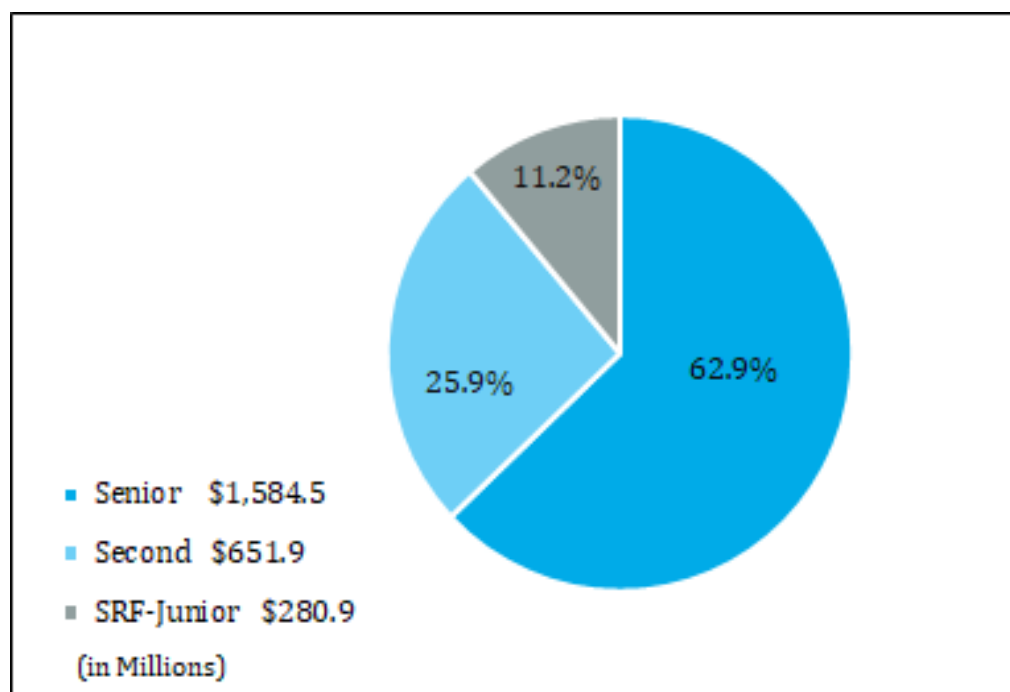
In advance of the June 2024 bond transaction, GLWA secured affirmation of the ‘AA’ category from three bond rating agencies. Moody’s Investors Service affirmed GLWA’s senior lien debt rating at ‘Aa3’ for both the water and sewer systems. Fitch Ratings affirmed GLWA’s senior lien debt for the sewer system to ‘AA-’ and affirmed its A+ rating for the water system. Standard & Poor Global Ratings affirmed its outstanding senior lien water and sewer system debt at ‘AA-’.

**Table 3 – Debt Ratings by System** provides a summary of the debt ratings.

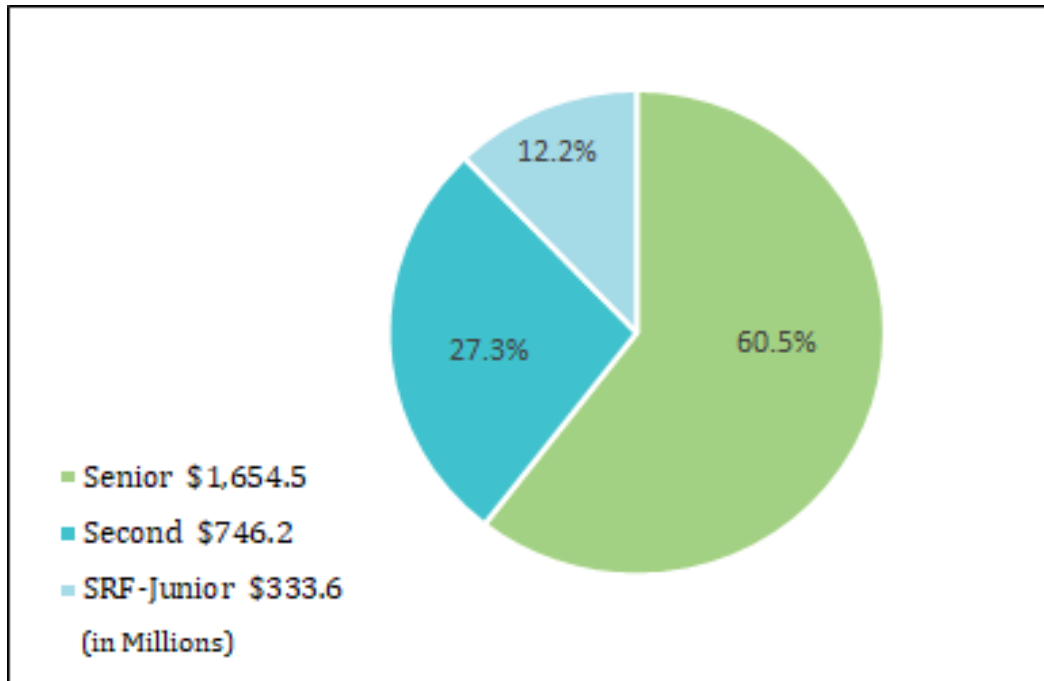
Current Debt Ratings			
	S&P Global Ratings	Moody's Investors Service	Fitch Ratings
<b>Water Supply System Revenue Bonds</b>			
Senior lien	AA-	Aa3	A+
Second lien	A+	A1	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Stable
<b>Sewage Disposal System Revenue Bonds</b>			
Senior lien	AA-	Aa3	AA-
Second lien	A+	A1	A+
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Postive

**Debt Allocation:** GLWA has nearly \$2.5 billion in water system debt and nearly \$2.7 billion in sewer system debt for a combined total of over \$5.2 billion. Debt within each system is prioritized according to its security interest, or lien category, with senior lien debt having the highest security interest, followed by second lien and finally junior lien.

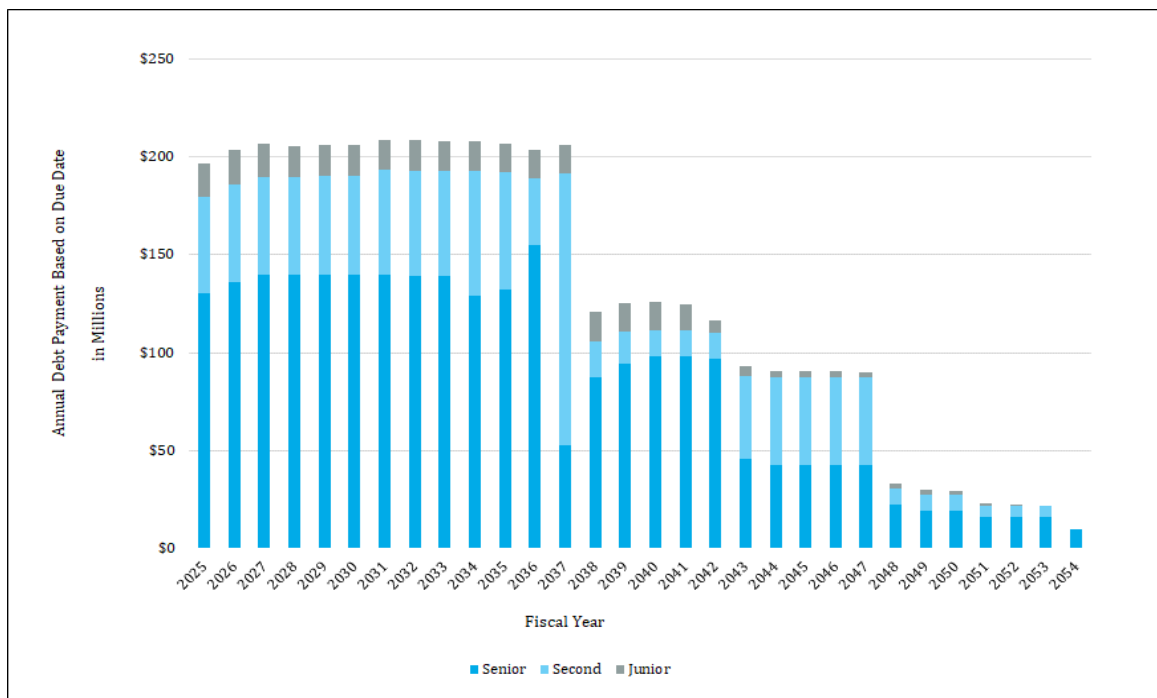
**Chart 1 - Debt Type by Lien – Water** provides a breakdown of the total water system debt for both the regional and local systems by lien type.



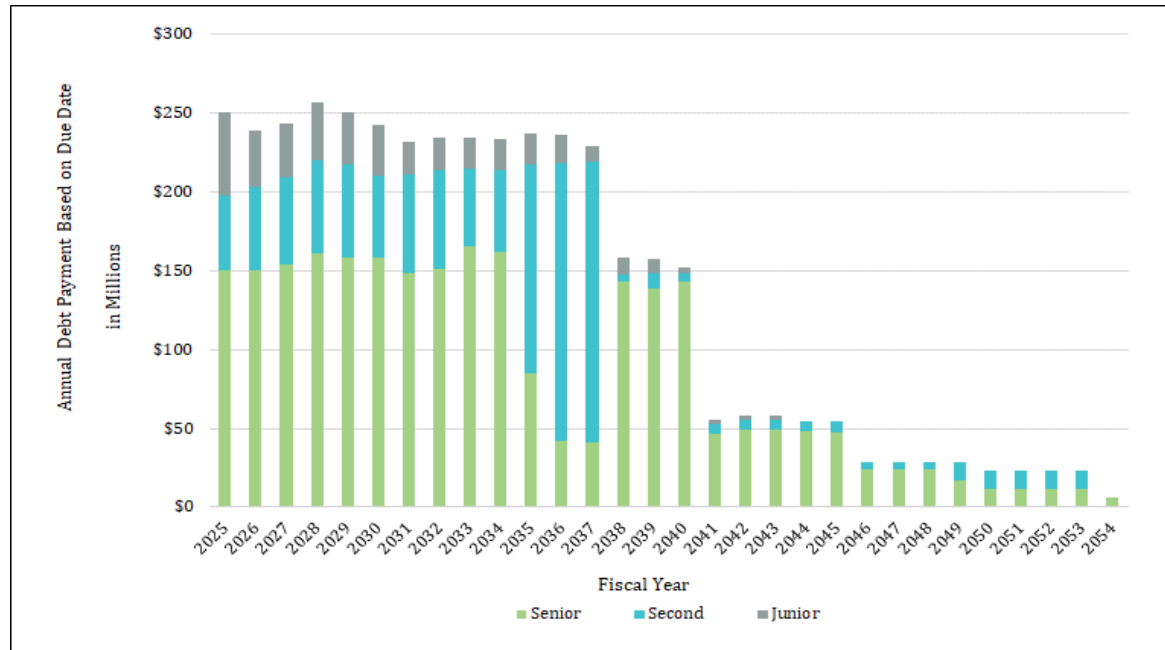
**Chart 2 - Debt Type by Lien – Sewer** provides a breakdown of the total sewer system debt for both the regional and local systems by lien type.



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



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



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

**State of Michigan’s State Revolving Fund (SRF) Programs:** GLWA participates in the Clean Water State Revolving Fund (CWSRF) to finance qualified sewage disposal system projects and the Drinking Water State Revolving Fund (DWSRF) 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 (current estimate approximately 4.5%) and are repaid over 20-30 years. For the State’s 2025 fiscal year, the DWSRF and CWSRF program rates are 2.5% for 20-year loans and 2.75% for 30-year loans. Overburdened applicant’s rates are 2.0% and significantly overburdened applicant’s rates are 1.0% for 20 and 30 year loans. Interest on each loan is based on the amount of funds disbursed and not the full loan amount.

In order to be considered for funding through the CWSRF or DWSRF program, GLWA must submit an Intent to Apply Form for each new project submission or resubmission (carryover from previous years) by November 1<sup>st</sup>. A Board approved project planning document is due to the Michigan Department of Environment, Great Lakes, and Energy (“EGLE”, and formerly known as the Michigan Department of Environmental Quality or MDEQ) for each new project submission by May 1 for CWSRF and June 1 for DWSRF. Once the project is approved for funding, and the loan closing occurs, GLWA may begin drawing down on the loan. A disbursement request can be made after engineering and/or construction costs are paid.

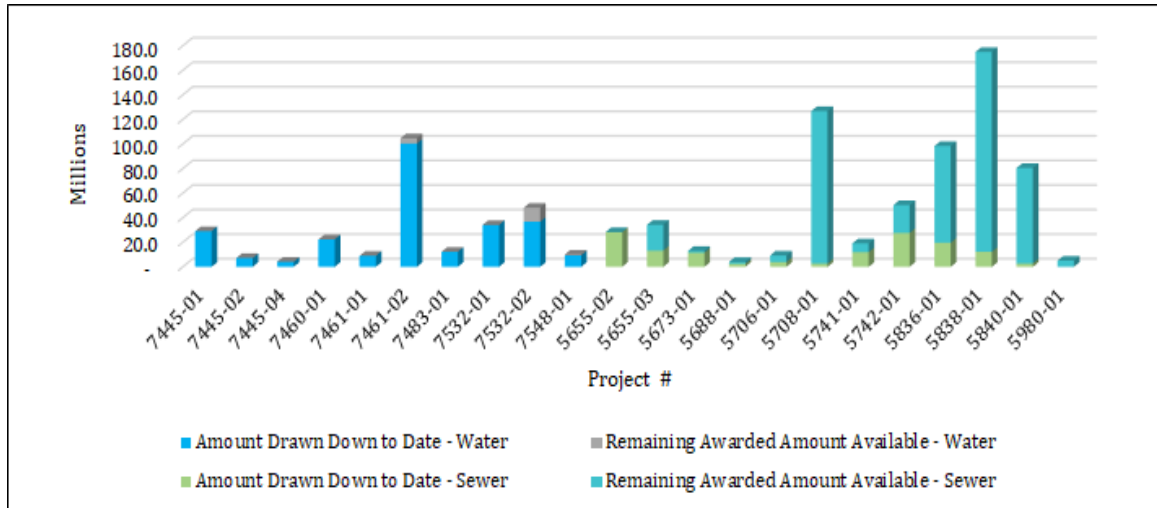
**State Revolving Fund Loans:** GLWA's strategy is to maximize its use of SRF loans to finance qualified capital projects. GLWA currently has \$280.9 million in outstanding water SRF loans and \$333.6 million in outstanding sewer SRF loans.

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

State Loan #	CIP Reference	Description	Order of Approval	Project Total (\$ Millions)
<b>SRF Water - DWSD Projects</b>				
7460-01	WS-710 & 711	Water Main Replacement	7/15/2020	\$22.3
7483-01	WS-715 & 718	Water Main Replacement	9/9/2020	\$12.3
7548-01	WS-721	Lead Service Line Water Main Replacement	4/8/2022	\$10.0
<b>SRF Water - GLWA Projects</b>				
7445-01	122003	Northeast Transmission Phase 1	8/9/2019	\$29.1
7445-02	122003	Northeast Transmission Main - Phase 2a	8/7/2020	\$7.2
7445-04	122003	Northeast Transmission Main - Phase 3a	5/28/2021	\$4.2
7461-01	122013	14 Mile Transmission Main Loop - Phase 1	8/7/2020	\$9.0
7461-02	122013	14 Mile Transmission Main Loop - Phase 2	8/6/2021	\$104.7
7532-01	122004	96-inch Water Transmissioon Main Relocation Project - Phase 1	8/29/2022	\$34.1
7532-02	122004	96-inch Water Transmissioon Main Relocation Project - Phase 2	6/26/2023	\$48.2
<b>Total Water</b>				<b>\$280.9</b>
<b>SRF Sewer - DWSD Projects</b>				
5688-01	DWS-916	Sewer Main Rehab/Rplcmt - Project A	9/9/2020	\$4.0
5706-01	DWS-917 & 918	Sewer Main Replacements - Project B	9/9/2021	\$9.2
5980-01	PC-818	CSO West Chicago South Stormwater Improvements	8/7/2024	\$5.1
<b>SRF Sewer - GLWA Projects</b>				
5655-02	222002	Detroit River Interceptor Segment 2	3/27/2020	\$28.4
5655-03	222002	Detroit River Interceptor Segment 3	5/16/2020	\$34.2
5673-01	211008	PS-1 Ferric Chloride System Rehabilitation	2/26/2021	\$12.9
5708-01	232005	Freud Pump Station	4/8/2024	\$126.8
5741-01	260701	In-System Storage Device & Dam & Valve Remote Evaluation & Rehabilitation	8/29/2022	\$19.0
5742-01	260204	Connor Creek Sewer System Rehabilitation	8/8/2022	\$50.2
5836-01	211006	Pump Station #1 Rehabilitation	5/15/2023	\$98.4
5838-01	212008	WRRF Aeration Improvements 1 and 2	12/20/2023	\$175.0
5840-01	222001	Oakwood District Intercommunity Relief Sewer Modification	12/20/2023	\$80.5
<b>Total Sewer</b>				<b>\$643.7</b>



**Chart 5 - Open State Revolving Fund Loans** summarizes all current SRF loans held by GLWA (including financings on behalf of DWSD) that are active (reference Table 4 above for project descriptions). It summarizes the original award amount remaining and the amount drawn down as of March 31, 2025 for each loan. On March 31, 2025, the amount of SRF loans authorized and unissued is \$16.4 million for the Water fund and \$506.9 million for the Sewage Disposal Fund.



**Table 5 - Project Plans Approved by EGLE for FY 2025** provides a list of all projects that were approved for funding in EGLE's *Final* Intended Use Plan. The Intended Use Plan outlines how EGLE will distribute funds for the upcoming fiscal year. Following the release of the *Final* Intended Use Plan, applicants have until December to decide whether they will be moving forward or forgo the funding.

Project Owner	CIP Number	Description	Estimated Award Amount	Anticipated Funding Date
<b>Water SRF</b>				
DWSD	WS-741	Water Main Replacement, Various Locations in Detroit District 1	\$ 25,670,000	FY 2025
DWSD	WS-742	Water Main Replacement, Various Locations in Detroit District 2	\$ 25,540,000	FY 2025

**Total Water SRF** **\$ 51,210,000**

<b>Sewer SRF</b>				
DWSD	NA	Sewer System Rehabilitations - District 1, 2, 4, 5, 6 and 7	\$ 17,080,000	FY 2025
GLWA	270004	CSO Improvement Project - Oakwood & Lieb	\$ 57,100,000	FY 2025

**Total Sewer SRF** **\$ 74,180,000**



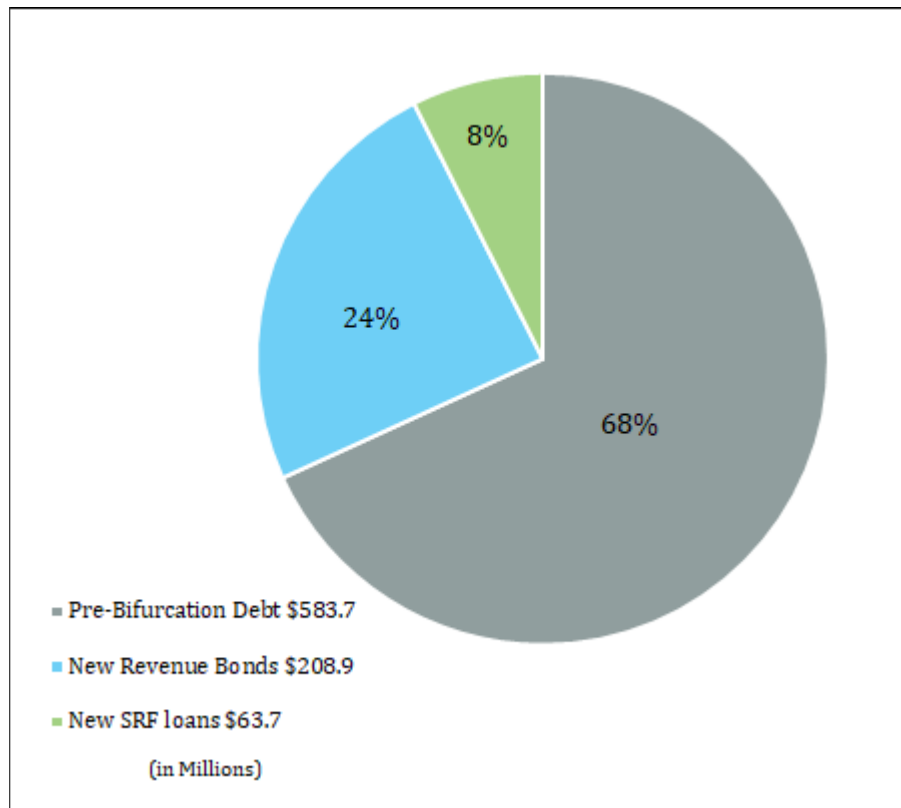
**DWSD Obligation Receivable:** GLWA holds an obligation receivable from DWSD as an asset to account for the amount due for financing local system capital projects. DWSD carries a like amount of this as an obligation payable on its statement of net assets.

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

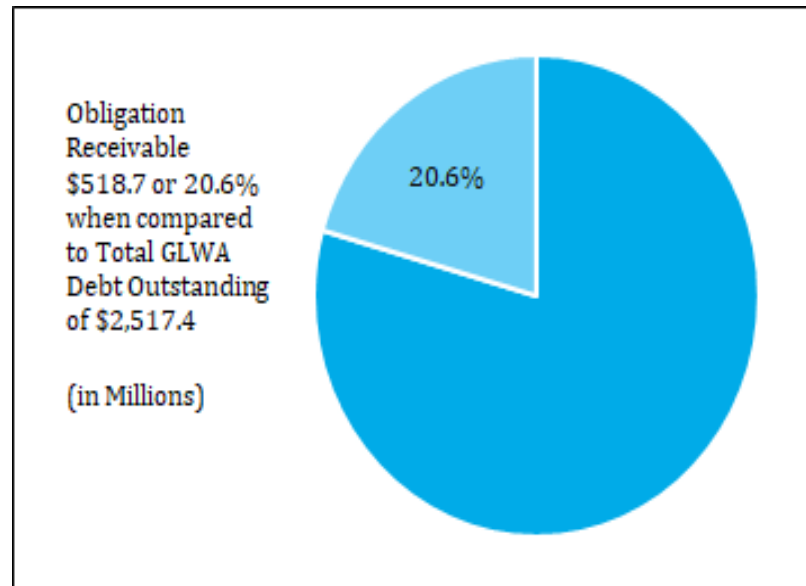
- a) an agreed upon amount for pre-January 1, 2016 (i.e. “pre-bifurcation”) debt as documented in a 2018 Memorandum of Understanding (\$455 million for water system and \$370 million for sewer per agreed-upon amortization schedules),
- b) new revenue bonds issued after January 1, 2016 to specifically 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.

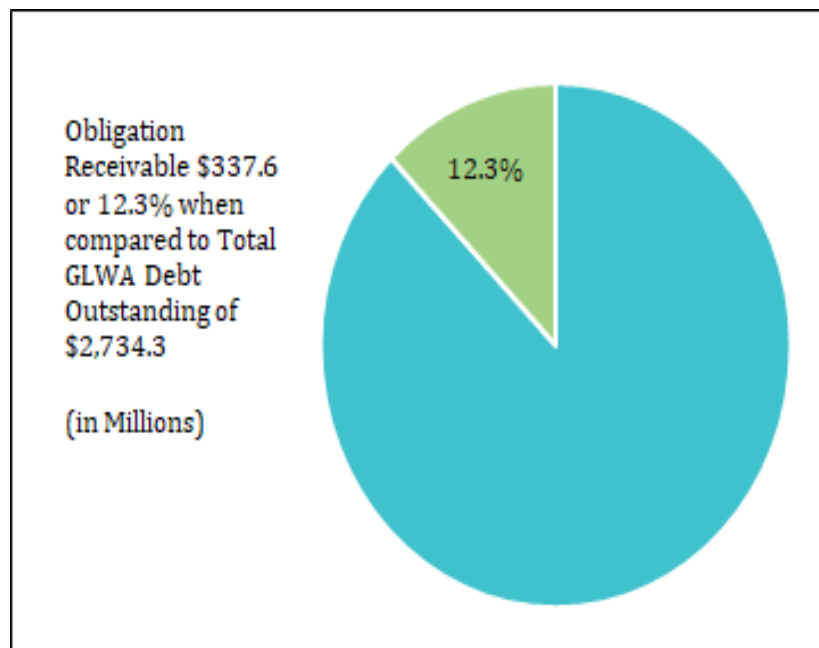
**Chart 6 - DWSD Obligation Receivable by Type** summarizes the total DWSD obligation receivable balance for both Water and Sewer as of March 31, 2025 by pre-bifurcation, revenue bond and SRF component.



**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 2025 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, 2025. Total DWSD debt totals \$880.4 million. This differs slightly from the total in Chart 6 due to the inclusion of unamortized premiums.

Debt Type	July 1, 2024 Beg Balance	Increase	Decrease	SRF Debt Forgiveness	March 31, 2025 End Balance
<b>DWSD Water</b>					
Pre-Bifurcation Debt	\$ 336,137	\$ -	\$ (13,079)		\$ 323,058
Revenue Bond - 2016A	17,725	-	-	-	17,725
Revenue Bond - 2016B	33,015	-	-	-	33,015
Revenue Bond - 2020A	41,615	-	-	-	41,615
Revenue Bond - 2020B	42,295	-	-	-	42,295
SRF 7412-01	4,461	-	(136)	-	4,324
SRF 7413-01	2,884	-	(90)	-	2,794
SRF 7414-01	5,033	-	(160)	-	4,873
SRF 7447-01	10,235	-	(280)	-	9,955
SRF 7460-01	19,000	232	(525)	-	18,707
SRF 7483-01	10,156	297	(310)	-	10,143
SRF 7484-01	10,425	205	(479)	-	10,151
SRF 7548-01	-	943	-	(943)	-
Total DWSD Obligation	532,980	1,676	(15,059)	(943)	518,653
Unamortized Premiums	17,303	-	(603)		16,700
<b>Subtotal: Water</b>	<b>550,283</b>	<b>1,676</b>	<b>(15,662)</b>	<b>(943)</b>	<b>535,354</b>
<b>DWSD Sewer</b>					
Pre-Bifurcation Debt	271,560	-	(10,885)	-	260,675
Revenue Bond - 2018A	74,225	-	-	-	74,225
SRF 5688-01	1,346	94	(140)	-	1,300
SRF 5706-01	-	2,858	(305)	(1,132)	1,421
SRF 5980-01	-	50	-	(50)	-
Total DWSD Obligation	347,131	3,002	(11,330)	(1,182)	337,622
Unamortized Premiums	7,736	-	(319)	-	7,417
<b>Subtotal: Sewer</b>	<b>354,867</b>	<b>3,002</b>	<b>(11,648)</b>	<b>(1,182)</b>	<b>345,039</b>
<b>Total DWSD Debt</b>	<b>\$ 905,150</b>	<b>\$ 4,678</b>	<b>\$ (27,310)</b>	<b>\$ (2,125)</b>	<b>\$ 880,393</b>

**Table 7 – DWSD and GLWA Loan Forgiveness** provides a summary of loan principal forgiven on DWSD and GLWA SRF loans closed after January 1, 2016. EGLE grants principal loan forgiveness on qualified planning costs for disadvantaged communities. Through March 31, 2025, \$31.3 million or 27% of approved DWSD SRF loans have been forgiven as a disadvantaged community, while \$27.2 million or 10% of approved GLWA SRF loans have been forgiven.

State Loan #	Approved Amount	Loan Forgiveness
<b>DWSD Water SRF</b>		
SRF 7412-01	10,605,000	1,000,000
SRF 7413-01	5,180,000	1,000,000
SRF 7414-01	8,675,000	2,000,000
SRF 7447-01	16,500,000	4,711,944
SRF 7460-01	22,570,000	2,031,300
SRF 7483-01	13,355,000	1,201,950
SRF 7484-01	11,741,247	1,111,420
SRF 7548-01	10,000,000	10,000,000
<b>Subtotal: Water</b>	<b>98,626,247</b>	<b>23,056,614</b>
<b>DWSD Sewer SRF</b>		
SRF 5688-01	4,040,000	808,000
SRF 5706-01	9,175,000	2,293,750
SRF 5980-01	5,088,092	5,088,092
<b>Subtotal: Sewer</b>	<b>18,303,092</b>	<b>8,189,842</b>
<b>Total DWSD Debt</b>	<b>\$ 116,929,339</b>	<b>\$ 31,246,456</b>

State Loan #	Approved Amount	Loan Forgiveness
<b>GLWA Water SRF</b>		
<b>Subtotal: Water</b>	<b>-</b>	<b>-</b>
<b>GLWA Sewer SRF</b>		
SRF 5836-01	96,037,720	7,217,720
SRF 5838-01	175,000,000	20,000,000
<b>Subtotal: Sewer</b>	<b>271,037,720</b>	<b>27,217,720</b>
<b>Total GLWA Debt</b>	<b>\$ 271,037,720</b>	<b>\$ 27,217,720</b>

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

**Table 8 - Long-Term Debt Summary** provides a detail of GLWA's fiscal year 2024 beginning balances by debt type and loan issues, year-to-date activity, and ending balances as of March 31, 2025. GLWA debt includes financing for both the regional and local share.

Debt Type	June 30, 2024 Beg Balance	Increase	Decrease	Refunding	Debt Forgiveness	March, 2025 End Balance
<b>Water Fund</b>						
Revenue Bonds	\$ 2,317,305	\$ -	\$ (80,840)	\$ -	\$ -	\$ 2,236,465
State Revolving Loans	241,021	53,220	(12,381)	-	(943)	280,916
Total Installment Debt	2,558,326	53,220	(93,221)	-	(943)	2,517,381
Unamortized Premiums / Discounts	181,159	-	(13,407)	-	-	167,752
<b>Subtotal: Water</b>	<b>2,739,485</b>	<b>53,220</b>	<b>(106,628)</b>	<b>-</b>	<b>(943)</b>	<b>2,685,133</b>
<b>Sewer Fund</b>						
Revenue Bonds	2,496,520	-	(95,885)	-	-	2,400,635
State Revolving Loans	336,808	48,095	(45,971)	-	(5,292)	333,640
Total Installment Debt	2,833,328	48,095	(141,856)	-	(5,292)	2,734,275
Unamortized Premiums / Discounts	109,622	-	(6,371)	-	-	103,251
<b>Subtotal: Sewer</b>	<b>2,942,950</b>	<b>48,095</b>	<b>(148,227)</b>	<b>-</b>	<b>(5,292)</b>	<b>2,837,526</b>
<b>Total Combined, Long Term Debt</b>	<b>\$ 5,682,435</b>	<b>\$ 101,315</b>	<b>\$ (254,855)</b>	<b>\$ -</b>	<b>\$ (6,235)</b>	<b>\$ 5,522,659</b>

## Debt Service Coverage

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

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

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

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

Debt Service Coverage Water System							
	MBO Required Minimum	Actual 2021	Actual 2022	Actual 2023	Actual 2024	Adopted Budget 2025	Adopted Budget 2026
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	1.99	1.88	1.88	1.87	1.89	1.80
Senior and second lien bonds	1.10	1.40	1.37	1.37	1.36	1.38	1.36
All bonds, including SRF junior lien	1.00	1.38	1.33	1.31	1.26	1.26	1.24
<b>GAAP Basis</b>							
Senior Lien Bonds		1.95	2.00	1.99	1.96		
Senior and second lien bonds		1.38	1.45	1.45	1.42		
All bonds, including SRF junior lien		1.35	1.41	1.38	1.32		

**Table 10: Debt Service Coverage Ratios - Sewer** provides a summary of the MBO required minimum, historical, and budgeted debt service coverage ratios for the Sewer fund.

Debt Service Coverage Sewage Disposal System							
	MBO Required Minimum	Actual 2021	Actual 2022	Actual 2023	Actual 2024	Adopted Budget 2025	Adopted Budget 2026
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	2.92	2.35	2.17	2.06	2.15	2.19
Senior and second lien bonds	1.10	1.97	1.68	1.72	1.54	1.59	1.62
All bonds, including SRF junior lien	1.00	1.51	1.30	1.37	1.24	1.31	1.37
<b>GAAP Basis</b>							
Senior Lien Bonds		2.50	2.64	2.13	2.04		
Senior and second lien bonds		1.68	1.89	1.69	1.53		
All bonds, including SRF junior lien		1.29	1.46	1.34	1.23		

## Refinancing

To reduce the annual water and sewer debt service payments, GLWA monitors its outstanding water and sewer debt portfolios to determine if it can refund existing bond issues with new, lower interest rate bonds. On an ongoing basis, GLWA's registered municipal advisor, PFM Financial Advisors, LLC (PFM) monitors GLWA's bond refunding opportunities based on the current municipal interest rate environment and the existing debt service on GLWA's callable bonds.

On June 6, 2024, \$384.1 million of water supply system refunding bonds and \$387.6 million of sewage disposal system refunding bonds were issued. GLWA received significant investor interest despite heavy tax-exempt supply in the market on the same day, driven by recent decreases in interest rates and favorable tax-exempt ratios.

Key elements of this transaction include:

- Affirmation of strong GLWA credit ratings, including maintenance of the positive outlook from Fitch on the Sewer System
- Strong GLWA name received orders from over 50 unique institutional investors, leading to GLWA's lowest ever credit spreads to municipal benchmark rates through the pricing on May 21, 2024
- Achieved reduction of Reserve Requirement to \$0, representing the culmination of long-term strategy to modernize the Master Bond Ordinances and create a more efficient structure
- Funds in the existing reserve accounts were used to reduce the size of the Series 2024 transaction by \$32.2 million (across the two systems) and improve cashflow savings
- \$130.4 million of future cash flow savings in total with \$67.5 million for water and \$62.9 million for sewer (and a reserve release of \$32.2 million which resulted in a \$76.6 million of present value savings in total)

**Table 11: History of Cash Flow Savings** - since 2016 through the leadership of the Authority's management team, the financing team has been able to achieve over \$896.5 million in savings from future cash flow debt service requirements for the systems.

Revenue Refunding Bonds Savings (\$ millions)				
Issue	Refunding Bond Amount	Future Cash Flow Savings	Release (used to obtain savings) Savings	Net PV Savings
<b>Water System</b>				
Series 2016	\$ 666.0	\$ 185.4	\$ 25.2	\$ 120.8
Series 2018	155.6	30.9	1.6	24.9
Series 2020	377.5	103.1	10.5	66.5
Series 2023	67.2	11.2	-	7.9
Series 2024	384.1	67.5	16.1	39.3
Total Water	\$ 1,650.4	\$ 398.1	\$ 53.4	\$ 259.3
<b>Sewage Disposal System</b>				
Series 2016	\$ 421.3	\$ 123.7	\$ 23.8	\$ 71.2
Series 2018	175.9	54.0	11.2	34.5
Series 2020	687.5	221.0	33.6	122.9
Series 2022	12.5	2.0	1.6	0.2
Series 2023	200.2	34.8	0.2	20.9
Series 2024	387.6	62.9	16.1	37.3
Total Sewer	\$ 1,884.9	\$ 498.4	\$ 86.5	\$ 287.0
<b>Combined</b>				
Series 2016	\$ 1,087.3	\$ 309.1	\$ 49.0	\$ 191.9
Series 2018	331.5	84.9	12.8	59.4
Series 2020	1,065.0	324.1	44.1	189.4
Series 2022	12.5	2.0	1.6	0.2
Series 2023	267.4	45.9	0.2	28.8
Series 2024	771.7	130.4	32.2	76.6
Total Combined	\$ 3,535.3	\$ 896.5	\$ 139.9	\$ 546.3



At the March 28, 2025 Audit Committee meeting, series ordinance authorizing issuance and sale of water supply system revenue and revenue refunding bonds in a principal amount not to exceed \$900 million (\$230 million for new money, \$670 million for refunding), and series ordinance authorizing issuance and sale of sewage disposal system revenue and revenue refunding bonds in a principal amount not to exceed \$685 million (\$50 million for new money, \$635 million for refunding) were recommended for approval by the audit committee to the GLWA Board of Directors. The Board of Directors subsequently approved the series ordinances at the April 23, 2025 board meeting.

GLWA does not have any defeased debt as of March 31, 2025.