

Great Lakes Water Authority

Summary of 2022 Financing Results

\$207,215,000 Water Supply System Revenue Bonds, Series 2022

\$137,470,000 Water Supply System Revenue Senior Lien Bonds, Series 2022A \$69,745,000 Water Supply System Revenue Second Lien Bonds, Series 2022B

\$210,455,000 Sewage Disposal System Revenue and Revenue Refunding Bonds, Series 2022

\$125,975,000 Sewage Disposal System Revenue Senior Lien Bonds, Series 2022A \$71,990,000 Sewage Disposal System Revenue Second Lien Bonds, Series 2022B \$12,490,000 Sewage Disposal System Revenue Refunding Senior Lien Bonds, Series 2022C

Executive Summary



Recent bond transactions for the Water System and Sewer System achieved favorable outcomes for GLWA

- Long-term funding procured at fixed interest rates for approximately \$225 million of regional Capital Improvement Program projects for each of the Water and the Sewer systems
- Achieved low all-in cost of funds during a period of increasing interest rates and market uncertainty: 4.44% for the Water System and 4.57% for the Sewer System
 - Despite challenging overall market conditions, the financing team was able to adapt and generate a positive result for GLWA
 - Municipal benchmark yields now nearly 0.30% higher than on the date of pricing
- Rating agency outlook upgrades from Stable to Positive were achieved with both Moody's (Water and Sewer) and Fitch (Sewer), continuing the Authority's positive rating trajectory and creating positive rating momentum going into next year
- Extensive outreach to investors that achieved positive results and included an electronic investor roadshow and 9 one-on-one investor calls between the Authority and major institutional investors
 - Orders from 37 unique institutional investors totaling \$574 million, including 14 new investors that did not participate in GLWA's 2020 transactions
- The overall GLWA Series 2022 bond structures were intricate and intertwined, with two separate credits (Water and Sewer), and a Senior Lien and Second Lien Series on each, all priced simultaneously and with overlapping maturities
 - Small opportunistic current refunding takes advantage of larger transaction timing and generates net cashflow savings of \$1.96 million to the Sewer System





Goals Set... Goals Met



The goals for the Series 2022 financings were achieved and provide the Authority with a strong base with which to weather the current inflation and supply chain stresses while still achieving future financial goals.







Outlook Upgrades Achieved



Rating Outlook Upgrades Achieved:

- GLWA and the finance team conducted an aggressive rating agency strategy that resulted in additional outlook upgrades by Moody's and Fitch in advance of pricing, better positioning the Authority for future upgrades
 - Water System: Moody's outlook upgrade from Stable to Positive on Senior and Second Liens
 - Sewer System: Moody's and Fitch outlook upgrades from Stable to Positive on Senior and Second Liens

Water System	S&P	Fitch	Moody's
Senior Lien	AA- (stable)	A+ (stable)	A1 (positive)
Second Lien	A+ (stable)	A (stable)	A2 (positive)

Sewer System	S&P	Fitch	Moody's	
Senior Lien	AA- (stable)	A+ (positive)	A1 (positive)	
Second Lien	A+ (stable)	A (positive)	A2 (positive)	

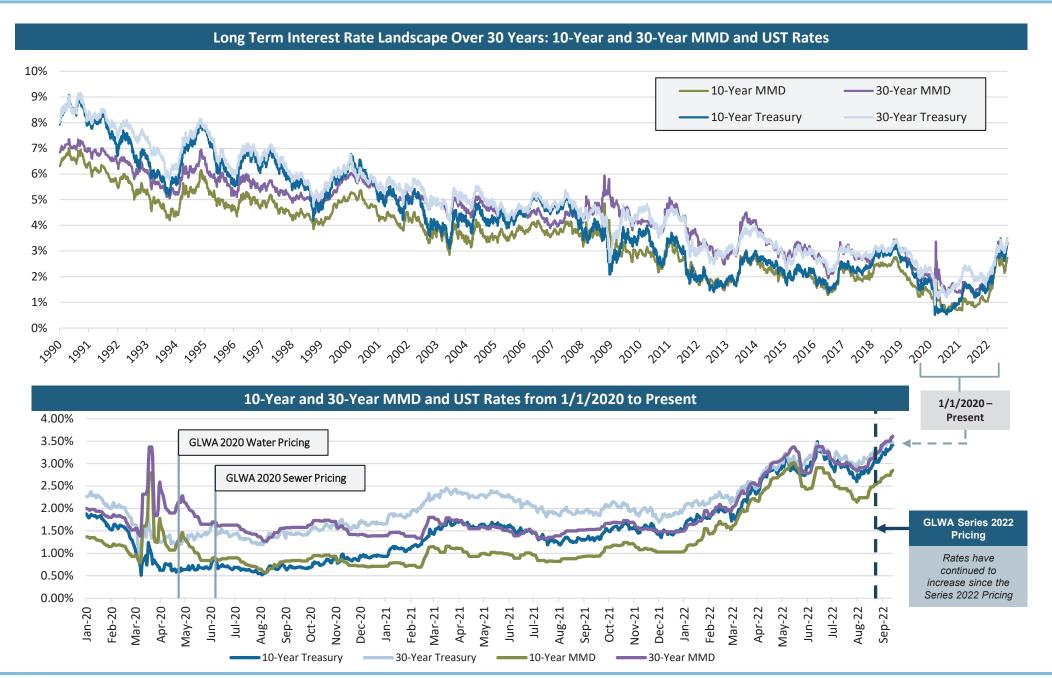
- Moody's: "The outlook is positive because the authority has strong management and stable operations and its underlying service area continues to improve, particularly in the City of Detroit, as well as across Wayne (A1 stable), Oakland (Aaa stable) and Macomb (Aa1 stable) counties"
- Fitch (Sewer): "The rating outlook revision to Positive is based on the system's recent decline in leverage, which was above 10.0x prior to fiscal 2019"





10-Year and 30-Year MMD and Treasury Yields





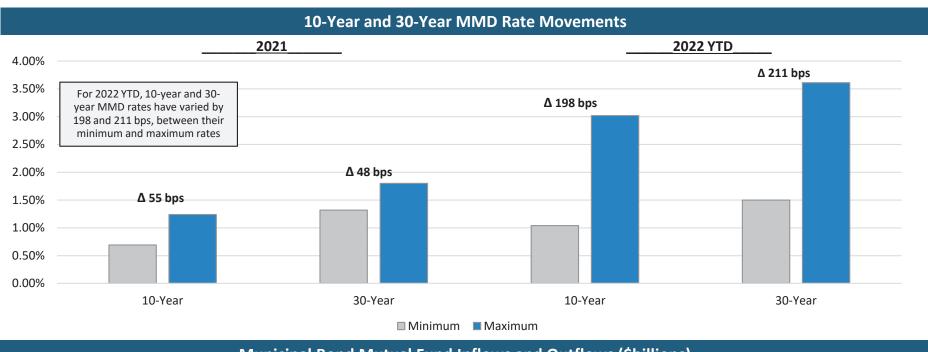


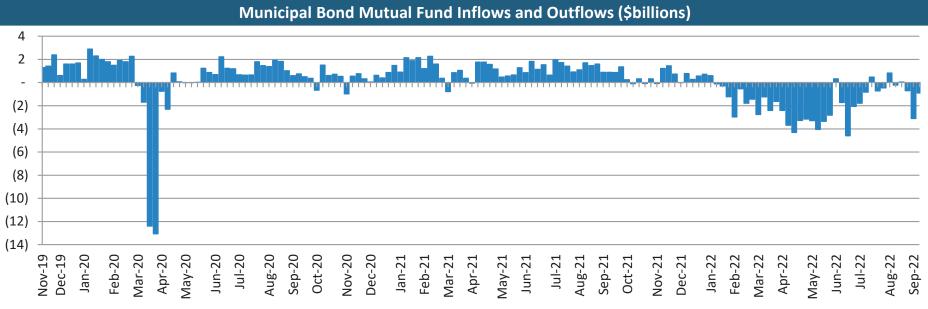




Changing Market Fundamentals and Volatility











Comprehensive Marketing Outreach



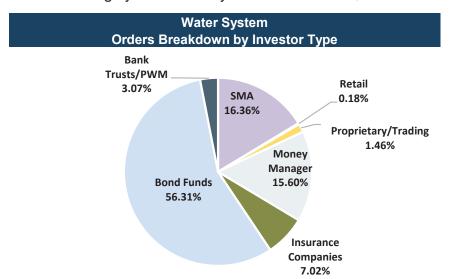
- An extensive premarketing effort led by Siebert Williams Shank & Co., LLC in the days leading up to the sale led to demand from a wide variety of
 institutional accounts
 - Marketing outreach efforts included 9 one-on-one investor calls and 82 unique views of the POS and Roadshows by potential investors

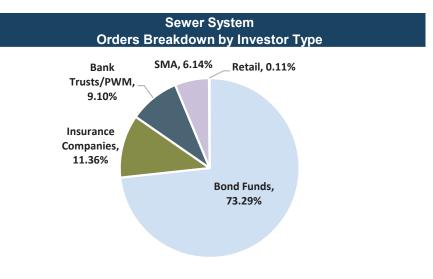
Institutional Orders:

- Water System transaction was well received attracting \$343 million in priority orders
 - 31 unique investors participated, including 11 institutional investors that did not participate in GLWA's 2020 transactions
- Sewer System transaction was well received attracting \$231 million in priority orders
 - 18 unique investors participated, including 5 institutional investors that did not participate in GLWA's 2020 transactions

Subscriptions:

- Orders were received from a mix of investors including insurance companies, bond funds, separately managed accounts ("SMA"), and bank portfolios
 - Water System: Subscription levels (excluding stock) ranged from 0.0x to a high of 6.2x for the Senior Lien and 0.0x to 1.2x for the Second Lien
 - Sewer System: Subscription levels (excluding stock) ranged from 0.0x to a high of 3.6x for the Senior Lien and 0.0x to 2.2x for the Second Lien
- At the end of the order period, there were approximately \$100 million of unsold balances; the financing team restructured certain maturities and the underwriting syndicate led by SWS underwrote \$37.05 million of Bonds









Financing Results



The Series 2022 Bonds were sold at an attractive all-in interest rate and will allow the Authority to fund Regional System projects efficiently

- Issued \$417.7 million of total bonds including \$207.2 million of bonds for the Water System and \$210.5 million of bonds for the Sewer System
 - All-in interest rate of 4.44% for Water System bonds
 - All-in interest rate of 4.57% for the Sewer System bonds
- Issued \$207.2 million of new money bonds for the Water System and \$198.0 million for the Sewer System, each meeting the project funding target of \$225 million
- Issued \$12.5 million refunding bonds for the Sewer System
 - Generates cashflow savings of \$1.96 million in FY2023 to balance expectation of increased debt service related to Sewer Senior Series 2006D (variable rate bonds)
- Released \$8.9 million from the Sewer Bond Reserve Fund to reduce the amount of bonds issued
 - \$1.6 million released from Senior Lien Bond Reserve Fund to augment savings in FY2023
 - \$7.3 million released from Second Lien Bond Reserve Fund to Project Fund to reduce overall borrowing amount
- Debt service structured to create generally level debt service in combination with the existing debt
 - Structuring objectives were designed with the board approved debt policy in mind





Water System - Sources and Uses and Debt Service

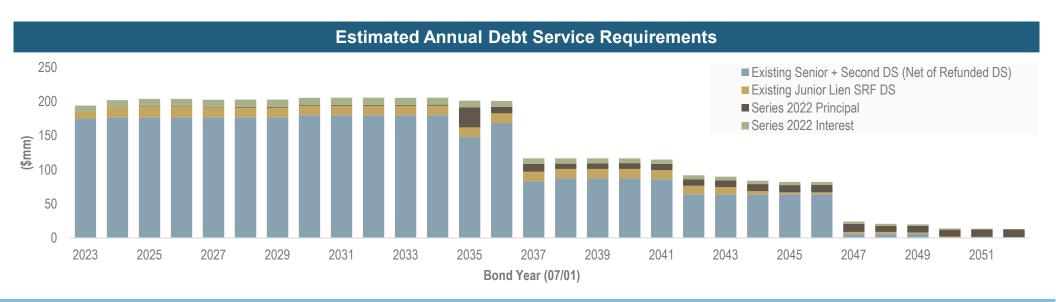


- GLWA issued \$207 million in Water System Bonds to fund \$225 million for project funding for improvements to its Water System
- 30-year structure with principal amortization beginning in 2025
- Debt service structured to create overall level debt service with the existing debt
- Aggregate TIC of 4.44%

Water System Sources and Uses

	Senior Lien	Second Lien	Aggregate	
	Series 2022A	Series 2022B	Series 2022 Bonds	
Sources	New Money	New Money	Series 2022 Borius	
Par Amount	137,470,000.00	69,745,000.00	207,215,000	
Premium	14,944,352.10	7,354,908.00	22,299,260	
Total	152,414,352.10	77,099,908.00	229,514,260.10	

	Senior Lien	Second Lien	Aggregate	
Uses	Series 2022A	Series 2022B	Series 2022 Bonds	
	New Money	New Money	Genes 2022 Builds	
Construction Fund	149,710,000.00	75,290,000.00	225,000,000.00	
DSRF Deposit	1,723,807.61	1,306,569.87	3,030,377.49	
UWD	421,656.01	213,828.56	635,484.58	
COI	557,884.29	286,410.01	844,294.30	
Contingency	1,004.18	3,099.55	4,103.73	
Total	152,414,352.10	77,099,908.00	229,514,260.10	









Sewer System - Sources and Uses and Debt Service



- GLWA issued \$210.455 million in Sewer System Bonds to fund \$225 million for project funding for improvements to its Sewer System
- 30-year structure with new money principal amortization beginning in 2025
- Debt service structured to create overall Total level debt service with the existing debt
- Aggregate TIC of 4.57%
- Series 2022C tax-exempt current refunding of the Series 2012A Bonds maturing in 2023, generated approximately \$1.96 million in net cashflow savings

Sewer System Sources and Uses

	Senior Lien		Second Lien A		Aggregate	
Sources	Series 2022A	Series 2022C Refunding	Series 2022B	New Money	Refunding	Aggregate
Par Amount	125,975,000.00	12,490,000.00	71,990,000.00	197,965,000.00	12,490,000.00	210,455,000.00
Original Issue Premium	13,417,943.95	263,289.20	7,724,196.65	21,142,140.60	263,289.20	21,405,429.80
Release from DS Accounts	_	3,934,218.75	0.00	0.00	3,934,218.75	3,934,218.75
Release from Bond Reserve Accounts	-	1,572,882.46	7,303,667.25	7,303,667.25	1,572,882.46	8,876,549.71

	Senior Lien		Second Lien	Second Lien Agg		ggregate	
Sources	Series 2022A	Series 2022C Refunding	Series 2022B	New Money	Refunding	Aggregate	
Deposit to Escrow Fund	-	18,172,346.00	-	-	18,172,346.00	18,172,346.00	
Deposit to Regional Construction Fund	138,500,000.00	-	86,500,000.00	225,000,000.00	-	225,000,000.00	
UWD	385,922.55	37,808.07	220,564.32	606,486.87	37,808.07	644,294.94	
COI	505,402.78	50,008.20	292,448.11	797,850.89	50,008.20	847,859.09	
Contingency	1,618.62	228.14	4,851.47	6,470.09	228.14	6,698.23	
Total	139,392,943.95	18,260,390.41	87,017,863.90	226,410,807.85	18,260,390.41	244,671,198.26	

Aggregate Annual Debt Service Requirements 300 Existing Senior + Second DS (Net of Refunded DS) Existing Junior Lien SRF DS 250 ■ Series 2022 Principal * 200 Series 2022 Interest (mm\$ 100 50 2023 2025 2027 2029 2031 2033 2035 2037 2039 2041 2043 2045 2047 2049 2051 **Bond Year (07/01)**





Transaction Participants



Transaction Role	Firm
Issuer	 Great Lakes Water Authority
Financial Advisor	PFM Financial Advisors LLC
Senior Bookrunning Manager	 Siebert Williams Shank & Co., LLC
Co-Senior Manager	Goldman Sachs & Co. LLC
Co-Managing Underwriters	 Citigroup Global Markets Inc. J.P. Morgan Securities LLC Loop Capital Markets LLC Morgan Stanley & Co. LLC Ramirez & Co., Inc. Wells Fargo Securities
Bond Counsel	 Dickinson Wright, PLLC
Feasibility Consultant	■ The Foster Group
Trustee and Escrow Agent	U.S. Bank, N.A.
Underwriter's Counsel	 Kutak Rock, LLP
Auditor	 Baker Tilly Virchow Krause, LLP

