

Great Lakes Water Authority
Appendix to the April 22, 2022 Audit Committee Binder
Contents - Senior Manager Underwriter Proposals

Goldman Sachs and Co. LLC
Siebert Williams Shank & Co., LLC
Wells Fargo Corporate & Investment Banking

Proposal to Serve as Senior Managing Bond Underwriter

*Note: The underwriter
presentation starts on PDF
page 30.*

Great Lakes Water Authority



April 14, 2022



April 14, 2022

Ms. Joan Salwasser
Great Lakes Water Authority

Dear Ms. Salwasser:

Goldman Sachs & Co. LLC (“Goldman Sachs” or the “Firm”) is pleased to submit its response to the Great Lakes Water Authority (the “Authority” or “GLWA”) Request for Proposal to serve as Senior Managing Underwriter. We believe our experience with and understanding of GLWA, our recent, relevant and deep experience with large water and sewer utilities, our analytical and credit-intensive approach to marketing and execution, and strong Firm resources – capital and expertise – make us the best choice for the Authority.

- **Relevant Experience:** In addition to our experience with GLWA, we have directly related experience structuring and marketing transactions for similar issuers and transactions, including:
 - ✓ Large and/or complex water and sewer utilities;
 - ✓ State and local Michigan issuers;
 - ✓ Complex refunding transactions, (including an unparalleled number of tender/exchange buyback transactions); and
 - ✓ Sophisticated issuers on a positive credit trajectory.
- **Experienced Team and Firm Resources:** The core Goldman Sachs team that has served GLWA for many years and brings a wealth of institutional knowledge that can help streamline the credit strategy and financing process and allow GLWA to access the market quickly and efficiently. Beyond the core banking team, GLWA will have access to the full spectrum of Goldman Sachs’ credit, tax, quantitative and underwriting professionals within the group as well as the full breadth of the Goldman Sachs resources firmwide. This experience and depth of resources is even more critical given the volatile nature of the market we are experiencing in 2022.
- **Thoughtful & Analytical Approach:** Our goal as your senior manager will be to provide timely, thoughtful and accessible analytics to help you make informed decisions about the optimal plan of finance. Key areas of focus will be:
 - Creating a liquid and market friendly structure that will garner interest from a diverse array of investors and drive strong execution;
 - Using all available tools to generate the lowest option adjusted cost of funds, including bond insurance; and
 - Monitoring refunding opportunities and using innovative strategies to efficiently generate savings.
- **Financial Strength and Willingness to Commit Capital:** Goldman Sachs’ strong capital position and credit profile enable us to structure and lead large, innovative financings in all market conditions. This is particularly important in this time of extreme volatility and uncertainty in the markets. Our financial strength allows us the flexibility to aggressively underwrite bonds for our clients, when appropriate. For example, since 2016, we underwrote \$7 billion of unsold balances in negotiated municipal bond transactions.
- **Commitment to the Local Community in Michigan**
 - **10,000 Small Businesses:** The Firm has a \$500 million program to provide education, capital and business support to small businesses across the U.S., including over 580 business owners in Michigan.
 - **Support of CARES Act PPP:** In April 2020, as part of a \$1 billion commitment to COVID-19 relief globally, Goldman Sachs committed nearly \$20 million in loans for small businesses in Southeast Michigan to help them through the COVID-19 crisis.
 - **Goldman Sachs Gives (GS Gives):** Since 2010, Goldman Sachs Gives has granted more than \$2.2 million to 25 non-profit organizations located in the State of Michigan.
 - **Community TeamWorks:** Goldman Sachs Community TeamWorks is a global volunteering initiative that allows us to cultivate longstanding relationships with nonprofits and complete team-based projects that drive impact in the communities where we work and live. Since 2010, over 250 Goldman Sachs volunteers completed CTW projects across Michigan and contributed 1,400 hours of service to local communities.

We hope you find our proposal compelling and would be pleased to answer any questions you have. Notwithstanding the foregoing, the proposed fees for the services set forth in our Response shall remain for a period of six (6) calendar months from the date of our Response. Please feel free to contact Freda Wang at (212) 902-2892 or Mark Somers at (415) 249-7044.

Sincerely,

Handwritten signature of Freda Wang in black ink.

Freda Wang, *Managing Director*

Handwritten signature of Mark Somers in black ink.

Mark Somers, *Vice President*

B. Table of Contents

Response to Questions	
C. Disclosure Statement	1
D. Firm Background and Related Experience	2
E. Key Financing Issues	4
F. References	15
G. Proposal Presentation	15
Appendix A. Project Team and Key Individuals	
Appendix B. Legal Disclosure and Conflict of Interest Disclosure	
Appendix C. Goldman Sachs Senior Managed Experience	
Appendix D. Maturity by Maturity Analysis	
Appendix E. Insurance Analysis	

Goldman Sachs & Co. LLC (“Goldman Sachs”) is providing the information contained in this document for discussion purposes only in anticipation of serving as underwriter to the Great Lakes Water Authority (the “GLWA”). Goldman Sachs’ response to this RFP is being provided pursuant to the exemption from the definition of municipal advisor (as defined in Section 15B of the Securities Exchange Act of 1934 (the “Act”)) for responses to requests for proposals or qualifications for services in connection with a municipal financial product or the issuance of municipal securities. The primary role of Goldman Sachs, as an underwriter, is to purchase securities, for resale to investors, in an arm’s-length commercial transaction between the GLWA and Goldman Sachs and Goldman Sachs has financial and other interests that differ from those of the GLWA. Goldman Sachs is not acting as a municipal advisor, financial advisor or fiduciary to the GLWA or any other person or entity. The information provided is not intended to be and should not be construed as “advice” within the meaning of Section 15B of the Act. GLWA should consult with its own financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent it deems appropriate. If the GLWA would like a municipal advisor in this transaction that has legal fiduciary duties to the GLWA, then the GLWA is free to engage a municipal advisor to serve in that capacity. See our disclosures in Appendix B. Conflicts of Interest for other activities that Goldman Sachs may be engaged in during the course of this assignment.

Nothing in Goldman Sachs's response to this RFP is an expressed nor an implied commitment by Goldman Sachs to act in any capacity contemplated by this RFP. Any such commitment to perform the services contemplated by this RFP shall only be set forth in a separate agreement, subject to further approvals including conflicts clearance. With respect to any trade data provided herein, this material has been prepared based upon information that Goldman Sachs believes to be reliable. However, Goldman Sachs does not represent that this material is accurate, complete or up to date and accepts no liability if it is not. Goldman Sachs is not obligated to update this material to correct any inaccuracies it may contain or to reflect any changes that may occur in the future.

Scope of Services: Please note the exclusion for underwriters from the definition of municipal advisor (as defined in Section 15B of the Securities Exchange Act of 1934 (the “SEC MA Rules”)) is limited to activities that are within the scope of an underwriting of a particular issuance of municipal securities. As such (absent another exemption or exclusion), if Goldman Sachs is engaged to be an underwriter for the Great Lakes Water Authority’s (the “GLWA”) issuance of municipal securities contemplated by the RFP (the “Offering”), any engagement would be limited to those services related to the Offering and deemed to be within the scope of the underwriter exclusion of the SEC MA Rules (see pgs. 165-166 of SEC Release No. 34-70462). In order to be able to provide services outside the scope of the underwriting exclusion, Goldman Sachs must be able to rely on the exemption to the MA Rules (the “IRMA exemption”) for entities that are represented by an independent registered municipal advisor with respect to the same aspects upon which Goldman Sachs provides any advice with respect to municipal financial products or the issuance of municipal securities; provided, that, any such services performed in reliance on the IRMA exemption would not alter the role of Goldman Sachs as an underwriter or the arm’s length nature of the relationship between the GLWA and Goldman Sachs. Further, the GLWA, its counsel and other advisors shall be responsible for the disclosure documents and other legal documents; provided, that, as an underwriter, Goldman Sachs will review the disclosure documents in accordance with, and as part of, its responsibilities to investors under the federal securities laws. The primary role of Goldman Sachs, as an underwriter, would be to purchase securities, for resale to investors, in an arm’s-length commercial transaction between the GLWA and Goldman Sachs and Goldman Sachs has financial and other interests that differ from those of the GLWA. Goldman Sachs would not be acting as a municipal advisor, financial advisor or fiduciary to the GLWA or any other person or entity in connection with the role and matters contemplated by the RFP. As noted in our proposal, nothing in Goldman Sachs's response to this RFP is an expressed nor an implied commitment by Goldman Sachs to purchase or place any securities, provide credit or liquidity or to act in any capacity contemplated by this RFP. Any such commitment to perform the services contemplated by this RFP shall only be set forth in a separate agreement. For information regarding the role of an underwriter, please see please see our disclosure in Appendix B- Conflicts of Interest.

C. Disclosure Statement

C.I-II. FIRM OVERVIEW

Goldman Sachs & Co. LLC (“Goldman Sachs” or the “Firm”) is headquartered in 200 West St, New York, NY 10282 and provides a leading platform of investment banking and securities services, as well as a full range of investing, advisory, and financing services to a substantial client base, including governments, corporations, financial institutions, and individuals worldwide. We currently employ over 40,000 workers worldwide, including approximately 16,000 in the U.S. The Firm maintains over 70 offices globally, including 23 locations across the United States, of which 7 are staffed with public finance banking personnel.

Effective April 28, 2017, Goldman, Sachs & Co., the entity through which the Firm had been in business since January 3, 1927, converted from a New York limited partnership to a New York incorporated limited liability company, Goldman Sachs & Co. LLC. The sole Class A member is The Goldman Sachs Group, Inc., and Class B members are non-GS entities holding de minimus non-voting non-participating membership interests. Goldman Sachs & Co. LLC has a board of managers. The Goldman Sachs Group, Inc., the parent company of Goldman Sachs & Co. LLC, is a bank holding company incorporated in Delaware that provides a leading platform of investment banking, securities services, and investment management under the primary regulatory supervision of the Federal Reserve.

C.III. EQUAL EMPLOYMENT OPPORTUNITY

The Firm is committed to providing equal employment opportunity (EEO). Although the laws may differ in the various locations in which we do business, our principles are the same worldwide. Concern for the personal dignity of each individual is an indispensable element of the standards we set for ourselves at Goldman Sachs. We focus our personnel decisions on merit and contribution to the Firm’s success. We do not tolerate any type of discrimination prohibited by law, including harassment. Goldman Sachs considers conduct that does not conform to these standards and to those set by applicable law to be a serious violation of its policies and will take appropriate disciplinary action against those who engage in such conduct. The Firm has a number of communications channels by which workplace concerns can be raised – for employees and applicants and a process for handling concerns with sensitivity.

We value diversity as an important asset that enhances our culture, helps us serve clients well and maximizes return for shareholders. For us to excel, we must create for our people an inclusive environment that welcomes and supports differences and encourages input from all perspectives. Diversity and inclusion is a top priority at Goldman Sachs. The Firm is dedicated to deploying capital and offering increasingly innovative programs to promote economic prosperity. A few immediate examples of our commitment to promoting inclusion, diversity, and equity include the following:

- [One Million Black Women](#), an initiative through which the Firm will invest \$10 billion and commit \$100 million in philanthropic capital for capacity-building grants over the next decade to narrow opportunity gaps for at least one million Black women in the US. The Firm has a 20-year history of investing significant capital in women and underserved communities, including through 10,000 Small Businesses, 10,000 Women and the Urban Investment Group, and we expect that this initiative will not only create meaningful opportunities for Black women, but also lead to sustainable economic growth across the country.
- Goldman Sachs’ has committed to \$1 billion of investment for Black, Latinx, women and other diverse entrepreneurs and investors through the Firm’s [Launch With GS program](#).
- In June 2020, we also created the Goldman Sachs Fund for Racial Equity to support the vital work of leading organizations addressing racial injustice, structural inequity and economic disparity. The \$10 million Fund for Racial Equity builds upon more than \$200 million Goldman Sachs has granted over the last decade to organizations serving communities of color. More recently, as part of the Goldman Sachs COVID-19 Relief Fund, the Firm deployed \$17 million to organizations supporting relief efforts in communities of color.

The firm’s Equal Employment Opportunities and Commitment to Diversity is [\(here\)](#)

Our Firm, People, and Culture is [\(here\)](#)

Diversity and Inclusion [\(here\)](#)

C.IV. LITIGATION & CONFLICTS

The firm assumes that the Great Lakes Water Authority primarily, is interested in proceedings relating to Goldman Sachs & Co. LLC’s (“Goldman Sachs”) role as managing underwriter of municipal offerings. Except as noted **Appendix B**, the firm’s Public Sector and Infrastructure Banking group is not involved in litigation arising out of its role as a managing underwriter of municipal offerings.

C.V. CONFLICTS OF INTEREST

oGoldman Sachs & Co. LLC reviews potential investment banking assignments through a centralized process to determine, among other things, whether they present an actual or potential conflict of interest in light of its other business activities. Goldman Sachs & C o. LLC has considered this potential assignment pursuant to this process and based on our review, we have concluded that, in our opinion, we have no conflict of interest that prevents us from accepting this assignment. For purposes of this response, the “GS Team” refers to Freda Wang, Mark Somers, Matthew Wang, and Joanne Chang. Additionally, for further disclosure regarding conflicts of interest, please refer to **Appendix B** Conflicts of Interest.

Signed: 
Freda Wang

D. Firm Background and Related Experience

D.I. FINANCIAL POSITION

Goldman Sachs has consistently maintained a strong financial position and is well-positioned to serve our clients through difficult environments. As of February 2022, Goldman Sachs & Co. LLC's Net Capital was \$23.5 billion and its Excess Net Capital was \$19.0 billion. Additionally, as an indicator of our long-term financial strength, we provide the table at right that shows the Firm's Total Capital, Net Capital and Excess Net Capital over the prior 5 fiscal years. The Firm has elected to compute uncommitted excess net capital in accordance with the

Goldman Sachs & Co. LLC Capital Position (\$mm)					
As of	Total Capital	Net Capital	Excess Net Capital	Eq. Capital	Total Debt
2022-Feb	\$ 0	\$ 45,927	\$ 37,021	\$ 0	\$ 0
FY 2020	34,494	22,381	18,448	11,994	22,500
FY 2020	34,494	22,381	18,448	11,994	22,500
FY 2019	31,937	20,880	18,152	13,437	18,500
FY 2018	29,017	17,449	15,002	10,517	18,500
FY 2017	29,514	15,574	13,154	11,014	18,500

“Alternative Net Capital Requirement,” as permitted by the Securities Exchange Commission (“SEC”) Rule 15c3-1. The Firm's 12-month average of excess net capital (uncommitted) was \$17.0 billion and the 24-month average was \$17.4 billion.

Goldman Sachs has a long track record of using our balance sheet to support our clients' offerings by underwriting unsold balances. Based on the SEC's Net Capital Rule, which would require 7% excess net capital for Municipal Securities, Goldman Sachs could underwrite up to \$270 billion into inventory (assuming no other demands have been made on the available Excess Net Capital as of February 2022). Our willingness and ability to commit capital are two of the cornerstones upon which our reputation and business model are based. As such, the Firm continues to assist our municipal clients in the current market by underwriting bonds and providing support to the secondary market. Our strong liquidity position enables Goldman Sachs to use its balance sheet and commit capital to support issues when appropriate. Unlike many firms, the Firm has no internal preset limits concerning the allocation of capital to our municipal underwriting and secondary-market activities. Moreover, there is no preset allocation of capital within PSI among negotiated and competitive underwriting and secondary-market activities.

D.II. EXPERIENCE WITH UTILITY REVENUE BONDS

The municipal bond market is a core business of the Firm, and we are committed to, and continue to invest in, the sector. From 2021-2022 YTD, Goldman Sachs was the #4 negotiated underwriter in the industry and #3 for negotiated deals greater than \$100 million. We

also have a long-standing and consistent focus on serving larger and more complex issuers. We have consistently ranked as the #1 underwriter for average transaction size, including again in 2021 (\$175mm/transaction). This focus allows us to dedicate more resources and attention to fewer, larger transactions producing better results for our clients. We have assisted our clients with development of: (i) plans of finance, (ii) new global marketing strategies, and (iii) credit and rating agency strategies and presentations. Moreover, we have been reappointed by a number of our clients for their successive transactions, demonstrating our consistent performance as well as commitment to providing long-term service to issuers. Our depth in municipal finance has allowed us to be at the forefront of continued innovations in the industry.

Working with municipal utilities is an area where we are especially active. **In the last 10 years, the Firm has served as senior manager on \$40 billion of municipal utility revenue bonds for transactions larger than \$100 million, making us the #3 underwriter in the period.** We provide a detailed list of our senior managed deal experience in **Appendix C**.

Our clients include the largest and most complex water and sewer utilities in the country, including the water and wastewater utilities in DC, Los Angeles, San Francisco, Atlanta, Philadelphia, New York, Dallas, Austin, Houston, Sacramento, New Orleans, Birmingham, Hartford, Phoenix and Jacksonville. Our regular involvement with utilities (specifically water and wastewater issuers) allows us to be in consistent dialogue with the key buyers of utility bonds, providing a real time understanding of investor preferences and concerns. We are confident our sector expertise, credit and tax resources, combined with the breadth of our retail and institutional distribution networks, will enable us to deliver strong results for GLWA. In addition to our robust municipal underwriting practice, we have extensive experience assisting municipal utilities on more innovative financings.

D.III. EXPERIENCE WITH UTILITIES IN MICHIGAN

Goldman Sachs is also a leading underwriter in Michigan, serving as a senior manager on over \$10,303 million of par, and co-manager on an additional \$6,088 million, since 2016, including for GLWA and Lansing Board of Water and Light. We provide a detailed list of our senior managed deal experience in **Appendix C**.

MUNICIPAL UTILITY EXPERIENCE IN MICHIGAN			
2012-YTD*	Total	Senior Manager	Co-Manager
Total Par (\$mm)	\$4,190	\$1,999	\$2,192
# Transactions	12	3	9

Source: Refinitiv SDC; 01/01/2012-04/06/2022

D.IV. CAPITAL COMMITMENT

As mentioned in Section D.I., Goldman Sachs' strong financial and liquidity position enables us to use the Firm's balance sheet and commit capital to support municipal issues when appropriate. We take seriously our role as market liquidity provider and the effect of this role on the efficient functioning of markets and, ultimately, on economic growth. Goldman Sachs has consistently maintained a solid financial position and today, with total capital of approximately \$37.9 billion as of December 2021, is well-positioned to serve our clients through whatever market environment we find ourselves in at pricing.

Below, we list transactions since January of 2021, where we have demonstrated our willingness and ability to use our balance sheet to support our clients' offerings by underwriting unsold balances. The amounts listed reflect unsold balances at the time of the written award. As we demonstrate in the case studies below, *our risk positions are often considerably higher at the time of the verbal award.*

In today's volatile and sometimes challenging market, it is more important than ever for GLWA to select an underwriter with a strong capital position who can support the Authority's issuance and provide secondary market liquidity. The extension of financial capital takes various forms, ranging from supporting transactions we underwrite in the primary market by taking down unsold balances, to committing large amounts of capital to provide investors' liquidity in secondary market trading. Two recent examples of how we have used our balance sheet to improve execution for our clients are discussed below.



OHIO WATER DEVELOPMENT AUTHORITY

On October 19, 2021, Goldman Sachs served as senior manager for OWDA's \$150 million of Fresh Water Series 2021 Bonds. The transaction priced during a period of significant Treasury market volatility, with Treasuries moving higher by 5 to 7 basis points during the day of pricing without a corresponding adjustment to MMD. The order book was just over half subscribed following the order period. Goldman Sachs worked with OWDA to restructure the transaction to move bonds where there was demand. While we were ultimately able to place all bonds with investors by the end of the day, *we committed to take down over \$40 million of bonds* to ensure the integrity of the sale at the time of the verbal award.

Pricing	Issuer	Ratings (M/S/F/K)	Par (\$000s)	U/W Bonds (\$000s)
02/18/21	RTD, CO	Aa2/AA+/AA	\$ 411,630	\$ 1,525
02/18/21	San Diego Unified School District	Aa2/AAA/AAA	117,835	3,680
04/20/21	State of California	Aa2/AA-/AA/NR	1,076,210	400
04/22/21	State of Connecticut	Aa3/A+/A+/AA+	886,795	1,965
04/20/21	MTA	NR/AA+/AA+/AA+	248,450	150
06/23/21	Sacramento Municipal Utility	NA/AA/AA	106,875	2,140
06/24/21	Montana Facility Finance Authority	NR/A/NR	56,895	1,690
07/15/21	State of Connecticut HEFA	Aa3/AA/NR	55,520	2,030
07/27/21	City of Philadelphia	A2/A/A-/NR	132,085	760
08/12/21	Windy Gap Firing Project	Aa2/AA/NR/NR	169,705	2,830
09/21/21	MTA	NR/AA+/AA+	853,628	90
10/20/21	Hudson Yards	Aa2/AA-/A+/	454,195	2,880
11/09/21	NY State EFC	Aaa/AAA/AAA/NR	144,540	1,310
12/01/21	Anaheim PFA	A2/AA/NA/AA+	250,250	6,985
12/08/21	MARTA	Aa2/AA+/NR/NR	60,950	215
02/02/22	7 WTC Project	Aaa/NR/NR/NR	8,310	5,085
02/09/22	NYC Housing	Aa2/NR/NR/NR	104,250	6,000
			\$ 5,138,123	\$ 39,735

As of 04/06/2022

As of 04/06/2022



CITY OF ANAHEIM

In December 2021, Goldman Sachs served as senior manager on the City of Anaheim's (the "City") Lease Revenue Bonds (Convention Center Refunding), Series 2021A (Federally Taxable). During the week leading up to pricing, there was significant market volatility due to uncertainty surrounding the spread of the Omicron variant, which was first flagged as a variant of concern in the week prior to pricing. There was also a large supply of taxable bonds expected to price the same week. Prior to pricing day, Goldman Sachs worked with the City to restructure the transaction to move bonds where there was investor feedback and demand, restructuring the transaction with the 2035 and 2036 serial bonds added to the 2041 term bond in order to optimize pricing results. *We eventually committed ~\$30 million of capital at the time of the verbal award* to support the transaction.

D.IV. FINANCING TEAM

GLWA'S CORE BANKING TEAM

Freda Wang, Managing Director, will be the team leader and primary point of contact for the Authority. Freda has been working with DWSD and now GLWA since 1997. Freda serves as the lead banker for several water and wastewater utilities around the country, including in the cities of Washington, D.C. Philadelphia, New York, Hartford and Atlanta. Most recently, Freda led a refunding transaction for DC Water, which closed last month, that included a tender & exchange strategy in combination with a taxable advance refunding as well as new money, including a series of green bonds.

Freda will be supported on a priority, full-time basis by **Mark Somers**, Vice President. Mark has covered GLWA and DWSD since 2010 and has led financings for many of GLWA's peers in southeast Michigan. Mark also has significant experience working on complex refunding transactions, including the largest tender and exchange transaction completed in the municipal market in recent years for the City of Chicago.

Matthew Webb, Associate and **Joanne Chang**, Analyst, will provide quantitative and execution support. Matthew recently joined Goldman Sachs from Morgan Stanley and brings several years of experience leading transactions for large issuers in the Midwest, including a number of water and wastewater issues. Joanne joined Goldman Sachs in 2018 and most recently worked on the City of Chicago and DC Water transactions with Mark and Freda.

TECHNICAL SPECIALISTS

Goldman Sachs also offers GLWA the technical and analytic expertise of a dedicated municipal credit analyst, **Stacy Lingamfelter**, Vice President; Tax, Legal, Liability Management and Quantitative Expert, **Arthur Miller**, Managing Director; and SRF Expert, **Dan Byrne**, Vice President. Goldman Sachs' in-house technical specialists are further detailed below in **Section E.V.** of this RFP response.

UNDERWRITER TEAM

The Goldman Sachs GLWA team is supported by market experts and leading underwriters that brings years of underwriting, investor marketing, and trading expertise. Our underwriting team is led by **Ed Droesch**, Managing Director, **Sam Denton-Schneider**, Vice President and **Ken Ukaiwe**, Vice President. Leading up to pricing, the underwriters will work with the banking team to provide market perspective during the development of financing plans, and will manage the marketing and underwriting process, coordinating with GLWA and its financial advisors for a clear and transparent process.

Another important resource on the Goldman Sachs team is **Petros Voulgaris**, Vice President, an 18-year veteran of the municipal market. Petros is Head of our Investor Marketing Group and sits on the trading desk within the Global Markets Division. Formerly a buy-side analyst at a major mutual fund, Petros offers a unique perspective on the structuring and marketing of credits, and serves as a bridge between the banking team and sales force in order to offer the investor perspective early during a transaction.

Finally, our underwriters work seamlessly with our Municipal Sales and Trading teams to ensure the success of GLWA’s financing. **Zach Ablon**, Managing Director, is the head of Municipal Sales and Trading at the Firm and will provide senior oversight to our municipal syndicate desk on managing investor relations and coordinating marketing efforts for GLWA – including tailoring investor marketing and leading the sales education effort. Zach is supported by **David McCann**, Vice President & Head of Municipal Sales. **Stephen DeMarco**, Managing Director and Head of Municipal Sales & Trading, serves as lead trader on our desk and will oversee the trading of GLWA’s bonds.

Detailed resumes can be found in **Appendix A**.

E. Key Financing Issues

E.I. CONSIDERATIONS FOR GLWA IN 2022

GLWA has made tremendous progress executing on the vision established by the Memorandum of Understanding in October 2014. This includes standing up a new organization, modernizing and professionalizing operations, investing in critical capital projects, improving the balance sheet, limiting rate increases and achieving an unprecedented string of rating agency upgrades. The planned 2022 transaction represents an opportunity to further consolidate GLWA’s gains and ensure the Authority is positioned to continue meeting the needs of its customers while minimizing rate increases. While related, we would break down the key strategic issues for GLWA to consider into (i) operating considerations and (ii) market considerations. We would also note that the financing provides an excellent opportunity for GLWA to reset the narrative on some of the challenges it has faced, including the wet weather events from last summer and the Highland Park situation, with ratings agencies, investors and the general public.

GLWA OPERATING CONSIDERATIONS

Over the last several years, GLWA has managed to continue investing in critical infrastructure and grow its cash reserve all without materially increasing leverage or annual debt service. While the accomplishment is mostly due to operational efficiencies and strong management practices, favorable market conditions have played a role. GLWA has been able to generate substantial debt service savings by executing several large refunding transactions. Indeed, GLWA’s current annual debt service is comparable to what it was in 2014, as shown in the chart.

While GLWA does have meaningful refunding opportunities, the amount of savings may be less than what GLWA was able to achieve in 2016, 2018 and 2020 due to the higher interest rate environment. In addition, as GLWA’s capital needs ramp up, incremental new debt will be necessary and in larger amounts than recent new money transactions in 2018 or 2020. The combination of these factors suggests that GLWA’s annual debt service will finally start to increase.

At the same time, we assume GLWA is facing many of the same inflationary pressures relating to salaries, materials and construction costs as utility peers and those in other sectors. While the hope is inflation will begin to subside as the Federal Reserve tightens monetary policy and supply chain issues resolve, GLWA is likely to face higher operating costs over the next several years.

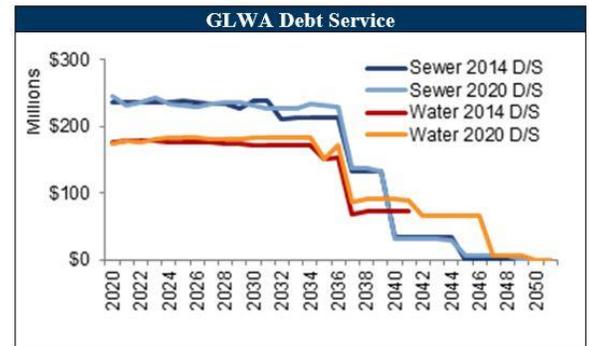
While there are some tailwinds (reduction in pension costs – even as the actual amounts remain subject to fluctuation – and higher investment earnings) the confluence of these factors suggests that GLWA may have a harder time meeting the “4% Promise”. We understand the revenue increase cap was intended to last for 10 years, which would mean that GLWA may no longer be subject to this parameter for too much longer. However, we would guess it is still a priority of GLWA to limit system revenue increases.

The good news is GLWA’s annual debt service begins to decline rather precipitously in 2037. Therefore, as we discuss further in **Section E.II**, GLWA may want to limit the amortization of new money bonds over the next 14 years to manage the increase in annual debt service. Notably, in the current market, the incremental cost of issuing bonds beyond 14 years is limited due to the unusually flat yield curve.

MARKET CONSIDERATIONS

After a highly favorable market for issuers for most of 2021, municipal market conditions through the first quarter this year have been in a far more fragile state, with inflation concerns, negative market returns, heightened outflows, and global turmoil and uncertainty diminishing demand for bonds while benchmark rates climb higher. Not only are rates rising, but credit spreads and ratios are higher with ratios close to the 10-year average after remaining near all-time lows for much of the last year. Lastly, as demand side technicals continue to weaken, investors’ liquidity needs have intensified with money leaving the marketplace over fear that negative returns will only increase outflows. Over the past several months we have witnessed the importance of remaining flexible during challenging market conditions, both in terms of timing and structure (when possible).

■ **Demand.** So much of the technical picture in the municipal market is driven by supply and demand, and municipal bond fund flows features prominently in this equation. Throughout much of 2020 and 2021, fund flows were robust, representing a near constant supply of fresh capital being injected into the market on a weekly basis. However, fund flows turned negative during the week ending



January 17th, and we have now seen outflows in 9 out of 10 weeks after 45 consecutive weeks of inflows dating back to March 3, 2021. This weakening demand dynamic has led to decreased market liquidity, which erodes investors' ability to generate cash and manage bond fund outflows.

- **Supply.** In light of the demand dynamic discussed above and the shift in rates we discuss below, issuers that have the ability to wait have stayed on the sidelines, while other issuers continue to advance transactions out of concerns over the rising rate environment. Over the course of 2022, weekly issuance has only matched the 2021 Weekly Average three weeks, and the 2022 Weekly Average is \$1.4 billion lower than 2021. While taxable supply had been a sizable portion of the municipal market over the past 12 months, it has been a relatively smaller portion of 2022 issuance and taxable issuance is down 49% compared to last year's pace.
- **Rates.** Tax-exempt rates have increased sharply to begin 2022, with 10-year MMD up 142 bps year to date. The market is demonstrating that borrowing costs will continue to rise, including both increased benchmark rates and widening credit spreads. Anticipating action of the Fed continues to be a focal point for investors, and the Fed has recently taken a much more hawkish tone, raising the fed funds rate by 25bps after its March meeting and preparing for an additional 6 hikes this year. In a remarkable statistic, 1-year MMD has risen from 0.14% on January 1 to 1.69% on April 6th, which is higher than what 30-year MMD was on January 1 (at 1.49%).
- **Ratios.** MMD/UST ratios are an indicator of the strength of the municipal market. Low ratios suggest the municipal market is outperforming UST rates, and vice-versa. YTD MMD-UST Ratios have increased towards all tenors of the curve.

While the market is clearly challenged, we are hopeful that conditions will begin to normalize this summer when GLWA plans to be in the market. Indeed, we are already starting to see non-traditional municipal buyers take advantage of the relative value provided by the tax-exempt market, which has improved liquidity and execution for new issues. *In light of the volatile market conditions, it will be important for GLWA to remain flexible, particularly as it relates to a potential refunding transaction, and structure bonds that garner interest from a broad array of potential investors. As we discuss below, this may entail specific coupon structures, obtaining bond insurance or issuing more bonds on the senior lien.*

A good example of how we help our issuing clients navigate volatile markets is a taxable refunding transaction we led for the University of Michigan (Aaa/AAA) last week. The University issued \$2 billion of new money bonds (led by another firm) on March 9th at higher spreads than anticipated. This meant the refunding transaction we were leading no longer met the University's savings thresholds. While Treasury rates continued to increase, credit spreads in the taxable market began to improve, particularly for more liquid structures. In addition, the yield curve began to invert. To take advantage of this unusual circumstance, we worked with the University to term up additional maturities and take advantage of the fact that the 30 year UST was lower than the 10 year UST. We opportunistically accessed the market and locked in pricing within a matter of days, helping the University to achieve its refunding targets.

E.II. / E.III PLAN OF FINANCE AND ENHANCEMENTS

While the above operating and market considerations help to inform our recommended plan of finance, there are several more technical structuring issues the Authority will need to navigate in its upcoming financing.

- **Debt Structure.** The base case for structuring new money for our water and sewer utility clients, including GLWA, is often 30-year level debt service. This approach is consistent with the long useful life of the assets typically financed and provides a sustainable capital structure with steady debt retirement over time. Some entities, with New York Water being the most prominent example, focus on an *aggregate* level debt service profile. While this results in a slower pay down of debt, the annual cost of debt is spread more evenly from generation to generation. For entities like GLWA that have gone through significant transformations to their business, legacy capital structures can create unusual debt service patterns. This is clearly the case for GLWA, with the significant reduction in debt service starting in FY37 for water and FY38 for sewer. The main reason for the drop off is that DWSD funded capital expenditures almost exclusively with debt while GLWA has used much more equity, or revenue-financed capital. Due to the operational and market factors discussed above, we believe GLWA should consider a structure whereby it amortizes little or no bonds until the drop off in debt service in FY37 for water and FY38 for sewer. This will not only reduce pressure on GLWA's operations over the next several years, but create a smoother and more consistent long-term debt service profile.
- **Pre-Funding.** Due to the flatness of today's yield curve, GLWA may want to consider financing additional projects before the funds are needed. We note that the borrowing amounts in the RFP are higher than what was outlined in the February board materials, suggesting the Authority may already be prefunding a portion of its capital needs. The cost of carry to issue earlier than funds are needed can be thought of as a "forward premium" to lock in today's interest rates. The cost to hold onto funds is increasingly mitigated by the short-term interest earnings on the proceeds during that time. For example, if the Authority were to issue funds two years early and earn 2.51% (current 2-year Treasury rate), the cost of carry would be 14 basis points, well within the realm of potential rate movements during this timeframe.

Years Before Spent	Earnings Rate	All-in TIC on New Money	Cost of Carry	Breakeven All-in TIC
1	1.85%	4.10%	11 bps	4.21%
2	2.51%	4.10%	14 bps	4.24%

- **Debt Service Reserve Funds.** If GLWA's is able to secure an upgrade from Moody's or Fitch to Aa3 or AA-, respectively, it will be able to eliminate the reserve requirement as part of the planned transaction (although it will also need to ensure that a release does not cause a downgrade – namely at Moody's). Given that Moody's recently affirmed the Authority's A1 senior rating, it is very unlikely Moody's will move GLWA to Aa3. We are also fairly confident removing the reserve (should Fitch upgrade water or sewer to AA-) would not reduce GLWA's Moody's ratings. Therefore, we expect the ability to trigger the amendment comes down to obtaining an upgrade from Fitch, which we discuss in detail in Section E.VI. If the Authority is unable to secure the upgrade, it

will need to comply with existing reserve requirements. Between refunding opportunities and toggling between the senior and second liens, GLWA should be able to avoid contributions and hopefully secure sizeable releases, particularly from the Sewer system. Either way, we think it is only a matter of time before GLWA reaches the AA category from Moody's and Fitch. Therefore, while it is important to minimize any new contributions and maximize releases, we do not believe it should drive the plan of finance.

- **Borrowing Liens.** As noted above, the ability to minimize contributions and maximize DSRF releases may require optimizing new money issuance on GLWA's various borrowing liens. This strategy must be weighed against (i) the cost differential between senior and second lien bonds in today's market, (ii) the importance of marketing a liquid structure and (iii) preserving GLWA's dual lien structure. We estimate that second lien bonds will price about 10 bps higher than senior lien bonds. While still modest, the spread differential is slightly elevated in light of more challenged market conditions. For example, it was probably closer to 5 to 7.5 bps last year. Another factor to consider is the size and structure of the proposed amortization. Larger and more liquid structures are better received in the current market, particularly when issuing taxable bonds. A final consideration is maintaining GLWA's lien structure on the long end of the yield curve where there are no bonds. To the extent GLWA would like to preserve its dual lien structure, it may want to take a more deliberate approach to the proceeds raised on each lien (so, for example, 50/50 or 75/25).
- **Tax-Exempt Couponing.** 5% coupons for tax-exempt bonds after the call date have historically been market standard, as investors generally prefer (1) the coupon protection against rising rates, and (2) increased liquidity. Last year and early this year, we saw market demand for lower coupon bonds increase and spreads narrowing. As the market continues to be volatile with interest rates increasing, demand continues to shift for different couponing options. From a structural point of view, the issuance of lower coupon bonds results in an additional reduction in near-term annual debt service (and MADS) as well as higher PV and cash flow savings from any tax-exempt refundings. Ultimately, investor demand, relative pricing and option value considerations will have to be considered for what the best couponing structure will be, but as GLWA's front-loaded debt profile creates the greatest cashflow and coverage constraints over the next 15 years, reducing near-term debt service can be valuable. Given that, while higher coupons issued today could potentially result in a lower cost of capital once taking into account future refundings, those future refundings will occur only after GLWA has managed through the next 10 years. The lower debt service associated with lower coupon bonds may be more valuable to GLWA today than the potential additional future refunding savings in later years when the cash flow need is presumably less acute.
- **Savings Pattern.** While the amount of refunding savings is market dependent, it will be an important component to consider for the plan of finance. GLWA has historically structured refunding savings to be generally uniform over the life of the bonds being refunded. While this is a prudent approach (and Board approval is required to frontload savings), GLWA can consider structuring savings into certain years where there is a need (or reducing savings in certain years where there is not a need). Given inflationary headwinds and the size of the capital program, we recommend the Authority consider concentrating savings through 2036, when debt service is highest.
- **Timing Considerations.** There are myriad factors to consider when deciding when to come to market. Given the speed at which market conditions can change (and hopefully improve!), we recommend pressing forward with kicking off a working group. It will likely take 6-8 weeks, at minimum, to be in a position to access the market, which suggests that GLWA could issue bonds as soon as June. Bond fund redemptions are at their highest in the summer months, which should provide some much needed liquidity in the market. The first half of June includes a number of important economic data releases (employment on June 3rd and CPI on June 8th) and there is a Fed meeting on June 14-15th. These will be closely watched given the market's heightened focus on inflation and could lead to market volatility. We would continue to closely monitor market conditions as we approach pricing, and keep the Authority and PFM apprised of all factors relevant to transaction timing.

NEW MONEY STRUCTURE

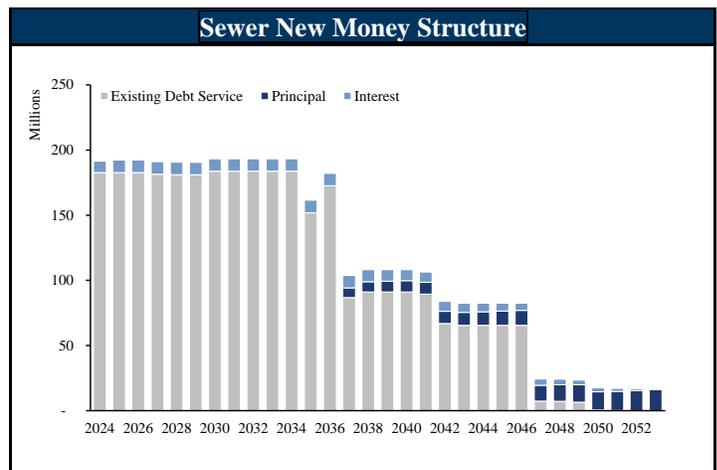
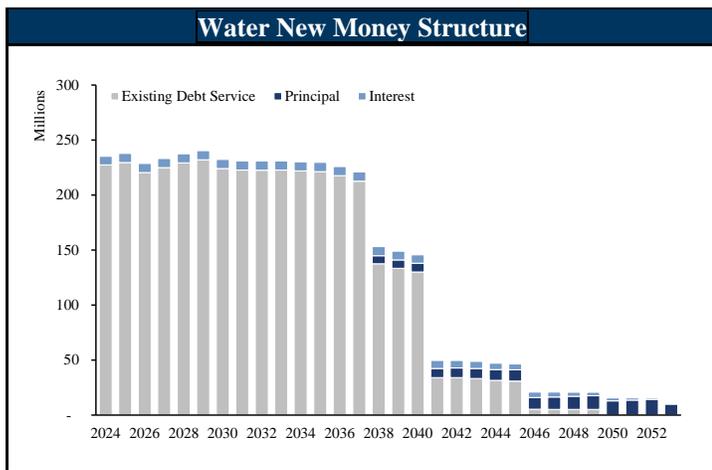
As outlined in the RFP, we understand GLWA is considering a new money borrowing that generates \$200 million of proceeds for the water supply system and \$175 million of proceeds for the sewer disposal system. Given the considerations discussed above and in part E.I, we recommend no amortization until FY37 for water and FY38 for sewer, followed by level debt service through 2052. We have assumed 5% coupons, a standard ten-year par call, rates as of 4/6/2022, an 8/1/2022 settlement, and costs of issuance of \$5/bond. To maximize reserve fund releases, while also creating liquid and marketable structures for each lien and preserving the Authority's dual-lien structure in years where there is little or no debt, we recommend the breakdown of bonds by lien as shown in the chart. The resulting reduction in the reserve requirement and cash releases are detailed to the right for each lien.

As you can see, our proposed approach should enable the Authority to release all remaining cash on the sewer second lien and release a meaningful amount of what remains in the sewer senior lien. The approach for water is based on avoiding the need for a contribution to the senior lien and maximizing releases on the second lien. We would note that the outcome of the rating agency process plus the size and scope of any refunding transaction could materially impact the optimal lien strategy. In general, we recommend structuring each lien with at least \$50 million of bonds to create a liquid and marketable structure and preserve GLWA's dual lien capital structure.

Based on the above approach the following charts and tables outline pro-forma debt service and key new money financing statistics.

	Lien Assumption and Reserve Releases			
	Bond Par	Reduction in		Reserve Release ¹
Reserve Requirement		Cash Reserves Available		
Water Senior	\$ 133,955,000	\$ 146,258	\$ 1,575,413	\$ 146,258
Water Second	57,910,000	760,114	2,934,922	760,114
Total Water	191,865,000	906,373	4,510,335	906,373
Sewer Senior	52,825,000	4,622,680	14,350,467	4,622,680
Sewer Second	114,120,000	16,671,728	6,292,854	6,292,854
Total Sewer	\$ 166,945,000	\$ 21,294,408	\$ 20,643,321	\$ 10,915,534

¹DSRF release subject to counsel review



Water	Senior	Second	Total
Par	\$133,955,000	\$57,910,000	\$191,865,000
Project Fund	\$140,000,000	\$60,000,000	\$200,000,000
All-In TIC	4.09%	4.14%	4.10%
Average Life	23.07	23.07	23.07

Sewer	Sewer Senior	Sewer Second	Total
Par	\$52,825,000	\$114,120,000	\$166,945,000
Project Fund	\$55,000,000	\$120,000,000	\$175,000,000
All-In TIC	4.08%	4.16%	4.13%
Average Life	22.82	23.44	23.25

We recognize the decision to amortize no debt until FY37 for water and FY38 for sewer is a departure from past practice. We would be pleased to work with GLWA and its advisor to explore other structures, including a more traditional 30-year level debt service approach. As a point of comparison, the following tables compare the all-in costs and different levels of annual debt service that would result from each approach.

	Water	
	Deferred Amort	30Y Level
All-in TIC	4.10%	3.93%
Average Life	23.07	18.97
Annual D/S before FY38	\$ 9,593,250	\$ 12,238,500
Annual D/S on and after FY38	\$ 17,018,250	\$ 12,239,250
Aggregate D/S PV (@ 4%)	\$ 218,849,130	\$ 210,328,638

	Sewer	
	Deferred Amort	30Y Level
All-in TIC	4.13%	3.95%
Average Life	23.25	18.74
Annual D/S before FY37	\$ 8,347,250	\$ 10,791,000
Annual D/S on and after FY37	\$ 15,622,250	\$ 10,795,750
Aggregate D/S PV (@ 4%)	\$ 190,576,127	\$ 184,479,528

REFUNDING STRATEGY

We have analyzed GLWA’s debt portfolio for refunding opportunities, utilizing a variety of strategies we have discussed with the Authority in the past. Given the current market conditions described above, we recommend GLWA include the following three strategies in its planning and stay flexible to take advantage of market windows as appropriate. For the first two strategies, we recommend the Authority target the Water and Sewer Bonds that are callable in 2024 and 2025, which is nearly \$1.2Bn of outstanding debt. The third is an innovative opportunity that GLWA can capitalize on to realize savings that it otherwise may not be expecting to receive on some of its outstanding taxable bonds.

- Taxable Advance Refunding** – The recent dramatic rise in rates has significantly reduced the taxable advance refunding opportunities we have been discussing with GLWA since last year. Having said that, we recommend continuing to monitor these opportunities while preparing to enter the market for new money. As we described in **Section E.I.** regarding our experience this month with the University of Michigan, market conditions – especially in the taxable market affecting both borrowing rates and investment rates – can quickly change to provide attractive savings opportunities.
- Tender/Exchange in Conjunction with Sale** – As we have discussed in detail with GLWA, running a tender and/or exchange (i.e., a “buyback strategy”) in conjunction with a planned offering (either new money alone or with a taxable advance refunding) can significantly enhance savings to GLWA, close to the economics of a tax-exempt advance refunding, and enable GLWA to retain the attractive call optionality available in the tax-exempt market. As GLWA is pursuing a new money transaction already, the tender/exchange will simply enhance the transaction. If taxable market conditions improve as discussed, GLWA can also refund targeted bonds not tendered or exchanged.
- Tax-Exempt Advance Refunding of Taxable Bonds** – As discussed in the past, taxable advance refunding bonds become eligible for tax-exempt advance refunding starting 90 days before the underlying escrow matures. The table at right shows that the Sewer Series 2020AB and Water 2020C Bonds have all become eligible as of April 1. While the savings will not necessarily

Refunding Series	Refunded Bonds	Refunded Par	Escrow Maturity Date
Sewer 2020A	2012A	\$419.8 mm (2026-39)	1-Jul-22
	2014C-1	\$123.2 mm (2044)	1-Jul-22
	2014C-2	\$27.5 mm (2044)	1-Jul-22
Sewer 2020B	2005A	\$31.8 mm (2035)	1-Jul-21
	2006B	\$27.5 mm (2044)	1-Jul-21
Water 2020C	2011A	\$289.6 mm (2027-41)	1-Jul-21
	2011B	\$2.3 mm (2033)	1-Jul-21
	2011C	\$74.1 mm (2023-41)	1-Jul-21

be large, this represents a potential opportunity to generate unexpected savings (potentially even from non-callable bonds) as well as potentially significantly more option value on the refunding bonds.

In addition to the above strategies, we recommend refunding the \$18 million of currently callable Senior Sewer 2012A Bonds. While the savings are modest, the bonds will become a “wasting asset” beyond the call date. In **Appendix D**, we provide a maturity-by-maturity analysis of the aforementioned refunding opportunities of GLWA’s refunding candidates based on market conditions as of April 6, 2022. Below we provide a summary and more detailed discussion of the strategies.

Taxable Advance Refunding Candidates

Below is a summary of GLWA’s taxable advance refunding candidates, based on market conditions as of April 6, 2022. We have summarized two universes of candidates: all bonds that generate savings and all bonds generating at least 2.5% per maturity. (We note that depending on how GLWA implements the refunding criteria of its debt policy, the first universe does not meet 2.5% aggregate savings.) As you can see, the savings that GLWA can achieve in a taxable advance refunding are modest and not particularly efficient. As your senior manager, we would closely monitor GLWA’s portfolio leading up to pricing.

(\$mm)	Water Senior		Water Second		Sewage Senior		Sewage Second	
	PV Savings >0%	PV Savings >2.5%						
Par Refunded	\$ 351,010	\$ 82,820	\$ 4,595	\$ -	\$ 345,425	\$ 57,230	\$ 31,205	\$ -
PV Savings	5,923	2,565	47	-	6,464	1,735	427	-
Pv Savings (%)	1.69%	3.10%	1.02%		1.87%	3.03%	1.37%	
Efficiency	40.3%	55.8%	27.1%		42.2%	54.7%	33.8%	

Notes: Rates as of 04/06/2022; Assumes 08/01/2022 closing; COI equal to 0.5%; 10-year par call for taxable refunding bonds.

Tender/Exchange (Buyback)

As previously discussed with GLWA, running a tender and/or exchange in conjunction with a taxable advance refunding can significantly enhance savings, close to the economics of a tax-exempt advance refunding. Most issuers pursuing tenders/exchanges are able to increase PV savings by 5-8% of refunded par relative to that available from a taxable advance refunding. We note the tender results below and in **Appendix D** represent 100% participation, which is highly unlikely to occur, but illustrate the relative economics. As mentioned, in light of the significant potential economics, and the fact that GLWA can effectively dictate the desired level of savings, we recommend GLWA include a buyback in its planned financing.

- If GLWA has determined the taxable refunding results are attractive and wishes to proceed, the tender/exchange will simply enhance the available savings and bonds not tendered can simply be refunded on a taxable basis.
- Alternatively, GLWA could leverage the disclosure being prepared for a new money issuance to run an “opportunistic tender” process, whereby GLWA solicits offers on bonds that would not otherwise be refunded.

Earlier this year, we executed this exact strategy with DC Water. When DCW first kicked off its transaction last year, the taxable advance refunding was solidly “in the money” and the tender/exchange was primarily pursued as an enhancement; as the market began to evolve, DCW decided to take a hybrid approach and execute a smaller taxable advance refunding with a tender/exchange enhancement coupled with a larger “opportunistic” tender to capture attractive potential savings via a tax-exempt refunding. As the market continued to sell off through the buyback and pricing process, DCW nevertheless achieved over \$33.5 million in gross cashflow savings (~\$25.5 million present value, or 14.4% of refunded par), increasing savings by \$6.7 million compared to a taxable refunding of the targeted bonds via this combination strategy. (*See case study in Section E.VIII.*)

We recommend GLWA target bonds with call dates in 2024 and 2025, and potentially 2026, for a buyback. As shown in the table below a tender/exchange can improve the economics of an advance refunding by nearly \$59mm of PV savings (assuming 100% participation for analytical purposes) versus the taxable refunding, generating PV savings averaging over 6-7% and as high as 11%. In addition, and as noted above, we recommend refunding the \$18 million of currently callable Sewer Senior 2012A Bonds also summarized below.

Credit	Outstanding Debt				Taxable AR (Callable)			Tender			Current Refunding	
	Series	Lien	Callable (\$000s)	Call Date	PV Savings (\$000s)	Efficiency %		PV Savings (\$000s)	Efficiency %		PV Savings (\$000s)	Efficiency %
Sewage	2012A	Senior	\$ 17,985	7/1/2022							\$ 322	1.8%
	2014C3	Senior	\$ 303,570	7/1/2024	\$ 5,051	1.97%	45%	\$ 14,839	5.8%	61%	\$ 27,618	9.1%
	2014C6	Senior	88,900	7/1/2024	1,413	1.59%	33%	8,175	9.2%	68%	13,499	15.2%
	2014C7	Junior	44,065	7/1/2024	47	1.02%	34%	2,164	5.5%	59%	4,109	9.3%
	2015C	Junior	197,160	7/1/2025	0	0.00%	n/a	15,424	8.0%	72%	26,239	13.3%
	Total			\$ 651,680		\$ 6,510	1.73%		\$ 40,602	7.0%		\$ 71,787
Water	2014D1	Senior	\$ 44,190	7/1/2024	0	0.00%	n/a	\$ 4,754	10.8%	73%	\$ 7,319	16.6%
	2014D2	Senior	136,925	7/1/2024	1,248	1.16%	39%	2,309	2.2%	39%	7,282	5.3%
	2014D4	Senior	209,360	7/1/2024	4,426	2.11%	43%	15,468	7.4%	48%	27,514	13.1%
	2014D6	Junior	43,690	7/1/2024	47	1.02%	27%	2,590	6.7%	50%	5,993	13.7%
	2015D1	Senior	69,275	7/1/2025	249	0.73%	19%	3,366	5.1%	44%	8,109	11.7%
	2015D2	Junior	37,235	7/1/2025	0	0.00%	n/a	2,406	6.5%	56%	5,222	14.0%
Total			\$ 540,675		\$ 5,970	1.68%		\$ 30,893	5.7%		\$ 61,438	11.4%

Notes: Rates as of 04/06/2022; Assumes 08/01/2022 closing; COI equal to 0.5%; 10-year par call for taxable refunding bonds; 4% tax-exempt refunding bonds with a 10-year par call; tender price 25bps on pre-re yield assuming 100% participation.

Tender Process. While there are numerous approaches GLWA could take with the tender, we think the most effective would be an offer to purchase targeted bonds at a fixed dollar price. The price GLWA is willing to offer will drive not only the economics of the tender, but also its success. At a minimum, GLWA will need to offer some concession off either the “pre-re” price (the price of a pre-

refunded, or escrowed, bond) or the market price to incentivize bondholders to participate. If purely opportunistic, the price offered to investors would be priced off the market price instead of the pre-re price, with best success having a concession in the 1.5-3.0% range, depending on specific circumstances such as ownership profile and market conditions. The specific price offered to investors, which will be determined by GLWA, will be a function of the savings levels GLWA would be comfortable achieving.

The goal of these buybacks is to reduce the Authority’s interest rate risk and future refunding concentration, especially in light of the potential for rates to continue to increase. Incorporating a buyback into GLWA’s plan of finance is an opportunistic refinancing alternative with little downside, as the Authority does not have to accept any offers should they not meet its financing goals. This strategy does not require significant additional effort nor time since GLWA would already be in the market with the new money issuances and would already be communicating to the market. From a marketing and execution perspective, the size of the tax-exempt issuance would simply change depending on the results of the tender.

The outcomes of a tender/exchange strategy depend on market conditions, the economics of the bonds being refunded, the goals of the issuer and the composition of the holders of those bonds – each transaction is unique. Goldman Sachs has been a leader in these buyback strategies in par targeted as well as par participated, but most importantly in the number of transactions completed. Of the 17 successful tender/exchanges completed since the beginning of 2021, Goldman Sachs served as a dealer manager on 9, including the last closed tender/exchange in the market -- for DC Water (which settled on March 23, 2022) and, as referenced above, contained both a taxable advance refunding tender enhancement as well as an opportunistic tender of bonds that would otherwise be left outstanding. The core GLWA banking team personally have significant and recent experience with tenders and exchanges.

We note that a tender/exchange process does add some complexity (mostly managed by the underwriter/FA) and added decision making to the transaction. However, part of the benefit of Goldman Sachs having led so many buybacks in the past year is that we have been able to greatly streamline the process and better understand all the nuances of investor preferences in continually changing market conditions. Please see **Appendix D** for our full maturity-by-maturity refunding analysis.

Tender for Series 2020 Taxable Bonds

A final refinancing strategy involves GLWA’s opportunity to convert some of its taxable Sewer Series 2020AB and Water 2020C Bonds back to tax-exempt. The IRS allows issuers to use tax-exempt bonds to refund taxable advance refunding bonds **once they are within 90 days of the refunding escrow being extinguished**. The value of this trade is not driven by the absolute level of rates but instead by 1) tax-exempt to taxable ratios, and 2) tax-exempt credit spreads.

In order to redeem the outstanding 2020 taxable bonds, GLWA has the option to 1) exercise the MWC option on the taxable bonds, 2) fund an escrow to the lesser of the maturity date or, if applicable, the par call date, **or 3) offer a cash tender for the taxable bonds**. When assuming a tender of Sewer Series 2020AB and Water Series 2020C with rates and market pricing as of 4/6/2021, a tender concession of 2-3 points to market prices, and 100% participation in the tender, GLWA could achieve over \$23.9 million of PV savings or 2.4% of par redeemed, generating meaningful savings with no opportunity costs to GLWA.

The current economics are not insignificant, with approximately \$984.3mm of bonds generating savings. While savings might look small relative to a standard current refunding, it is “found” savings **that GLWA would not otherwise be able to realize, since the optional redemption on its taxable debt is not an economic one for the most part**. Additionally, any candidates redeemed beyond 10 years would also carry an economic 10-year par call on the tax-exempt debt that generates additional future value and potential savings.

In sum, we recommend GLWA, in conjunction with the tender/exchange of the 2024 and 2025 call dates, “flip” a portion of the Sewer 2020AB and Water Series 2020C taxable bonds back to tax-exempt utilizing a tender and to take advantage of “found” savings from bonds that were not expected to generate additional savings.

Tax Flip Summary (PV Savings > 0.0%)					
	Series	Outstanding Par (\$)	Refunded Par (\$)	PV Savings (\$)	PV Savings (%)
Sewage	Senior 2020A	\$ 594,930,000	\$ 569,825,000	\$ 14,518,012	2.55%
	Second 2020B	\$ 81,850,000	\$ 66,525,000	\$ 3,112,607	4.68%
Water	Senior 2020C	\$ 375,645,000	\$ 347,910,000	\$ 6,308,440	1.81%
Total		\$ 1,052,425,000	\$ 984,260,000	\$ 23,939,059	2.43%

BOND INSURANCE

While demand for bond insurance has not been particularly deep in recent years, especially for highly rated issuers like GLWA, this dynamic is beginning to shift as the market landscape has been changing this year. Additionally, insurance can provide value by bringing in incremental investors – especially in the taxable market. For GLWA’s anticipated financing, we recommend requesting formal pricing and capacity from both Assured Guaranty and Build America Mutual (“BAM”). We requested indicative quotes from both companies and received positive feedback about their capacity for bond insurance and sureties and willingness to work with GLWA.

Lien		Assured	BAM
		(basis points)	(basis points)
Senior	Bond Insurance	30-35	15-25
	Surety Bond	200-250	200-250
Second	Bond Insurance	40-45	20-30
	Surety Bond	250-275	250-350

We believe that in today’s market, Assured and BAM would provide a roughly 10-12 basis point pricing benefit across the yield curve (potentially a bit more for Assured and a bit less for BAM). For the purposes of our insurance benefit analysis, we have assumed a preliminary 20 and 25 basis point cost of the insurance for the senior and second lien, respectively, and a 10 basis point pricing benefit. Based on these levels, GLWA receives between 1-7 basis points of yield benefit (depending on maturity and lien) from insurance. A detailed insurance savings analysis is in **Appendix E**. In addition, given new money proceeds are financing system improvements, we believe such bonds would also qualify for BAM’s Green star, which is their third-party designation of Green Bonds (there’s no additional charge, but it is only offered to issuers that use BAM insurance and/or a surety).

E.IV. SCALES

Please see our indicative taxable and tax-exempt scales for Water Supply and Sewer Disposal System Senior and Second Lien bonds below with rates as of 04/06/2022 in the adjacent table.

		Tax-Exempt Scales (5% Coupon)									Water & Sewer Senior Lien						Water & Sewer Second Lien			
		Water & Sewer Senior Lien			Water & Sewer Second Lien			Water & Sewer Senior Lien			Water & Sewer Second Lien			Callable		Callable				
(07/01)	Intrpl	5% Coupon			5% Coupon			Callable			Callable			Bench.	UST	Spread	YTM	Spread	YTM	
Maturity	MMD	Spread	YTC	YTM	Spread	YTC	YTM	Spread	YTC	YTM	Spread	YTC	YTM	Spread	YTC	YTM	Spread	YTM		
1	2023	1.740%	0.280%	2.020%	0.380%	2.120%					CT2	2.50%	0.200%	2.70%	0.320%	2.82%				
2	2024	1.910%	0.330%	2.240%	0.430%	2.340%					CT2	2.50%	0.500%	3.00%	0.620%	3.12%				
3	2025	2.020%	0.380%	2.400%	0.480%	2.500%					CT3	2.68%	0.600%	3.28%	0.720%	3.40%				
4	2026	2.080%	0.430%	2.510%	0.530%	2.610%					CT5	2.70%	0.750%	3.45%	0.870%	3.57%				
5	2027	2.110%	0.480%	2.590%	0.580%	2.690%					CT5	2.70%	0.800%	3.50%	0.920%	3.62%				
6	2028	2.130%	0.510%	2.640%	0.610%	2.740%					CT7	2.70%	0.850%	3.55%	0.970%	3.67%				
7	2029	2.200%	0.540%	2.740%	0.640%	2.840%					CT7	2.70%	1.030%	3.73%	1.150%	3.85%				
8	2030	2.250%	0.570%	2.820%	0.670%	2.920%					CT10	2.61%	1.150%	3.76%	1.270%	3.88%				
9	2031	2.290%	0.600%	2.890%	0.700%	2.990%					CT10	2.61%	1.300%	3.91%	1.420%	4.03%				
10	2032	2.330%	0.630%	2.960%	0.730%	3.060%					CT10	2.61%	1.450%	4.06%	1.570%	4.18%				
11	2033	2.370%	0.650%	3.020%	0.750%	3.120%	3.253%				CT10	2.61%	1.600%	4.21%	1.720%	4.33%				
12	2034	2.400%	0.670%	3.070%	0.770%	3.170%	3.407%				CT10	2.61%	1.750%	4.36%	1.870%	4.48%				
13	2035	2.430%	0.690%	3.120%	0.790%	3.220%	3.539%				CT10	2.61%	1.850%	4.46%	1.970%	4.58%				
14	2036	2.440%	0.710%	3.150%	0.810%	3.250%	3.637%													
15	2037	2.460%	0.730%	3.190%	0.830%	3.290%	3.731%													
16	2038	2.480%	0.730%	3.210%	0.830%	3.310%	3.799%													
17	2039	2.500%	0.730%	3.230%	0.830%	3.330%	3.860%													
18	2040	2.510%	0.730%	3.240%	0.830%	3.340%	3.908%													
19	2041	2.520%	0.730%	3.250%	0.830%	3.350%	3.951%													
20	2042	2.540%	0.730%	3.270%	0.830%	3.370%	3.995%				OLB	2.63%	1.920%	4.55%	2.040%	4.67%				
21	2043																			
22	2044																			
23	2045																			
24	2046																			
25	2047	2.620%	0.750%	3.370%	0.850%	3.470%	4.168%													
26	2048																			
27	2049																			
28	2050																			
29	2051																			
30	2052	2.670%	0.750%	3.420%	0.850%	3.520%	4.264%				OLB	2.63%	2.000%	4.63%	2.120%	4.75%				

E.V. ANALYTICAL CAPABILITIES

The Firm is able to provide a wide array of resources to our clients. We also have a history of using sophisticated technical resources to empower our clients to make key decisions on the size, structure and timing of financings. A few examples are listed below.

ANALYTICAL TOOLS

We would be pleased to make the following analytical tools available to GLWA both during and outside of this transaction, much like we have done for many years.

- **Optimization Software – What’s Best:** One of the modeling tools that Goldman Sachs employs on behalf of our clients is What’s Best, a linear optimization Excel-based modeling tool. The tool, which allows issuers to optimize a refunding among several competing fiscal goals, has been useful in the context of optimizing a number of our issuer’s financings.
- **Proprietary Software – Interest Rate Modeling:** Another tool we have used with many clients analyzing whether or not to pursue an advance refunding is a proprietary interest rate simulation to determine those scenarios where an issuer is better off refunding now. Our model creates 5,000 potential interest rate forecasts based on market inputs, correcting for convexity and term premium problems inherent in interest rate forwards.
- **Proprietary Software – Asset/Liability Modeling:** For clients who are considering incorporating additional variable rate debt into their portfolio, we use asset/liability modeling to help guide the appropriate amount.
- **External Databases and Resources:** The team has full access to the myriad external databases and resources used by the industry, including Bloomberg, Thomson Reuters Emaxx (bondholder database), and Moody’s MFRA (credit database).

IN-HOUSE EXPERTS

Perhaps even more important than the models and databases are the human resources that supplement the core banking team. As briefly mentioned in Section D.V., GLWA will be supported by our technical specialists throughout GLWA’s financing process. These experts will be especially critical in navigating the proposed plan of finance, most notably:

- **PSI Tax, Legal and Liability Management Expert:** Arthur Miller, a Managing Director in PSI, is a nationally recognized expert in municipal tax law and municipal law, in general. Arthur’s presence has historically proved helpful in a number of ways, including complex refundings, change of use issues, issues related to the optimal deployment of unspent or other available funds, project financings, and other topics. Of particular relevance for the proposed transaction is his in-depth knowledge of and unparalleled experience in implementing tender and exchange transactions – including intricacies related to investor tax considerations and motivations which have proven invaluable in developing effective strategies for the tender/exchange offer. Arthur’s breadth of knowledge and experience is nearly unparalleled and has been a critical “secret weapon” for numerous clients.
- **PSI Municipal Credit Group:** Goldman Sachs has a specialized Municipal Credit Group dedicated to helping our issuing clients evaluate their ratings vis-à-vis peers as well as develop rating agency presentations and analyses. Stacy Lingamfelter, who previously worked at a rating agency and on the buy-side at Goldman Sachs, will work directly with GLWA, as she has in the past to craft a rating strategy and investor messaging strategy. She has considerable experience with all our major water and sewer

clients, including GLWA, over the past several years on rating agency analysis, strategy and communication. Her vast credit experience will be helpful in positioning GLWA’s credit with not only rating agencies but also investors.

- **SRF Expertise:** Dan Byrne has over 25 years of experience leading SRF financings and spearheading innovations in the sector. He also has extensive experience with non-SRF pooled financings including utility securitizations and pooled energy efficiency loans and can provide his quantitative and structuring expertise to the GLWA team if needed.

OTHER RESOURCES

In addition to the technical resources discussed above, Goldman Sachs provides a variety of other services that may be helpful to the City, including our

- **Investment Banking Strategies Group:** These strategists can help GLWA evaluate a number of strategic decisions, including asset/liability management (i.e., determining the optimal fixed/floating mix for liabilities, given balance sheet assets), strategies related to new issue timing, interest rate simulations, fixed income and energy derivative strategies.
- **Research Coverage:** Our Global Investment Research division, which is separate from Investment Banking division, provides our clients with research based on public information about major private sector utilities and associated companies.
- **Legislative Policy:** The Firm’s Washington, D.C. office has employees focused on government affairs, providing us with perspective on policy, political, legislative and industry issues surrounding the municipal, utility and airport sectors.
- **Sustainable Finance Group:** The Sustainable Finance Group is responsible for partnering with the Firm’s businesses to drive sustainability-related commercial activity and to assist our clients addressing two significant long-term priorities: climate transition and inclusive growth. This group has worked closely with PSI teams for many of our ESG designated bond offerings and can assist in honing an issuer’s ESG message and identifying strategies to engage investors (and stakeholders) focused on sustainability.

E.VI. CREDIT STRATEGY

The 2022 financing provides an important opportunity for the Authority to make further progress on its goal of achieving AA category credit ratings. Both S&P and Fitch have not recently published a report on the Authority. This provides a great opportunity for GLWA to seek positive rating action in light of the Authority’s accomplishments over the last two years. Given Moody’s just released a credit opinion in late March, the prospects for an immediate positive outlook or upgrade are slim. However, it will still be important to engage Moody’s and try to understand what steps are needed to make the jump to the Aa category.

Another important objective will be to reset the narrative on a few challenges the Authority has/is facing, including the wet weather events last summer and the Highland Park litigation. Putting both challenges in context and outlining the steps the Authority is taking to resolve them will be important not only to allay the concerns of the rating agencies, but also investors and the public. Investors are likely to have seen headlines in the local news and financial press (e.g. *Debtwire*) about both issues. While the Highland Park situation is politically contentious and the wet weather events were personally devastating to a small number of residents in GLWA’s service area, we do not believe either are material to GLWA’s overall credit profile.

In addition to detailing the Authority’s accomplishments over the last two years and addressing the challenges faced by the Authority, it will also be important to lay out the Authority’s strategic vision and how this will impact its financial metrics going forward. As we discuss below, future upgrades are likely to hinge on further deleveraging. This is clearly achievable and part of the plan for the sewer system. As it relates to the water system, this need not be a reduction in the nominal amount of debt outstanding, but improvements to leverage metrics such as debt to operating revenue and debt to capitalization. We believe this will help set the stage for further upgrades and enable GLWA to more convincingly argue that rating upgrades are warranted.

In our view, the focus, and greatest likelihood of success, in the near-term, is with Fitch. The goal over the next 1-2 years will be to achieve a one notch upgrade, to match GLWA’s S&P ratings and enable the Authority to eliminate its debt service reserve fund requirements. Building off of the Authority’s robust liquidity and strong operations, we will work with you to make the best possible argument.

Below, we analyze GLWA’s credit ratings for each agency and discuss specific strategies the Authority can employ to achieve its goals.

MOODY’S

After a string of upgrades in 2016, 2018 and 2020, Moody’s has kept the Authority’s senior ratings at A1 with a stable outlook for the last two years. Given that Moody’s released a credit opinion on March 23, 2022, the chances of receiving an upgrade or positive outlook this summer are remote. The Moody’s upgrades GLWA achieved in 2020 were reflective of the significant improvements in GLWA’s operational and fiscal management, coupled with noteworthy improvements to the Authority’s financial strength. Based on Moody’s latest credit opinion, GLWA continues to get high marks for (i) its commitment to annual revenue enhancements to support sound debt service coverage and liquidity and (ii) strong management. Moody’s cites declining water usage, high leverage and extreme wet weather events as credit challenges. As we noted at the outset, a major focus with all of the agencies, including Moody’s, will be to put the wet weather events in context and

Water				
Factors:	Weighting	Score Input	Score	Rationale
1. System Characteristics	30%			
Asset Condition	10.00%	0.30	A	Net Fixed Assets/Annual Depreciation = 17yrs Service Wealth Area as % of US Median = 96.8% \$164,995
Service Area Wealth	12.50%	0.25	Aa	
System Size	7.50%	0.08	Aaa	
2. Financial Strength	40%			
Annual DSC	15.00%	0.45	A	1.4x
Days Cash on Hand	15.00%	0.15	Aaa	920 days
Debt to Op. Rev	10.00%	0.30	A	5.5x
3. Management	20%			
Rate Management	10.00%	0.20	Aa	Strong rate-setting record; little political, practical, or regulatory limits on rate increases Moderate violations with adopted plan to address issues; maintains manageable 5-yr CIP
Reg Compliance	10.00%	0.30	A	
4. Legal Provisions	10%			
Rate Covenant	5.00%	0.15	A	1.2x
DSRF	5.00%	0.10	Aa	Funded at lesser of standard 3 prong
Calculated Score	100%	2.28	Aa3	
Implied Notching				1. Demographic weaknesses in the service area
Final Rating			A1	

also detail the steps GLWA is taking to mitigate risks related to future storms. As it relates to leverage, debt outstanding has declined, particularly for the sewer system, and despite the planned issuance of new money, will continue to decline. GLWA is now paying down over \$150 million of principal per year across water and sewer through regularly scheduled amortization.

Another area of focus is how GLWA scores under Moody’s municipal utility revenue scorecard. Moody’s scores utility issuers on the basis of four main factors: (1) System Characteristics – 30%, (2) Financial Strength – 40%, (3) Management – 20%, and (4) Legal Provisions – 10%. Each of these factors has 2-3 subfactors which are

scored and then summed up to get the issuer’s scorecard indicated outcome, which can then be notched a full rating upward or downward based on a list of 19 qualitative notching adjustments. As such, the Authority’s goal should be to get the best indicated score, and then to minimize as much as possible notching downward and maximize notching upward.

Using Moody’s own calculations and the information in the 2022 credit opinion, we replicated GLWA’s scorecard. We estimate that the Authority has an indicated rating of Aa3, and is being notched down due to one of the qualitative notching adjustments. The notching factors that are likely to be in play include (1) significant customer concentration, and (2) demographic weaknesses in the service area. Under the circumstances, financial strength is likely to be the most important factor the Authority should focus on in a discussion surrounding an upgrade. Financial strength accounts for 40% of the total score thus any improvements to the Authority’s finances greatly affects the overall rating. This plays in the Authority’s favor since many of their notable improvements fall under this rating factor.

Sewer					
Factors:		Weighting		Score Input	Rationale
1. System Characteristics	30%				
	Asset Condition	10.00%	0.30	A	Net Fixed Assets/Annual Depreciation = 19yrs Service Wealth Area as % of US Median = 96.8% \$255,908
	Service Area Wealth	12.50%	0.25	Aa	
	System Size	7.50%	0.08	Aaa	
2. Financial Strength	40%				
	Annual DSC	15.00%	0.45	A	1.3x
	Days Cash on Hand	15.00%	0.15	Aaa	512 days
	Debt to Op. Rev	10.00%	0.30	A	5.2x
3. Management	20%				
	Rate Management	10.00%	0.20	Aa	Strong rate-setting record; little political, practical, or regulatory limits on rate increases Moderate violations with adopted plan to address issues; maintains manageable 5-yr CIP
	Reg Compliance	10.00%	0.30	A	
4. Legal Provisions	10%				
	Rate Covenant	5.00%	0.15	A	1.2x
	DSRF	5.00%	0.10	Aa	Funded at lesser of standard 3 prong
Calculated Score	100%		2.28	Aa3	
	Implied Notching				1. Demographic weaknesses in the service area
Final Rating				A1	

S&P

In September 2018, S&P raised its ratings on the Authority’s senior lien water credit to AA- and the senior lien sewer credit to A+. In March 2020, S&P brought the senior lien sewer credit to AA-, meeting the Authority’s goal of AA category. The upgrades directly followed several impressive achievements in the short period since GLWA’s inception and is especially reflective of the strong oversight, management and governance. While Detroit’s economy continues to put downward pressure on the utility system, GLWA has delivered solid operational and financial results and is generally expected to maintain solid performance.

S&P made clear in 2020 that it does not anticipate further positive rating action, noting that “we believe that both current and projected financial performance and service base characteristics are consistent with the current rating level.” In light of this statement, and the financial factors S&P evaluates in its wholesale and retail criteria, obtaining additional positive action may be challenging. The ratings process will, however, be very important to reinforce S&P’s favorable views of the Authority’s operational and financial management assessments. This means, among other things, highlighting the steps the Authority is taking to address some of the challenges of the last few years (wet weather events, Highland Park and the retirement of Sue McCormick).

FITCH

Goldman Sachs believes that Fitch currently under-rates both the water system and the sewer system at A+. In March 2020, shortly before releasing the criteria they use now, Fitch analysts upgraded both GLWA systems and assigned a stable outlook to each. Since then, analysts affirmed the water system rating, using the new criteria, but do not appear to have published a report on the sewer system. Nonetheless, the water system analysis provides good insight into how Fitch view both systems and where they are overly conservative.

As GLWA knows, Fitch’s water and sewer analyses comprise of three ‘ratings drivers’. In two of them, Revenue Defensibility and Operating Risks, the Authority’s water system achieved the highest possible assessment of ‘aa’. In the third, Financial Profile, Fitch assigned the water system an assessment of ‘a’. The criteria explicitly avoid assigning any sort of weighting to the three drivers, allowing analysts to give more credence to whichever they believe to be most important to any particular credit profile. It is in how they balance Revenue Defensibility, Operating Risks and Financial Profile that we disagree with Fitch: we believe that not only are both Revenue Defensibility and Operating Risks “aa”, they are particularly strong even within the highest category. We believe the particular strength, especially in the Operating Risk assessment, should allow Fitch the latitude to qualitatively adjust the rating result upward.

Revenue Defensibility: As a wholesale provider to a significant portion of the State of Michigan, both systems start in a strong position. As Fitch notes, the suburban customers offer a strong customer base, while revenues and operations within the City are proving reliable. GLWA’s rate setting mechanisms ensure that Fitch’s Revenue Defensibility will remain solidly aa for the next several years.

Operating Risk: GLWA reports notably very low operating burdens and has a very well established plan to meet capital needs over the next five years, which is the period over which Fitch looks. Indeed, the criteria places any system that spends less than \$6,500/mg into the ‘aa’ category – more than twice what GLWA’s water authority spends. Additionally, a lifecycle ratio of 45% or lower is also consistent with the strongest category, a little less than twice the Water System’s. We believe GLWA’s exceptionally strong performance especially in this area merits added consideration from Fitch analysts when considering the interplay between the three ratings drivers.

Financial Profile: Fitch’s Financial Profile assessment rests heavily on their leverage calculation. Fitch reports the water system’s leverage to be consistently in the range of 11.6x, which was the 2020 calculation. Absent other factors, the criteria indicate that a range of 10.0x-14.0x is consistent with an A-category rating for issuers with “aa” Operating Risk and Revenue Defensibility scores. To achieve an upgrade, GLWA would have to either improve the leverage ratio, as calculated by Fitch, or seek what Fitch calls a variation from the criteria.

A rating committee may adjust the application of these criteria to reflect the risks of a specific transaction or entity. Such adjustments are called variations. All variations will be disclosed in the respective rating action commentaries, including their impact on the rating where appropriate. A variation can be approved by a ratings committee where the risk, feature or other factor relevant to the assignment of a rating and the methodology applied to it are both included within the scope of the criteria, but where the analysis described in the criteria requires modification to address factors specific to the particular transaction or entity.

Fitch US Water and Sewer Rating Criteria, April 2020

In Fitch's 2021 US Water and Sewer Peer Review, Fitch lists the leverage calculation for most of their rated water and sewer credits. We noted four credits rated in the AA-category with leverage cited between 10.0x-14.0x, or, the range for A-category credits. While circumstances differ for each of the four, they do establish a precedent for considering factors beyond just the guidance and the possibility of a rating that exceeds the ranges provided. We believe that GLWA's exceptional operating cost burden, which appeared to be among the best 10-12 in Fitch's portfolio in 2021, can form the basis of that argument for the water authority. The continued, exceptionally strong liquidity may also play a role, depending on GLWA's ultimate choices with pay-go capital and reserve maintenance.

An upgrade can be difficult to achieve from a stable outlook, which both the water and the sewer authority have at present. We believe that GLWA's best path to an upgrade is to seek a positive outlook in the next rating committee and look to leverage the positive outlook into an upgrade in the next 12-24 months. The most recent budget for the sewer system, in particular, reflects a steadily decreasing debt-to-operating revenue ratio consistent with the decline in outstanding debt. That positive momentum can certainly help support our argument for upward movement – both the outlook change and a subsequent upgrade - over the time horizon. We would look forward to working with the Authority in developing a detailed strategy for both formal and informal discussion with Fitch, and pursuing a second set of AA-category ratings for GLWA.

E.VII. ALTERNATIVE FINANCINGS

Goldman Sachs' Municipal Solutions Group (MSG) is structured to assist our public and private clients find "solutions" to a broad range of challenges they face in the municipal market. MSG is focused on utilizing the experience and expertise of PSI's bankers, product experts and the underwriting desk to help our clients solve problems through the use of innovative ideas, structures and capital. Some of these "solutions" may use Goldman Sachs balance sheet and capital where appropriate and cost-effective; other solutions may entail serving in an agency role. Among other things, we would analyze a range of products including private placements, directly placed/purchased forwards, bridge loans or securitizing revenue streams away from the public markets.

E.VIII. MARKETING AND INVESTOR OUTREACH ENHANCEMENTS

Beginning with GLWA's inaugural financing, which we were honored to have taken a primary role in helping the Authority craft its credit messaging to rating agencies and investors, GLWA has conducted a thoughtful well-orchestrated investor outreach strategy. This outreach has both been in conjunction with transactions via presentations, meetings and calls, as well as away from transactions including providing online transparency and investor information as well as meetings and site visits (to which Goldman Sachs has also participated). Continuing this clear and open communication is critical to cultivating and, ultimately, expanding the Authority's investor base.

As we have discussed with GLWA in the past, a key to de-risking a transaction is to utilize targeted investor outreach with the goal of securing anchor orders in advance of formal pricing. To do this, we utilize a targeting analysis that includes the Authority's current top holders, holders of other highly rate Michigan bonds, holders of other similarly rated utilities, and those investors with a dedicated Michigan bond fund. However, we believe that GLWA can further their investor reach – especially in times of market volatility. As senior manager, Goldman Sachs will work closely with the Authority and its financial advisor to design and execute a tailored and comprehensive marketing plan with the core objective to develop, maintain, and grow the pool of investors with credit approval and appetite to own GLWA bonds.

Another strategy that can help to diversify the investor base is to consider product/structural offerings – term, structure, coupon-type, tax status, block size, credit enhancement – that are geared toward differing investor segments. Along these lines, we discuss one final strategy below.

ESG CONSIDERATIONS

One additional consideration we have discussed with GLWA to further deepen GLWA's investor reach is a focus on environmental, social, and governance issues ("ESG"). Understanding, differentiating, tracking and even rating/ranking issuers on ESG topics is becoming increasingly important to investors globally and across sectors, including the municipal sector. While the US municipal market has been evolving, understandably, in a different fashion than the taxable global markets, ESG is nonetheless at the forefront of the minds of a larger and larger swath of municipal investors. A recent *Bond Buyer* survey found that two-thirds of municipal market respondents said it is very important or critical for issuers to disclose ESG risks and opportunities.

From a financing standpoint, the ESG financing market is large and growing rapidly. The municipal bond market has absorbed \$3.4 billion of ESG-designated issuance YTD as of April 11, 2022, representing 3.1% of the total \$108.8 billion municipal issuance for the same period. This compares to \$7.1 billion of ESG issuance (6.1% of total municipal issuance) for the same period in 2021, and \$42.6 billion of ESG-designated issuance (9.3% of total municipal issuance) for full year 2021.

Although a modest pricing benefit has been demonstrated for ESG designated bonds sold in taxable bond markets, there has yet to be clear evidence of a consistent pricing benefit for tax-exempt bonds. Because so much of the municipal market has a natural ESG purpose, the growth of ESG dedicated money in the tax-exempt municipal space has been slower to materialize than in other asset classes.

As discussed, we are seeing investors increasingly place a higher value on ESG factors, however, even if not for a specific ESG certified/labeled bond. For example, some SMAs and high net worth investors are marketing their portfolios to evaluate ESG credentials.

In February 2021, the *Bond Buyer* reported that rating agencies all placed meaningful weight on ESG metrics from issuers *in part because the investor community has been requesting it*. When considering much of the rating agency literature, it is overwhelmingly clear that at least the major three rating agencies place a significant emphasis on sustainability themes and issuance metrics.

There are many issues to discuss related to GLWA and ESG but we focus here on the key steps for GLWA to most effectively engage investors – both existing and new: (1) crafting GLWA’s ESG message and brand; (2) developing meaningful disclosure and potentially metrics that can be consistently updated and tracked; and (3) determining avenues to access the ESG-financing market (e.g., designated bonds or Sustainability-Linked Bonds) to amplify the GLWA ESG story.

While many issuers have decided to issue ESG-designated bonds (Green Bonds, Sustainability Bonds and Social Bonds) and we think this is a viable option for GLWA to consider, we believe the first step is cataloging and developing the Authority’s ESG message. ESG is inherently imbued in GLWA’s core mission, philosophy, practices and purpose. As we discussed with GLWA, creating a message and determining the on-going reporting (not 15(c)2-12 reporting) GLWA is comfortable with will elevate the Authority in the minds of investors.

Once the ESG branding has been developed, GLWA is well-suited to access the ESG financing markets. In doing so, GLWA will be able to amplify its message and specifically market to investors with ESG mandates. The various essential projects that are financed by GLWA are a good match for the rapidly growing ESG investor base, falling under the “Environmental” category (ie, Green Bonds). Additionally, as we mentioned to GLWA, we believe GLWA can go further than a project-based Green Bond and instead issue a Sustainability Linked Bond (“SLB”) that actually ties GLWA’s designated-outcomes to the cost of the financing. In other words, with a properly structured bond, GLWA could achieve below-market funding cost assuming it meets the environmental or social KPI-targets it sets for itself pursuant to the SLB. We would be pleased to work with GLWA to determine appropriate metrics for an SLB that would be meaningful for investors.

Goldman Sachs continues to be a leader and innovator in the social, sustainability, and Green bond space, having successfully structured and executed numerous ESG bonds for our clients. Our team of Municipal ESG experts is available to help GLWA implement disclosure and ongoing compliance best practices, whether for an ESG issuance or more generally. We can help reconcile existing disclosure and the roadshow presentation. In addition, our Syndicate desk knows the importance of flagging and emphasizing the ESG label for labeled bonds. Ahead of the issuance, we stress the ESG label to our sales team while also occasionally doing teach-ins for sales as necessary. Lastly, our Buyside Investing Analysts within our Municipal Distribution Platform also work with funds, insurance companies, and SMA platforms with ESG investing mandates. Our analysts’ understanding of their specific credit and bond structuring preference will allow GLWA for a more strategic targeting of potential ESG investors. *As of April 11, 2022, Goldman ranks as the #2 bookrunning manager for ESG bonds.*



\$439,658,000

District of Columbia Water and Sewer Authority (“DC Water or the “Authority”)

Public Utility Subordinate Lien Revenue, Series 2022B (Green Bond), 2022C and 2022D

Most recently, on February 24, 2022, Goldman Sachs served as the bookrunning senior manager and sole tender and exchange dealer manager for District of Columbia Water and Sewer (“DC Water” or the “Authority”), Series 2022BCD fixed rate transaction concurrently with a fixed price tender and exchange of outstanding bonds.

DC Water issued \$439.66 million of table and tax-exempt fixed rate bonds to (1) raise new money for the Authority’s Clean Rivers Project, federal Washington Aqueduct project, and on-going capital improvement program, (2) redeem \$25 million of Commercial Paper that was used to refinance the Authority’s 2016 Environmental Impact Bond (completed with Goldman Sachs as lead investor), (3) pay for tendered bonds (and exchange for exchanged bonds), and (4) advance refund outstanding bonds. The Bonds carried ratings of Fitch AA (stable), Moody’s Aa2 (stable), and Standard & Poor’s AA+ (stable), as well as an independent green bond certification for Series 2022B (Green Bond). This transaction was also the first transaction for DC Water since the launch of their comprehensive ESG report, the first of its kind for a municipal utility, which Goldman Sachs had provided input on in conjunction with DC Water’s Financial Advisor and ESG consultants.

Goldman Sachs worked with DC Water and its Financial Advisors to craft and execute a plan of finance to achieve refinancing savings and fund new money needs, including a \$100mm Green Bond offering to fund the Clean Rivers program. Goldman Sachs worked closely with DC Water in crafting the messaging for the rating agencies and investors regarding uncertainties surrounding the operations post-COVID and increased CIP needs as well as the keen focus on ESG issues and the Authority’s Blueprint 2.0 Strategic Plan. Of particular relevance to GLWA was the refinancing plan discussed in Section E.II. that incorporated a taxable advance refunding along with a tender/exchange enhancement to the refunding as well as an opportunistic tender/exchange for additional savings. Despite the extremely volatile market, which created a great deal of uncertainty around the tender/exchange process – the first that was executed fully in a timeframe where the market had completely changed since 2021 – the Authority was able to refinance \$177 million of bonds and generate over 14% PV savings.

On the day of pricing, despite an unprecedented market reacting to Russia invading Ukraine between the first and second day of the taxable pricing and the night before the tax-exempt pricing, Goldman Sachs was able to successfully navigate the market to build a \$1.7 billion order book for the transaction – reflecting significant oversubscription by a wide variety of investors including SMAs, bond funds, insurance companies, and hedge funds the Authority to reprice the tax-exempt bonds at lower yields and achieve over \$33.5 million in gross cashflow savings.

E.IX. SERIES 2006D LIBOR FLOATERS

As discussed in our most recent update to GLWA in March 2022 regarding the LIBOR transition and its impact on the Series 2006D floaters (and summarized further below), the Adjustable Interest Rate Act was signed into law, which should ensure a smooth transition from LIBOR to SOFR for the Series 2006D bonds.

While the legislation eliminates an external deadline that might have otherwise pressured GLWA to act, we still think the Authority should regularly evaluate the bonds to ensure they provide value and are competitive with market-based alternatives. ***Our view is that in the current market, the Series 2006D structure provides value and should be left outstanding.*** It represents GLWA's only source of variable rate debt and – even in a rising rate environment – provides reasonably attractive costs. The bonds also provide asset-liability matching that helps to offset the variability in the Authority's investment earnings on cash reserves. While the 60bp spread over the index is higher than what GLWA could achieve on conventional SIFMA floaters with a put date in 3 to 5 years, the fact that the bonds do not have a put date and the spread is fixed to maturity is valuable and something GLWA could not replicate in the public market at comparable spreads. With that said, as GLWA approaches the sinking fund maturities starting in 2026, it can consider fixing out the bonds. Variable rate debt generally provides less value on the shorter-end of the yield curve where there is more certainty and less of a term premium. We worked with Massachusetts on a similar refinancing for their long-term LIBOR floaters. Shorter sinking funds were refunded and longer maturities were left outstanding.

ADJUSTABLE INTEREST RATE (LIBOR) ACT

On March 15, 2022, the President signed into law the Consolidated Appropriations Act of 2022 within which was embedded a section entitled the "Adjustable Interest Rate (LIBOR) Act." The LIBOR Act has four purposes:

1. To mandate the replacement of LIBOR with SOFR in contracts that do not provide for a clearly defined replacement benchmark rate for LIBOR;
2. To preclude litigation on any such contracts not providing for a replacement benchmark rate or replacement mechanism;
3. Conversely, to allow contracts that do have provisions for a clearly defined replacement benchmark to operate according to their terms; and
4. To address various LIBOR references in Federal law.

The mandated conversion of LIBOR to SOFR will be effective July 1, 2023, unless the Federal Reserve Board selects a different date on which LIBOR ceases to be published. The conversion is subject to a "tenor spread adjustment" based upon the prior LIBOR reference rate. The adjustment for a 3-month LIBOR index is 0.26161 percent. Of note, the Act expressly preempts (overrides) any state or local "law, statute, regulation, or standard" relating to the selection of a benchmark replacement or limiting the matter of calculating interest on a Federal Reserve Board-selected replacement benchmark and any conforming changes required.

As we have discussed with you, the 2006D sewer bonds do not expressly provide for a fallback replacement rate in the event that LIBOR ceases to be published. As a result, and based on our read of the Act, it will mandate conversion to a SOFR-based rate (with the 3-month adjustment) on July 1, 2023. The Act does not mandate any particular mechanism for such a conversion. Therefore, GLWA will need to work with the trustee to implement the conversion in advance.

F. References

F.I. REFERENCES

District of Columbia Water and Sewer	City of Chicago	Philadelphia Water Department
Matthew T. Brown <i>Executive VP & CFO</i> Telephone: (202) 787-2714 matthew.brown@dcwater.com	Jack Brofman <i>Deputy CFO</i> Telephone: (312) 744-5042 jack.brofman@cityofchicago.org	Melissa La Buda <i>Deputy Commissioner</i> Telephone: (215) 685 6177 melissa.labuda@phila.gov

F.II. DISSOLUTION

During the normal course of Goldman Sachs' municipal finance business activities, the firm has been involved in transactions, which have been terminated or which have resulted in the loss of a client. Notwithstanding the foregoing, to the best of our knowledge, the municipal finance business has not been removed as an underwriter within the last five years on any municipal securities underwriting assignment for which Goldman Sachs had entered into a purchase agreement or other similar contract due to Goldman Sachs failure to perform as required under the agreement the trustee to implement the conversion in advance.

G. Proposal Presentation

Goldman Sachs' proposal presentation has been uploaded to the Bonfire site as instructed in the solicitation.

Appendix A. Project Team and Key Individuals

Key Individuals - Provide staff resumes for all individuals assigned to this project.

Team Member	Role	Experience	Location	Experience
GLWA Banking Team				
Freda Wang <i>Managing Director</i>	Team Leader	25+ Years	New York City	<p>Ms. Wang has over 25 years of experience in the public finance industry. She joined Goldman Sachs in July 2008 from UBS, where she was a Managing Director and led a group focused primarily on infrastructure clients, development finance, and unique structured financings. Nationally, she has completed well over \$25 billion of senior managed financings, and has particular experience in creating and marketing new revenue credits and project financings involving a variety of security sources. She has also had extensive senior manager experience for water and wastewater utilities in the East and Midwest, as well as state revolving funds in Colorado and Connecticut. She currently serves as a lead banker to the States of Michigan, Connecticut, Massachusetts, the District of Columbia, and the cities of Detroit, Philadelphia and Atlanta, as well as a variety of utility and transportation agencies in the Northeast and the Midwest.</p> <p>Ms. Wang graduated from Columbia University with a BA in Urban Studies.</p>
Mark Somers <i>Vice President</i>	Co-Team Leader	13 Years	San Francisco	<p>Mr. Somers is focused on assisting Midwest entities with their financing needs, including state and local governments, municipal utilities and unique structured credits. Since joining Goldman Sachs in 2009, Mr. Somers has completed over \$25 billion of senior managed financings, including \$15 billion in the Midwest. Mr. Somers is currently a senior banker to many of the largest issuers in Illinois, Michigan, Ohio and Massachusetts. Mr. Somers has worked on numerous complex new money and refunding transactions for these issuers including for the State of Ohio, Ohio Water Development Authority, City of Chicago, Illinois State Toll Highway Authority, Chicago Public Schools, Michigan Finance Authority, and Great Lakes Water Authority. Most recently, he served as the lead banker on OWDA's Fresh Water Series 2021 transaction.</p> <p>Mr. Somers earned a BA in Economics from Stanford University and a MBA from the Yale School of Management.</p>
Matthew Webb <i>Associate</i>	Analytics and Execution	4Y Years	Chicago	<p>Mr. Webb recently joined Goldman Sachs' PSI group after four years of experience at another municipal investment banking firm. Mr. Webb has \$8 billion of financing experience for municipal issuers nationwide, including nearly \$1.5 billion for water and wastewater issues. He will provide deal execution and quantitative support for any financing the Authority contemplates. His recent water and wastewater experience includes transactions for the Northeast Ohio Regional Sewer District, Philadelphia Water Department, Texas Water Development Board, Houston Combined Utility System, and Greater City of Cincinnati Waterworks, among others.</p> <p>Mr. Webb received a B.A. in economics from Harvard University.</p>
Joanne Chang <i>Analyst</i>	Analytics and Execution	<1 Years	New York City	<p>Ms. Chang is the newest member of our PSI Banking team. She joined Goldman Sachs' PSI Group in June 2021 from another area of Goldman Sachs and covers a number of infrastructure clients across the Northeast and Midwest. She will be providing deal execution and quantitative support to the infrastructure banking team. Her most recent financing experience include DC Water Series 2022BCD financing, Ohio Water Development Authority's Fresh Water SRF loans, and City of Chicago's GO and STSC Series 2021.</p> <p>Ms. Chang received a BA in economics from New York University.</p>
Credit Strategist				
Stacy Lingamfelter <i>Vice President</i>	Credit Expertise	14 Years	New York City	<p>Previously an analyst at Moody's Investors' Service, Ms. Lingamfelter joined Goldman Sachs in 2005 and moved to the Public Sector & Infrastructure Banking department in 2014. Today, she works directly with banking clients to tailor credit strategies and help issuers achieve their ratings targets. Ms. Lingamfelter has worked extensively with water and sewer issuers, including previous GLWA transactions, Philadelphia Water Department, Bay Area Water Supply and Conservation Agency, and San Diego County Water Authority.</p> <p>Ms. Lingamfelter earned a BA in Economics and International Relations from Tufts University and graduate degrees in Public Policy and Business Administration from the University of Chicago's Booth School of Business</p>
Quantitative and Tax Expertise				
Arthur Miller <i>Managing Director</i>	Tax and Structuring Expertise	36 Years	New York City	<p>Formerly a tax lawyer at Mudge Rose Guthrie Alexander & Ferdon, Mr. Miller has been with the firm since 1985 and is considered one of the leading industry experts in arbitrage, rebate and advance refundings, as well as in tax law and tax reform. Mr. Miller has served as Chairman of the American Bar Association's Task Force on Advance Refundings, and on the Bond Market Association's Market and Public Policy Analysis Committee. In addition, he has served on an advisory committee to the US Treasury to help simplify the arbitrage and rebate rules. Over 32 years of experience in the municipal finance business, with prior service at a major law firm.</p> <p>Mr. Miller is a graduate of New York University School of Law (LLM Taxation), Duke University School of Law (JD), University of North Carolina (MA History), and Princeton University (BA).</p>

Daniel Byrne <i>Vice President</i>	SRF Expertise	25 years	New York City	<p>Mr. Byrne joined Goldman Sachs in 1998. He works primarily on tax-exempt structured financings, including SRF programs. Mr. Byrne has been involved in over \$12 billion of SRF and pooled financings including bond issues for EFC, the Ohio Water Development Authority, Connecticut Clean Water Fund, Massachusetts Water Pollution Abatement Trust, Virginia Resources Authority, Indiana Finance Authority, and the Texas Water Development Board.</p> <p>Prior to joining Goldman Sachs, Mr. Byrne worked at Lamont Financial Services Corporation, a municipal financial advisory services firm. The firm advised municipalities on complex structured financings and specialized in state revolving funds. At both Lamont and Goldman Sachs, Mr. Byrne has developed and augmented extensive SRF models, including default tolerance, loan recycling, and loan and bond structuring models. He has worked on over \$20 billion of financings for utility issuers such as MEAG Power, LIPA, LCRA, CPS Energy, SMUD, LADWP, and PMPA among others.</p> <p>Mr. Byrne has a BS in Physics and a MBA from the State University of New York at Albany.</p>
---------------------------------------	---------------	----------	---------------	---

Underwriting & Marketing

Ed Droesch <i>Managing Director, Co-Head of Municipal Syndicate</i>	Lead Underwriter	30+ Years	New York City	<p>Mr. Droesch rejoined Goldman Sachs in 2007 after serving as Managing Director and Head of the Municipal Syndicate Desk, at another prominent investment bank. He has over 30 years of experience in the municipal bond business and prior to working as an underwriter, from 1987 to 1996, Mr. Droesch was a Vice President at Goldman Sachs, where he ran the competitive underwriting desk and traded intermediate municipal bonds.</p> <p>Mr. Droesch has unparalleled experience in the municipal markets, having underwritten over \$100 billion of new issuance over the past 25 years. His underwriting experience includes many well-known issuers.</p> <p>Mr. Droesch is a member of the Municipal Bond Club of New York as well as the Securities Industry and Financial Markets Association. He graduated from Hartwick College in 1982 with a BA in Management.</p>
Bervan Yeh <i>Managing Director, Co-Head of Municipal Syndicate</i>	Lead Underwriter	20+ Years	New York City	<p>Mr. Yeh joined Goldman Sachs in 1997 and has over 20 years of experience as an underwriter. Prior to being an underwriter, Mr. Yeh was an investment banker and specialized in the development of innovative financing structures for tax-exempt clients. As a banker, he completed over \$5.5 billion of senior managed fixed and floating rate financings. Mr. Yeh also worked in the Municipal Capital Markets Group for three years and served in that capacity as a liaison to municipal issuers for both derivative and short-term debt instruments.</p> <p>Mr. Yeh received a BS in Accounting from the City University of New York at Albany.</p>
Sam Denton-Schneider <i>Vice President</i>	Underwriter	10+ Years	New York City	<p>Mr. Denton-Schneider is a Vice President on the Municipal Underwriting Syndicate. Previously, he worked as an Investment Banker in the San Francisco and Los Angeles offices. Mr. Denton-Schneider's recent financing experience includes offerings for the University of California, the State of California, the California State Public Works Board, California DWR, California Earthquake Authority, LADWP, Southern California Public Power Authority, State of Utah, State of Idaho, Riverside County Transportation Board, and Los Angeles International Airport. Mr. Denton-Schneider earned a B.A. in Economics from Williams College.</p>
Ken Ukaigwe <i>Vice President</i>	Underwriter	7+ Years	New York City	<p>Mr. Ukaigwe joined Goldman Sachs in 2018 and has seven years of public finance experience as a member of banking and syndicate teams. He joined our Syndicate Desk from our PSI Banking team and leverages his relationships with investors to help issuers prepare for investor inquiries. He highlights investor-specific credit concerns based on prior transactions, builds investor profiles for issuers, and obtains specific investor questions ahead of 1x1 calls.</p> <p>Mr. Ukaigwe graduated from Bentley University with a double major in Corporate Finance and Accounting.</p>
Petros Voulgaris <i>Vice President</i>	Underwriter	18+ Years	New York City	<p>Mr. Voulgaris joined Goldman Sachs in April of 2018, bringing with him 18 years of experience and credit insight at his two previous institutional investment management firms. As a key member of the Firm's Investor Marketing Group (IMG), Mr. Voulgaris helps lead a dedicated team of experienced credit and market analysts that work with the Firm's syndicate and salesforce to develop marketing and investor targeting strategies, with a particular focus on bringing new credits to market.</p> <p>Mr. Voulgaris graduated from Merrimack College with a quadruple concentration in International Business, Finance, Economics, and Marketing.</p>

Project Team - Summarize the roles and pertinent experience of each key individual and indicate the percentage of time planned for them to be dedicated to this project using the following format in Table 2 below:

Part 1 Summary of contractor's current involvement with all projects:					
	Contract No.	Client Name	Involvement Time	Contract Title	Type of Involvement

Involvement time for this project	2200290	Great Lakes Authority "GLWA"	Resources are fully available at the need of GLWA.	GLWA Procurement Solicitation	Bond Underwriting Services
Other Projects	N/A	N/A	N/A	N/A	N/A

Part 2 Explain how the commitments listed under part 1 will impact performance on this project.

Jeffrey Scruggs, Managing Director and Head of Goldman Sachs' Public Sector and Infrastructure Group ("PSI") will ensure that GLWA receives fully commitment of resources from PSI.

Part 3 Explain how the project manager or consultant representatives allocated percentage of time to this contract will be utilized.

Goldman Sachs' Public Sector and Infrastructure Group ("PSI") GLWA Banking Team will work to address the financial needs for GLWA and aid through the debt issuance process.

Staff Experience - Identify by name and title the individuals the vendor considers to be key to the successful completion of this project using the format in Table 3 below.

No.	Staff Name	Employer Name	Total Years of Related Exp.	Related Projects	Project Role
1	Freda Wang, Managing Director	Goldman Sachs	25Y+	Great Lakes Water Authority, Massachusetts Water Resources Authority, District of Columbia Water and Sewer, Philadelphia Water Department, Metropolitan District Commission (Hartford), Connecticut SRF, New York Water	Team Leader
2	Mark Somers, Vice President	Goldman Sachs	13Y	Great Lakes Water Authority, City of Columbus, City of Chicago, Ohio Water Development Authority, Massachusetts Water Resources Authority	Co-Team Leader
3	Matthew Webb, Associate	Goldman Sachs	4Y+	Northeast Ohio Regional Sewer District, Philadelphia Water Department, Texas Water Development Board, Houston Combined Utility System, Greater City of Cincinnati Waterworks	Analytical and Executional Support
4	Joanne Chang, Analyst	Goldman Sachs	<1Y	Water/Wastewater, City of Chicago, Ohio Water Development Authority, Citizens Energy Group, District of Columbia Water and Sewer	Analytical and Executional Support

Appendix B. Legal Disclosure and Conflict of Interest Disclosure

The firm assumes that the Great Lakes Water Authority primarily, is interested in proceedings relating to Goldman Sachs & Co. LLC's ("Goldman Sachs") role as managing underwriter of municipal offerings. Except as noted below, the firm's Public Sector and Infrastructure Banking group is not involved in litigation arising out of its role as a managing underwriter of municipal offerings.

From time to time, the firm, its managing directors and employees are involved in proceedings and receive inquiries, subpoenas and notices of investigation relating to various aspects of its business. These include requests for information by the Securities and Exchange Commission and certain other federal and state agencies and authorities arising out of publicly reported events in the municipal securities arena. As reported in the press, there has been recent regulatory and governmental focus on various aspects associated with municipal offerings, including pricing, transaction expenses, and municipal derivative products. The firm is willing to provide information regarding such matters upon request. In the normal course of business, the firm keeps regulatory inquiries, subpoenas, notices of investigation and other similar regulatory matters confidential, except as those that the firm has publicly disclosed in Form BD and the

periodic reports filed by the firm electronically with the Securities and Exchange Commission. For additional information on matters that are required to be publicly reported, which may include updates to the information set forth herein, please also refer to the firm's various regulatory filings under applicable laws and regulations, including Form BD and periodic filings pursuant to the Exchange Act.

The City of Philadelphia, the Mayor and City Council of Baltimore, and the Board of Directors of the San Diego Association of Governments, acting as the San Diego County Regional Transportation Commission, purporting to sue on behalf of VRDO issuers between February 1, 2008 and June 30, 2016, filed an antitrust class action in February 2019 in New York federal court focused on alleged collusion by certain dealers (including Goldman Sachs) in resetting rates on VRDOs. The plaintiffs' complaint contains few specific allegations about Goldman Sachs including to reference and quote a remarketing agreement entered into with the San Diego County Regional Transportation Commission and to note the names of two traders on its municipal trading desk. Plaintiffs' complaint largely relies on economic analyses to support its claims. (Similar allegations about alleged improprieties in setting rates are the subjects of at least 4 pending whistleblower cases in which the firm is not named). Discovery is underway in this matter after the court largely denied the dealers' motion to dismiss the plaintiffs' claims. Plaintiffs' class certification motion is due in October 2022.

Goldman Sachs & Co. LLC is among a number of financial services firms named in qui tam actions. A qui tam action is pending in New York state court, and related qui tam actions in New Jersey and California state courts were dismissed with leave to replead. Amended qui tam complaints were filed in New Jersey and California state courts in October 2018. Related actions in Illinois state court and New York federal court were voluntarily dismissed. The actions allege that numerous financial institutions made misrepresentations in connection with underwritings for the relevant bond offerings when they allegedly promised to obtain the best price possible for the bonds. The actions seek unspecified damages equal to the interest the States allegedly overpaid on the bonds, as well as treble damages and civil penalties. GS is also named in certain matters related to Puerto Rico's ongoing debt crisis in connection with its role as an underwriter in certain debt issuances by the government of Puerto Rico.

On June 18, 2015, the Securities and Exchange Commission ("SEC") announced settlements with 36 firms (collectively, the "Settlement Participants"), including Goldman Sachs, relating to the SEC's Municipalities Continuing Disclosure Cooperation Initiative, a voluntary self-reporting program. The SEC alleged that between 2010 and 2014 Goldman Sachs and the other Settlement Participants violated federal securities laws by selling municipal bonds using offering documents that contained materially false statements or omissions about the bond issuers' compliance with continuing disclosure obligations. Additionally, the SEC alleged that the Settlement Participants failed to conduct adequate due diligence to identify the misstatements and omissions before offering and selling the bonds to their customers. As part of its settlement, Goldman Sachs agreed, without admitting or denying the SEC's allegations, to cease and desist from committing or causing any violations and any future violations of Section 17(a)(2) of the Securities Act of 1933, pay a civil penalty of \$500,000 and retain an independent consultant to review our policies and procedures on due diligence for municipal securities underwriting.

On December 27, 2012, the Financial Industry Regulatory Authority ("FINRA") announced settlements with five firms, including Goldman Sachs, regarding the reimbursement of California Public Securities Association ("Cal PSA") fees as underwriting expenses in connection with California municipal and state bond offerings between February 2006 and December 2010. FINRA alleged that Goldman Sachs and the other four firms violated fair dealing and supervisory rules of the Municipal Securities Rulemaking Board ("MSRB") by obtaining reimbursement for the Cal PSA payments. As part of its settlement, Goldman Sachs agreed, without admitting or denying FINRA's allegations, to be censured, pay a fine, pay restitution to certain issuers in California and to implement any necessary revisions to its supervisory procedures and systems to ensure compliance with MSRB Rule G-27.

On September 27, 2012, the Securities and Exchange Commission and the Commonwealth of Massachusetts announced settlements with Goldman Sachs relating to the unauthorized political activities of a former employee, Neil Morrison, from 2008 until 2010 in connection with the former Massachusetts Treasurer. The firm detected Morrison's unauthorized activities in the Fall of 2010, promptly reported them to the relevant regulators and terminated Morrison's employment. As part of the SEC settlement, which found that Morrison's unauthorized activities were attributable to Goldman Sachs, the firm agreed, without admitting or denying any findings or allegations, to be censured and to cease and desist from violating Section 15B(c)(1) of the Exchange Act as well as MSRB Rules G-8, G-9, G-17, G-27 and G-37. The firm also agreed to make payments pursuant to the settlements totaling roughly \$14.6 million.

Goldman Sachs (along with, in some cases, other financial services firms) is named by municipalities, municipal-owned entities, state-owned agencies or instrumentalities and non-profit entities in a number of FINRA arbitrations and federal court cases based on Goldman Sachs' role as underwriter of the claimants' issuances of an aggregate of approximately \$1.9 billion of auction rate securities from 2003 through 2007 and as a broker-dealer with respect to auctions for these securities, most of which have been concluded either through settlements or dismissal. The claimants generally allege that Goldman Sachs failed to disclose that it had a practice of placing cover bids in auctions, and/or failed to inform the claimant of the deterioration of the auction rate market beginning in the fall of 2007, and that, as a result, the claimant was forced to engage in a series of expensive refinancing and conversion transactions after the failure of the auction market in February 2008. Certain claimants also allege that Goldman Sachs advised them to enter into interest rate swaps in connection with their auction rate securities issuances, causing them to incur additional losses. The claims include breach of fiduciary duty, fraudulent concealment, negligent misrepresentation, breach of contract, violations of the Exchange Act and state securities laws, and breach of duties under the rules of the Municipal Securities Rulemaking Board and the NASD. Certain of the arbitrations have been enjoined in accordance with the exclusive forum selection clauses in the transaction documents.

As reported in the firm's most recent Annual Report on Form 10-K, the firm is subject to a number of investigations and reviews by, and in some cases have received subpoenas and requests for documents and information from, various governmental and regulatory bodies and self-regulatory organizations relating to transactions involving municipal securities, including wall-cross procedures and conflict of interest disclosure with respect to state and municipal clients, the trading and structuring of municipal derivative instruments

in connection with municipal offerings, political contribution rules, municipal advisory services and the possible impact of credit default swap transactions on municipal issuers. The firm is cooperating with the investigations and reviews. For further information, please refer to the firm's various regulatory filings under applicable laws and regulations, including Form BD and periodic filings pursuant to the Exchange Act.

While the civil action did not in any way relate to the municipal securities business or the firm's role as underwriter of municipal offerings, please note that on April 16, 2010, the Securities and Exchange Commission brought a civil action in the U.S. District Court for the Southern District of New York against Goldman Sachs and one of its employees in connection with a single collateralized debt obligation transaction made in early 2007, and subsequently, on July 15, 2010, Goldman Sachs agreed to a settlement with the Securities and Exchange Commission to resolve this action against the firm. For further information about this matter, please refer to the firm's various regulatory filings under applicable laws and regulations, including Form BD, periodic filings pursuant to the Exchange Act, and www.gs.com.

On September 4, 2008, Goldman Sachs' parent, The Goldman Sachs Group Inc., was named as a defendant, together with numerous other financial services firms, in two complaints filed in the U.S. District Court for the Southern District of New York alleging that the defendants engaged in a conspiracy to manipulate the auction securities market in violation of federal antitrust laws. The actions were filed, respectively, on behalf of putative classes of issuers of and investors in auction rate securities and seek, among other things, treble damages in an unspecified amount. Defendants' motion to dismiss was granted on January 26, 2010. On March 1, 2010, the plaintiffs appealed from the dismissal of their complaints.

On August 21, 2008, Goldman Sachs entered into settlement agreements in principle with the Office of Attorney General of the State of New York and the Illinois Securities Department (on behalf of the North American Securities Administrators Association) regarding auction rate securities. Under the agreements, Goldman Sachs, among other things, without admitting or denying any wrongdoing, offered (i) to repurchase at par the outstanding auction rate securities that were held by its Private Wealth Management clients and were purchased through the firm prior to February 11, 2008, with the exception of those auction rate securities where auctions are clearing, (ii) to continue to work with issuers and other interested parties, including regulatory and governmental entities, to expeditiously provide liquidity solutions for institutional investors, and (iii) to pay a \$22.5 million fine. On June 3, 2009, Goldman Sachs entered into a final settlement with the Office of Attorney General of the State of New York pursuant to the agreement in principal. In connection with this final settlement, Goldman Sachs, without admitting or denying any wrongdoing, agreed to pay a civil penalty of \$22,500,000, of which \$1,952,439.67 was paid to the State of New York. The remainder of the civil penalty will be paid to those states and territories that enter administrative or civil consent orders approving the terms of the North American Securities Administrators Association settlement. On March 19, 2010, Goldman Sachs entered into a final settlement with the Illinois Securities Department. In addition, as of September 10, 2012, Goldman Sachs has entered into final settlements with 49 jurisdictions (including New York and Illinois).

On May 31, 2006, the U.S. Securities and Exchange Commission (the "SEC") announced that it had settled with 15 firms, including Goldman Sachs that participate in the auction rate securities market regarding their respective practices and procedures in this market. The SEC alleged in the settlement that the firms had managed auctions for auction rate securities in which they participated in ways that were not adequately disclosed or that did not conform to disclosed auction procedures. As part of the settlement, a number of firms, including Goldman Sachs had each agreed to pay civil money of \$1,500,000. In addition, without admitting or denying the SEC's allegations, Goldman Sachs agreed to be censured, to cease and desist from violating certain provisions of the securities laws, to provide to customers written descriptions of its material auction practices and procedures, and to implement procedures reasonably designed to detect and prevent any failures to conduct the auction process in accordance with disclosed procedures.

On June 27, 2006, as part of a multi-firm settlement relating to transactions in municipal securities below the minimum denominations set by the issuers of those securities, the NASD censured Goldman Sachs, assessed a fine and required the firm to adopt and implement policies and procedures to ensure compliance with those MSRB rules.

The firm's Public Sector and Infrastructure Banking group activities are the subject of the following lawsuit: in August 2004, several purchasers of Michigan Strategic Fund Resource Recovery Limited Obligation Revenue Bonds (Central Wayne Energy Recovery Limited Partnership Project) brought a lawsuit against Goldman Sachs, as underwriter, and R.W. Beck, as feasibility consultant, in Michigan state court alleging negligent and innocent misrepresentation in connection with the issuance of the bonds in 1998. In March 2005, these claims were dismissed and the plaintiffs were permitted to file an amended complaint alleging fraud in connection with the issuance of the bonds. In July 2005, the Michigan amended complaint was dismissed on forum non conveniens grounds and the plaintiffs have appealed that decision. Shortly thereafter, the plaintiffs served a similar fraud complaint in New York, which Goldman Sachs has moved to for summary judgment following the completion of discovery. In January 2009, a settlement was entered into on the basis of a dismissal of all claims and mutual releases. No payments were made pursuant to this settlement agreement.

Disclosure on Conflicts of Interest

Goldman Sachs is a full service firm engaged in trading, underwriting, investment banking, commercial banking, financial advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services for various persons and entities.

Goldman Sachs has in place policies and procedures designed to prevent the unauthorized disclosure of confidential information from its investment banking division, including the Public Sector and Infrastructure Banking group ("PSI"), to its sales and trading, investment research and investment management divisions. In reliance on these policies and procedures, business units outside of PSI may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments (each, an "Instrument") for our own account or for the accounts of our customers. Our sales and trading, investment research and investment management divisions may also communicate independent investment recommendations, market

color or trading ideas and/or publish or express independent research views in respect of such Instruments, and may at any time recommend or otherwise communicate to clients that they should acquire long and/or short positions (including, for example, by buying and/or selling credit protection against default by an issuer) in such Instruments. The investment and trading activities and communications described in this paragraph are conducted in business units outside of PSI and may relate to or involve the issuer or Instruments of the issuer or persons or entities with relationships with the issuer, and may be, or appear to be, inconsistent with the interests of the issuer. Goldman Sachs, including PSI, may also provide investment banking, commercial banking, underwriting, financial advisory services and other services to persons and entities with relationships with the issuer.

Goldman Sachs has considered this assignment through our centralized conflicts clearance process it uses to evaluate potential new investment banking assignments. Based on our review, we do not believe that there are any activities in which the firm is currently engaged that would present an actual conflict that would prevent us from accepting a mandate from you or from executing fully the roles and responsibilities that are the subject of this Request for Proposal. Please be assured that, in the event we are selected to act as an underwriter in connection with the offerings contemplated by this Request for Proposal, we will follow the same robust conflict clearance process with respect to potential future investment banking assignments and, if we believe that any such assignment would present an actual conflict that would prevent us from executing fully the roles and responsibilities that are the subject of this Request for Proposal, at such time that we are not otherwise able to resolve, we will, to the extent we are permitted to do so, notify you of such conflict and endeavor to work with you to resolve such conflict to our mutual satisfaction.

Appendix C. Goldman Sachs Senior Managed Experience

Sale Date	Issuer	Series	Issue Description	State	Taxable Code	Security Type	Par (\$MM)	Role of GS
01/26/2012	Jacksonville Electric Authority (JEA)	2012 Series A	Water & Sewer Sys Rev & Sub Bonds	FL	E	RV	354.875	LEAD
02/28/2012	Platte River Power Authority	Series II	Power Revenue Bonds	CO	E	RV	65.475	LEAD
03/21/2012	Energy Northwest	Series 2012 B	Electric Revenue Refunding Bonds	WA	E	RV	71.615	LEAD
03/21/2012	Energy Northwest	Series 2012 C	Electric Revenue Refunding Bonds	WA	T	RV	85.735	LEAD
03/21/2012	West Basin Municipal Water Dt	Series 2012 A	Refunding Revenue Bonds	CA	E	RV	50.325	LEAD
04/12/2012	Salt River Proj Agric Imp & Pwr Dt	2012 Series A	Electric System Ref Rev Bonds	AZ	E	RV	236.185	LEAD
04/18/2012	No Wasco Co Peoples Utility Dt	Series 2012 A	Revenue Refunding Bonds	OR	E	RV	7.520	LEAD
04/18/2012	No Wasco Co Peoples Utility Dt	Series 2012 B	Revenue Refunding Bonds	OR	T	RV	12.215	LEAD
04/26/2012	Central Plains Energy Project	Series 2012	Gas Project Revenue Bonds	NE	E	RV	608.675	LEAD
06/12/2012	Burke Co Development Authority	Second Series 2012	Pollution Control Revenue Bonds	GA	E	RV	100.000	SOLE RA
06/20/2012	Detroit City-Michigan	Series 2012 A	Swg Disposal Sys & Sr Lien Bonds	MI	E	RV	659.780	LEAD
06/20/2012	So California Metro Water Dt	2012 Series C	Water Revenue Refunding Bonds	CA	E	RV	190.600	LEAD
06/27/2012	Long Island Power Authority	Series 2012 A & B	Electric Sys Gen Revenue Bonds	NY	E	RV	502.000	LEAD
06/27/2012	So California Metro Water Dt	2012 Series E 1-3	Water Revenue Refunding Bonds	CA	E	RV	89.460	LEAD RA
07/12/2012	Austin City-Texas	Series 2012	Wtr & Wstwr Sys Rev Ref Bonds	TX	E	RV	336.820	LEAD
08/23/2012	Lakeland City-Florida	Series 2012	Var Rate Energy System Ref Bonds	FL	E	RV	100.000	SOLE
09/19/2012	California Dept of Wtr Resources	Series AN	Water System Revenue Bonds	CA	E	RV	49.525	LEAD
09/19/2012	California Dept of Wtr Resources	Series AO	Water System Revenue Bonds	CA	T	RV	317.505	LEAD
09/21/2012	Omaha Public Power Dt (OPPD)	2012 Series A & B	Electric Sys Revenue Bonds	NE	E	RV	499.370	LEAD
10/11/2012	Los Angeles Dept Wtr & Pwr (LADWP)	2012 Series C	Power System Revenue Bonds	CA	E	RV	300.000	LEAD
10/17/2012	NYS Environmental Facs Corp	Series 2012 F	State Revolving Fund Rev Bonds	NY	T	RV	33.465	LEAD
10/17/2012	NYS Environmental Facs Corp	Series 2012 E	State Revolving Funds Rev Bonds	NY	E	RV	98.640	LEAD
01/25/2013	Jacksonville Electric Authority (JEA)	Ser Three 2013 A & B	Electric Sys & Sub Revenue Bonds	FL	E	RV	203.255	LEAD
01/31/2013	Bay Area Wtr Supply & Conserv Agcy	Series 2013 B	Revenue Bonds	CA	T	RV	94.305	LEAD
01/31/2013	Bay Area Wtr Supply & Conserv Agcy	Series 2013 A	Revenue Bonds	CA	E	RV	241.475	LEAD
03/20/2013	Sacramento City-California	Series 2013	Water Revenue Bonds	CA	E	RV	215.195	LEAD
03/22/2013	Eastern Municipal Water Dt	Series 2013 A	Water & Sewer Revenue Ref Bonds	CA	E	RV	54.575	SOLE RA
03/26/2013	Santa Clara City-California	Series 2013 A	Electric Revenue Refunding Bonds	CA	E	RV	64.380	LEAD
05/14/2013	Tacoma City-Washington	Series 2013 A	Electric System Rev & Ref Bonds	WA	E	RV	181.610	LEAD
05/22/2013	Los Angeles Dept Wtr & Pwr (LADWP)	2013 Series C	Power System Revenue Bonds	CA	T	RV	27.855	SOLE
05/22/2013	Los Angeles Dept Wtr & Pwr (LADWP)	2013 Series B	Power System Revenue Bonds	CA	E	RV	452.145	LEAD
06/05/2013	Tacoma City-Washington	Series 2013 B	Electric System Revenue Ref Bonds	WA	E	RV	35.620	LEAD
06/19/2013	So California Metro Water Dt	2013 Series E	Special Var Rte Water Ref Bonds	CA	E	RV	104.820	SOLE RA
07/31/2013	Lehigh Co Authority	Series 2013 C	Water and Sewer Revenue Bonds	PA	T	RV	18.735	SOLE
07/31/2013	Lehigh Co Authority	Series 2013 B	Water and Sewer Revenue Bonds	PA	E	RV	43.359	SOLE
07/31/2013	Lehigh Co Authority	Series 2013 A	Water and Sewer Revenue Bonds	PA	E	RV	245.590	SOLE
08/08/2013	SC Pub Svc Au (Santee Cooper)	Series 2013 C	Revenue Obligations	SC	T	RV	250.000	LEAD
08/08/2013	SC Pub Svc Au (Santee Cooper)	Ser 2013 A & Ref B	Revenue Obligations	SC	E	RV	641.385	LEAD
08/20/2013	SC Pub Svc Au (Santee Cooper)	Series 2013 D	Revenue Obligations	SC	T	RV	450.000	LEAD
08/28/2013	Atlanta City-Georgia	Series 2013 B	Water & Wastewater Rev Ref Bonds	GA	E	RV	200.140	LEAD
10/30/2013	Nebraska Public Power Dt	2013 Series A	General Revenue Bonds	NE	E	RV	118.270	LEAD
12/12/2013	NYS Utility Debt Securitization Auth	Series 2013 T	Restructuring Bonds	NY	T	RV	482.934	LEAD
12/12/2013	NYS Utility Debt Securitization Auth	Series 2013 TE	Restructuring Bonds	NY	E	RV	1,539.390	LEAD
02/12/2014	So California Metro Water Dt	2014 Series C 1-3	Water Revenue Refunding Bonds	CA	E	RV	30.335	LEAD RA
02/12/2014	So California Metro Water Dt	2014 Series A	Water Revenue Refunding Bonds	CA	E	RV	95.935	LEAD
03/13/2014	So California Pub Pwr Au (SCPPA)	2014 Series A	Revenue Bonds	CA	E	RV	151.880	LEAD
03/13/2014	So California Pub Pwr Au (SCPPA)	2014 Series B	Revenue Bonds	CA	T	RV	166.980	LEAD
03/18/2014	Phoenix City Civic Imp Corp	Series 2014	Jr Lien Wstwr Sys Rev Ref Bonds	AZ	E	RV	127.810	LEAD
03/19/2014	NYS Environmental Facs Corp	Series 2014 A	St Clean & Drink Wtr Rev Bonds	NY	E	RV	347.385	LEAD
03/26/2014	Indiana Finance Authority	Series 2014 A	State Revolving Fund Prog Bonds	IN	E	RV	18.575	LEAD
03/26/2014	Indiana Finance Authority	Series 2014 B	State Revolv Fund Prog Ref Bonds	IN	E	RV	68.350	LEAD
06/13/2014	Houston City-Texas	Series 2014 D	Comb Utility Sys 1st Ln Rev & Ref	TX	E	RV	547.980	LEAD
06/18/2014	New Orleans City-Louisiana	Series 2014	Water Revenue & Refunding Bonds	LA	E	RV	103.525	LEAD
06/18/2014	New Orleans City-Louisiana	Series 2014	Sewerage Service Rev & Ref Bonds	LA	E	RV	158.990	LEAD
07/10/2014	District of Columbia Wtr & Swr Au	Series 2014 A	Public Utility Senior Lien Bonds	DC	T	RV	350.000	LEAD
10/21/2014	District of Columbia Wtr & Swr Au	Series 2014 C	Public Utility Sub Lien Ref Bonds	DC	E	RV	377.700	LEAD
02/26/2015	Atlanta City-Georgia	Series 2015	Water & Wastewater Rev Ref Bonds	GA	E	RV	1,237.405	LEAD
02/26/2015	Jacksonville Electric Authority (JEA)	Series Three 2015 A	Electric System Revenue Bonds	FL	E	RV	83.325	LEAD
03/18/2015	Kentucky Municipal Pwr Agcy (KMPPA)	Series 2015 A	Power System Revenue Ref Bonds	KY	E	RV	210.600	LEAD
04/23/2015	Connecticut	2015 Series A	State Revolving Fund Rev Bonds	CT	E	RV	250.000	LEAD
05/13/2015	Austin City-Texas	Series 2015 B	Elec Utility Sys Rev Ref Bonds	TX	T	RV	81.045	LEAD
05/13/2015	Austin City-Texas	Series 2015 A	Elec Utility Sys Rev Ref Bonds	TX	E	RV	327.845	LEAD
05/15/2015	Salt River Proj Agric Imp & Pwr Dt	2015 Series A	Electric System Revenue Bonds	AZ	E	RV	172.035	LEAD
05/15/2015	Salt River Proj Agric Imp & Pwr Dt	2015 Series A	Electric System Revenue Bonds	AZ	E	RV	752.455	LEAD

Sale Date	Issuer	Series	Issue Description	State	Taxable Code	Security Type	Par (\$MM)	Role of GS
06/09/2015	Kentucky Municipal Pwr Agcy (KMPA)	Series 2015 B	Power Sys Revenue Ref Bonds	KY	E	RV	36.035	SOLE
06/29/2015	California Municipal Fin Auth	Series 2015 B	Revenue Refunding Bonds	CA	E	RV	92.865	LEAD
07/15/2015	Brownsville City-Texas	Series 2015	Utilities System Revenue Ref Bonds	TX	E	RV	94.770	LEAD
07/15/2015	San Antonio City-Texas	New Series 2015	Electric & Gas Sys Rev Ref Bonds	TX	E	RV	320.530	LEAD
10/20/2015	Orlando Utilities Commission (OUC)	Series 2015 B	Utility System Rev Ref Bonds	FL	E	RV	115.090	SOLE RA
10/30/2015	NYS Power Authority	Series 2015 A	Revenue Bonds	NY	E	RV	69.020	LEAD
11/17/2015	District of Columbia Wtr & Swr Au	Series A	Commercial Paper Notes	DC	E	RV	100.000	SOLE
12/01/2015	Colorado Springs City-Colorado	Series A & B	Utilities System CP Notes	CO	E	RV	150.000	LEAD
01/21/2016	Lakeland City-Florida	Series 2016	Energy System Rev & Ref Bonds	FL	E	RV	138.650	LEAD
01/26/2016	Nebraska Public Power Dt	2016 Series A & B	General Revenue Bonds	NE	E	RV	139.225	LEAD
01/27/2016	Kentucky Municipal Pwr Agcy (KMPA)	Series 2016 A	Power System Revenue Ref Bonds	KY	E	RV	71.235	LEAD
02/09/2016	Missouri Joint Municipal Electric Utility Comm	Series 2016 A	Power Project Revenue Ref Bonds	MO	E	RV	252.745	LEAD
02/23/2016	Lower Alabama Gas Dt	Series 2016 A	Revenue Bonds	AL	E	RV	599.350	LEAD
05/24/2016	Paducah Electric Plant Board	Series 2016 A	Refunding Revenue Bonds	KY	E	RV	103.375	SOLE
06/08/2016	Lower Colorado River Authority (LCRA)	Series 2016	Transmission Contract Ref Bonds	TX	E	RV	190.040	LEAD
06/15/2016	NYS Environmental Facs Corp	Series 2016 A	State Clean & Drinking Wtr Bonds	NY	E	RV	500.955	LEAD
06/23/2016	Dallas City-Texas	Series 2016 B	Wtrwrks & Sewer Sys Rev Ref Bonds	TX	T	RV	170.245	LEAD
06/23/2016	Dallas City-Texas	Series 2016 A	Wtrwrks & Sewer Sys Rev Ref Bonds	TX	E	RV	370.100	LEAD
08/16/2016	Irvine Ranch Water Dt	Series 2016	Certificates of Participation	CA	E	RV	116.745	SOLE
08/23/2016	Birmingham City Water Works Board	Series 2016-C	Subordinate Water Rev Ref Bonds	AL	T	RV	34.110	LEAD
08/23/2016	Birmingham City Water Works Board	Series 2016-A & B	Senior & Sub Water Rev Ref Bonds	AL	E	RV	435.390	LEAD
08/23/2016	Northern Illinois Muni Pwr Agcy	Series 2016 A	Power Project Revenue Ref Bonds	IL	E	RV	260.215	LEAD
09/13/2016	California Dept of Wtr Resources	Series 2016 P	Power Supply Revenue Bonds	CA	T	RV	283.615	LEAD
09/13/2016	California Dept of Wtr Resources	Series 2016 P	Power Supply Revenue Bonds	CA	T	RV	283.615	LEAD
09/20/2016	Wisconsin	2016 Series 1	Petroleum Inspection Fee Bonds	WI	E	RV	62.445	LEAD
09/28/2016	Anaheim Hsg & Pub Imp Auth	Series 2016 B	Revenue Refunding Bonds	CA	T	RV	69.780	LEAD
09/28/2016	Anaheim Hsg & Pub Imp Auth	Series 2016 A	Revenue Bonds	CA	E	RV	219.285	LEAD
10/14/2016	Great Lakes Water Auth (GLWA)	Series 2016 B & C	Sewage Disposal Sys Rev Ref Bonds	MI	E	RV	421.295	LEAD
10/14/2016	Great Lakes Water Auth (GLWA)	Series 2016 A B C D	Wtr Supply Sys Rev & Ref Bonds	MI	E	RV	917.805	LEAD
10/14/2016	Long Island Power Authority	Series 2016 B	Electric System Gen Revenue Bonds	NY	E	RV	407.675	LEAD
01/31/2017	District of Columbia Wtr & Swr Au	Series 2017 A	Public Utility Sr Lien Rev Bonds	DC	E	RV	100.000	LEAD
01/31/2017	District of Columbia Wtr & Swr Au	Series 2017 B	Public Utility Sr Lien Rev Bonds	DC	E	RV	200.000	LEAD
03/08/2017	Gainesville City-Florida	Series C	Utilities System CP Notes	FL	E	RV	5.000	SOLE RA
04/05/2017	Philadelphia City-Pennsylvania	Series 2017 A	Water & Wastewater Revenue Bonds	PA	E	RV	279.865	LEAD
04/05/2017	San Antonio City-Texas	New Series 2017	Elec & Gas Sys Rev & Ref Bonds	TX	E	RV	308.005	LEAD
05/02/2017	California Dept of Wtr Resources	Series 1	Water Rev Commercial Paper Notes	CA	E	RV	300.000	LEAD RA
05/02/2017	California Dept of Wtr Resources	Series 2	Water Rev Commercial Paper Notes	CA	E	RV	500.000	LEAD RA
06/02/2017	San Francisco City/Co Public Util Comm	Series A1- A-6	Commercial Paper Notes	CA	E	RV	750.000	LEAD
06/29/2017	Los Angeles Dept Wtr & Pwr (LADWP)	2017 Series C	Power System Revenue Bonds	CA	E	RV	375.000	LEAD
07/24/2017	Washington Econ Dev Fin Auth	Series 2017 A	Environmental Facilities Rev Bond	WA	A	RV	133.600	SOLE
08/01/2017	Austin City-Texas	Series 2017	Water & Wstwr Sys Rev Ref Bonds	TX	E	RV	311.100	LEAD
08/15/2017	Tacoma City-Washington	Series 2017	Electric System Revenue Bonds	WA	E	RV	70.575	LEAD
08/30/2017	So California Pub Pwr Au (SCPPA)	Series 2017-1	Refunding Revenue Bonds	CA	E	RV	107.525	SOLE RA
09/27/2017	Southern Minnesota Muni Pwr Agcy	Series 2017 A	Power Supply System Revenue Bonds	MN	E	RV	23.810	LEAD
10/05/2017	Austin City-Texas	CP Sub-Series	Combined Utility Systems Notes	TX	T	RV	75.000	SOLE RA
10/05/2017	Austin City-Texas	CP Sub-Series	Combined Utility Systems Notes	TX	E	RV	400.000	SOLE RA
10/25/2017	Gainesville City-Florida	2017 Series A	Utilities System Revenue Bonds	FL	E	RV	415.920	LEAD
10/27/2017	Tennessee Energy Acquisition Corp	Series 2017 A	Revenue Bonds	TN	E	RV	678.250	LEAD
11/09/2017	Salt River Proj Agric Imp & Pwr Dt	2017 Series A	Electric System Revenue Bonds	AZ	E	RV	735.240	LEAD
11/15/2017	Grant Co Public Utility Dt #2	Series 2017 N	Electric System Revenue Ref Bonds	WA	E	RV	49.865	SOLE
11/30/2017	Grant Co Public Utility Dt #2	Series 2017-O	Electric System Revenue Ref Bonds	WA	E	RV	64.545	LEAD
12/06/2017	California Dept of Wtr Resources	Series AY	Water System Revenue Bonds	CA	T	RV	140.825	LEAD
12/06/2017	California Dept of Wtr Resources	Series AX	Water System Revenue Bonds	CA	E	RV	350.670	LEAD
12/06/2017	Sacramento MUD (SMUD)	2017 Series E	Electric Revenue Refunding Bonds	CA	E	RV	202.500	LEAD
12/07/2017	Central Plains Energy Project	Series 2017 B	Gas Proj Crossover Ref Rev Bonds	NE	T	RV	32.000	SOLE
12/07/2017	Central Plains Energy Project	Series 2017 A	Gas Proj Crossover Ref Rev Bonds	NE	E	RV	471.315	SOLE
12/12/2017	Anaheim Hsg & Pub Imp Auth	Series 2017-A & B	Revenue Refunding Bonds	CA	E	RV	237.745	LEAD
12/14/2017	Jacksonville Electric Authority (JEA)	Ser 3 2017 B& B	Electric System & Sub Rev Bonds	FL	E	RV	41.075	LEAD
12/14/2017	Jacksonville Electric Authority (JEA)	Series 3 2017 B & B	Electric System & Sub Rev Bonds	FL	E	RV	342.765	LEAD
12/26/2017	Oregon Business Development Comm	Series 248-A	Sr Economic Development Rev Bonds	OR	E	RV	109.880	SOLE RA
12/26/2017	Oregon Business Development Comm	Series 248-B & C	Sub & Sr Economic Dev Rev Bonds	OR	T	RV	135.395	SOLE RA
03/01/2018	Black Belt Energy Gas Dt	Series 2018 A	Gas Prepay Revenue Bonds	AL	E	RV	23.330	SOLE
03/01/2018	Black Belt Energy Gas Dt	Series 2018 A	Gas Prepay Revenue Bonds	AL	E	RV	313.555	SOLE RA
03/01/2018	Black Belt Energy Gas Dt	Ser 2018 B-1 & B-2	Gas Prepay Revenue Bonds	AL	E	RV	350.000	SOLE
03/27/2018	Kentucky Municipal Pwr Agcy (KMPA)	Series 2018 A	Power System Revenue Ref Bonds	KY	E	RV	36.985	SOLE RA
04/17/2018	District of Columbia Wtr & Swr Au	Series 2018 A	Public Utility Sr Lien Rev Bonds	DC	E	RV	100.000	LEAD
04/17/2018	District of Columbia Wtr & Swr Au	Series 2018 B	Public Utility Sr Lien Rev Bonds	DC	E	RV	200.000	LEAD
04/25/2018	Putnam Co Dev Auth	Series 2018 A & B	Pollution Control Rev Ref Bonds	FL	E	RV	113.960	LEAD
05/03/2018	Southeast Alabama Gas Dt	Series 2018 A	Gas Supply Revenue Bonds	AL	E	RV	54.430	LEAD
05/03/2018	Southeast Alabama Gas Dt	Series 2018 B & C	Gas Supply Revenue Bonds	AL	E	RV	81.000	LEAD RA
05/03/2018	Southeast Alabama Gas Dt	Series 2018 A	Gas Supply Revenue Bonds	AL	E	RV	586.350	LEAD RA
06/20/2018	Arkansas River Power Authority	Series 2018 B	Power Supply Sys Rev Ref Bonds	CO	T	RV	19.900	SOLE
06/20/2018	Arkansas River Power Authority	Series 2018 A	Power Supply Sys Rev Ref Bonds	CO	E	RV	99.355	SOLE
07/17/2018	Lubbock City-Texas	Series 2018	Electric Light & Pwr Sys Rev Bond	TX	E	RV	93.925	LEAD
08/14/2018	Tennessee Energy Acquisition Corp	Series 2018	Revenue Bonds	TN	E	RV	17.725	SOLE
08/14/2018	Tennessee Energy Acquisition Corp	Series 2018	Revenue Bonds	TN	E	RV	499.060	SOLE RA
09/13/2018	Eastern Municipal Water Dt	Series 2018 B	Water & Wastewater Rev Ref Bonds	CA	E	RV	53.485	SOLE
11/16/2018	Central Plains Energy Project	Series 2018 A	Gas Project Revenue Bonds	NE	E	RV	535.235	SOLE
11/28/2018	Santa Clara City-California	Series 2018 A	Electric Revenue Refunding Bonds	CA	E	RV	48.800	SOLE
12/10/2018	Northern California Energy Auth (NCEA)	Series 2018	Commodity Supply Revenue Bonds	CA	E	RV	16.825	SOLE
12/10/2018	Northern California Energy Auth (NCEA)	Series 2018	Commodity Supply Revenue Bonds	CA	E	RV	522.790	SOLE RA
12/13/2018	Georgia Muni Electric Au (MEAG)	2018 Series HH & A	General & Power Revenue Bonds	GA	E	RV	242.935	LEAD
01/17/2019	Los Angeles Dept Wtr & Pwr (LADWP)	2019 Series A	Power System Revenue Bonds	CA	E	RV	345.845	LEAD
01/30/2019	Pennsylvania Infrans Inv Auth	Series 2019	Extendable Commercial Paper Notes	PA	E	RV	75.000	LEAD RA
02/06/2019	Riverside City-California	Issue of 2019 A	Refunding Electric Rev Bonds	CA	E	RV	283.325	LEAD
02/14/2019	Main Street Natural Gas Inc	Series 2019 A	Gas Supply Revenue Bonds	GA	E	RV	695.595	LEAD
04/25/2019	Los Angeles Dept Wtr & Pwr (LADWP)	2019 Series B	Power System Revenue Bonds	CA	E	RV	308.875	LEAD
05/07/2019	Mesa City-Arizona	Series 2019 C	Utility Systems Rev Ref Bonds	AZ	E	RV	79.335	SOLE
05/22/2019	Contra Costa Water Dt	Series V	Water Revenue Refunding Bonds	CA	E	RV	41.040	SOLE
05/22/2019	Iowa Pub Energy Fac (PEFA Inc)	Series 2019	Revenue Bonds	IA	E	RV	1.560	SOLE
05/22/2019	Iowa Pub Energy Fac (PEFA Inc)	Series 2019	Revenue Bonds	IA	E	RV	612.895	SOLE RA
06/13/2019	Orange Co Water Dt	Series 2019 B	Rev Certificates of Participation	CA	E	RV	6.505	SOLE
06/13/2019	Orange Co Water Dt	Series 2019 A	Rev Certificates of Participation	CA	E	RV	135.000	SOLE
07/30/2019	Austin City-Texas	Series 2019 C	Elc Util Sys Rev Ref & Imp Bonds	TX	T	RV	104.775	LEAD
07/30/2019	Austin City-Texas	Series 2019 B	Electric Util Sys Rev Ref Bonds	TX	E	RV	169.850	LEAD
08/06/2019	Philadelphia City-Pennsylvania	Series 2019 B	Water & Wastewater Revenue Bonds	PA	E	RV	250.660	LEAD
08/21/2019	San Antonio City-Texas	New Series 2019	Electric & Gas Sys Rev Ref Bonds	TX	E	RV	114.685	LEAD
09/20/2019	Georgia Muni Electric Au (MEAG)	Series 2019 B	Revenue Bonds	GA	E	RV	266.975	LEAD
09/20/2019	Georgia Muni Electric Au (MEAG)	Series 2019 A	Revenue Bonds	GA	E	RV	445.635	LEAD
09/24/2019	Turlock Irrigation Dt	Series 2019	Revenue Refunding Bonds	CA	E	RV	92.655	LEAD
09/24/2019	Turlock Irrigation Dt	Series 2020	Refunding Revenue Bonds	CA	E	RV	137.150	LEAD
09/24/2019	Walnut Energy Center Authority	2019 Series A	Revenue Refunding Bonds	CA	E	RV	61.315	LEAD

Sale Date	Issuer	Series	Issue Description	State	Taxable Code	Security Type	Par (\$MM)	Role of GS
11/05/2019	Garland City-Texas	New Series 2019 A	Electric Utility System Rev Ref	TX	E	RV	140.790	LEAD
11/08/2019	Georgia Muni Electric Au (MEAG)	Series 2019 A	Subordinated Revenue Bonds	GA	E	RV	252.385	LEAD
12/03/2019	Orange Co Water Dt	Series 2019 D	Refunding Revenue Bonds	CA	T	RV	59.135	SOLE
12/03/2019	Orange Co Water Dt	Series 2019 C	Refunding Revenue Bonds	CA	E	RV	99.065	SOLE
01/17/2020	Lower Alabama Gas Dt	Series 2020	Revenue Bonds	AL	E	RV	634.200	LEAD
03/03/2020	Middle Fork Project Fin Auth	Series 2020	Revenue Refunding Bonds	CA	E	RV	64.280	SOLE
03/04/2020	Vernon City-California	2020 Series A	Electric System Revenue Bonds	CA	E	RV	71.990	SOLE
04/15/2020	So California Pub Pwr Au (SCPPA)	Series 2020-1	Refunding Revenue Bonds	CA	E	RV	81.100	LEAD
04/23/2020	Sacramento City-California	Series 2020	Water Revenue Refunding Bonds	CA	T	RV	188.390	LEAD
04/28/2020	So California Pub Pwr Au (SCPPA)	2020 Series A	Refunding Revenue Bonds	CA	E	RV	54.675	SOLE
04/29/2020	NYS Power Authority	Series 2020 B	Revenue Bonds	NY	T	RV	114.020	LEAD
04/29/2020	NYS Power Authority	Series 2020 A	Revenue Bonds	NY	E	RV	328.990	LEAD
04/29/2020	NYS Power Authority	Series 2020 A	Revenue Bonds	NY	E	RV	791.620	LEAD
06/03/2020	Atascosa Co Industrial Dev Corp	Series 2020	Pollution Control Ref Rev Bonds	TX	E	RV	62.540	SOLE
06/18/2020	Sacramento City-California	Series 2020	Wastewater Revenue Ref Bonds	CA	T	RV	27.970	SOLE
07/28/2020	Colorado Springs City-Colorado	Series 2020 A-C	Utilities Sys Imp & Ref Rev Bonds	CO	E	RV	337.140	LEAD
08/05/2020	Long Island Power Authority	Series 2020 C	Electric System Gen Rev Bonds	NY	T	RV	22.360	LEAD
08/05/2020	Long Island Power Authority	Series 2020 C	Electric System Gen Rev Bonds	NY	T	RV	91.615	LEAD
08/05/2020	Long Island Power Authority	Series 2020 A	Electric System General Rev Bonds	NY	E	RV	237.975	LEAD
08/05/2020	Long Island Power Authority	Series 2020 B	Electric System Gen Rev Bonds	NY	E	RV	250.000	LEAD RA
08/13/2020	Hartford Co Metropolitan Dt	2020 Series A	Revenue Bonds	CT	E	RV	55.010	LEAD
08/13/2020	Hartford Co Metropolitan Dt	2020 Series B	Refunding Revenue Bonds	CT	T	RV	76.065	LEAD
08/18/2020	Grant Co Public Utility Dt #2	Series 2020-R	Electric System Rev Ref Bonds	WA	E	RV	47.190	LEAD RA
08/18/2020	Grant Co Public Utility Dt #2	Series 2020-S	Electric System Rev Ref Bonds	WA	E	RV	48.045	LEAD RA
09/10/2020	So California Pub Pwr Au (SCPPA)	2020 Series B	Refunding Revenue Bonds	CA	T	RV	70.075	LEAD
09/10/2020	So California Pub Pwr Au (SCPPA)	2020 Series C	Refunding Revenue Bonds	CA	E	RV	88.245	LEAD RA
09/10/2020	So California Pub Pwr Au (SCPPA)	2020 Series A	Refunding Revenue Bonds	CA	E	RV	112.995	LEAD
09/15/2020	Roseville Finance Authority	Series 2020	Electric System Rev Ref Bonds	CA	T	RV	34.770	SOLE
10/01/2020	Lower Colorado River Authority (LCRA)	Series 2020 A	Transmission Contract Ref Bonds	TX	E	RV	145.485	LEAD
10/07/2020	San Francisco City/Co Public Util Comm	2020 Sub Ser FGH	Water Revenue Bonds	CA	T	RV	322.960	LEAD
10/07/2020	San Francisco City/Co Public Util Comm	2020 Sub Ser E	Water Revenue Bonds	CA	T	RV	341.435	LEAD
10/29/2020	Georgia Muni Electric Au (MEAG)	Series 2020 A	General Resolution & Sub Bonds	GA	E	RV	252.810	LEAD
10/29/2020	Nebraska Public Power Dt	2020 Series A	General Revenue Bonds	NE	E	RV	125.825	LEAD RA
11/18/2020	Georgia Muni Electric Au (MEAG)	Series 2020 A	Revenue Bonds	GA	E	RV	77.390	LEAD
12/08/2020	Los Angeles Dept Wtr & Pwr (LADWP)	2020 Series C	Water Sytem Revenue Bonds	CA	E	RV	242.570	LEAD
01/25/2021	Texas Muni Gas Acq & Supply Corp III	Series 2021	Gas Supply Revenue Ref Bonds	TX	E	RV	1,061.060	LEAD
02/24/2021	Nebraska Public Power Dt	2021 Series A & B	General Revenue Bonds	NE	E	RV	127.605	LEAD
04/16/2021	Florida Municipal Pwr Agcy (FMPPA)	Series 2021 A	Revenue Bonds	FL	E	RV	36.720	SOLE
04/16/2021	Florida Municipal Pwr Agcy (FMPPA)	Series 2021 B	Subordinated Revenue Bonds	FL	T	RV	100.495	SOLE
04/20/2021	Southeast Energy Authority	Series 2021 A	Commodity Supply Rev Bonds	AL	E	RV	420.190	LEAD
06/09/2021	Tennessee Energy Acquisition Corp	Series 2021 A	Revenue Bonds	TN	E	RV	28.420	LEAD
06/09/2021	Tennessee Energy Acquisition Corp	Series 2021 A	Revenue Bonds	TN	E	RV	437.990	LEAD RA
06/23/2021	Sacramento MUD (SMUD)	2021 Series I	Electric Revenue Refunding Bonds	CA	E	RV	106.875	LEAD
07/09/2021	Georgia Muni Electric Au (MEAG)	Series 2021 A	Revenue Bonds	GA	E	RV	64.010	LEAD
07/09/2021	Georgia Muni Electric Au (MEAG)	Series 2021 A	Revenue Bonds	GA	E	RV	83.000	LEAD
07/09/2021	Georgia Muni Electric Au (MEAG)	Series 2021 A	Revenue Bonds	GA	E	RV	150.350	LEAD
08/03/2021	Contra Costa Water Dt	Series W	Water Revenue Refunding Bonds	CA	E	RV	90.380	LEAD
08/12/2021	Windy Gap Firm Proj Wtr Act Enterprise	Series 2021	Senior Revenue Bonds	CO	E	RV	169.705	LEAD
09/14/2021	Nebraska Public Power Dt	2021 Ser C&D	General Revenue Bonds	NE	E	RV	137.155	LEAD
09/16/2021	Black Belt Energy Gas Dt	2021 Series B	Gas Project Revenue Bonds	AL	E	RV	25.625	LEAD
09/16/2021	Black Belt Energy Gas Dt	2021 Series B	Gas Project Revenue Bonds	AL	E	RV	697.320	LEAD RA
09/30/2021	Georgia Muni Electric Au (MEAG)	Series 2021 B	Subordinated Bonds	GA	T	RV	125.195	LEAD
09/30/2021	Georgia Muni Electric Au (MEAG)	Series 2021 A	Subordinated Bonds	GA	E	RV	178.720	LEAD
10/19/2021	Ohio Water Development Authority	Series 2021	Water Development Rev Bonds	OH	E	RV	150.000	LEAD
10/21/2021	Bay Area Wtr Supply & Conserv Agcy	Series 2023 A	Refunding Revenue Bonds	CA	E	RV	134.310	LEAD
11/10/2021	NYS Environmental Facs Corp	Series 2021 B	State Revolving Funds Rev Bonds	NY	E	RV	144.540	LEAD
11/15/2021	California Comm Choice Fin Auth	Series 2021 A	Revenue Bonds	CA	E	RV	9.405	SOLE
11/15/2021	California Comm Choice Fin Auth	Series 2021 A	Revenue Bonds	CA	E	RV	593.250	SOLE RA
12/01/2021	Black Belt Energy Gas Dt	Series 2021 C-2	Gas Project Revenue Bonds	AL	E	RV	300.000	LEAD
12/01/2021	Black Belt Energy Gas Dt	2021 Series C-1	Gas Project Revenue Bonds	AL	E	RV	704.660	LEAD
12/07/2021	Vernon City-California	2022 Series A	Electric System Revenue Bonds	CA	E	RV	52.070	SOLE
12/07/2021	Vernon City-California	2021 Series A	Electric System Revenue Bonds	CA	E	RV	183.815	SOLE
02/10/2022	Black Belt Energy Gas Dt	2022 Series A	Gas Project Revenue Bonds	AL	E	RV	492.545	LEAD RA
02/24/2022	Black Belt Energy Gas Dt	2022 Series B-2	Gas Project Revenue Bonds	AL	E	RV	133.000	LEAD RA
02/24/2022	Black Belt Energy Gas Dt	2022 Series B-1	Gas Project Revenue Bonds	AL	E	RV	390.370	LEAD RA
02/24/2022	District of Columbia Wtr & Swr Au	Series 2022B	Public Utility Sub Lien Rev Bonds	DC	E	RV	79.585	LEAD
02/24/2022	District of Columbia Wtr & Swr Au	Series 2022D	Pub Utility Sub Lien & Ref Bonds	DC	T	RV	148.925	LEAD
02/24/2022	District of Columbia Wtr & Swr Au	Series 2022C	Pub Utility Sub Lien & Ref Bonds	DC	E	RV	206.730	LEAD
03/29/2022	Los Angeles Dept Wtr & Pwr (LADWP)	2022 Series B	Power System Revenue Bonds	CA	E	RV	360.000	LEAD
04/05/2022	NYS Power Authority	Series 2022A	Revenue Bonds	NY	E	RV	608.310	LEAD

Appendix D. Maturity by Maturity Analysis

Notes: Rates as of 04/06/2022; Assumes 08/01/2022 closing; COI equal to 0.5%.; 10-year par call for taxable refunding bonds; 4% tax-exempt refunding bonds with a 10-year par call; tender price +2pt on BVALs , assuming 100% participation. Breakeven represents the theoretical increase in interest rates on a current refunding that would lead GLWA to be PV neutral between a refunding today and one when the call option will be exercised assuming no change in rates. Subtotals include all candidates that generate positive PV savings.

Water

CALLABLE						TAXABLE ADVANCE REFUNDING (CALLABLE)				TENDER				CURRENT REFUNDING	
Lien	Series	Maturity	Par	Coupon	Call Date	PV Savings (\$)	PV Savings %	Efficiency %	B/E to Current (bp)	PV Savings (\$)	PV Savings %	Efficiency %	B/E to Current (bp)	PV Savings (\$)	PV Savings %
Senior	2014D1_S	7/1/2035	20,020	5.000 %	7/1/2024	(55)	(0.3)%	n/a	n/a	2,044	10.2 %	71.6 %	75	3,269	16.3 %
Senior	2014D1_S	7/1/2037	24,170	5.000 %	7/1/2024	(187)	(0.8)%	n/a	n/a	2,710	11.2 %	74.7 %	68	4,050	16.8 %
Senior	2014D2_S	7/1/2025	29,525	5.000 %	7/1/2024	(151)	(0.5)%	n/a	n/a	(370)	(1.3)%	n/a	n/a	694	2.3 %
Senior	2014D2_S	7/1/2026	50,370	5.000 %	7/1/2024	186	0.4 %	17.2 %	228	381	0.8 %	18.4 %	208	2,357	4.7 %
Senior	2014D2_S	7/1/2027	34,340	5.000 %	7/1/2024	506	1.5 %	44.0 %	187	907	2.6 %	43.2 %	146	2,297	6.7 %
Senior	2014D2_S	7/1/2028	22,690	5.000 %	7/1/2024	556	2.4 %	55.4 %	166	1,021	4.5 %	56.2 %	111	1,935	8.5 %
Senior	2014D4_S	7/1/2029	47,265	5.000 %	7/1/2024	1,151	2.4 %	51.4 %	173	2,427	5.1 %	53.9 %	115	4,842	10.2 %
Senior	2014D4_S	7/1/2030	54,305	5.000 %	7/1/2024	1,739	3.2 %	57.6 %	164	3,631	6.7 %	61.1 %	100	6,480	11.9 %
Senior	2014D4_S	7/1/2031	28,515	5.000 %	7/1/2024	826	2.9 %	52.3 %	167	2,218	7.8 %	63.8 %	89	3,746	13.1 %
Senior	2014D4_S	7/1/2032	18,950	5.000 %	7/1/2024	441	2.3 %	44.4 %	173	1,653	8.7 %	65.7 %	82	2,703	14.3 %
Senior	2014D4_S	7/1/2034	60,325	5.000 %	7/1/2024	270	0.4 %	11.4 %	186	5,541	9.2 %	65.8 %	85	9,742	16.1 %
Senior	2015D1_S	7/1/2027	3,175	5.000 %	7/1/2025	(12)	(0.4)%	n/a	n/a	(22)	(0.7)%	n/a	n/a	145	4.6 %
Senior	2015D1_S	7/1/2028	8,250	5.000 %	7/1/2025	50	0.6 %	20.3 %	217	186	2.3 %	38.9 %	158	539	6.5 %
Senior	2015D1_S	7/1/2029	9,270	5.000 %	7/1/2025	52	0.6 %	16.5 %	216	235	2.5 %	34.2 %	162	771	8.3 %
Senior	2015D1_S	7/1/2030	5,085	5.000 %	7/1/2025	67	1.3 %	31.0 %	196	194	3.8 %	43.0 %	141	508	10.0 %
Senior	2015D1_S	7/1/2031	5,660	5.000 %	7/1/2025	56	1.0 %	22.6 %	203	283	5.0 %	48.7 %	129	658	11.6 %
Senior	2015D1_S	7/1/2032	5,985	5.000 %	7/1/2025	23	0.4 %	9.4 %	206	358	6.0 %	52.5 %	115	765	12.8 %
Senior	2015D1_S	7/1/2033	6,405	5.000 %	7/1/2025	(29)	(0.5)%	n/a	n/a	399	6.2 %	52.8 %	115	888	13.9 %
Senior	2015D1_S	7/1/2034	18,915	5.000 %	7/1/2025	(294)	(1.6)%	n/a	n/a	1,262	6.7 %	54.7 %	112	2,810	14.9 %
Senior	2015D1_S	7/1/2035	6,530	5.000 %	7/1/2025	(150)	(2.3)%	n/a	n/a	449	6.9 %	54.8 %	110	1,024	15.7 %
Second	2014D6_J	7/1/2025	2,870	5.000 %	7/1/2024	(25)	(0.9)%	n/a	n/a	(104)	(3.6)%	n/a	n/a	65	2.2 %
Second	2014D6_J	7/1/2026	1,895	5.000 %	7/1/2024	(2)	(0.1)%	n/a	n/a	(32)	(1.7)%	n/a	n/a	85	4.5 %
Second	2014D6_J	7/1/2027	1,930	5.000 %	7/1/2024	17	0.9 %	30.0 %	197	7	0.4 %	6.1 %	217	123	6.4 %
Second	2014D6_J	7/1/2032	2,210	5.000 %	7/1/2024	28	1.3 %	28.6 %	177	145	6.6 %	52.6 %	102	298	13.5 %
Second	2014D6_J	7/1/2033	455	5.000 %	7/1/2024	2	0.3 %	9.3 %	184	32	7.0 %	54.5 %	100	66	14.4 %
Second	2014D6_J	7/1/2034	1,215	5.000 %	7/1/2024	(10)	(0.8)%	n/a	n/a	91	7.5 %	56.7 %	95	185	15.2 %
Second	2014D6_J	7/1/2036	33,115	5.000 %	7/1/2024	(797)	(2.4)%	n/a	n/a	2,314	7.0 %	50.3 %	105	5,171	15.6 %
Second	2015D2_J	7/1/2034	37,235	5.000 %	7/1/2025	(1,040)	(2.8)%	n/a	n/a	2,406	6.5 %	56.2 %	104	5,222	14.0 %

Sewer

CALLABLE						TAXABLE ADVANCE REFUNDING (CALLABLE)				TENDER				CURRENT REFUNDING	
Lien	Series	Maturity	Par	Coupon	Call Date	PV Savings (\$)	PV Savings %	Efficiency %	B/E to Current (bp)	PV Savings (\$)	PV Savings %	Efficiency %	B/E to Current (bp)	PV Savings (\$)	PV Savings %
Senior	2012A	7/1/2023	17,985	5.000 %	7/1/2022									322	1.8 %
Senior	2014C3_S	7/1/2025	47,045	5.000 %	7/1/2024	(240)	(0.5)%	n/a	n/a	(590)	(1.3)%	n/a	n/a	1,106	2.3 %
Senior	2014C3_S	7/1/2026	40,375	5.000 %	7/1/2024	149	0.4 %	17.2 %	228	305	0.8 %	18.4 %	208	1,889	4.7 %
Senior	2014C3_S	7/1/2027	45,895	5.000 %	7/1/2024	677	1.5 %	44.0 %	187	1,213	2.6 %	43.2 %	146	3,070	6.7 %
Senior	2014C3_S	7/1/2028	24,075	5.000 %	7/1/2024	590	2.4 %	55.4 %	166	1,083	4.5 %	56.2 %	111	2,053	8.5 %
Senior	2014C3_S	7/1/2029	15,770	5.000 %	7/1/2024	384	2.4 %	51.4 %	173	925	5.9 %	61.5 %	99	1,616	10.2 %
Senior	2014C3_S	7/1/2030	25,285	5.000 %	7/1/2024	810	3.2 %	57.6 %	164	1,806	7.1 %	65.3 %	91	3,017	11.9 %
Senior	2014C3_S	7/1/2031	31,945	5.000 %	7/1/2024	926	2.9 %	52.3 %	167	2,653	8.3 %	68.1 %	81	4,197	13.1 %
Senior	2014C3_S	7/1/2032	50,515	5.000 %	7/1/2024	1,175	2.3 %	44.4 %	173	4,693	9.3 %	70.0 %	74	7,206	14.3 %
Senior	2014C3_S	7/1/2033	22,665	5.000 %	7/1/2024	341	1.5 %	32.0 %	179	2,161	9.5 %	69.9 %	77	3,465	15.3 %
Senior	2014C6_S	7/1/2032	9,100	5.000 %	7/1/2024	212	2.3 %	44.4 %	173	808	8.9 %	66.9 %	80	1,298	14.3 %
Senior	2014C6_S	7/1/2033	79,800	5.000 %	7/1/2024	1,201	1.5 %	32.0 %	179	7,367	9.2 %	67.7 %	81	12,201	15.3 %
Second	2014C7_J	7/1/2025	5,025	5.000 %	7/1/2024	(43)	(0.9)%	n/a	n/a	(74)	(1.5)%	n/a	n/a	113	2.2 %
Second	2014C7_J	7/1/2026	4,945	5.000 %	7/1/2024	(5)	(0.1)%	n/a	n/a	22	0.4 %	11.1 %	215	221	4.5 %
Second	2014C7_J	7/1/2027	5,260	5.000 %	7/1/2024	47	0.9 %	30.0 %	197	117	2.2 %	38.2 %	151	336	6.4 %
Second	2014C7_J	7/1/2028	5,480	5.000 %	7/1/2024	97	1.8 %	44.6 %	175	218	4.0 %	52.3 %	115	446	8.1 %
Second	2014C7_J	7/1/2029	5,460	5.000 %	7/1/2024	90	1.6 %	39.5 %	180	287	5.3 %	58.1 %	102	533	9.8 %
Second	2014C7_J	7/1/2030	275	5.000 %	7/1/2024	6	2.3 %	47.2 %	170	18	6.4 %	62.2 %	94	31	11.3 %
Second	2014C7_J	7/1/2031	280	5.000 %	7/1/2024	5	1.9 %	40.1 %	172	21	7.5 %	65.3 %	83	35	12.5 %
Second	2014C7_J	7/1/2032	14,450	5.000 %	7/1/2024	181	1.3 %	28.6 %	177	1,217	8.4 %	67.3 %	76	1,952	13.5 %
Second	2014C7_J	7/1/2034	1,595	5.000 %	7/1/2024	(13)	(0.8)%	n/a	n/a	142	8.9 %	67.7 %	78	243	15.2 %
Second	2014C7_J	7/1/2035	910	5.000 %	7/1/2024	(14)	(1.6)%	n/a	n/a	85	9.3 %	69.4 %	74	140	15.4 %
Second	2014C7_J	7/1/2036	385	5.000 %	7/1/2024	(9)	(2.4)%	n/a	n/a	38	9.9 %	71.1 %	70	60	15.6 %
Second	2015C_JR	7/1/2026	3,620	5.000 %	7/1/2025	(70)	(1.9)%	n/a	n/a	(6)	(0.2)%	n/a	n/a	80	2.2 %
Second	2015C_JR	7/1/2027	7,065	5.000 %	7/1/2025	(67)	(0.9)%	n/a	n/a	115	1.6 %	44.8 %	150	309	4.4 %
Second	2015C_JR	7/1/2028	7,415	5.000 %	7/1/2025	(6)	(0.1)%	n/a	n/a	252	3.4 %	61.7 %	106	462	6.2 %
Second	2015C_JR	7/1/2032	5,955	5.000 %	7/1/2025	(41)	(0.7)%	n/a	n/a	473	7.9 %	74.0 %	72	722	12.1 %
Second	2015C_JR	7/1/2033	21,165	5.000 %	7/1/2025	(343)	(1.6)%	n/a	n/a	1,725	8.2 %	73.2 %	76	2,777	13.1 %
Second	2015C_JR	7/1/2034	74,125	5.000 %	7/1/2025	(2,071)	(2.8)%	n/a	n/a	6,228	8.4 %	73.0 %	78	10,395	14.0 %
Second	2015C_JR	7/1/2035	72,815	5.000 %	7/1/2025	(2,632)	(3.6)%	n/a	n/a	6,304	8.7 %	73.1 %	78	10,756	14.8 %
Second	2015C_JR	7/1/2035	5,000	5.000 %	7/1/2025	(181)	(3.6)%	n/a	n/a	326	6.5 %	55.1 %	104	739	14.8 %

Appendix E. Insurance Analysis

Date (07/01)	Senior Lien Insurance Savings				Second Lien: Insurance Savings			
	Net Yield Difference		% of Par		Net Yield Difference		% of Par	
	Maturity	Call	Maturity	Call	Maturity	Call	Maturity	Call
2023	(0.13)		(0.12)		(0.18)		(0.17)	
2024	(0.01)		(0.03)		(0.04)		(0.08)	
2025	0.02		0.06		0.00		0.01	
2026	0.04		0.15		0.02		0.09	
2027	0.05		0.24		0.04		0.18	
2028	0.06		0.33		0.04		0.26	
2029	0.06		0.41		0.05		0.34	
2030	0.06		0.49		0.05		0.41	
2031	0.07		0.57		0.06		0.49	
2032	0.07		0.64		0.06		0.56	
2033	0.06	0.07	0.63	0.63	0.05	0.06	0.54	0.54
2034	0.06	0.07	0.61	0.61	0.05	0.06	0.53	0.53
2035	0.05	0.06	0.60	0.60	0.05	0.06	0.51	0.51
2036	0.05	0.06	0.59	0.59	0.04	0.05	0.49	0.49
2037	0.05	0.06	0.57	0.57	0.04	0.05	0.48	0.48
2038	0.04	0.06	0.56	0.56	0.04	0.05	0.46	0.46
2039	0.04	0.06	0.55	0.55	0.03	0.05	0.45	0.45
2040	0.04	0.06	0.54	0.54	0.03	0.05	0.44	0.44
2041	0.04	0.06	0.53	0.53	0.03	0.05	0.42	0.42
2042	0.03	0.06	0.52	0.52	0.03	0.05	0.41	0.41
2043	0.03	0.06	0.50	0.50	0.03	0.04	0.39	0.39
2044	0.03	0.05	0.49	0.49	0.02	0.04	0.38	0.38
2045	0.03	0.05	0.48	0.48	0.02	0.04	0.36	0.36
2046	0.03	0.05	0.47	0.47	0.02	0.04	0.35	0.35
2047	0.03	0.05	0.46	0.46	0.02	0.04	0.34	0.34
2048	0.03	0.05	0.44	0.44	0.02	0.04	0.32	0.32
2049	0.02	0.05	0.43	0.43	0.02	0.03	0.31	0.31
2050	0.02	0.05	0.42	0.42	0.02	0.03	0.30	0.30
2051	0.02	0.05	0.41	0.41	0.02	0.03	0.28	0.28
2052	0.02	0.04	0.40	0.40	0.01	0.03	0.27	0.27



GLWA
Great Lakes Water Authority

Presentation to the Great Lakes Water Authority

Regarding Potential 2022 Bond Transactions

April 22, 2022

Important Disclosures Regarding Goldman Sachs as a Potential Underwriter for the Great Lakes Water Authority

Goldman Sachs Is Not Acting as a Municipal Advisor

Goldman Sachs & Co. LLC ("Goldman Sachs") is providing the information contained in this document in reliance on the exemption from the definition of municipal advisor in Section 15Ba1-1(d)(3)(vi) of the Securities Exchange Act of 1934, as amended (the "Act"). The information contained herein is for discussion purposes only in anticipation of serving as underwriter to the Great Lakes Water Authority (the "Issuer"). The primary role of Goldman Sachs, as an underwriter, is to purchase securities, for resale to investors, in an arm's-length commercial transaction between the Issuer and Goldman Sachs and Goldman Sachs will act in its own interest and has financial and other interests that differ from those of the Issuer. Goldman Sachs is not acting as a municipal advisor, financial advisor or fiduciary to the Issuer or any other person or entity and does not owe a fiduciary duty to the Issuer or any other person or entity with respect to the information contained herein. Prior to taking any actions contemplated herein, the Issuer should consult with its own financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent it deems appropriate. If the Issuer would like a municipal advisor in this transaction that has legal fiduciary duties to the Issuer, then the Issuer is free to engage a municipal advisor to serve in that capacity. This material is not a commitment by the Issuer or Goldman Sachs to undertake any transaction contemplated herein.

Investment Banking Division Communication

This communication, and any accompanying information, has been prepared by the Investment Banking Division of Goldman Sachs for your information only and is not a product of the research departments of Goldman Sachs. All materials, including proposed terms and conditions, are indicative and for discussion purposes only. Finalized terms and conditions are subject to further discussion and negotiation. Any opinions expressed are our present opinions only and Goldman Sachs is under no obligation to update those opinions. All information, including any price indications provided is supplied in good faith based on information which we believe, but do not guarantee, to be accurate or complete; we are not responsible for errors or omissions contained therein. Certain transactions, including those involving derivatives, give rise to substantial risk and are not suitable for all investors. Goldman Sachs does not provide accounting, tax or legal advice; however, you should be aware that any proposed indicative transaction could have accounting, tax, legal or other implications that should be discussed with your advisors and /or counsel. Certain provided information may be based on Goldman Sachs' own good faith understanding of the application of certain accounting rules as they apply to qualifying hedges and non-hedging derivatives. Goldman Sachs makes no representation as to whether its understanding of certain accounting rules is correct and, by providing such information, is not providing you with any accounting advice, including, without limitation, any advice regarding the appropriateness of hedge accounting for a particular derivative transaction or the potential income statement impact of such derivative transaction or the analyzed portfolio of transactions. In addition, we mutually agree that, subject to applicable law, you may disclose any and all aspects of any potential transaction or structure described herein that are necessary to support any U.S. federal income tax benefits, without Goldman Sachs imposing any limitation of any kind. We are under no obligation to extend, renew or otherwise restructure any proposed indicative transaction. All information provided was supplied in good faith based on information which we believe, but do not guarantee, to be accurate or complete; however, we are not responsible for errors or omissions that may occur. Further information regarding this material may be obtained upon request.

General Statement of Distribution Principles

Goldman Sachs is committed to managing securities offerings such that our clients are treated fairly and to conducting our business with integrity and according to proper standards. Our policy is that the pricing of book-built securities offerings and allocations to investors should be transparent to the issuer or seller(s), consistent with our responsibilities to our investing clients. We will endeavor to make available to the issuer or seller(s) relevant information to make its own, independent decision with respect to the price, structure, timing and other terms of the offering. The investors to whom we allocate securities may also be clients of Goldman Sachs or have other relationships with the firm. To the extent that actual or potential conflicts arise between the interests of such investors and those of the issuer or seller(s), we will endeavor in good faith to manage such conflicts fairly. We will not make allocations as an inducement for the payment of excessive compensation in respect of unrelated services, in consideration of the past or future award of corporate finance business, or expressly or implicitly conditional upon the receipt of other orders for investments or the purchase of other services. Where we underwrite an offering or otherwise guarantee a price in connection with an offering, we will take into account our prudential responsibilities to manage our risk properly when determining allocations and their manner and timing. As part of the bookbuilding process, Goldman Sachs will engage in an ongoing dialogue with both the issuer or seller(s) and investors to determine the appropriate final price of the offering. This dialogue typically involves various discussions with, and communications to, Goldman Sachs' clients regarding the status of the bookbuilding, including overall demand and price sensitivity of that demand. If you have any questions regarding aspects of the bookbuilding or allocation process, please do not hesitate to contact our Syndicate Desk.

The Goldman Sachs Team Has a Long-Standing Commitment to GLWA and Highly Relevant Experience



Freda Wang



Mark Somers



Matthew Webb



Joanne Chang



Ed Droesch



Stacy Lingamfelter



Arthur Miller

	Freda Wang	Mark Somers	Matthew Webb	Joanne Chang	Ed Droesch	Stacy Lingamfelter	Arthur Miller
Title	Managing Director	Vice President	Associate	Analyst	Managing Director; Co-Head of Municipal Syndicate	Vice President	Managing Director
Role	Team Leader; Day-to-Day Financing	Co-Team Leader; Day-to-Day Financing	Day-to-Day Analytics; Execution	Day-to-Day Analytics; Execution	Syndicate; Underwriting	Credit Expertise	Tax and Quantitative Expertise
Years of Experience	25Y+	13Y+	4Y+	1Y+	30Y+	17Y+	35Y+
Prior GLWA Experience	✓	✓			✓	✓	✓
Utility Experience	✓	✓	✓	✓	✓	✓	✓
Tender & Exchange	✓	✓		✓	✓		✓

Dedicated Team

- Highly experienced team with decades of experience working with GLWA and its peers across the country
 - Played an active role on GLWA’s inaugural financing in 2016
- Significant experience structuring and marketing relevant financings, including recent tender and exchange for DC Water
- Deep bench of technical experts in tax, structuring, credit and ESG

Supported by a Strong Firm

- 60+ years serving as underwriter to public sector issuers
- Strong capital position allows us the flexibility to support our clients in a variety of ways
 - Since 2016 we have underwritten \$7 billion of unsold balances in negotiated municipal bond transactions
- Commitment to Michigan with local presence, investing, philanthropy and 10,000 Small Businesses

Goldman Sachs Has Broad Experience in the Sectors Relevant to GLWA

National Negotiated Transactions >=\$100 mm (2021-2022 YTD)				
Rank	Firm	Par (\$mm)	Mkt. Share	Num. of Issues
1	BoA	\$ 47,637	15	269
2	Citi	37,933	12	171
3	Goldman Sachs	31,423	9.9	159
4	JP Morgan	28,058	8.9	149
5	Morgan Stanley	24,014	7.6	126
6	RBC Capital Markets	21,915	6.9	141
7	Jefferies	19,942	6.3	81
8	Barclays	17,600	5.6	104
9	Wells Fargo	16,061	5.1	82
10	Raymond James	10,567	3.3	60

Michigan Transactions >=\$100 mm (2021-2022 YTD)				
Rank	Firm	Par (\$mm)	Mkt. Share	Num. of Issues
1	BoA	\$ 2,153	31.6	14.0
2	Barclays	1,988.9	29.1	5.0
3	Citi	880.7	12.9	4.0
4	Goldman Sachs	745.1	10.9	5.0
5	Siebert	357.1	5.2	3.0
6	Morgan Stanley	250.0	3.7	1.0
7	Loop	200.0	2.9	2.0
8	JP Morgan	149.5	2.2	1.0
9*	Truist Financial	50.0	.7	1.0
9*	TD Securities	50.0	.7	1.0

Midwest Utility Transactions >=\$100 mm (2021-2022 YTD)				
Rank	Firm	Par (\$mm)	Mkt. Share	Num. of Issues
1	Citi	1,740.6	29.0	9.0
2	BoA	1,079.9	18.0	8.0
3	RBC Capital Markets	902.2	15.0	4.0
4	JP Morgan	500.0	8.3	3.0
5	Morgan Stanley	498.0	8.3	2.0
6	Goldman Sachs	330.4	5.5	3.0
7	Wells Fargo	219.5	3.7	1.0
8	Colliers Securities	180.0	3.0	1.0
9	Huntington	125.0	2.1	1.0
10	Jefferies	120.3	2.0	2.0

Michigan Experience

GLWA <small>Great Lakes Water Authority</small>		<i>Michigan State Building Authority</i>
University of Michigan		<i>Trinity Health</i>
City of Detroit		<i>Lansing Board of Power and Light</i>
Wayne County, Michigan		<i>Michigan State University</i>

Water/Utility Experience

DC Water <small>water is life®</small>		<i>NY State Environmental Facilities Corporation</i>
Philly Water <small>PHILADELPHIA WATER DEPARTMENT</small>		<i>Ohio Water Development Authority</i>
LA Department of Water and Power <small>LA DWP</small>		<i>JEA</i> <small>Building Community®</small>
		<i>City of Chicago</i>

Goldman Sachs is the Market Leader in Buybacks

Goldman Sachs has served as dealer manager on 9 of the 17 tenders and exchanges conducted since 2021, leading many of the largest and most innovative transactions

The majority of issuers that have pursued tenders and exchanges are large and sophisticated revenue credits that share similarities with GLWA

Tender and Exchange League Table

#	Dealer Manager	Number of Deals	Lead Dealer Manager	Secondary Dealer Manager	Full Credit to Lead (\$mm)	Average Deal Size (\$mm)	Average Participation
1	GS	9	7	2	\$ 7,319	\$ 1,046	44%
2	BofA	5	4	1	3,301	825	35%
3	CITI	1	1	0	175	175	21%
4	Wells	2	2	0	725	362	8%
5	JPM	5	2	3	990	495	58%
6	UBS	1	1	0	85	85	64%
7	Loop	1	0	1	-	-	-
7	Siebert	1	0	1	-	-	-

Precedent Transactions

Issuer	Settlement Date	Par Targeted (\$mm)	Par Tendered (\$mm)	Par Exchanged (\$mm)	% of Par Participating	Opportunistic Tender/Exchange
Foothill/Eastern TCA	2/9/2021	\$692	\$30	\$505	77%	
City of LA	3/4/2021	121	N/A	67	56%	
Denver RTD	3/11/2021	475	89	N/A	19%	
SD County Trans	3/25/2021	140	18	-	13%	
OK Muni Power	7/1/2021	256	68	13	31%	
WA Conv Ctr	8/25/2021	914	11	354	40%	✓
KY Transportation	10/7/2021	175	<1m	36	21%	
Riverside Co Trans	10/14/2021	124	36	12	39%	
DASNY / SUNY	12/2/2021	223	96	10	48%	
Wise Health	12/15/2021	85	24	31	64%	✓
MARTA	12/16/2021	352	60	35	27%	
Oregon Health & Science University	12/21/2021	75	63	12	100%	
City of Chicago	12/22/2021	2,895	390	211	21%	✓
San Joaquin TCA	12/22/2021	988	87	428	52%	
Louisiana State Bond Commission	1/27/2022	585	22	-	4%	
Santee Cooper	2/23/2022	2,697	943	262	45%	✓
DC Water	3/23/2022	425	105	4	26%	✓

Representing transactions closed from January 1, 2021-April 14, 2022. Highlighted transactions in "Precedent Transactions" denotes where GS served as Dealer Manager.

District of Columbia Water and Sewer Authority ("DC Water")

\$435,240,000 Public Utility Subordinate Lien Revenue, Series 2022BCD

Transaction Highlights

In March 2022, DC Water **captured over \$25mm in PV savings (14% of refunded par)** via a taxable advance refunding and tax-exempt tender and exchange of outstanding Bonds

- **Bespoke Complex Finance Plan:** Goldman Sachs worked with DC Water and its Financial Advisors to craft and execute a plan of finance to achieve refinancing savings and fund new money needs, including a \$100mm **Green Bond** offering to fund the Clean Rivers program
 - Goldman Sachs developed a tailored financing strategy that allowed DC Water to evaluate and select refunding candidates based on its internal savings thresholds and the relative economics between the taxable refunding and tender/exchange offer
- **Tender and Exchange:** \$425 million of outstanding bonds were targeted for a tender/exchange, of which \$109 million was accepted (26% participation). Over \$104mm of bonds were tendered and \$4.4mm was exchanged, which allowed DC Water to refinance these bonds on a tax-exempt basis
 - The tender/exchange offer was open to and saw participation from both institutional and retail investors

Key Terms

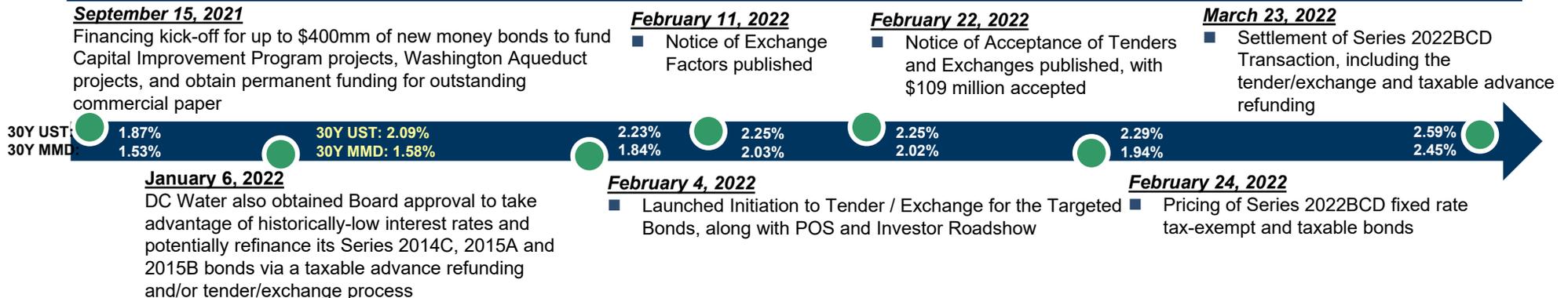
Issuer	 District of Columbia Water and Sewer Authority			
GS Role	Sole Dealer-Manager for the Tender/Exchange Offer and Bookrunning Senior Manager for the Bond Offering			
Pricing Date	February 24, 2022			
Rating (M/S/F)	Aa2 / AA+ / AA			
Series	Series 2022B (Green Bonds)	Series 2022C-1	Series 2022C-2 ¹	Series 2022D
Tax Status	Tax-Exempt			Taxable
Total Par	\$79,585,000	\$206,730,000	\$4,418,000	\$148,925,000
Interest Payment	Semi-annually on April 1 and October 1, commencing October 1, 2022			
Final Maturity	10/01/2047	10/01/2051	10/01/2040	10/01/2044
Optional Redemption	Beginning 04/01/2032 @ Par			Beginning 04/01/2032 @ Par with MWC prior to 04/01/2032

¹ For exchange only.

Key Results:

- Tender & Exchange increased savings by \$6.7mm compared to a taxable refunding of the targeted bonds
- Russia invaded Ukraine the evening before pricing, leading to increased volatility on the day of pricing, Goldman Sachs was able to successfully navigate the market to build a robust order book for the transaction – reflecting significant oversubscription by a wide variety of investors including SMAs, bond funds, insurance companies, and hedge funds
- DC Water achieved over \$33.5 million in gross cashflow savings (~\$25.5 million present value, or 14.4% of refunded par)

Transaction Timeline



Our Approach to Crafting a Plan of Finance Begins with Understanding GLWA's Goals

GLWA Goals

- Remain at or below the 4% Promise
- Achieve AA category ratings
- Generate refinancing savings
- Develop an ESG strategy
- Manage other balance sheet risks (e.g. 2006D)
- Reduce leverage, particularly for sewer
- Limit execution risk
- Expand investor base

Financing Considerations

- Interest rates have increased
- The yield curve has flattened
- Market is volatile
- Inflation may pressure operating and capital costs
- Annual debt service declines significantly in FY37 and FY38 for water and sewer, respectively
- A taxable advance refunding is not attractive in the current market

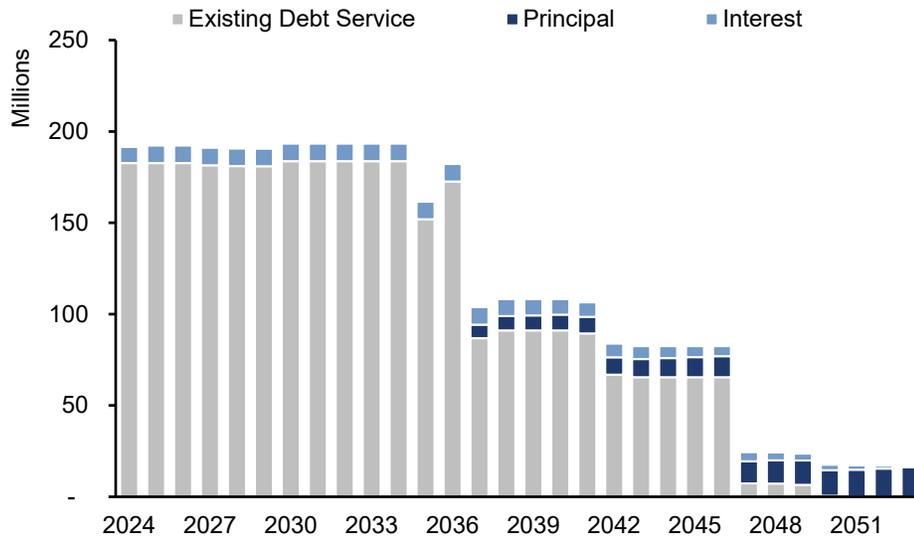
GS Recommendation

- Aggressively advocate for credit upgrades now and in the future
- Structure new money after the decline in debt service in ~15 years
- Pursue a tender & exchange to generate refinancing savings
- Consider other opportunistic strategies to reduce costs (e.g. taxable to tax-exempt flip, lower coupons)
- Maintain flexibility to accommodate quickly changing markets
- Leverage GLWA's ESG strategy in the marketing process

New Money Approach

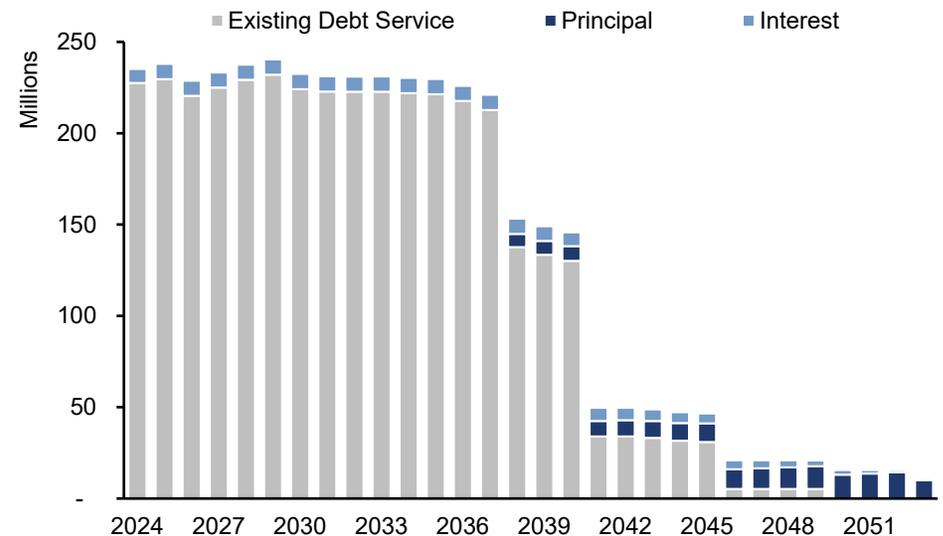
Provide Operating Cushion and Take Advantage of the Flat Yield Curve

Water Pro-Forma Debt Service



	Water Senior	Water Second	Total
Par	\$133,955,000	\$57,910,000	\$191,865,000
Project Fund	\$140,000,000	\$60,000,000	\$200,000,000

Sewer Pro-Forma Debt Service



	Sewer Senior	Sewer Second	Total
Par	\$52,825,000	\$114,120,000	\$166,945,000
Project Fund	\$55,000,000	\$120,000,000	\$175,000,000

Deferred Amort vs. 30-Year Level Debt Service

	Deferred Amort	30Y Level
All-in TIC	4.10%	3.93%
Average Life (yr)	23.07	18.97
Annual D/S before FY38	\$ 9,593,250	\$ 12,238,500
Annual D/S on and after FY38	\$ 17,018,250	\$ 12,239,250
PV (@4%)	\$ 218,849,130	\$ 210,328,638

Deferred Amort vs. 30-Year Level Debt Service

	Deferred Amort	30Y Level
All-in TIC	4.13%	3.95%
Average Life (Yr)	23.25	18.74
Annual D/S before FY37	\$ 8,347,250	\$ 10,791,000
Annual D/S on and after FY37	\$ 15,622,250	\$ 10,795,750
PV (@4%)	\$ 190,576,127	\$ 184,479,528

(1) Rates as of April 6, 2022; Assumes August 1, 2022 closing; COI equal to 0.5%

Refunding Approach

Monitor Market Conditions and Use All Available Tools

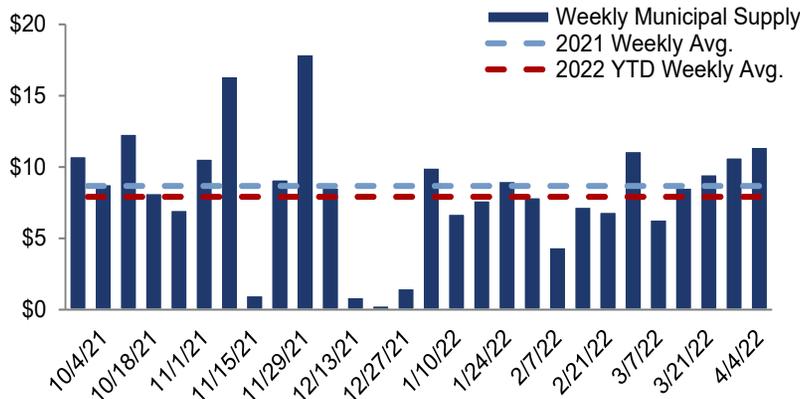
Credit	Outstanding Debt				Taxable AR (Callable)			Tender		
	Series	Lien	Callable	Call	PV Savings		Efficiency	PV Savings		Efficiency
			(\$000s)	Date	(\$000s)	%	%	(\$000s)	%	%
Sewage	2014C3	Senior	\$ 303,570	7/1/2024	\$ 5,051	1.97%	45%	\$ 14,839	5.8%	61%
	2014C6	Senior	88,900	7/1/2024	1,413	1.59%	33%	8,175	9.2%	68%
	2014C7	Junior	44,065	7/1/2024	47	1.02%	34%	2,164	5.5%	59%
	2015C	Junior	197,160	7/1/2025	0	0.00%	n/a	15,424	8.0%	72%
	Total			\$ 651,680		\$ 6,510	1.73%		\$ 40,602	7.0%
Water	2014D1	Senior	\$ 44,190	7/1/2024	0	0.00%	n/a	\$ 4,754	10.8%	73%
	2014D2	Senior	136,925	7/1/2024	1,248	1.16%	39%	2,309	2.2%	39%
	2014D4	Senior	209,360	7/1/2024	4,426	2.11%	43%	15,468	7.4%	48%
	2014D6	Junior	43,690	7/1/2024	47	1.02%	27%	2,590	6.7%	50%
	2015D1	Senior	69,275	7/1/2025	249	0.73%	19%	3,366	5.1%	44%
	2015D2	Junior	37,235	7/1/2025	0	0.00%	n/a	2,406	6.5%	56%
Total			\$ 540,675		\$ 5,970	1.68%		\$ 30,893	5.7%	



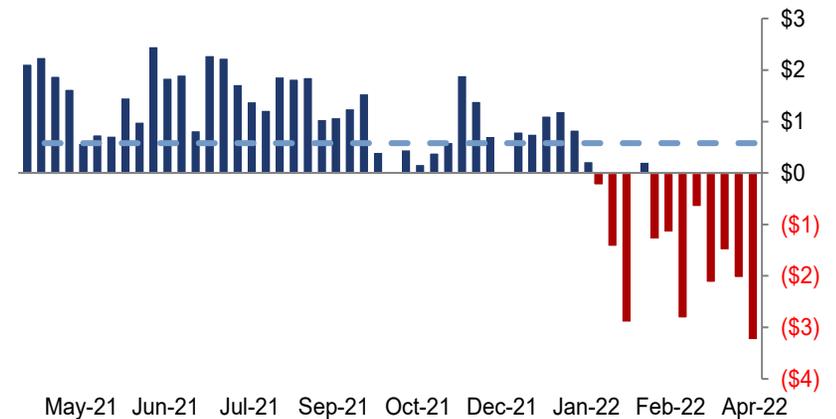
- Current refund the Sewer 2012A Senior Bonds callable July 1, 2022 even though savings are modest (currently 1.8%) as it becomes a “wasting asset”
- **A tender and exchange is an attractive alternative to a taxable advance refunding**
 - Generally provides PV savings 5-8% of refunded par higher than a taxable advance refunding
 - GLWA can dictate its desired results by setting the price and determining which bonds to accept
 - Mechanics have been streamlined, adding minimal additional issuer staff time beyond typical bond offering
- We recommend targeting GLWA’s bonds with call dates in 2024, 2025 and potentially 2026

Market Technicals and Global Events Create Volatility but Issuers can Achieve Successful Financings by Remaining Nimble

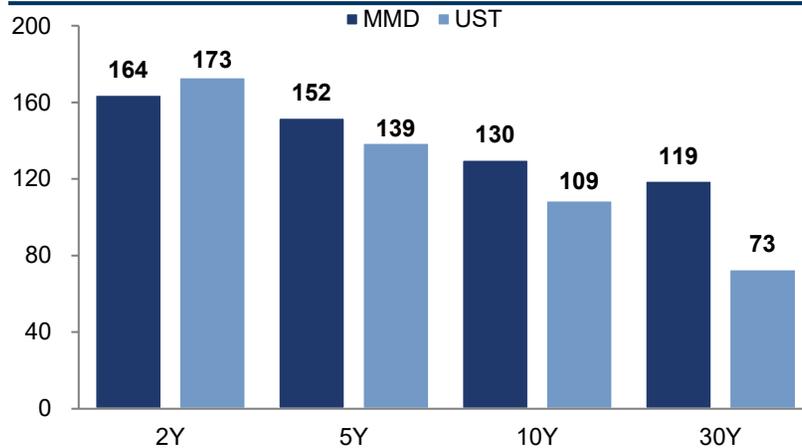
2022 Supply is Approaching 2021 Issuance Levels (\$bn)



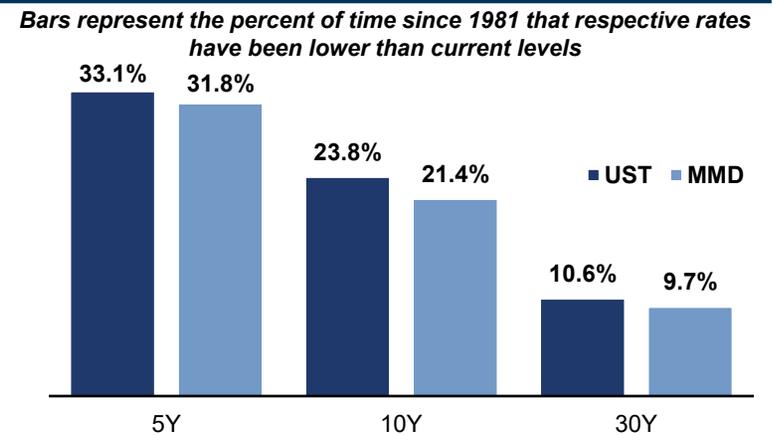
Outflows in 11 Out of 12 Weeks after 45 Straight Weeks of Inflows



YTD Change in MMD & UST (bps)



Rates are Still Historically Low but Short-Term UST Pressure Persists



Source: Lipper Funds, Refinitiv, GS Internal

Note: Municipal supply as of the week ending April 8, 2022 and Fund Flows data as of April 6, 2022. Taxable supply percentages do not include corporate CUSIPs.

Positioning the Credit Will Be a Key Element of the Marketing Plan

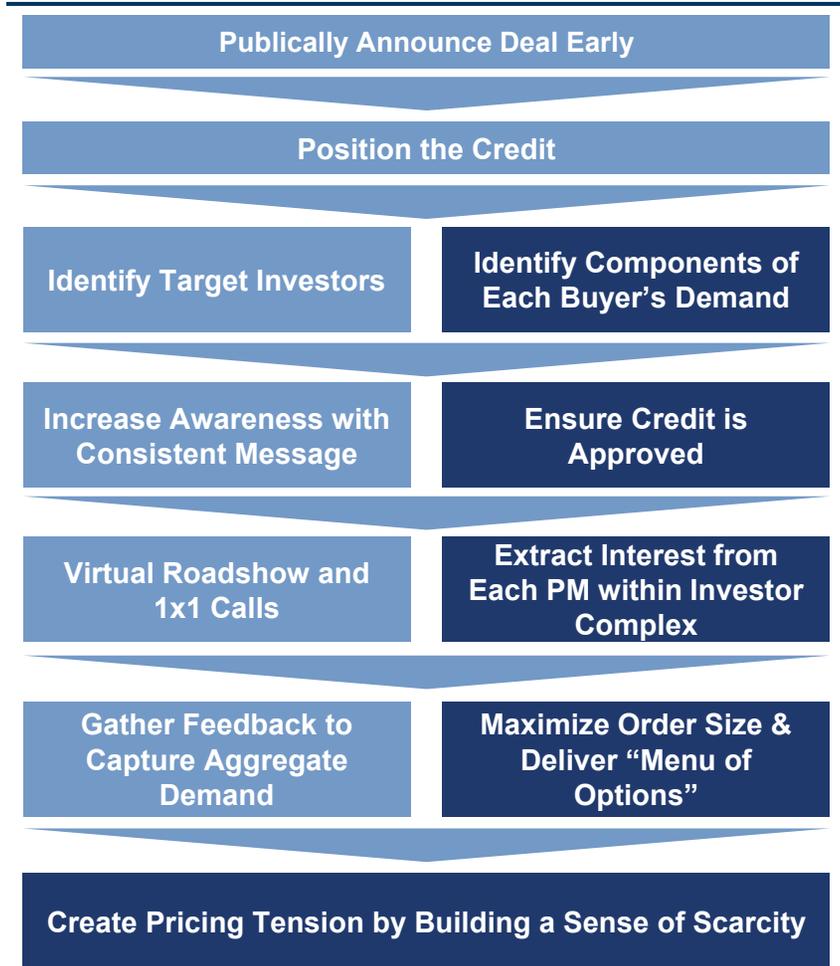
Marketing Plan Objectives

- Keep investors focused on GLWA's strong credit profile and upward credit trajectory
 - Update the market on GLWA's recent accomplishments and strategic plans
 - Reset the narrative and put the headlines around wet weather events and Highland Park in context
- Be in a position to talk openly with the market as early as possible and seek investor feedback
- Take an analytic approach to investor targeting and outreach

Investor Targets



Marketing Process



We will take a customized approach to position GLWA's credit and achieve best execution

We Strive to Provide Clear, Transparent and Timely Information Throughout the Pricing Process

Throughout the marketing process, we target investors intentionally, leverage buyer profiles, and provide detailed feedback to the Authority

Tax-Exempt Investor Feedback / Interest

- Performance Trust**
Looking at maturities 2036 – 2048
- Northern Trust**
Looking at \$3.25mm of 2026 maturity with 1% coupon
- Pine River**
Looking at maturities 2036 – 2040 as 4% coupon at +50bp
- State Farm**
Looking for 3% and 4% coupons at maturities 2033 – 2044 (4% coupon at +15-20bps wider than 5%)

Raymond James /

Looking at 2041 maturity

Aquila

Looking at maturity

Gannett Welsh

Looking for \$15-20mm

Vanguard

Will only participate

Breckenridge

Looking in the 5-10

Washington Cross

Looking for \$1mm of

Nuveen

Looking at maturity

\$3-5mm in 2042 – 2048

Taxable Investor Feedback – Pass Reasoning

- Credit too High Quality / Looking for More Yield**
Sentry
Nationwide
Principal
Mariner

Size (Maturities too Small)

- MetLife
Whitehaven
Bluefin
Norges
JPM Asset Management
First Republic
Mutual of Omaha
Foundation
Blue Mountain
Citi Arb
Barclays Arb
Korean Investor
Liberty

Credit / Sector

- Galliard (Only buying AA+ and above or larger in higher education right now at these spreads)
- Rothsay
Korean Investor

10 Year Par Call / Levels

More Active in Exempts Lately

Morgan Stanley Investment Management

Name	Company
Darren Fago	ALM First
Xiaolei Guo	American International Group, Inc.
Kristen Pinchera	Cigna
Samantha Henry	Conning
Maureen Grover	Credit Suisse Group
Isaac Fine	Fidelity Investments
Hannah Davidson	Fidelity Investments
Luis Toro	Franklin Templeton
Emilio Acosta	Guggenheim Partners, LLC
Will Cleland	Guggenheim Partners, LLC
Tom Schuette	Gurtin Fixed Income Management, LLC
Jeffrey Devine	GW&K Investments
Gilles Marchand	Knights of Columbus
Christopher Hesselthaler	JP Morgan
David Kiefer	Macquarie Investment Management
Jeffrey Sayman	Mellon Investments Corporation
Ryan Lim	Mellon Investments Corporation
Vincent DelVecchio	MetLife Investments
Robert Moore	MetLife Investments
Eric Espino	Morgan Stanley
Paul Charbonneau	Neuberger Berman Group LLC
Dan Simpson	Northern Trust
Kristen Dejong	Nuveen Investments
Samuel Allen	Old Orchard Capital
Suma J Haque	Payden And Rygel
James Faunce	Penn Mutual
Kaltrina Smelaj	Piper Jaffray
Mark Schweig	Summit Securities Group
Max Dunford	Sun Life Capital Management
Arfan Rashid	Wells Fargo
Kim Nakahara	Wells Fargo
Lisa Phan	Wells Fargo
Kathryn Montgomery	Western Asset Management
Thomas Dunleavy	Whitehaven Asset Management

Investor Profile: AIG

INVESTMENT BANKING DIVISION

Key Statistics

- Location: New York, NY
- Founded: 2009
- Account Type: Investment Manager
- Reported Total AUM (\$bn):
- Key contact: Michael McDevitt
 - SUNY Oneonta (BA) & S

AIG's Higher Ed Holdings

Issuer	Amt Held (\$mm)	Increase / Decrease	Position
University of California	\$141.7		Hold
Washington University	\$80.6		Hold

Key Areas of Focus When Approving Credit

- COVID-19
 - Plans for the fall & online
 - International students
 - Expense cuts & revenue
- Capital Planning
 - Current and future costs
- Management
 - Preparation for long term

Source: GS Internal, Bloomberg & press

Our investor outreach program takes a deep approach

INVESTMENT BANKING DIVISION

Top-Down Investor Approach – Individual Bond Funds

- Our top-down approach to institutional investors focuses on individual funds' characteristics vs. existing holdings, target durations, and capacity, for example, Nuveen, which is a top holder of municipal bond funds, summarized below.

Management Company: Nuveen Investments
Credit Approach: Molly Shellhorn (Credit Analyst)

Investor Profile: We

INVESTMENT BANKING DIVISION

Key Statistics

- Location: San Francisco, CA
- Founded: 1852
- Account Type: Bank
- Reported Total AUM (\$bn): \$518.0
- Key contact: Jed Bruss
 - Based in Menomonee Falls, WI
 - UW Milwaukee (BS) & UW Milwaukee

Key Areas of Focus When Approving Credit

- COVID-19
 - Impact to
 - Refunds to
 - Internation
 - Online cl
- Endowment
 - Impact from
 - Portfolio c
- Capital plan
 - New projects and current projects

Source: GS Internal, Bloomberg & press, Filings as of 3/31/2020

Goldman Sachs takes a methodical and quantitative approach to investor targeting

INVESTMENT BANKING DIVISION

Investor Targeting for SBA Bonds

Firm Name	State Appropriation Rank	State of Michigan Rank	Michigan Bond Fund	High Activity	Amount Issued	SBA of Michigan Rank
Vanguard Group	1	1			\$28,335	1
Fidelity Management & Research	2	6			56,323	6
New England Asset Management	3	32			73,409	5
Nuveen Asset Management	4	7			122,290	2
BlackRock	5	9			117,574	3
American Century Investment Management	6	21			6,500	21
Deutsche Asset Management	7	49			15,628	15
Franklin Advisers	8	59			82,065	4
Hartford Investment Management Company	9	68				
Wellington Management	11	27			12,005	13
Nationwide Insurance	12	12			11,700	14
Prudential Investments	13	10			48,135	7
J.P. Morgan Asset Management	14	29			4,859	26
Standish Mellon Asset Management	15	63			8,327	17
Conning	16	51			7,634	19
Lord, Abbett & Co	17	82				
Babson Capital Management	18				3,000	33
BNY Mellon	19				17,400	10
Johnson Investment Counsel	20					
Altable Investments	21	26			1,905	48
Van Eck Associates	22	39			10,000	16
AllianceBernstein	23	71			3,000	32
Federal Investment Management	24	78			6,175	23
The Chubb Corporation	25	60				

Source: Refinitiv eSMAAC, Lipper
Note: Orders in thousands; large state appropriation issuers include Indiana, Kentucky and Ohio; Investors shaded represent potential targets (Blue represents bond funds and orange represents insurance companies)

Investor Targeting for SBA Bonds

University	Amount	Position
University of Missouri	\$15.5	Increase
University of Washington	\$7.3	Hold
University of Nebraska	\$5.0	Hold
University of California	\$3.4	Decrease

Key Areas of Focus When Approving Credit

- COVID-19
 - Expense cuts and declines
 - Fall semester preparation
 - Revenue impact
- Capital plan status
 - New projects and current projects
- Endowment
 - Average order size of \$25mm

Recent Higher Education Deal Participation

- University of Missouri – tax-exempt, middle of curve
- Harvard University – tax-exempt, middle of curve
- Indiana University – tax-exempt, middle of curve
- University of Michigan – tax-exempt, middle of curve

Source: GS Internal, Bloomberg & press, Filings as of 3/31/2020

Note: Shown for illustrative purposes only.

Why Is Goldman Sachs the Right Firm for GLWA? Goals Set. Goals Met.

GLWA Requires (Goals Set)

Relevant Knowledge

Experienced Team

Strong Advocate

Leadership in Navigating Challenging Markets

Recent Applicable Experience

Goldman Sachs Delivers (Goals Met)

- Comprehensive understanding of GLWA
 - Banker to numerous peer agencies nationwide
 - Top 3 senior manager for municipal utilities over the last decade
- Core team has 125 years combined experience in the industry
 - Focus on large complex transactions, #1 in average deal size
 - Deep bench of experts in tax, credit, quantitative modeling, ESG
 - Broad resources of the Firm augments the team's experience
- Led rating process for GLWA's inaugural issuance
 - Routinely leads client rating process and achieves desired outcomes on new credits, re-positioning credits or addressing difficult discussions
- Financial strength and stability coupled with willingness to commit capital
 - University of Michigan example week of April 4th exemplifies our nimbleness and creativity
- Leader in buyback strategies having served on over 50% of the transactions since January 2021
 - Directly comparable utility experience with DC Water closed in late March

Goldman Sachs places tremendous value on its relationship with GLWA and would be greatly honored to serve as senior manager



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

Vendor Certifications Regarding Debarment, Equal Opportunity, Non-Collusion and Agreement to Contract Terms and Conditions

I, the undersigned, am a representative of Goldman Sachs & Co. LLC, (“Vendor”), and affirm that I am authorized to make the following certifications on behalf of Vendor, its owners, and principals. Vendor acknowledges that the below certifications are material to this solicitation and any contract or purchase order (collectively, “Contract”) resulting therefrom and will be relied on by the Great Lakes Water Authority (“GLWA”) in awarding the Contract. Vendor acknowledges that any fraud, misrepresentation, or falsification in these certifications is and shall be treated as fraudulent concealment from GLWA of the true facts relating to the submission of Vendor’s offer and subject Vendor to certain penalties, including loss of the Contract or debarment, as further stated herein.

Part I. Debarment Certification

A. Debarment Pursuant to Federal Law.

Vendor certifies, to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal non-procurement programs by any federal department or agency;
2. Have not, within the three-year period preceding Vendor’s offer on this solicitation, had one or more public transactions (federal, state, or local) terminated for cause or default; and
3. Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding Vendor’s offer on this solicitation, been convicted of or had a civil judgment rendered against it:
 - a. For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;
 - b. For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or
 - c. For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

Vendor understands that a false statement on this Debarment Certification may be grounds for the rejection of Vendor’s offer under this solicitation or the termination of an award thereunder. In addition, under 18 U.S.C. §1001, a false statement may result in a fine or imprisonment for up to five years, or both.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

B. Debarment Pursuant to GLWA Procurement Policy.

Vendor certifies that:

1. It has read and understands the GLWA Procurement Policy (“Policy”) located at glwater.org/vendors, and in particular, Section 13 – Vendor Suspension/Debarment.
2. No federal, state, or local government entity has found Vendor (as defined in footnote 2 of the Policy) in violation of Section 13.1(a) through (p) in the past three (3) years.

Vendor is unable to certify to all the above statements. Attached is Vendor’s explanation.

Part II. Equal Opportunity Certification

1. Vendor makes this Equal Opportunity Certification (“EOC”) with GLWA, effective upon the execution of a Contract between Vendor and GLWA resulting from this solicitation, obligating Vendor and all sub-contractors on the Contract to not discriminate against any employee or applicant for employment, training, education, or apprenticeship connected directly or indirectly with the performance of the Contract, with respect to their hire, promotion, job assignment, tenure, terms, conditions or privileges of employment because of race, color, religious beliefs, public benefit status, national origin, age, marital status, disability, sex, sexual orientation, or gender identity or expression.
2. Vendor shall ensure that all potential sub-contractors on the Contract are reported to GLWA and that each such sub-contractor has executed its own EOC prior to working on the Contract.
3. Furthermore, Vendor understands that this EOC is valid for the duration of the Contract and that a breach of this EOC shall be deemed a material breach of the Contract.

Part III. Non-Collusion Certification

Vendor certifies that:

1. The prices in and amount of this offer have been arrived at independently and without consultation, communication, or agreement with any other vendor or potential vendor.
2. Neither the prices nor the amount of this offer, and neither the approximate prices nor the approximate amount of this offer, have been disclosed to any other firm or person that is a vendor or potential vendor to this solicitation, and the same shall not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from offering on this solicitation, or to submit a cost higher than this offer, or to submit any intentionally high or noncompetitive offer or other form of complementary offer.
4. The offer of Vendor is made in good faith and fair dealing and not pursuant to any agreement or discussion with, or inducement from, any firm or person.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

5. Vendor, its affiliates, subsidiaries, principals, officers, directors, partners, members, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable in any jurisdiction for any act prohibited by state or federal law involving conspiracy or collusion with respect to public contracting, except as follows:
See below*
-

Accordingly, Vendor, by its authorized signature below, acknowledges its agreement with the foregoing certifications.

Goldman Sachs & Co. LLC

(Vendor):

Print Name: Freda Wang

Title: Managing Director

Dated: 4/13/2022

Signature: 

*This certification is limited to the knowledge of the GS Team (as defined below), after due inquiry. For further disclosure regarding certain litigation and regulatory matters, please refer to the firm's various regulatory filings under applicable laws and regulations, including Form BD and periodic filings pursuant to the Securities Exchange Act of 1934. Additionally, please see Appendix B for disclosure related to certain litigation and regulatory matters concerning Goldman Sachs & Co. LLC's role as underwriter of municipal offerings.

During the normal course of Goldman Sachs' municipal finance business activities, the firm has been involved in transactions, which have been terminated or which have resulted in the loss of a client. Notwithstanding the foregoing, to the best of our knowledge, the municipal finance business has not been terminated as an underwriter within the last three years on any material governmental contract due to the gross negligence or willful misconduct of the municipal finance business.

The firm is committed to seeking and retaining business on the basis of merit, not through collusion. No member of the GS Team has colluded with any party for the purpose of receiving an unfair competitive advantage in connection with the procurement process associated with this RFP. For purposes of this response, the GS Team is comprised of Freda Wang, Mark Somers, Matthew Webb, Joanne Chang, Ed Drosch, Stacy Lingamfelter, and Arthur Miller.



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title: Business Inclusion and Diversity Program	Document Owner/Department: Procurement Team
--	---

Business Inclusion and Diversity (B.I.D.) Program

In accordance with GLWA’s Procurement Policy, amended on November 25, 2020, all vendors responding to solicitations budgeted at \$1 million or greater will be required to submit a Business Inclusion and Diversity Plan. Please note that this requirement is applicable to all vendors whether certified as small, disadvantaged, minority-owned, women-owned, or other.

The goal of the vendor’s Diversity Plan is to demonstrate how they presented and maximized economic opportunities for qualified small, minority-owned, and economically disadvantaged business enterprises within the Great Lakes Water Authority’s service territory area.

Under the awarded contract, the plan will become part of the executed contract and may be negotiated during contract finalization. Vendor performance and B.I.D. Program compliance monitoring will be assessed during the length and completion of the contract.

B.I.D. Program Submission Requirements

1.1. B.I.D. Diversity Plan (Pass/Fail Requirement)

1.1.1. Proposed Diversity Plan — Each vendor shall provide their method for maximizing opportunities for inclusion and diversity participation for this solicitation. Good faith efforts in reporting will include the firms contacted and why they declined as well as firms recommended for award and other pertinent information.

Please complete the form included at the end of this document and attach all supporting documentation.

1.1.2. Certification Review and Assessment — Vendors must submit a copy of any certifications that they currently hold. If a vendor has certified subcontractors, then submit the subcontractor’s certifications as well.

The following certifications from a federal agency, the state of Michigan, or a Michigan local unit of government (including certifications upon which those entities might rely) will be accepted and must be submitted with the vendor’s plan. This list is not exclusive, and vendors may include other types of diversity certifications.

DBE - Disadvantaged Business Enterprise	MBE - Minority Business Enterprise
WBE- Woman Business Enterprise	SBE - Small Business Enterprise

1.1.3. Small Business Directory Resources/Registrations —

U.S. SBA - https://web.sba.gov/pro-net/search/dsp_search-help.cfm

State of Michigan - <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>

Michigan United Certification Program - www.michigan.gov/mucp

MDOT Certification Program - www.michigan.gov/mdotdbe



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title: Business Inclusion and Diversity Program	Document Owner/Department: Procurement Team
--	---

1.2. Economic Equity (Scored Categories) — To receive the economic equity credit, complete the B.I.D. questionnaire in Bonfire and submit with your solicitation response. A maximum of 3% points can be added to the vendor’s overall score based on the requirements below.

1.2.1. **Business Presence in the State of Michigan — 1%** — A business presence in the State of Michigan means that a business is eligible to be a Certified Michigan Based Business as defined by the state of Michigan law: a) files a Michigan single business tax return; b) has a Michigan income tax return statement showing income generated in, or attributed to, the state of Michigan or c) withheld Michigan income tax from compensation paid to the vendors/owners and remitted the tax to the Michigan Department of Treasury. (MCL 18.1268).

1.2.2. **Business Presence in a GLWA Service Territory Area — 1%** — GLWA is a regional utility that serves communities in as many as eight counties. A business presence in a GLWA Service Territory Area indicates that the vendor’s business is located in one of the following GLWA Service Territory Areas.

Community	County
City of Flint	Genesee
Village of Almont	Lapeer
Imlay Township	Lapeer
City of Imlay City	Lapeer
City of Lapeer	Lapeer
Mayfield Township	Lapeer
Bruce Township	Macomb
City of Center Line	Macomb
Chesterfield Township	Macomb
Clinton Township	Macomb
City of Eastpointe	Macomb
City of Fraser	Macomb
Harrison Township	Macomb
Lenox Township	Macomb
Macomb Township	Macomb
Village of New Haven	Macomb
Village of Romeo	Macomb
City of Roseville	Macomb
Shelby Township	Macomb
City of St Clair Shores	Macomb



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
City of Sterling Heights	Macomb
City of Utica	Macomb
City of Warren	Macomb
Washington Township	Macomb
Ash Township	Monroe
Berlin Township	Monroe
Village of South Rockwood	Monroe
Village of Carleton	Monroe
Village of Estral Beach	Monroe
Commerce Township	Oakland
City of Farmington	Oakland
City of Farmington Hills	Oakland
City of Ferndale	Oakland
City of Hazel Park	Oakland
City of Keego Harbor	Oakland
City of Madison Heights	Oakland
City of Novi	Oakland
City of Oak Park	Oakland
Royal Oak Township	Oakland
City of Sylvan Lake	Oakland
City of Troy	Oakland
City of Walled Lake	Oakland
West Bloomfield Township	Oakland
City of Wixom	Oakland
Village of Lake Orion	Oakland
City of Rochester Hills	Oakland
City of Auburn Hills	Oakland
Orion Township	Oakland
City of Pontiac	Oakland
City of Rochester	Oakland
City of Berkley	Oakland
Village of Beverly Hills	Oakland
Village of Bingham Farms	Oakland
City of Birmingham	Oakland



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
Bloomfield Township	Oakland
City of Bloomfield Hills	Oakland
City of Clawson	Oakland
City of Huntington Woods	Oakland
City of Lathrup Village	Oakland
City of Pleasant Ridge	Oakland
City of Royal Oak	Oakland
City of Southfield	Oakland
Southfield Township	Oakland
City of Orchard Lake Village	Oakland
Burtchville Township	St. Clair
Greenwood Township	St. Clair
Augusta Township	Washtenaw
Pittsfield Township	Washtenaw
Superior Township	Washtenaw
York Township	Washtenaw
City of Ypsilanti	Washtenaw
Ypsilanti Township	Washtenaw
City of Allen Park	Wayne
City of Belleville	Wayne
Brownstown Township	Wayne
Canton Township	Wayne
City of Dearborn	Wayne
City of Dearborn Heights	Wayne
City of Detroit	Wayne
City of Ecorse	Wayne
City of Flat Rock	Wayne
City of Garden City	Wayne
City of Gibraltar	Wayne
Grosse Ile Township	Wayne
City of Grosse Pointe Park	Wayne
City of Grosse Pointe Shores	Wayne
City of Grosse Pointe Woods	Wayne
City of Hamtramck	Wayne



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
City of Harper Woods	Wayne
City of Highland Park	Wayne
Huron Township	Wayne
City of Inkster	Wayne
City of Lincoln Park	Wayne
City of Livonia	Wayne
City of Melvindale	Wayne
Northville Township	Wayne
City of Northville	Wayne
City of Plymouth	Wayne
Plymouth Township	Wayne
Redford Township	Wayne
City of River Rouge	Wayne
City of Riverview	Wayne
City of Rockwood	Wayne
City of Romulus	Wayne
City of Southgate	Wayne
Sumpter Township	Wayne
City of Taylor	Wayne
City of Trenton	Wayne
Van Buren Township	Wayne
City of Wayne	Wayne
City of Westland	Wayne
City of Woodhaven	Wayne



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

1.2.3. Business Presence in an Economically Disadvantaged GLWA Service Territory Area — 1% — A business presence in an Economically Disadvantaged Service Territory Area means the vendor is in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau every five years.

Community
Center Line
Roseville
Eastpointe
Lapeer
Imlay
Flint
Royal Oak Charter Township
Pontiac
Hazel Park
Keego Harbor
Oak Park
Hamtramck
River Rouge
Ecorse
Detroit
Ypsilanti
Ypsilanti Charter Township
Superior Charter Township



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Please complete the following form and attach all supporting documentation.

A. Prime Vendor: Name and Contact Information (*mandatory*)

1. Vendor Name(s):

Goldman Sachs & Co. LLC

2. Vendor Mailing Address(es):

200 West, New York, NY 10282

3. Contact Person(s) and Title(s):

Freda Wang, Managing Director

4. Contact Email(s):

freda.wang@gs.com

5. Contact Phone/Cell:

212-902-2892

B. Prime Vendor: Diversity Certifications (*if applicable*)

Vendor Name	Certifying Organization	Certifying Public Agency (if applicable)	Date of Certification
N/A			

C. Prime Vendor: Diversity and Inclusion Efforts Summary (*mandatory*)

Instructions: Provide a summary of diversity and inclusion efforts undertaken or strategies employed to maximize opportunities for small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.

Goldman Sachs and PSI, strives to provide minority and veteran-owned businesses with the opportunity to compete on a fair and equal basis for business, and ideally to expand and grow their businesses while working with us. Goldman Sachs has proactively undertaken MWBE joint ventures and found ways to encourage MWBE firms, as detailed below:

- Michigan Finance Authority (County of Wayne, MI), Second Lien Distributable State Aid Revenue and Revenue Refunding Bonds, Series 2020 – Goldman Sachs served as senior manager (lead left) with Siebert, Cisneros Shank & Co. in October 2020. * Goldman Sachs was tasked with pricing and financial analysis while Siebert was primarily responsible for the rating process. The Goldman Sachs team worked in close coordination with Siebert and collaborated on optimal structuring parameters for the client throughout the process. The teams worked closely with the client's financial advisor to craft a marketable structure and generate optimal savings. The team effort provided for a successful refunding transaction for the County.
- Over a multi-year period, Goldman Sachs & Co. LLC and Siebert Williams Shank, a certified women-owned and minority-owned enterprise, collaborated on proposals to the Port Authority of New York and New Jersey (the "Port") on the refinancing of the Port's outstanding debt associated with 1 World Trade Center. The team developed multiple refinancing options, including strategies that explored ways to leverage the building's cashflows, as well as the LEED certification of the building. This process culminated in the sale of new green bonds to refinance outstanding Port debt associated with the building, through a syndicate joint led by Siebert and Goldman. Siebert has also participated as a syndicate member on multiple transactions led by Goldman Sachs, including those involving 3 World Trade Center, 4 World Trade Center and 7 World Trade Center. Our partnership with Siebert illustrates one way Goldman Sachs has prioritized working with a diverse syndicate on significant transactions and our ability to work collaboratively, share duties, and alternate roles.
- In December 2021, the City of Chicago and the Sales Tax Securitization Authority priced a series of bond deals to refinance \$1.8 billion of the City's debt obligations. As part of the financing, the City targeted \$4.3 billion of bonds for a tender or exchange, of which \$876 million were accepted for purchase or exchange. Goldman Sachs served as joint bookrunner and joint dealer manager with Loop Capital, a Black-led investment bank, brokerage, and advisory firm, sharing responsibilities on all aspects of the financing. The Goldman and Loop teams were fully integrated, both among the banking team and syndicate desk, providing seamless service to the City.



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

D. Prime Vendor: Targeted Outreach Efforts Summary (mandatory)

Instructions: Provide a summary of the targeted outreach efforts undertaken or strategies employed to encourage participation by small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.

At Goldman Sachs, a wide array of goods and services are needed to support our business operations, and we work hard to ensure that we partner with the best businesses available to achieve our objectives.

Our Vendor Diversity Program gives us a platform to engage with small and diverse enterprises around the world. We strive to engage vendors that reflect the diversity of the communities where we live and work and of the clients we serve, and we look for vendors that can bring a range of perspectives to help us discover creative, effective solutions. Our Vendor Diversity Program aims to help break down barriers to market access for small and diverse enterprises and unlock commercial opportunities with Goldman Sachs. We seek vendors that can continuously drive competitiveness and innovation in our supply chain. We also recognize the wider economic impact of partnering with small and diverse enterprises and supporting them in their growth. To further support business owners around the world, the firm provides access to education, networks and capital through our One Million Black Women, 10,000 Small Businesses, 10,000 Women and Launch With GS initiatives. We have also committed to increasing our spend with diverse vendors by 50% by 2025.

In 2020, Goldman Sachs bought goods and services worth over \$265mm from small and diverse vendors globally, representing 5% of our addressable spend. 70% was with Minority-Women-Owned Businesses and 30% with Small Businesses. 28% of our overall spend was Tier 2. We remain committed to our goal to increase spend with small and diverse vendors by 50% by 2025.

More details on our Goldman Sachs vendor diversity, people and culture can be found at the following web address: <https://www.goldmansachs.com/our-firm/people-and-culture/> Goldman Sach is not utilizing subcontractors in our response to the GLWA solicitation.

E. Prime Vendor: Targeted Outreach Communications Log (mandatory)

Subcontractor Name	Certifying Organization	Date of Outreach	Subcontractor Response (bid, no bid, and why)
See response above			



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

F. Prime Vendor: Resources Utilized (*mandatory*)

Instructions: Please note the resources used to identify small, minority-owned, and disadvantaged subcontractors (e.g., Federal or Michigan-based databases, certification programs, websites, listservs, or advertisements).

Our Vendor Diversity Program began in North America in 2000 before expanding to Europe in 2005 and Asia Pacific in 2009. In partnership with our vendors, we have introduced initiatives that aim to positively impact our employees, on-site construction workers and the community at large. The following major real estate projects reflect our commitment to working with diverse vendors across the world. We continue to partner with industry associations and work to leverage relationships developed through our initiatives. We are members and active participants of the following vendor diversity organizations:

- Disability:IN - <https://disabilityin.org/>
- National LGBT Chamber of Commerce (NGLCC) - <https://www.nglcc.org/>
- National Minority Supplier Development Council (NMSDC) - <http://www.nmsdc.org/>
- Women's Business Enterprise National Council (WBENC) - <https://www.wbenc.org/>
- WEConnect International - <https://weconnectinternational.org/en/>
- Financial Services Roundtable for Supplier Diversity (FSRSD) - <https://fsrsd.org/>

G. Prime Vendor: Additional Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe or summarize below any additional diversity and inclusion efforts undertaken (as related to the specific GLWA solicitation to which you are responding) that are not addressed in the above fields.

- 10,000 Small Businesses: The Firm has a \$500 million program to provide education, capital and business support to small businesses across the U.S., including over 580 business owners from across Michigan.
- Support of CARES Act PPP: In April 2020, as part of a \$1 billion commitment to COVID-19 relief globally, Goldman Sachs committed nearly \$20 million in loans for small businesses in Southeast Michigan to help them through the COVID-19 crisis.
- Goldman Sachs Gives (GS Gives): Since 2010, Goldman Sachs Gives has granted more than \$2.2 million to 25 non-profit organizations located in the State of Michigan.
- Community TeamWorks: Goldman Sachs Community TeamWorks is a global volunteering initiative that allows us to cultivate longstanding relationships with nonprofits and complete team-based projects that drive impact in the communities where we work and live. Since 2010, over 250 Goldman Sachs volunteers completed CTW projects across Michigan and contributed 1,400 hours of service to local communities.

H. Prime Vendor: Internal Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe below any inclusion and diversity efforts, programs, initiatives, professional associations, or awards that your organization has undertaken, belonged to, or won.

- On March 10, 2021, Goldman Sachs announced the launch of One Million Black Women, an initiative through which the firm will invest \$10 billion and commit \$100 million in philanthropic capital for capacity-building grants over the next decade to narrow opportunity gaps for at least one million Black women in the US. The firm has a 20-year history of investing significant capital in women and underserved communities, including through 10,000 Small Businesses, 10,000 Women and the Urban Investment Group, and we expect that this new initiative will not only create meaningful opportunities for Black women, but also lead to sustainable economic growth across the country. A distinguished advisory council of Black leaders from leading corporations, government and nonprofit organizations will play a critical role in driving this initiative forward.
- Following our One Million Black Women announcement, on March 18, 2021 Goldman Sachs announced an additional \$500 million investment in diverse businesses and funds through our Launch With GS program which was initiated in June 2018. This brings our total commitment to Black, Latinx, women and other diverse entrepreneurs and investors through Launch with GS to \$1 billion.
- Effective July 1, 2020, Goldman Sachs only underwrites Initial Public Offerings ("IPOs") in the United States and Europe for private companies that have at least one diverse board member. We are the only major Firm to have made this commitment. Beginning July 2021, the Firm has raised this target to two diverse candidates for each of our IPO clients in the US and Europe. This decision is rooted in our conviction that companies with diverse leadership perform better. In addition to the real commercial benefits, it is clear that changing the stereotypes associated with corporate decision-making will have many positive effects for society as a whole.
- Awards include: Equileap Top 100 Globally for Gender Equality (March 2022), Bloomberg Gender-Equality Index (January 2022), Hispanic Network Magazine's Best of the Best (November 2021), Euromoney's 2021 Global Awards for Excellence (September 2021) - Best Bank for Diversity & Inclusion, among others



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

I. Proposed Subcontractor(s) Information (mandatory)

Subcontracted Goods and/or Services	Subcontractor Name	Certifying Organization
Goldman Sachs is not proposing the use of subcontractors in connection with this solicitation.		

J. Supporting Documentation (mandatory)

Instructions: Provide a short description of any supporting or supplemental documentation included with this form.

Document No.	Description
1.	The firm's Equal Employment Opportunities and Commitment to Diversity - https://www.goldmansachs.com/careers/statements/diversity-global.html
2.	Our Firm, People, and Culture - https://www.goldmansachs.com/our-firm/people-and-culture/
3.	Diversity and Inclusion - https://www.goldmansachs.com/our-commitments/diversity-and-inclusion/racial-equity/
4.	
5.	
6.	

B.I.D. Program - Executive Summary

INTERNAL DIVERSITY AND INCLUSION EFFORTS BROADLY ACROSS THE FIRM

Goldman Sachs operates from a set of 14 core business principles. One of these principles states: “For us to be successful, our men and women must reflect the diversity of the communities and cultures in which we operate. That means we must attract, retain and motivate people from many backgrounds and perspectives. Being diverse is not optional; it is what we must be.” Goldman Sachs is constantly striving towards a more diverse workplace, both for the benefit of the Firm and in order to more successfully meet the needs of our clients. While there has been progress in recent years on women’s representation and ethnic and racial diversity, there is still significant progress to be made.

Over the years, the Firm’s diversity efforts have evolved from raising broader awareness and delivering an array of programs to a more deliberate, data-driven and targeted approach. We have made some progress, but we have significant work to do. To drive progress for our Firm towards our aspirational goals, we have a range of initiatives in place to increase diverse representation at all levels and foster inclusion.

In 2019, the Firm set forth aspirational goals and a comprehensive action plan to increase diverse representation at all levels. The positive results we have achieved since, including more diverse representation for our 2020 campus analyst class – which comprises a majority of women for the first time, and our highest representation of Black talent in the Americas and Asian talent globally – and the Managing Director Class of 2021 – our most diverse to date – demonstrate the power of setting aspirational goals and holding ourselves accountable.

However, we have more work to do, and will keep up our efforts to reach the aspirational goals we established last year. In addition, in coordination with the Global Inclusion and Diversity Committee and Human Capital Management, we have identified two additional important areas of focus where we have now set new aspirational goals – enhancing the diverse representation of our vice president population and significantly increasing our hiring of Black analysts.

We are aiming to achieve, by 2025, representation in our vice president population of 40 percent women globally; 7 percent Black professionals in the Americas and the UK; and 9 percent Hispanic/Latinx professionals in the Americas. For entry-level analysts and associates, we aim to achieve over time representation of 50% women globally, 11% Black and 14% Hispanic/Latinx professionals in the Americas, and 9% Black professionals in UK. Building on these existing aspirational goals for entry-level analysts and associates – and continuing our long-term relationships with Historically Black Colleges and Universities (HBCUs) – we will double the number of campus analyst hires in the US recruited from HBCUs by 2025.

This will mean bolstering existing initiatives and launching new ones across hiring, development, promotion and retention focused on these populations, while sustaining our existing programs focused on other diverse populations. To be clear, these goals do not limit our ambition to be an employer of choice for all diverse professionals. We continue to focus on using a data-driven and targeted approach to identify actions across all diverse communities to drive progress. It is important for our business, our clients, our people and to us. Fundamental change takes time, but if we’re rigorous in our execution of incremental change, we will make it happen. We are committed to that.

FIRM DIVERSITY AND INCLUSION EFFORTS SPECIFIC TO GLWA’S SOLICITATION

As described in our response to the solicitation, the Firm’s Public Sector Infrastructure (PSI) team is charged with coverage of GLWA and houses the Authority’s primary banking team. The PSI team is equally and firmly committed to meeting the goals articulated by the firm. We support the firm’s goals through the following: diverse recruiting, an internal Social Justice Committee, working with issuers to serve their diverse populations, supporting ESG issuances, and working with MWBE firms on important initiatives / transactions.

Goldman Sachs and PSI, strives to provide minority and veteran-owned businesses with the opportunity to compete on a fair and equal basis for business, and ideally to expand and grow their businesses while working with us. Goldman Sachs has proactively undertaken MWBE joint ventures and found ways to encourage MWBE firms, as detailed below:

- In September 2021, Goldman Sachs Asset Management, along with four other investment firms and JUST Capital, announced the Municipal Issuer Racial Equity & Inclusion Engagement Framework. The group developed a voluntary framework for issuers regarding racial equity and inclusion and is working with two MWBE underwriters, Loop Capital Markets and Siebert Williams Shank & Co, to inform issuers about the questionnaire and how to complete it. The working group aims to put information on publicly available sites. The stated purpose of the Framework is “to open a constructive and voluntary dialogue with municipal issuers on critical issues surrounding racial equity and inclusion...The Framework put forth supports increased engagement and disclosure that can help stakeholders make more informed investment decisions.” The questionnaire asks, among other things, about policing policies, efforts to combat race-based inequality, social services and the demographic breakdown of the government’s workforce.
- Over a multi-year period, Goldman Sachs & Co. LLC and Siebert Williams Shank, a certified women-owned and minority-owned enterprise, collaborated on proposals to the Port Authority of New York and New Jersey (the “Port”) on the refinancing of the Port’s outstanding debt associated with 1 World Trade Center. The team developed multiple refinancing options, including strategies that explored ways to leverage the building’s cashflows, as well as the LEED certification of the building. This process culminated in the sale of new green bonds to refinance outstanding Port debt associated with the building, through a syndicate joint led by Siebert and Goldman. Siebert has also participated as a syndicate member on multiple transactions led by Goldman Sachs, including those involving 3 World Trade Center, 4 World Trade Center and 7 World Trade Center. Our partnership with Siebert illustrates one way Goldman Sachs has prioritized working with a diverse syndicate on significant transactions and our ability to work collaboratively, share duties, and alternate roles.
- In December 2021, the City of Chicago and the Sales Tax Securitization Authority priced a series of bond deals to refinance \$1.8 billion of the City’s debt obligations. As part of the financing, the City targeted \$4.3 billion of bonds for a tender or exchange, of which \$876 million were accepted for purchase or exchange. Goldman Sachs served as joint bookrunner and joint dealer manager with Loop Capital, a Black-led investment bank, brokerage, and advisory firm, sharing responsibilities on all aspects of the financing. The Goldman and Loop teams were fully integrated, both among the banking team and syndicate desk, providing seamless service to the City. The range of perspectives and partnership from Loop and Goldman delivered an effective outcome for the City in the largest liability management transaction in the municipal market in several years.
- Michigan Finance Authority (County of Wayne, MI), Second Lien Distributable State Aid Revenue and Revenue Refunding Bonds, Series 2020 – Goldman Sachs served as senior manager (lead left) with Siebert, Cisneros Shank & Co. in October 2020. Goldman Sachs was tasked with pricing and financial analysis while Siebert was primarily responsible for the rating process. The Goldman Sachs team worked in close coordination with Siebert and collaborated on optimal structuring parameters for the client throughout the process. The teams worked closely with the client’s financial advisor to craft a marketable structure and generate optimal savings. The team effort provided for a successful refunding transaction for the County.
- Port Authority of New York and New Jersey Consolidated Bonds 212th – 216th Series – Goldman Sachs served as Joint Bookrunner (lead left) with Siebert, Cisneros Shank & Co. in August 2019. Goldman Sachs was tasked with pricing and marketing while Siebert was primarily responsible for analysis. The Goldman Sachs team worked in close coordination with Siebert and shadowed their analyses throughout the process. When Goldman Sachs identified a structuring optimization that would allow the Port Authority to sell larger (more liquid) blocks of bonds, we worked closely with Siebert and the Port Authority’s financial advisor to recraft the financing to allow for a more marketable structure. The team effort provided for a successful refunding and new money transaction

for the Port Authority and demonstrates the Firm's ability to execute transactions effectively with a diverse syndicate.

As evidenced in the experience above, Goldman Sachs has a longstanding history of seamlessly working with MWBE Firms, driving favorable outcomes for clients. Our banking and syndicate team welcomes the opportunity to again work with MWBE Firms for any of GLWA's contemplated financings.

FIRM DIVERSITY AND INCLUSION EFFORTS WITH OUTSIDE VENDORS

In addition, we recognize the wider economic impact of partnering with small and diverse enterprises and supporting them in their growth. At Goldman Sachs, we make the active decision to a wide array of goods and services are needed to support our business operations, and we work hard to ensure that we partner with the best businesses available to achieve our objectives. Our Vendor Diversity Program gives us a platform to engage with small and diverse enterprises around the world. We strive to engage vendors that reflect the diversity of the communities where we live and work and of the clients we serve, and we look for vendors that can bring a range of perspectives to help us discover creative, effective solutions.

In 2020, Goldman Sachs bought goods and services worth over \$265mm from small and diverse vendors globally, representing 5% of our addressable spend. 70% was with Minority-Women-Owned Businesses and 30% with Small Businesses. 28% of our overall spend was Tier 2. We remain committed to our goal to increase spend with small and diverse vendors by 50% by 2025.

To further support business owners around the world, the Firm provides access to education, networks and capital through our various programs such as the 10,000 Small Businesses and 10,000 Women.

We have been investing both capital and resources in minority-owned businesses for over a decade, through our 10,000 Small Businesses program and Urban Investment Group. Now, we are harnessing our expertise and deep relationships with Community Development Financial Institutions and other mission-driven lenders to swiftly deploy targeted capital towards communities of color. We created the Goldman Sachs Fund for Racial Equity to support the vital work of leading organizations addressing racial injustice, structural inequity and economic disparity. The \$10 million Fund for Racial Equity builds upon more than \$200 million Goldman Sachs has granted over the last decade to organizations serving communities of color.

More recently, as part of the Goldman Sachs COVID-19 Relief Fund, the Firm deployed \$17 million to organizations supporting relief efforts in communities of color. These donations will help us lay the groundwork for efforts we can make to support the Black community. They are also connected to the deeper conversations happening within our organization about how we can support our Black colleagues, clients, customers, and communities. These discussions also include how we can become better listeners and better allies and the concrete steps we will take to embed inclusion into everything we do.

Through Launch With GS, Goldman Sachs aims to increase access to capital and facilitate connections for women, Black, Latinx and other diverse entrepreneurs and investors. Despite the numbers, only a small percentage of U.S. venture capital goes to diverse teams. Additionally, only a small amount of global private equity assets are managed by diverse teams. This market imbalance, coupled with our belief that diverse teams outperform, is the catalyst behind Launch With GS. We invest capital in companies with diverse and gender-balanced leadership through GS Growth. We also partner with clients to invest in investment managers with at least one diverse General Partner across venture capital, growth equity, and private equity strategies.

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Quantity Required	Numeric	
					\$\$ Per Bond	Total Cost
Not Bidding	No Bid	#0-1	Management Fee	1		-
Not Bidding	No Bid	#0-2	Risk Fee \$\$ Per Bond (if applicable)	1		-
Not Bidding	No Bid	#0-3	Other Fee \$\$ Per Bond (if applicable)	1		-

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Numeric	Text	Numeric	Total Cost
				Quantity anticipated	Expense Description	Unit Price	
Success: All values provided	Bid	#0-1	Expense	1	Underwriter's Counsel Fee	\$ 80,000.00	\$ 80,000.00
Success: All values provided	Bid	#0-2	Expense	43	CUSIP Fee (43 CUSIPs)*	\$ 52.83	\$ 2,271.50
Success: All values provided	Bid	#0-3	Expense	1	Ipreo Fees (including tax)*	\$ 19,059.72	\$ 19,059.72
Success: All values provided	Bid	#0-4	Expense	2	DTC*	\$ 800.00	\$ 1,600.00
Success: All values provided	Bid	#0-5	Expense	1	Internet Roadshow	\$ 2,500.00	\$ 2,500.00
Success: All values provided	Bid	#0-6	Expense	1	Continuing Disclosure Review	\$ 1,088.75	\$ 1,088.75
Success: All values provided	Bid	#0-7	Expense	1	GS Out of Pocket Expenses	\$ 5,000.00	\$ 5,000.00
Not Bidding	No Bid	#0-8	Expense				-
Not Bidding	No Bid	#0-9	Expense				-
Not Bidding	No Bid	#0-10	Expense				-

* Preliminary; subject to change based on transaction structure

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-1	Uninsured \$ per Bond	1	Per Bond	\$ 2.50	\$ 2.50
Success: All values provided	Bid	#0-2	Uninsured \$ per Bond	2	Per Bond	\$ 2.50	\$ 5.00
Success: All values provided	Bid	#0-3	Uninsured \$ per Bond	3	Per Bond	\$ 2.50	\$ 7.50
Success: All values provided	Bid	#0-4	Uninsured \$ per Bond	4	Per Bond	\$ 2.50	\$ 10.00
Success: All values provided	Bid	#0-5	Uninsured \$ per Bond	5	Per Bond	\$ 2.50	\$ 12.50
Success: All values provided	Bid	#0-6	Uninsured \$ per Bond	6	Per Bond	\$ 2.50	\$ 15.00
Success: All values provided	Bid	#0-7	Uninsured \$ per Bond	7	Per Bond	\$ 2.50	\$ 17.50
Success: All values provided	Bid	#0-8	Uninsured \$ per Bond	8	Per Bond	\$ 2.50	\$ 20.00
Success: All values provided	Bid	#0-9	Uninsured \$ per Bond	9	Per Bond	\$ 2.50	\$ 22.50
Success: All values provided	Bid	#0-10	Uninsured \$ per Bond	10	Per Bond	\$ 2.50	\$ 25.00
Success: All values provided	Bid	#0-11	Uninsured \$ per Bond	11	Per Bond	\$ 2.50	\$ 27.50
Success: All values provided	Bid	#0-12	Uninsured \$ per Bond	12	Per Bond	\$ 2.50	\$ 30.00
Success: All values provided	Bid	#0-13	Uninsured \$ per Bond	13	Per Bond	\$ 2.50	\$ 32.50
Success: All values provided	Bid	#0-14	Uninsured \$ per Bond	14	Per Bond	\$ 2.50	\$ 35.00
Success: All values provided	Bid	#0-15	Uninsured \$ per Bond	15	Per Bond	\$ 2.50	\$ 37.50

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-16	Uninsured \$ per Bond	16	Per Bond	\$ 2.50	\$ 40.00
Success: All values provided	Bid	#0-17	Uninsured \$ per Bond	17	Per Bond	\$ 2.50	\$ 42.50
Success: All values provided	Bid	#0-18	Uninsured \$ per Bond	18	Per Bond	\$ 2.50	\$ 45.00
Success: All values provided	Bid	#0-19	Uninsured \$ per Bond	19	Per Bond	\$ 2.50	\$ 47.50
Success: All values provided	Bid	#0-20	Uninsured \$ per Bond	20	Per Bond	\$ 2.50	\$ 50.00
Success: All values provided	Bid	#0-21	Uninsured \$ per Bond	21	Per Bond	\$ 2.50	\$ 52.50
Success: All values provided	Bid	#0-22	Uninsured \$ per Bond	22	Per Bond	\$ 2.50	\$ 55.00
Success: All values provided	Bid	#0-23	Uninsured \$ per Bond	23	Per Bond	\$ 2.50	\$ 57.50
Success: All values provided	Bid	#0-24	Uninsured \$ per Bond	24	Per Bond	\$ 2.50	\$ 60.00
Success: All values provided	Bid	#0-25	Uninsured \$ per Bond	25	Per Bond	\$ 2.50	\$ 62.50
Success: All values provided	Bid	#0-26	Uninsured \$ per Bond	26	Per Bond	\$ 2.50	\$ 65.00
Success: All values provided	Bid	#0-27	Uninsured \$ per Bond	27	Per Bond	\$ 2.50	\$ 67.50
Success: All values provided	Bid	#0-28	Uninsured \$ per Bond	28	Per Bond	\$ 2.50	\$ 70.00
Success: All values provided	Bid	#0-29	Uninsured \$ per Bond	29	Per Bond	\$ 2.50	\$ 72.50
Success: All values provided	Bid	#0-30	Uninsured \$ per Bond	30	Per Bond	\$ 2.50	\$ 75.00

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-31	Insured \$ per Bond	1	Per Bond	\$ 2.50	\$ 2.50
Success: All values provided	Bid	#0-32	Insured \$ per Bond	2	Per Bond	\$ 2.50	\$ 5.00
Success: All values provided	Bid	#0-33	Insured \$ per Bond	3	Per Bond	\$ 2.50	\$ 7.50
Success: All values provided	Bid	#0-34	Insured \$ per Bond	4	Per Bond	\$ 2.50	\$ 10.00
Success: All values provided	Bid	#0-35	Insured \$ per Bond	5	Per Bond	\$ 2.50	\$ 12.50
Success: All values provided	Bid	#0-36	Insured \$ per Bond	6	Per Bond	\$ 2.50	\$ 15.00
Success: All values provided	Bid	#0-37	Insured \$ per Bond	7	Per Bond	\$ 2.50	\$ 17.50
Success: All values provided	Bid	#0-38	Insured \$ per Bond	8	Per Bond	\$ 2.50	\$ 20.00
Success: All values provided	Bid	#0-39	Insured \$ per Bond	9	Per Bond	\$ 2.50	\$ 22.50
Success: All values provided	Bid	#0-40	Insured \$ per Bond	10	Per Bond	\$ 2.50	\$ 25.00
Success: All values provided	Bid	#0-41	Insured \$ per Bond	11	Per Bond	\$ 2.50	\$ 27.50
Success: All values provided	Bid	#0-42	Insured \$ per Bond	12	Per Bond	\$ 2.50	\$ 30.00
Success: All values provided	Bid	#0-43	Insured \$ per Bond	13	Per Bond	\$ 2.50	\$ 32.50
Success: All values provided	Bid	#0-44	Insured \$ per Bond	14	Per Bond	\$ 2.50	\$ 35.00
Success: All values provided	Bid	#0-45	Insured \$ per Bond	15	Per Bond	\$ 2.50	\$ 37.50
Success: All values provided	Bid	#0-46	Insured \$ per Bond	16	Per Bond	\$ 2.50	\$ 40.00
Success: All values provided	Bid	#0-47	Insured \$ per Bond	17	Per Bond	\$ 2.50	\$ 42.50
Success: All values provided	Bid	#0-48	Insured \$ per Bond	18	Per Bond	\$ 2.50	\$ 45.00
Success: All values provided	Bid	#0-49	Insured \$ per Bond	19	Per Bond	\$ 2.50	\$ 47.50

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-50	Insured \$ per Bond	20	Per Bond	\$ 2.50	\$ 50.00
Success: All values provided	Bid	#0-51	Insured \$ per Bond	21	Per Bond	\$ 2.50	\$ 52.50
Success: All values provided	Bid	#0-52	Insured \$ per Bond	22	Per Bond	\$ 2.50	\$ 55.00
Success: All values provided	Bid	#0-53	Insured \$ per Bond	23	Per Bond	\$ 2.50	\$ 57.50
Success: All values provided	Bid	#0-54	Insured \$ per Bond	24	Per Bond	\$ 2.50	\$ 60.00
Success: All values provided	Bid	#0-55	Insured \$ per Bond	25	Per Bond	\$ 2.50	\$ 62.50
Success: All values provided	Bid	#0-56	Insured \$ per Bond	26	Per Bond	\$ 2.50	\$ 65.00
Success: All values provided	Bid	#0-57	Insured \$ per Bond	27	Per Bond	\$ 2.50	\$ 67.50
Success: All values provided	Bid	#0-58	Insured \$ per Bond	28	Per Bond	\$ 2.50	\$ 70.00
Success: All values provided	Bid	#0-59	Insured \$ per Bond	29	Per Bond	\$ 2.50	\$ 72.50
Success: All values provided	Bid	#0-60	Insured \$ per Bond	30	Per Bond	\$ 2.50	\$ 75.00

April 14, 2022



Note: The underwriter presentation starts on PDF page 99.



Siebert Williams Shank & Co., LLC Response:
Great Lakes Water Authority
Request for Proposal (RFP) for Bond Underwriting Services
RFP-2200290

Disclaimer

Siebert Williams Shank & Co., LLC ("SWS" or the "Firm") is providing this information to the recipient (the "Recipient") in response to the Recipient's Request for Proposals to serve as an underwriter for a prospective transaction (the "RFP"). Pursuant to the RFP, SWS submits this response for the Recipient's consideration in anticipation of the Firm serving as a prospective underwriter only, and not as a municipal advisor. The information contained herein is not advice being provided by a municipal advisor but instead is being provided solely in direct response to the RFP. Please see the important disclosures at the end of this document for further information about SWS' role, the nature of the information provided in this RFP response, and the duties owed and not owed to the Recipient by SWS.

Disclosures About SWS' Role as Underwriter, Not as Municipal Advisor

SWS is providing the information contained in this document for discussion purposes only as prospective underwriter or in anticipation of serving as underwriter on a future transaction in response to the RFP, and not as financial advisor or municipal advisor. Should it be chosen to serve as an underwriter as a result of its response to the RFP, the primary role of SWS, as underwriter, will be to purchase securities with a view toward distribution and/or for resale to investors in an arm's-length commercial transaction with the Recipient. As an underwriter, SWS would have financial and other interests that differ from those of the Recipient. An underwriter is required to deal fairly at all times with both issuers and investors. An underwriter has a duty to purchase securities from an issuer at a fair and reasonable price, but must balance that duty with its duty to sell municipal securities to investors at prices that are fair and reasonable. SWS, as underwriter, will review any official statement for the Recipient's securities in accordance with, and as part of, its responsibilities to investors under the federal securities laws, as applied to the facts and circumstances of the transaction.

This RFP response is an effort by SWS to be selected as an underwriter. SWS is not acting or seeking to act as a municipal advisor to the Recipient. Rather, as an underwriter acting for its own interest and unlike a municipal advisor, SWS will not have or owe a fiduciary duty to the Recipient pursuant to Section 15B of the Securities Exchange Act of 1934, as amended (the "Act"), and, therefore, is not required by federal law to act in the best interests of the Recipient without regard to its own financial or other interests. The Recipient should consult with its own financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent it deems appropriate before acting on any information or material contained in this RFP response. If the Recipient would like a municipal advisor in this transaction and does not have one that owes fiduciary duties to it, then the Recipient is free to engage a municipal advisor to serve in that capacity.

No Recommendations or Advice

SWS is not recommending any action to the Recipient except as in direct response to the RFP. Unless otherwise expressly stated herein, the information provided consists of general information that is factual in nature and may incorporate certain hypothetical information based on the facts and assumptions described in the RFP. In order to properly respond to the RFP, SWS has presented structuring and marketing recommendations that meet the needs of the Recipient as set forth in the RFP. Such information, hypotheticals, facts and assumptions are not intended to be or to imply a recommendation or to be construed as "advice" within the meaning of Section 15B of the Act. Rather they are presented in direct response to the RFP.

This RFP response is prepared solely for the benefit of and consideration by the Recipient based on the parameters set forth in the RFP. No other person or entity should rely on the information set forth herein.

Additional Disclosures and Disclaimer

All information contained in this document was obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness. All information, hypotheticals, facts and assumptions (including prices, rates, yields and other calculations) are current only as of the date of this report, and are subject to change without notice. Any estimations or hypothetical results based on market conditions or the occurrence of future events are based upon the best judgment of SWS from publicly available information as of the date of this report.

THERE IS NO GUARANTEE THAT ANY OF THESE ESTIMATES OR HYPOTHETICALS WILL BE ACHIEVED.

Member FINRA, MSRB, and SIPC

April 14, 2022

Ms. Joan Salwasser
Procurement Management Professional
Great Lakes Water Authority
Submission through Bonfire

150 West Jefferson Street, 13th Floor
Detroit, MI 48226
Phone: (313) 496-4500
Fax: (313) 496-4550

Dear Ms. Salwasser:

Siebert Williams Shank & Co., LLC (“SWS” or “Firm”) is pleased to respond to the Great Lakes Water Authority (the “Authority”) Request for Proposals for Bond Underwriting Services (“RFP”). As required in the RFP, our proposal shall remain valid for a period of six (6) months from April 14, 2022 and thereafter unless withdrawn by SWS. We believe our extensive relevant experience, strong finance team along with our deep-rooted local and Michigan presence make us best suited to serve as book-running senior manager on the Authority’s proposed 2022 financing. Below, please find highlights of our proposal and capabilities.

Municipal Industry Leadership. SWS has served as underwriter on over \$1.7 trillion in municipal bond transactions since 1996 serving as book-running manager for transactions from \$3 million to \$1.75 billion in par amount. We were the **#3 ranked senior manager based on largest average deal size from 2019 to 2021** and among the top-10 senior managers by par in several industry segments within public finance. Further, the Firm’s leaders are actively engaged in advancing policy that has a beneficial impact on the public finance sector and issuers, including present or past roles with SIFMA, the Municipal Securities Rulemaking Board (“MSRB”), and advisory roles with Just Capital and the Robert Wood Johnson Foundation on social equity within the municipal bond market. SWS has played a leading role in the significant growth of the municipal ESG bond market, **receiving the Bond Buyer Deal of the Year Award in the ESG Category two out of three years since the category has been in existence.** Overall, the Firm has a rich history of leadership within the public finance industry that we will bring to the Authority’s upcoming financing.

Leader in Water and Wastewater Utility Financings. SWS has emerged as a leader in structuring wastewater and water utility financings nationwide. **In 2020, SWS ranked 2nd in senior managed water and sewer utility financings. From 2020 to 2022YTD, SWS ranked 4th in combined senior and co-manager water and sewer utility financings, with a 29% market share, per SDC.** Our water and wastewater utility financing experience includes senior managed financings across the nation for issuers such as NYC Municipal Water Finance Authority, Broward County Florida, Kansas City, Phoenix, Memphis, Chicago, Atlanta, Northeast Ohio Regional Sewer District, Houston Combined Utility System, Philadelphia, Dallas, Cleveland, and Los Angeles Department of Water and Power, among others. Our recent experience leading financings for the largest and most complex wastewater and water issuers amidst the volatile pandemic market environment demonstrates our capacity to serve as senior manager for the Authority.

Commitment to Michigan. SWS is certified as a Detroit Based Business (“DBB”) by the City of Detroit and has maintained an office in Detroit since the Firm’s inception in 1996 with SWS’ President and CEO and the Head of the Midwest Region both based in Detroit. Our Firm has long been deeply entrenched in local community efforts through our philanthropy and volunteerism. Since inception, SWS has served as a managing underwriter on 277 negotiated transactions for issuers within Michigan totaling \$57.7 billion in par amount and has senior managed 66 of those transactions for a total par amount of \$12.7 billion. Since inception, the Firm ranks in the top 10 for negotiated senior managed transactions for Michigan issuers.

Pricing During Volatile Markets. SWS delivers powerful marketing and distribution capabilities which ensures aggressive pricings for our clients. Our institutional sales team for municipal bonds is one of the largest and most robust among our competitors, including those of many bulge-bracket firms. Given the recently volatile markets, it is particularly important for the Authority’s underwriter to demonstrate strong pricing acumen and have consistently demonstrated the ability to commit capital in all market environments. SWS priced the first sizeable transaction (\$500 million) after the market shutdown during the Financial Crisis for the State of Connecticut, priced the first major airport transaction after the onset of the pandemic for the DFW Airport (\$392 million), and priced one of the first transactions impacted by market volatility for the Port Authority of New York and NJ (\$638 million) in December 2020. The Firm frequently risks its capital in the primary market to ensure pricing integrity for our clients, seamlessly providing the underwriting commitment necessary to underwrite unsold balances in our senior managed transactions when and if necessary.

Thank you for the opportunity to respond to this RFP. We look forward to the opportunity to work with the Authority on this important financing. Please do not hesitate to contact us with any questions.

Sincerely,



Suzanne Shank
President & CEO
sshank@siebertwilliams.com



Sean Werdlow
Head of Midwest Region
swerdlow@siebertwilliams.com

TABLE OF CONTENTS

Disclosure Statement	1
Firm Background and Related Experience	2
Key Financing Issues	3
References	15

Appendix

Project Team and Key Individuals	A
Indicative Rating Scorecards	B
Holder of Detroit 2006D Bonds	C
ESG Considerations	D
Proposal Presentation	E

Disclosure Statement

Provide a disclosure statement that includes specific answers to each question below and bears a signature of an authorized officer of your firm:
State your firm's name and address.

Siebert Williams Shank & Co., LLC
150 West Jefferson Street, 13th Floor
Detroit, MI 48226

ii. Describe your firms' organizational structure (i.e., partnership, corporation, etc.) and list any controlling stockholder, general partners, or principals.

Firm Organizational Structure. SWS is a full-service investment banking Firm that serves municipal and corporate issuers throughout the U.S. The Firm is organized as a Limited Liability Company that is 100% owned by Shank Williams Cisneros, LLC. The Firm's principal partners are Suzanne Shank, President & CEO, Christopher Williams, Chairman, and Henry Cisneros, Vice-Chairman each of whom are deeply engaged in the Firm as controlling shareholders. The Firm currently has 136 employees, of which 49 are municipal bankers and 33 are underwriting, sales and trading professionals, across 19 offices nationally, including 6 trading desks. SWS has firmly established itself as a top national Firm – ranking 13th nationally as senior manager and 1st nationally among M/WBEs in 2021. SWS has been the **top-ranked M/WBE senior manager for a record 23 years, including in 2021.**

iii. Briefly describe your firms' equal employment opportunity policies and programs.

Commitment to Diversity. SWS has developed an Affirmative Action Plan and Equal Employment Opportunity Policy with the objective of achieving genuine equal employment opportunity for all qualified individuals, to ensure its practices, personnel policies, and programs are in complete accord with applicable federal and state equal employment opportunity laws, forbidding any type of unlawful discrimination against its employees or job applicants. SWS' Affirmative Action Plan and Equal Employment Opportunity Policy can be found in the Executive Summary (separately attached) as part of the B.I.D. requirements.

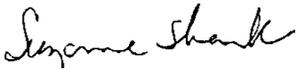
SWS is also especially proud of our long history as a M/WBE and the Firm is particularly sensitive to providing equal opportunities for minority, women and other historically disadvantaged individuals and firms. SWS has various programs to create professional opportunities for women and minority persons. These programs include an internship program, involvement in local mentoring programs, written procurement policies to foster relations with other MBE and WBE firms, as well as diversity policies for hiring within the Firm. **At SWS, 64% of our workforce are women or minorities, and we are 92% owned by minorities and 61% owned by women.** As the **#1 M/WBE non-bank financial entity in the U.S. and the #1 M/WBE senior manager in the municipal finance sector**, SWS is in a leadership position that can help enact positive change in the securities industry. SWS is proud to have contributed significantly in both time and donations to organizations that strive to eliminate discrimination, promote fair and equal employment practices, and foster workplace diversity and inclusion. As the country has worked to address racial inequality in the past few years and into 2022, SWS created a matching donation program for its employees' donations to organizations that strive to eliminate the impacts of racial inequality. As an M/WBE firm primarily focused on municipal finance and public infrastructure, SWS commits to showing up as both a leader and an ally in the fight for social justice and promoting diversity.

iv. Indicate any jurisdictions where your firm or officer, director, principal or partner thereof is or has been the subject of any pending or anticipated investigation or inquiry by the Securities & Exchange Commission (SEC), Municipal Securities Rulemaking Board (MSRB), or other securities regulatory body related to your municipal bond practice since January 1, 2017. Provide the status of any such engagement or inquiry. Detailed information may be provided in an appendix and not included in the page count limitation. However, a brief summary of the information should be included in the body of the proposal.

Neither the Firm nor any officer, director, principal or partner thereof is or has been the subject of any pending or anticipated investigation or inquiry by the Securities & Exchange Commission (SEC), Municipal Securities Rulemaking Board (MSRB), or other securities regulatory body related to the Firm's municipal bond practice since January 1, 2017.

v. Indicate any conflicts or potential conflicts your firm may have in serving as a bond underwriting firm for GLWA.

SWS is not aware of any actual or potential conflicts of interest that exist at this time.



Suzanne Shank
President & CEO

sshank@siebertwilliams.com

Firm Background and Related Experience

- i. Detail your firm credit ratings and other relevant financial information, such as net capital position and underwriting capacity and/or limitations. Additionally, provide electronic links to your firm’s most recent annual report and financial statements. If no public financial statements are available, the responding firm must include an electronic copy of the most recent annual report or financial statements as an electronic file with the submission.

Strong Capital Position. SWS regularly leverages its capital to support issuers in both the primary and secondary markets. The Firm’s capital position is shown in the adjacent table, including access to a \$25 million credit commitment from our clearing firm, National Financial Services. As of December 31, 2021, **our total available capital allows SWS to serve as sole senior managing underwriter on a transaction of about \$1.2 billion in par amount and can serve as senior manager with 50% liability on an approximately \$2.3 billion transaction** under the SEC’s net Capital Rule 15c3-1 for “when as and if issued” transactions (excess net capital 7%). As noted, the strength of our capital position has allowed SWS to routinely senior manage deals over \$1 billion of par in all market environments with market leading execution for our clients, evidenced by our perennial ranking among the top book-running senior managers by average deal size. SWS does not maintain publicly available electronic financial statements and does not have credit ratings. Please see the link to the Firm’s most recent 12/31/2021 Annual Financial Report ([SWS Annual Report](#)).

SWS Capital as of:	12/31/2021
Total Capital (\$)	67,113,791
Equity Capital (\$)	42,908,314
Net Capital (\$)	57,733,637
Excess Net Capital (\$)	57,399,531
Line of Capital Available (\$)	25,000,000
Total Capital Avail for UW	82,399,531
UW Capacity (Sole)	1,177,136,157
UW Capacity (Lead at 50%)	2,354,272,314

- ii. Describe your firm's experience with municipal utility revenue bonds.

Commitment to Water and Wastewater Sector. SWS’ underwriting and distribution expertise has allowed us to emerge as a leader in water and wastewater utility financings nationwide. **From 2020 to 2022YTD, SWS ranked 4th in combined senior and co-manager water and sewer utility financings, with a 29% market share, per SDC.** The graphic depicts select examples of recent senior managed water and wastewater utility financings along with upcoming deals. Additionally, as a testament to the Firm’s service, our water and wastewater utility financing experience includes numerous major issuers around the U.S. that SWS has worked with on a repeat basis.

Select SWS Senior Managed Sewer/Water Negotiated Underwriting Experience

 Los Angeles Department of Water and Power Senior Manager \$325* million Expected Jun. 2, 2022	 NYC Muni Water Finance Auth Senior Manager \$500 million Priced Feb. 3, 2022	 Broward Co, FL, Water & Sewer Senior Manager \$199 million Priced Feb. 2, 2022	 Kansas City, MO, Water and Sanitary Sewer System Senior Manager \$171 million Priced Oct. 13/14, 2021	 City of Phoenix Senior Manager \$469 million Priced May 18, 2021	 Santa Clara Valley Water District Senior Manager \$216 million Priced Sep. 30, 2020
---	---	---	--	---	--

Select Listing of Repeat Sewer & Water Utility Underwriting Experience

NY City Muni. Water Fin. Auth. - 85 deals: \$38.01 billion Miami Water & Sewer - 14 deals: \$5.66 billion King County, WA Sewer System - 22 deals: \$4.03 billion Philadelphia Water & Wastewater - 17 deals: \$3.41 billion Phoenix Water & Wastewater - 13 deals: \$2.71 billion Jefferson County, AL Sewer Sys. - 3 deals: \$1.79 billion East Baton Rouge Sewerage Com - 8 deals: \$1.66 billion	LADWP - 64 deals: \$16.63 billion Atlanta Water & Wastewater - 17 deals: \$5.56 billion Chicago Water & Wastewater - 17 deals: \$3.67 billion DC Water & Sewer - 14 deals: \$3.26 billion Los Angeles Wastewater System - 11 deals: \$2.40 billion San Diego PFA Water & Sewer - 5 deals: \$1.77 billion San Antonio Water System - 13 deals: \$1.62 billion	New York State Enviro. Facil. Corp. - 56 deals: \$11.79 billion MWD of Southern California - 39 deals: \$4.76 billion CA Dept. of Water Resources - 13 deals: \$3.45 billion SFPUC - 8 deals: \$3.00 billion Greater Chicago Metro Water Red - 9 deals: \$2.29 billion Greater Lakes Water Authority - 5 deals: \$1.75 billion Dallas Waterworks & Sewer Sys. - 6 deals: \$1.60 billion	Detroit Water & Sewer - 22 deals: \$6.17 billion Houston Combined Utility System - 10 deals: \$4.17 billion MA Water Pollution Ab. Tr - 9 deals: \$3.41 billion Texas Water Development Board - 36 deals: \$2.88 billion State of Connecticut State Rev. Fd. - 17 deals: \$2.05 billion Baltimore Water & Sewer - 7 deals: \$1.74 billion East Bay Municipal Utility District - 8 deals: \$1.60 billion
--	--	---	---

- iii. Describe your firm’s experience with municipal utility financings in Michigan.

Commitment to Michigan Utility Sector. Since inception, SWS has served as a managing underwriter on 44 negotiated transactions for utility issuers within Michigan totaling \$11.9 billion in par amount. SWS senior managed 13 of those transactions for a total par amount of \$4.54 billion. Since inception, the Firm ranks 2nd for negotiated senior managed water and wastewater transactions for Michigan issuers.

In 2021, SWS served on two Utility transactions for the State of Michigan including a \$120 million Co-Managed transaction for the **Michigan Finance Authority** and \$603 million Co-Senior Managed transaction for the **Michigan Strategic Fund** in connection with the Flint Water Crisis settlement. Additionally, in 2020, SWS served as Co-Senior Manager for the **Great Lakes Water Authority** on a combined \$1.2 billion Water and Sewer transaction. The tombstones highlight some of SWS’ select transactions within the State. In addition, SWS has served as manager on approximately \$6 billion in par for the Detroit Water and Sewerage Department. Of this, SWS senior managed approximately \$3.4 billion in par.

 Michigan Finance Authority Drinking Water Revolving Fund Co-Manager \$120 million Priced Nov. 16, 2021	 Michigan Strategic Fund Water & Sewer LORBs Co-Senior Manager \$603 million Priced Jun. 22, 2021	 Great Lakes Water Authority Water & Sewer System Co-Senior Manager \$1.2 billion Priced Apr. 30/June 4, 2020	 Michigan Finance Authority Clean Water Revolving Fund Co-Manager \$138 million Priced Dec. 12, 2018	 Great Lakes Water Authority Water & Sewer System Co-Manager \$413 million Priced Sep. 18, 2018	 Michigan Finance Authority Clean Water Revolving Fund Co-Manager \$151 million Priced Oct. 27, 2016
---	---	---	--	---	--

iv. Indicate your firm's current ability and willingness to underwrite bonds and hold bonds in inventory. Provide specific examples since January 1, 2021, through today, where your firm underwrote bonds and held bonds in inventory for municipal issuers.

Willingness to Commit Capital. SWS has consistently demonstrated willingness to take bonds into inventory to support an issuer's pricing levels over the years. Market conditions in most of 2021 were stable and quite favorable such that deals were routinely oversubscribed at record low interest rate levels. Market volatility reemerged in January 2022, such that MMD has increased an average of 114 basis points across the yield curve and taxable U.S. treasury rates have increased an average of 95 basis points across the yield curve. The table contains select examples of the Firm's recent underwriting engagements in which SWS has taken bonds into inventory to support our client's financings.

Select Examples of SWS' Recent Capital Commitments										
Issuer	Sale Date	Par (\$mm)	SWS Inventory (\$mm)	SWS Inventory (%)	Issuer	Sale Date	Par (\$mm)	SWS Inventory (\$mm)	SWS Inventory (%)	
Regents of the University of Michigan	3/30/2022	56	0.5	0.84	State of Mississippi	9/14/2021	3	1.4	46.64	
Michigan Strategic Fund	3/15/2022	83	2.3	2.74	Dallas Independent School District	8/31/2021	69	2.1	3.12	
Arlington Independent School District	3/3/2022	176	1.1	0.62	City of Cleveland	7/28/2021	56	1.7	3	
Los Angeles Department of Airports	1/20/2022	347	17.3	4.97	State of New York Mortgage Agency (SONYMA)	7/21/2021	50	5.4	10.67	
City of Atlanta, Georgia	12/23/2021	3	0.5	15.64	Deer Park Independent School District	6/29/2021	22	0.3	1.14	
Indianapolis Local Public Improvement Bond Bank	12/14/2021	36	5	13.91	Wayne County Airport Authority	6/23/2021	151	0.7	0.46	
Oakland Unified School District	11/3/2021	120	1.2	1.02	City of Mission Texas	4/20/2021	24	1.8	7.48	
The Metropolitan District of Hartford County	11/3/2021	66	4	6.06	City of Pittsburgh	3/25/2021	46	0	0.05	
County of Los Angeles Public Works Financing Authority	10/28/2021	260	5	1.92	New York City Municipal Water Finance Authority	3/18/2021	246	1.8	0.71	
Bexar County	9/23/2021	24	1.9	8.25	San Patricio County	1/28/2021	105	6.6	6.34	

v. Financing Team: In a brief narrative, provide a 'description of the team you plan to assign to work with GLWA and the responsibilities of each team member. In an appendix, provide a brief resume for each team member.

Dedicated Great Lakes Financing Team. SWS has assembled a team of highly experienced bankers in addition to the industry's most seasoned underwriting and sales professionals to serve the Authority. Our team is anchored by **Suzanne Shank, President and CEO**, who will be actively engaged in the account and will ensure that all the resources of the Firm are readily available to the Authority.

Sean Werdlow, Head of the Midwest Region, Senior Managing Director and **John Carter, Senior Managing Director**, will serve as the co-lead bankers for the Authority. **Laura McGraw, Senior Vice President**, will manage the credit and rating agency strategy. Should the Authority determine to designate projects as ESG eligible, **Jamiyl Flemming** will spearhead our efforts in this area.

Additional banking support will be provided by **Phong Pham, CPA, Senior Vice President**, **Anthony Piccinich, Vice President**, **Olivia Nelson, Associate**, and **Sean Conway, Analyst**.

Offering timely market information and advice on the cost-effectiveness of structuring and pricing for the Authority will be led by **Drew Gurley** and **Cindy Ashmore**, both **Managing Directors**, who together have over 50 years of combined experience. Refer to **Appendix A** for full resumes.

Dedicated Authority Finance Team		
Team Member / Role	Location & Experience	
 SUZANNE SHANK President and CEO Project Manager/ Resource Allocation	<ul style="list-style-type: none"> Detroit, MI Firm Tenure (yrs.): 25+ Industry Tenure (yrs.): 30+ 	
 SEAN WERDLOW Senior Managing Director/ Head of Midwest Region Co-Lead Banker	<ul style="list-style-type: none"> Detroit, MI Firm Tenure (yrs.): 17+ Industry Tenure (yrs.): 30+ 	
 JOHN CARTER Senior Managing Director Co-Lead Banker	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 17+ Industry Tenure (yrs.): 30+ 	
 LAURA MCGRAW Senior Vice President Credit Specialist / Day-to-Day Banker	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 1.5+ Industry Tenure (yrs.): 15+ 	
 PHONG PHAM, CPA Senior Vice President Regional / Day-to-Day Banker	<ul style="list-style-type: none"> Grand Rapids, MI Firm Tenure (yrs.): 3+ Industry Tenure (yrs.): 18+ 	
 JAMIYL FLEMMING Senior Vice President ESG SPECIALIST	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 2+ Industry Tenure (yrs.): 15+ 	
 ANTHONY PICCINICH Vice President Support Banker	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 5+ Industry Tenure (yrs.): 5+ 	
 OLIVIA NELSON Associate Support Banker	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 3+ Industry Tenure (yrs.): 3+ 	
 SEAN CONWAY Analyst Support Banker	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 0.75+ Industry Tenure (yrs.): 0.75+ 	

Underwriting, Sales & Trading		
Team Member	Location & Experience	
 DREW GURLEY Managing Director Taxable Underwriter / Co-Head Sales	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 12+ Industry Tenure (yrs.): 30+ 	
 CINDY ASHMORE Managing Director Tax-Exempt Underwriter	<ul style="list-style-type: none"> New York, NY Firm Tenure (yrs.): 3+ Industry Tenure (yrs.): 20+ 	

Key Financing Issues

Please respond to the following questions incorporating your views and/or any comments on GLWA key financial issues. Be specific in all responses.

i. Identify and discuss the strategic issues to be considered by GLWA in the implementation of its potential refunding and new money transaction(s). Address the key challenges that GLWA will encounter for its financing plans in 2022 and how to mitigate these challenges.

SWS has prepared a detailed new money and refunding plan of finance analysis for the Authority's consideration that takes into account the Authority's debt outstanding as well as its current financial needs and future capital plan. Based on this review, SWS has developed a comprehensive plan of finance for both Water and Sewer credits that strives to take into account (but balance) the following factors:

- **Future Capital Plan Considerations:** We have evaluated resultant debt service structures after new money and refunding transactions
- **Lien Considerations:** We have evaluated the utilization of Senior Lien versus Second Lien for new money and refunding purposes
- **DSRF Considerations:** We have sought to minimize DSRF requirements, maximize cash releases, eliminate new DSRF deposits, and consider expiring surety policies
- **Refunding Savings Considerations:** We have evaluated refunding candidates against various selection criteria
- **Market/Investor/ESG Considerations:** We have examined current market conditions and projected interest rates, prospective investors and ESG considerations for GLWA

Long-Term Capital Improvement Plan. SWS has closely reviewed the Authority’s overall 10-year capital plan when developing our 2022 plan of finance. SWS notes that the long-term capital plan for the Water System is significantly larger than the Sewer System (source: The Foster Group - GLWA Financial Forecast Update Memorandum dated October 14, 2021 “Foster Group Report”) and that the Sewer System will largely use System-generated cash as a source of funding, particularly in 2030 and beyond. The Authority forecasts bonding needs through FY32 for the Water and Sewer System to equal approximately \$1.259 billion and \$422.9 million, respectively. Although bonding capacity and strategies for both Systems should be carefully evaluated and developed, future bonding capacity for the Water System should be a particularly key consideration for the Authority as it seeks to implement its overall 2022 financing plan given the more sizeable CIP for the Water System and the heavier reliance on debt for this System. However, overall, we believe there is ample room under both Water liens to accommodate substantial future borrowing required by the System. Additional considerations in planning for the further bonding include:

Projected Minimum Coverage: Included in the Foster Group Report are projected coverage amounts through FY32, which remain strong across both credits and are boosted by “preliminary FY22 recommendations” of a 4.1% increase in Water System rates and a 3.1% increase for Sewer System rates (reflects reinstatement of Highland Park’s bad debt adjustment). The Foster Group Report also states that the Sewer System will utilize “Pay-Go” for all projected capital improvements beginning in FY30.

Decline in Legacy Pension Obligations Beginning in FY24. SWS would also note that the Authority and DWSD’s annual Legacy Pension Obligation payments will be reduced from \$45.4 million to \$11.0 million beginning in FY24. This expense reduction and additional cash flow beyond FY24 can potentially serve to free up additional debt service capacity to be used in future bond issuances if needed.

Lien Strategy. Credit spreads are very compressed in the current market and there is only approximately **5-7 basis points** in differential between the Authority’s Senior and Second Liens for its Water and Sewer credits. Taking this into account, our lien strategies for both Systems are as follows:

Water New Money Lien Strategy. We began our Lien strategy for Water new money purposes by starting with a 50%/50% split between liens in order to strike a balance between lien usage. We then determined that a more optimal mix of Senior and Second Lien debt could be achieved that would preserve substantial borrowing capacity under both liens but also maximize DSRF cash releases by decreasing the Authority’s DSRF requirement (see DSRF Strategies below). Our optimal strategy would result in a senior/second lien split of approximately 60%/40%, an amount which also increases cash released from the combined DSRF’s to \$3.534 million from \$1.959 million under a 50%/50% lien strategy and also lowers the TIC to 3.927% from 3.931%. SWS believes that this 60%/40% mix of Senior and Second lien debt continues to strike a balance in lien usage and preserve borrowing capacity under both liens while also maximizing DSRF cash releases and minimizing overall borrowing cost for the upcoming transaction, particularly on Water where debt service coverage is a consideration. Given the rising interest rate environment, this split between liens allows for the Authority to preserve some senior lien capacity for future Water System capital needs, especially if credit spreads widen between the Authority’s Senior and Second Liens. As such we would recommend this 60%/40% lien split as the most appropriate at this time.

Water System			Sewer System		
	50/50 Split	60/40 Split		50/50 Split	40/60 Split
<i>Decrease in Res Req Senior</i>	8,909,700	7,457,600	<i>Decrease in Res Req Senior</i>	12,874,378	14,193,677
<i>Cash Release Senior</i>	1,488,052	1,488,052	<i>Cash Release Senior</i>	12,874,378	14,193,677
<i>Decrease in Res Req Second</i>	471,069	2,046,156	<i>Decrease in Res Req Second</i>	8,708,709	7,705,913
<i>Cash Release Second</i>	471,069	2,046,156	<i>Cash Release Second</i>	6,043,348	6,043,348
Aggregate All-In TIC	3.931%	3.927%	Aggregate All-In TIC	3.921%	3.925%
Total DSRF Release	1,959,121	3,534,208	Total DSRF Release	18,917,726	20,237,025
TIC Diff. from 50/50 (bps)		-0.45	TIC Diff. from 50/50 (bps)		0.44

Sewer New Money Lien Strategy. Our lien strategy for Sewer is similar, and SWS also began with a 50%/50% split between senior and second liens for Sewer System new money capital needs. For the Sewer System, however, we determined that a move to a 40%/60% senior/second lien split would increase the DSRF cash release from \$18.917 million to \$20.237 million while only increasing the overall borrowing TIC by 0.44 basis points. For Sewer, where there is more DSRF cash to be released and coverage is not as much of a consideration, we believe that this approach maintains the balance between the two liens and also optimizes the DSRF cash release.

Refunding Lien Strategy. For both credits, we used Senior Lien bonds to refund Senior lien candidates and Second Lien bonds to refund Second Lien candidates.

Debt Service Reserve Fund (“DSRF”) Strategies. The Authority’s Water System has the following DSRF requirement for both the Senior and Second liens: the DSRF requirement is the lesser of (1) Maximum Annual Debt Service (2) 10% of Par Amount or (3) 125% of Average Annual Debt Service. The Sewer System has the same requirements, except that the third component of the Authority’s Sewer Second Lien requirement is 100% of average annual debt service, not 125%. The average annual debt service test serves as the key determinant of DSRF requirement for both the Water and Sewer Systems based on current and projected outstanding aggregate debt service for both liens. The addition of new debt service for the Water System in 2050-2052 and in 2049-2052 for Sewer, where there is currently no debt service serves to substantially lower the DSRF requirement calculation because the lesser of the three-prong test is based on average annual debt service, a factor which decreases significantly when three to four additional

years of lower debt service are averaged into the equation. Resultant optimized DSRF cash releases based on various lien strategies have been discussed in full above and are shown in the table above.

Additional DSRF Considerations - Surety Policies and Terminations. The majority of the Authority's existing debt service reserve funds are funded with various surety policies expiring at different dates over the next 15 years. Approximately \$29 million in available surety policies expire on July 1, 2027 for the Water System bonds. Approximately \$24.8 million in available surety policies expire on July 1, 2029 for the Sewer System bonds. Depending on the Authority's ratings and DSRF requirement at the time of each termination, existing reserve funds may need to be replenished with cash or additional surety policies to meet the minimum requirements. Because the "Average Annual debt service" component of the DSRF requirement will be the DSRF requirement determinant, SWS believes that the Authority will have a fallback for DSRF sizing if it does not meet the "Double A by two rating agencies" criteria prior to surety policy expiration. ***Structuring a small maturity size in a long final maturity is a technique that could be used to substantially reduce the DSRF requirement by increasing the number of years over which debt service is averaged, thereby reducing the overall average.***

Refunding Savings Considerations - Evaluating Optimal Refunding Thresholds. Although increases in current market interest rates have substantially reduced refunding savings opportunities for the Authority, we would still recommend that the Authority proceed with a refunding, particularly on the Water credit. We believe that refunding savings levels are still meaningful and could be applied to elevate debt service coverage levels in the early years for the Water System. If the Authority is concerned about the low refunding savings level, we would recommend that the Authority consider proceeding with a refunding on the Water transaction (where savings can be applied to increase debt service coverage), but potentially not proceed with a refunding on the Sewer System where there are far less pressing financial needs and a greater tolerance for the risk of waiting to refund. A final recommendation on a refunding transaction would occur at actual time of pricing depending on market conditions at that time. A more comprehensive analysis of refunding candidates and criteria is contained below in our response to Question ii.

Market Considerations: We have analyzed our plan of finance based on current market conditions and the current market scale as per the requirements of the RFP. In addition, we have analyzed investor considerations and the impact of ESG considerations on investor demand in our response to Question viii below. We have also analyzed different maturity structures and believe that a 30-year final maturity is optimal at this time.

Long Dated Maturities. SWS has also asked our sales desk to evaluate market appetite for long-dated maturity structures (i.e. beyond 30 years and up to 40 years). Although we believe that sufficient market demand exists for this long-dated structure, we also note that there is a drop off in investor interest beyond thirty (30) years as well as a considerable yield curve increase beyond thirty years of approximately 10 additional basis points for a 35-year maturity and an additional 10 basis points for a 40-year maturity. Given that both the 30-year bond and the 35 or 40-year bond would have a 10-year par call provision and likely a 5% coupon, the Authority would have to make the decision as to whether the increase in yield to the call date (at which point both bonds would likely be refunded) is justified versus the yield upside protection offered by the 5% coupon. SWS is available to discuss this maturity option with the Authority and its Municipal Advisor but for the moment we have assumed a final maturity of thirty (30) years for our recommendations as we believe it provides the highest efficiency and most favorable execution.

- ii. For a potential new money and refunding transaction in 2022, provide your recommendations for the plan of finance (including a recommended universe of refunding candidates and selection criteria) and structural features including its advantages, disadvantages, or any alternatives GLWA should consider to ensure a cost effective borrowing. Assume a new money borrowing size of \$200 million for the Water Supply System and \$175 million for the Sewage Disposal System. Detail the timing considerations associated with the potential transaction.

New Money Structuring Recommendations. In addition to the lien split strategies discussed above, our recommended new money structures are a 30-year level debt service structure for both liens on both Systems, with the exception of the Water System where we would recommend that amortization not commence until 2026 and then be level from 2026 through 2052. This minor structuring element would serve to enhance the Water System overall debt service coverage in 2023 through 2025. We did also evaluate a more back-loaded wrap-around debt structure for the Water System that would concentrate the debt levelly in maturities of 2037 and beyond. While this structuring technique does improve coverage modestly prior to 2037 and has only a modest increase in TIC (approximately 14 basis points), it is also a somewhat more aggressive amortization structure from a rating agency perspective and is further afield from the structures that the Authority has used on its new money financings since 2018 (primarily level debt service); as such this is a structure that we would want to have dialogue with the Authority and its Municipal Advisor prior to recommending an implementation. We would not recommend the use of this structure for the Sewer System because of the more robust coverage overall on that system and also the reduced future borrowing needs there.

Refunding Recommendations. Recent Market Impact on Refunding Opportunities. As a result of interest rate increases, available present value savings have declined substantially for both Water and Sewer credits and across the Senior and Second Liens. As of January 13th, combined present value savings across both credits and liens totaled \$103.2 million assuming a minimum 5% savings threshold of bonds callable in 2024 and 2025; these savings resulted from a \$444.590 million Water System refunding and a \$518.205 million Sewer System refunding. As of the April 6th scale date requested by the Authority, no candidates currently meet a 5% savings threshold; instead, SWS' current analysis now assumes a minimum 2.5% savings threshold for all callable bonds, generating combined overall present value saving of approximately \$6.3 million, from a \$101.770 million Water System refunding and a \$134.830 million Sewer System Refunding. Despite the substantial decrease in savings, we still believe that these candidates remain viable for refunding for the following reasons: all of these candidates have relatively short maturities (2030-2032); no new option purchase is necessary on the refunding bonds given their short maturity dates; and the time between option exercise date (7/1/2024) and final maturity (2030-2032) is relatively short, a factor which substantially limits the time value of this option. Additionally, the Authority would be refunding only approximately \$225 million of its total callable bond position of approximately \$3.3 billion, still leaving it with a substantial option position to harvest in the future.

We would especially recommend that the Authority capitalize on this opportunity for the Water System, as these refunding savings can be concentrated into the years in which debt service coverage is the lowest and improve results in those years. The candidates do have a relatively high breakeven rate (i.e., they can tolerate a tax-exempt market interest rate increase of 1.75% and still produce the same current refunding results on the call date) and as such, the Authority may want to refund its Water candidates now as there is a need for and use of savings but defer refunding the Sewer System candidates. However, we have continued to include a refunding in our base cases for both systems.

Advance Refunding Candidate Pool and Selection Criteria. SWS has undertaken a rigorous screening of the Authority’s available refunding candidates for both liens under both Systems. Our recommended pool of candidates consists of all bonds that are callable and have individual present value savings in excess of 2.5%. Per GLWA’s Debt Management Policy, it is the Authority’s practice to maintain a minimum of 2.5% savings for refunding transactions when possible. Our recommended pool of candidates and the aggregate refunding results are shown in the following table:

Credit		Total Refunded Par		PV Savings (\$)			PV Savings (%)					
Water – Senior Lien		\$101.77 million		\$2.7 million			2.67%					
Sewer – Senior Lien		\$134.83 million		\$3.6 million			2.69%					
System	Series	Maturity	Coupon	Principal	Call Date	Call Price	Taxable Advance Refunding			Future Current Refunding		Break Even(bps)
							Savings \$	Savings %	Savings Eff.	Savings \$	Savings %	
Water	2014D_D4	7/1/2032	5.00%	18,950,000	7/1/2024	100	548,752	2.90%	50.00%	2,977,608	15.71%	172
Water	2014D_D4	7/1/2031	5.00%	28,515,000	7/1/2024	100	745,157	2.61%	48.27%	4,097,019	14.37%	178
Water	2014D_D4	7/1/2030	5.00%	54,305,000	7/1/2024	100	1,402,430	2.58%	49.73%	7,069,320	13.02%	181
Water Total				101,770,000								
Sewer	2014E_C6	7/1/2032	5.00%	9,100,000	7/1/2024	100	263,517	2.90%	50.00%	1,429,881	15.71%	172
Sewer	2014C_C3	7/1/2032	5.00%	50,515,000	7/1/2024	100	1,462,807	2.90%	50.00%	7,937,408	15.71%	172
Sewer	2014C_C3	7/1/2031	5.00%	31,945,000	7/1/2024	100	834,790	2.61%	48.27%	4,589,839	14.37%	178
Sewer	2014C_C3	7/1/2030	5.00%	25,285,000	7/1/2024	100	652,987	2.58%	49.73%	3,291,552	13.02%	181
Sewer	2012A*	7/1/2023	5.00%	17,985,000	7/1/2022	100	N/A	N/A	N/A	463,109	2.57%	N/A
Sewer Total				134,830,000								

* The 2023 maturity of the Sewer Series 2012A bonds is a tax-exempt current refunding candidate and savings reflect such

Interest Rate Sensitivity. Given the increase in interest rates since January 2022 and the expectations rates will continue to rise, SWS believes it would be in the Authority’s best interest to lock-in refunding savings available to the Authority at this time on these candidates (especially for the Water System discussed further herein), as SWS has calculated that less than 50 additional basis points in market deterioration would erode savings altogether.

Movement (bps)	Water System - Taxable Advance Refunding					Sewer System - Combined Refunding				
	-100 bps	-50 bps	0 bps	50 bps	100 bps	-100 bps	-50 bps	0 bps	50 bps	100 bps
Refunded Par	101,770,000	101,770,000	101,770,000	101,770,000	101,770,000	134,830,000	134,830,000	134,830,000	134,830,000	134,830,000
All-In TIC	2.97%	3.47%	3.97%	4.47%	4.97%	2.99%	3.49%	3.99%	4.49%	4.99%
Net PV Savings	10,774,133	6,662,630	2,721,717	-1,056,054	-4,678,263	13,612,684	8,507,636	3,623,945	-1,048,801	-5,520,989
% Savings	10.59%	6.55%	2.67%	-1.04%	-4.60%	10.10%	6.31%	2.69%	-0.78%	-4.09%

Optionality Analysis. Because the Authority will be refunding these candidates with non-callable bonds, there will be no new option purchase on the refunding bonds to evaluate in conjunction with a refunding decision. However, on the refunded bonds, SWS has estimated that the original price that the Authority actually paid to purchase the call options on the refunded bonds was minimal; thus, the present value refunding savings gain is substantial in comparison to the original option purchase price and results in a very high return on investment for the original option purchase transaction. As such, the refunding decision is economically justified at the *present time* despite the possibility that there could be a larger gain in the future – there could also be a larger loss in the future; the ability to lock in a high ROI and eliminate all risk on the option position is economically favorable despite what could possibly happen in the future.

Current Refunding Opportunity. SWS would also recommend that the Authority currently refund on a tax-exempt basis the Sewer System’s Senior Lien Series 2012A 2023 maturity, which is callable on 7/1/2022, especially given the declining option value for this maturity, which if not refunded or defeased, will mature in 2023 and the option will expire unused and worthless. SWS has structured all refunding transactions to have a matched maturity uniform savings structure.

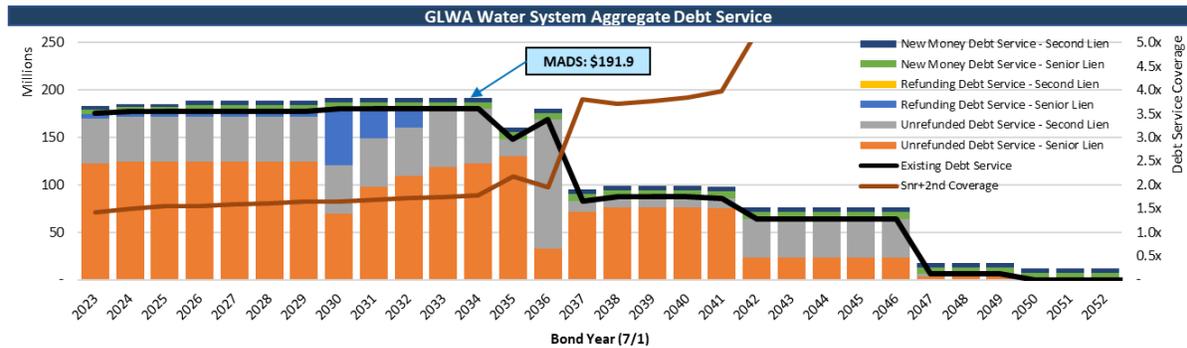
Refunding Transaction Structuring. In addition to our methodology stated above of refunding bonds into the same lien, SWS started with a base case refunding savings pattern to be for level savings. We have kept this pattern as our recommended structure for the Sewer System refunding but we could potentially modify this savings for the Water System by also refunding non-callable bonds that mature in 2023 and 2024 as a way of accelerating the refunding savings into 2023 and 2024 so as to maximize the coverage benefit in those two years. This type of accelerated savings structure could raise the minimum debt service coverage for the Water System to 1.45x and 1.50x in 2023 and 2024. SWS can discuss this structuring alternative with the Authority and its Municipal Advisor upon request.

Water System – Combined Financing Scenarios. SWS’ recommended combined new money and refunding scenario takes into consideration the **Key Financing Issues** as described in detail in our response to Question i above. For the Authority’s Water System, SWS would recommend structuring the Senior and Second Lien new money issuances with level debt service and a 30-year final maturity. All refunding opportunities for Water were structured for uniform savings, although these savings could be accelerated into 2023 and 2024 in order to maximize debt service coverage in those years. Furthermore, SWS did not structure any new money principal payments from 2023 through 2025 in order to alleviate upfront pressure on debt service coverage. Our overall structure consists of serial bonds from 2026 through 2042 and term bonds in 2047 and 2052, all with 5% coupons. SWS also focused on maximizing DSRF cash releases (and decreasing overall reserve requirements) by striking a balance between Senior and Second Lien new money issuance amounts, which results in a senior/second lien split of approximately 60%/40%. This optimized split allows for the full release of \$1.488

million out of a total available DSRF cash amount of \$1.488 million from the Senior Lien and \$2.046 million out of an available \$4.961 million for the Second Lien. This strategy preserves some senior lien capacity while still striking a balance in minimizing overall borrowing cost on the upcoming transaction.

Sources	Senior Lien			Second Lien		Aggregate		
	2022A New Money	2022C Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Par Amount	104,920,000	105,305,000	210,225,000	68,530,000	68,530,000	173,450,000	105,305,000	278,755,000
Premium/OID	15,503,246	-	15,503,246	9,701,560	9,701,560	25,204,806	-	25,204,806
DSF Release	-	424,042	424,042	-	-	-	424,042	424,042
DSRF Release	-	1,488,052	1,488,052	2,046,156	2,046,156	2,046,156	1,488,052	3,534,208
Total	120,423,246	107,217,094	227,640,340	80,277,717	80,277,717	200,700,963	107,217,094	307,918,056

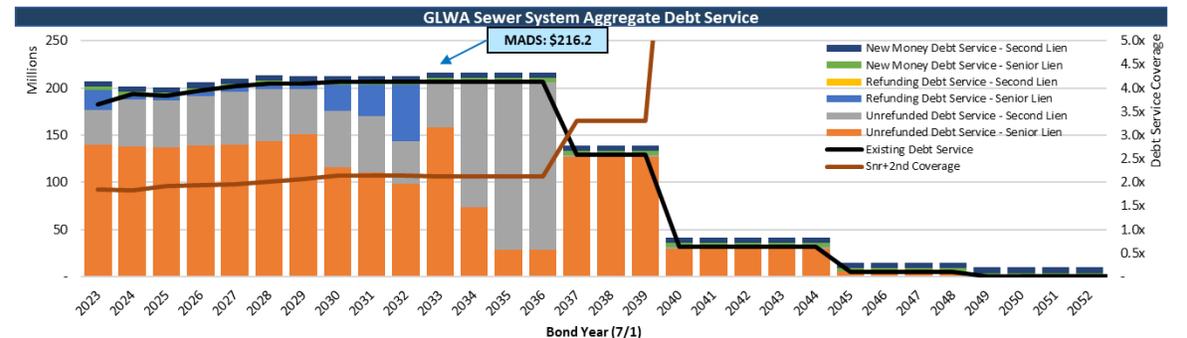
Uses	Senior Lien			Second Lien		Aggregate		
	2022A New Money	2022C Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Deposit to Escrow Fund	-	106,792,642	106,792,642	-	-	-	106,792,642	106,792,642
Deposit For New Money	120,000,000	-	120,000,000	80,000,000	80,000,000	200,000,000	-	200,000,000
DSRF Deposit	-	-	-	-	-	-	-	-
UWD	209,840	210,610	420,450	137,060	137,060	346,900	210,610	557,510
COI	209,840	210,610	420,450	137,060	137,060	346,900	210,610	557,510
Contingency	3,566	3,232	6,798	3,597	3,597	7,163	3,232	10,394
Total	120,423,246	107,217,094	227,640,340	80,277,717	80,277,717	200,700,963	107,217,094	307,918,056



Sewer System – Combined Financing Scenarios. For the Authority’s Sewer System, SWS would recommend structuring the Senior and Second Lien new money issuances with level debt service and a 30-year final maturity. All refunding opportunities would be structured for uniform savings. SWS focused on maximizing DSRF cash releases (and decreasing overall reserve requirements) by striking a balance between Senior and Second Lien new money issuance amounts, which results in a Senior/Second lien split of approximately 40%/60%. This optimized split allows for almost a full release of \$14.193 million out of a total available DSRF cash amount of \$14.235 million from the Senior Lien and the full release of \$6.043 million of available cash from the Second Lien. This strategy preserves some senior lien capacity for future use while still striking a balance in minimizing overall borrowing cost on the upcoming transaction. Our overall structure consists of serial bonds from 2023 through 2042 and term bonds in 2047 and 2052, all with 5% coupons.

Sources	Senior Lien				Second Lien		Aggregate		
	2022A New Money	2022C Refunding	2022E Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Par Amount	61,455,000	110,270,000	15,705,000	187,430,000	87,330,000	87,330,000	148,785,000	125,975,000	274,760,000
Premium/OID	8,794,395	-	450,105	9,244,500	11,977,726	11,977,726	20,772,121	450,105	21,222,226
DSF Release	-	486,854	-	486,854	-	-	-	486,854	486,854
DSRF Release*	-	12,300,380	1,893,297	14,193,677	6,043,348	6,043,348	6,043,348	14,193,677	20,237,025
Total	70,249,395	123,057,234	18,048,403	211,355,032	105,351,074	105,351,074	175,600,469	141,105,637	316,706,106

Uses	Senior Lien				Second Lien		Aggregate		
	2022A New Money	2022C Refunding	2022E Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Deposit to Escrow Fund	-	122,611,636	17,985,002	140,596,638	-	-	-	140,596,638	140,596,638
Deposit For New Money	70,000,000	-	-	70,000,000	105,000,000	105,000,000	175,000,000	-	175,000,000
DSRF Deposit	-	-	-	-	-	-	-	-	-
UWD	122,910	220,540	31,410	374,860	174,660	174,660	297,570	251,950	549,520
COI	122,910	220,540	31,410	374,860	174,660	174,660	297,570	251,950	549,520
Contingency	3,575	4,518	581	8,674	1,754	1,754	5,329	5,099	10,428
Total	70,249,395	123,057,234	18,048,403	211,355,032	105,351,074	105,351,074	175,600,469	141,105,637	316,706,106



*Split proportionately between Tax-Exempt and Taxable Refunding given Refunded Par Amount

Impact on Minimum Debt Service Coverages. Shown below are updated pro forma minimum coverage levels for both liens under both credits. SWS notes that the long-term capital plan for the Water System is significantly larger than the Sewer System, and thus, future capacity for the Water System should be a consideration for the Authority as it implements its overall 2022 financing plan. **Despite the uptick in interest rates, we believe that minimum pro-forma debt service coverage remains sufficient across both systems and liens for the proposed Series 2022 issuance and future planned capital needs.**

Financing Scenario	Water System		Sewer System	
	Senior	Senior + Second	Senior	Senior + Second
Recommended Case	1.95x	1.41x	2.39x	1.84x

Timing Considerations. SWS believes there are various concerns and uncertainties over the near term that could potentially impact the Authority’s anticipated pricing in July. This proposed timing of the transaction provides the Authority with sufficient lead-time for document preparation and transaction approvals. Although we anticipate that interest rate and volatility concerns will remain elevated over the near term, we believe the Authority will benefit from the health of the State’s financial condition and the resilience of the Michigan economy which will continue to bolster the State’s finances – all of which are credit positives. SWS’ banking and underwriting team will promptly notify the Authority and its Municipal Advisor of events that may impact the timing and pricing of the Authority’s proposed transaction.

- iii. Provide examples of innovative financing techniques, financial products, structures, suggestions, or ideas that would be relevant to GLWA and how they would be specifically applied to GLWA.

Although the increase in market interest rates has significantly decreased the savings available from a conventional taxable advance refunding, SWS has identified two highly viable alternative transaction structures that would both serve to dramatically increase refunding savings and could have substantial economic impact for the Authority. Both of these alternative structures are detailed below:

Tender/Exchange Refunding. SWS has analyzed a hypothetical tender/exchange for the taxable advance refunding candidates identified above. Under a tender/exchange, the Authority would solicit interest from existing holders of the refunding candidates to either tender their bonds to the Authority or agree to surrender their current bonds in exchange for a new series of tax-exempt refunding bonds. Unlike a taxable advance refunding, a tender or exchange has the potential to allow for a tax-exempt current refunding and produce savings well beyond what is available via a traditional taxable advance refunding. SWS calculates that there are potentially over \$14.3 million of incremental PV savings across both Systems for a tender/exchange versus a taxable refunding at a 100% participation rate. Ultimately, however, the actual level of incremental PV savings realized would be dependent upon both the tender/exchange price agreed upon as well as the actual participation rate of investors in the tender/exchange process, an outcome that is very difficult to predict. SWS has determined that a substantial number of the holders of both the Water and Sewer refunding candidates under consideration can be identified. As such and given the substantial incremental increase in present value savings potentially available, SWS would work with the Authority and its Municipal Advisor to determine the feasibility of issuing a Voluntary EMMA Notice that would then allow SWS to initiate discussions with investors to gauge interest in a tender or exchange transaction and therefore further fine-tune expectations and projections of incremental savings. The potential economic benefits of the tender/exchange process are detailed in the table below:

Transaction Type	Taxable Advance Refunding (10-Year Par Call)			Tender/Exchange (\$1.50 Premium) (100% Participation)			Incremental Savings
	Refunded Par (\$)	PV Savings (\$)	PV Savings (%)	Refunded Par (\$)	PV Savings (\$)	PV Savings (%)	
Water System - Senior Lien	\$101,770,000	2,785,113	2.74%	\$101,770,000	9,086,052	8.93%	6,300,939
Sewer System - Senior Lien	116,845,000	3,189,609	2.73%	116,845,000	11,221,681	9.60%	8,032,072
Total	\$218,615,000	\$5,974,722	2.73%	\$218,615,000	\$20,307,733	9.29%	\$14,333,011

Cash Optimization. A Cash Optimization transaction is also a very efficient way to substantially lower borrowing costs and create economics similar to a tax-exempt advance refunding transaction. A cash optimization could potentially enhance the Authority’s refunding economics by approximately \$20.5 million. Under a Cash Optimization structure, the Authority would use its cash on hand that has been earmarked for pay-go projects in the I&E Funds to instead defease the outstanding refunding candidates discussed above; the Authority would then conduct a tax-exempt new money transaction separated by 15 days from the cash defeasance transaction in order to replenish its cash for capital projects. SWS previously served as senior manager for a transaction of this nature implemented by the Delaware River Joint Toll Bridge Commission in 2018. SWS has calculated that the Authority has approximately \$145.31 million in pay-go cash for the Water System (33.1% of total cash allocated to the I&E Fund) and \$113.48 million in pay-go cash for the Sewer System (25.5% of total cash allocated to the I&E Fund) on hand as detailed in the Authority’s Cash and Investment Report as of 12/31/2021 which was included with the March 25, 2022 Audit Committee Meeting materials. Given the substantial incremental savings potentially available to the Authority combined with the Authority’s pay-go cash projections, we believe that this alternative should be given a full evaluation by the Authority, its Municipal Advisor, and its Bond Counsel. We also believe that this alternative is superior to a tender/exchange structure because it provides substantially superior economic results and does not rely on the participation of existing bondholders. It is necessary to note that one risk feature contained in this strategy is the market risk inherent in the 15-day separation between the two transactions. However, we believe that the incremental savings available in this technique justify this market risk and also provide substantial cushion against interim interest rate movements.

▪ **Water System Results.** For the Water System, the Authority could use up to approximately \$106.6 million today of pay-go cash (if available) to defease \$101.8 million of outstanding bonds with an escrow cost of \$106.6 million. The Authority would then finance any earmarked projects using approximately \$106.8 million of tax-exempt bond proceeds by issuing \$90.0 million of tax-exempt new money bonds. Assuming a uniform savings structure, a Cash Optimization could generate approximately \$12.0 million in present value savings, \$9.2 million greater than a conventional taxable advance refunding.

Cash Optimization Results	Water Senior Lien		Difference
	TX Adv Ref	Cash Optimization	
Delivery Date	7/13/2022	7/13/2022	-
Refunding Par (\$)	105,305,000	90,045,000	-15,260,000
Refunded Par (\$)	101,770,000	101,770,000	-
All-In TIC	3.96%	2.84%	-1.12%
Average Life (years)	8.25	8.57	0.32
Negative Arbitrage (\$)	2,763,867	540,180	-2,223,687
NPV Savings (\$)	2,785,113	11,976,854	9,191,741
NPV Savings	2.7%	11.8%	9.0%
Refunding Efficiency	50.2%	95.7%	45.5%

▪ **Sewer System Results.** For the Sewer System, the Authority could use up to approximately \$122.4 million today of pay-go cash (if available) to defease \$116.8 million of outstanding bonds with an escrow cost of \$122.4 million. The Authority would then finance any earmarked projects using approximately \$122.4 million of tax-exempt bond proceeds by issuing \$94.6 million of tax-exempt new money bonds. Assuming a uniform savings structure, a Cash Optimization could generate approximately \$14.5 million in present value savings, \$11.3 million greater than a conventional taxable advance refunding.

Cash Optimization Results	Sewer Senior Lien		Difference
	TX Adv Ref	Cash Optimization	
Delivery Date	7/13/2022	7/13/2022	-
Refunding Par (\$)	111,445,000	94,590,000	-16,855,000
Refunded Par (\$)	116,845,000	116,845,000	-
All-In TIC	4.02%	2.89%	-1.13%
Average Life (years)	9.27	9.32	0.05
Negative Arbitrage (\$)	3,315,335	733,410	-2,581,925
NPV Savings (\$)	3,189,609	14,528,836	11,339,226
NPV Savings	2.7%	12.4%	9.7%
Refunding Efficiency	49.0%	95.2%	46.2%

iv. Provide tax-exempt and taxable scales from 1-30 years (July 1 maturities) for each of the Water Senior, Water Second, Sewer Senior, and Sewer Second liens. Assume market conditions as of April 6, 2022. Assume 5% coupons for tax-exempt issuance, and par coupons for taxable issuance. Assume a 7/1/2032 par call.

Indicative Pricing Levels. Below are indicative pricing levels for the Authority's Senior and Second Lien bonds for both Water and Sewer. MMD and spreads are as of the close of business on April 6, 2022. Both tax-exempt and taxable pricing levels assume a 10-year par.

Due (7/1)	MMD (4/6/22)	Water & Sewer Senior Lien			Water & Sewer Second Lien			Due (7/1)	Tsy (4/6/22)	Water & Sewer Senior Lien			Water & Sewer Second Lien		
		Spread	Coupon	YTC	Spread	Coupon	YTC			Spread	Coupon	Yield	Spread	Coupon	Yield
2023	1.74%	25	5.00%	1.99%	30	5.00%	2.04%	2023	2.50%	30	2.80%	2.80%	35	2.85%	2.85%
2024	1.91%	30	5.00%	2.21%	35	5.00%	2.26%	2024	2.50%	60	3.10%	3.10%	65	3.15%	3.15%
2025	2.02%	35	5.00%	2.37%	40	5.00%	2.42%	2025	2.67%	65	3.32%	3.32%	70	3.37%	3.37%
2026	2.08%	38	5.00%	2.46%	45	5.00%	2.53%	2026	2.70%	80	3.50%	3.50%	85	3.55%	3.55%
2027	2.11%	43	5.00%	2.54%	50	5.00%	2.61%	2027	2.70%	90	3.60%	3.60%	95	3.65%	3.65%
2028	2.13%	45	5.00%	2.58%	52	5.00%	2.65%	2028	2.69%	100	3.69%	3.69%	105	3.74%	3.74%
2029	2.20%	48	5.00%	2.68%	55	5.00%	2.75%	2029	2.69%	110	3.79%	3.79%	115	3.84%	3.84%
2030	2.25%	50	5.00%	2.75%	58	5.00%	2.83%	2030	2.61%	125	3.86%	3.86%	132	3.93%	3.93%
2031	2.29%	53	5.00%	2.82%	60	5.00%	2.89%	2031	2.61%	135	3.96%	3.96%	142	4.03%	4.03%
2032	2.33%	55	5.00%	2.88%	62	5.00%	2.95%	2032	2.61%	140	4.01%	4.01%	147	4.08%	4.08%
2033	2.37%	58	5.00%	2.95%	65	5.00%	3.02%	2033	2.61%	155	4.16%	4.16%	162	4.23%	4.23%
2034	2.40%	60	5.00%	3.00%	67	5.00%	3.07%	2034	2.61%	170	4.31%	4.31%	177	4.38%	4.38%
2035	2.43%	63	5.00%	3.06%	70	5.00%	3.13%	2035	2.61%	180	4.41%	4.41%	187	4.48%	4.48%
2036	2.44%	65	5.00%	3.09%	72	5.00%	3.16%	2036	2.61%	190	4.51%	4.51%	197	4.58%	4.58%
2037	2.46%	65	5.00%	3.11%	72	5.00%	3.18%	2037	2.61%	195	4.56%	4.56%	202	4.63%	4.63%
2038	2.48%	65	5.00%	3.13%	72	5.00%	3.20%	2042	2.63%	205	4.68%	4.68%	212	4.75%	4.75%
2039	2.50%	65	5.00%	3.15%	72	5.00%	3.22%	2052	2.63%	215	4.78%	4.78%	222	4.85%	4.85%
2040	2.51%	65	5.00%	3.16%	72	5.00%	3.23%								
2041	2.52%	65	5.00%	3.17%	72	5.00%	3.24%								
2042	2.54%	65	5.00%	3.19%	72	5.00%	3.26%								
2047	2.62%	67	5.00%	3.29%	74	5.00%	3.36%								
2052	2.67%	70	5.00%	3.37%	77	5.00%	3.44%								

v. Analytical Capabilities: Provide a brief description of your firm’s analytic capabilities and how your firm proposes to use such capabilities to assist the Authority.

SWS’ Structuring and Quantitative Expertise. SWS’ dedicated in-house **Quantitative Group** provides debt structuring and financial analyses, incorporating technology to optimize financing structures and ensure the lowest possible borrowing cost on any given financing. SWS utilizes a combination of industry-leading software and in-house Microsoft Excel models for financing optimization and structuring analytics for new money and refunding transactions. Our capabilities include proprietary as well as industry-standard structuring, bond sizing, refunding, and option evaluation applications. SWS provides the following services:

- **What’s Best Optimization:** Tax-exempt and taxable debt structuring, including *What’sBest* linear optimization (optimization for complex issuers and niche sectors)
- **Escrow Optimization:** Escrow portfolio optimization and investment portfolio rebalancing
- **Project financing strategies**
- **Flow of Funds models**
- **Call optimization and efficiency analysis**

Resource	Summary
Linear Optimization Modeling Software	<i>“What’sBest” Linear Optimization Software</i> – used for tax-exempt and taxable debt structuring using fixed, stepped and zero coupons; the models determine the optimal method of issuing new debt given specific revenue constraints to bond covenants
Water & Sewer Specific Modeling	Include revenue projection, bonding capacity and debt service coverage maximization strategies
Proprietary Refunding Algorithm	Designed to thoroughly evaluate refunding opportunities from all different angles so that our issuer clients can make the most well-informed decisions when considering a refunding of which the Commission has several pending and attractive opportunities over the next few years
Coupon Analysis Model	Allows an issuer for interest cost sensitivity tests to compare issuing 5% versus sub-5% coupons taking into account the savings achieved today versus the future refunding savings potential
Portfolio Statistics Report	SWS’ proprietary report will show how the Authority’s bond portfolios compare to other issuers in duration, convexity, and option adjusted duration
Asset Liability Management	Protocol can minimize variances between revenue receipts, investment earnings and bond payments
DBC Finance	The industry standard for municipal bond structuring

vi. Provide a credit rating strategy for GLWA to maintain or upgrade its bond ratings over the planning horizon of two to three years.

SWS Water and Sewer Credit Expertise. SWS continues to have a very close connectivity to the Authority’s credit having been highly involved in the 2020 rating process and assisting other issuers throughout the COVID-19 pandemic. SWS has a dedicated Michigan coverage team as well as a highly-regarded credit specialist, **Laura McGraw**, *Senior Vice President*, who joined the team in 2020. Ms. McGraw has nearly 15 years of public finance banking experience and worked at Build America Mutual (“BAM”) where she was a member of the Credit Surveillance Group responsible for early identification of developing credit trends across BAM’s entire insured portfolio.

Rating Agency Water and Sewer Outlooks STABLE. Despite the pandemic **all major agencies currently maintain a “Stable” Water and Sewer Sector Outlook.** In December 2021, S&P released a public inquiry seeking comment on its current Water and Sewer Methodology published in January 2016. Per S&P, the request “will likely result in approximately 98% of the ratings being unchanged”.

S&P Global Ratings	FitchRatings	MOODY’S INVESTORS SERVICE
<p>Stable Outlook</p> <p><i>“Water and sewer systems were remarkably resilient and the unsung heroes during and after the worst of the pandemic-related recession”</i></p>	<p>Stable Outlook</p> <p><i>“An increase in sector leverage is expected going forward however robust balance sheets should be able to withstand business disruptions”</i></p>	<p>Stable Outlook</p> <p><i>“Governance will be critical in mitigating environmental and social risks; climate change and regulatory challenges”</i></p>

Rating Strategy and Outlook Upgrade Request

- **Key Credit Strengths:** Highlight key credit strengths with a focus on the **incremental** improvement since the 2020 rating process
- **Member Partner Credit Strengths:** Highlighting the credit of member partners, as well as ratings upgrades and outlooks improvements
- **Agency Concerns and Sector Pressures:** Analyze rating agency concerns and sector pressures and provide mitigating factors
- **Indicative Rating Scorecards:** Analyze indicative ratings utilizing the scorecards provided by each agency

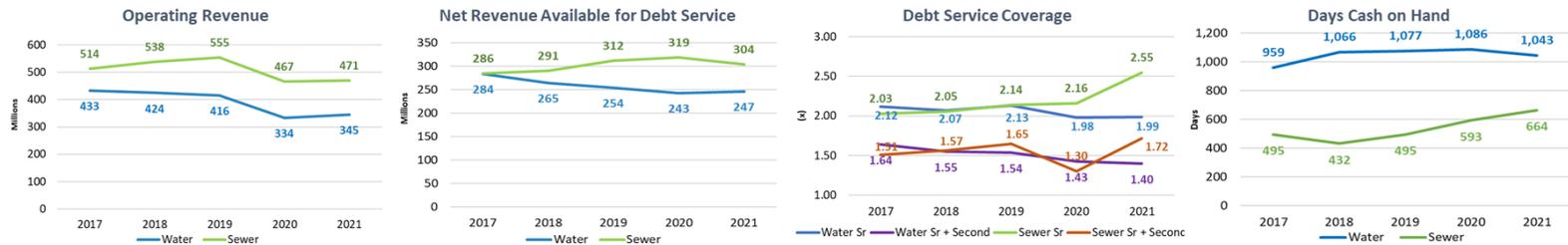
	MOODY’S	S&P Global	FitchRatings
Water and Sewer Ratings (Senior/Second Lien)	A1/A2 (Stable)	AA-/A+ (Stable)	A+/A (Stable)
Pursue One-Notch Rating Upgrade?	Scorecard reflects AA- category rating on Sr. Lien	Pursue Upgrade/Positive Outlook	Pursue Upgrade/Positive Outlook
Indicative Scorecard Rating (Senior Lien)	Aa3/A1 (Stable)	AA/AA- (Stable)	AA-/A+ (Stable)

We believe at a minimum the Authority is poised for an Outlook increase to Positive from Each of the three agencies

Great Lakes Water Authority Key Credit Strengths

Seasoned Management	<ul style="list-style-type: none"> Seasoned management team with deep bench of long-tenured professionals Track record of strong budget management and transparency
Necessity of System	<ul style="list-style-type: none"> Natural supply of raw water coupled with existing capital facilities of the Water System Long-standing municipal relationships extending contractually for many years and no material competition
Diverse Customer Base	<ul style="list-style-type: none"> FY21 Water Revenue: \$150.8MM or 43.8% of FY21 Operating Revenue \$344.6MM FY21 Sewer Revenue: \$264.5MM or 56.2% of FY21 Operating Revenue \$470.8MM
COVID-19 Response	<ul style="list-style-type: none"> Quick action to implement strategies to deal with the short-and long-term impacts Great Lakes provided continuity of service throughout this difficult time while prioritizing projects
Manageable Capital Program	<ul style="list-style-type: none"> Capital Plan comparable to other large urban water and sewer systems, representing significant investment in critical infrastructure (<i>sufficient proforma coverage</i>)
Healthy Liquidity	<ul style="list-style-type: none"> Water: Unrestricted Cash and Investments: \$415 million Days Cash of Hand: 1,043 Days Sewer: Unrestricted Cash and Investments: \$358 million Days Cash of Hand: 664 Days
Strong Operating Performance & Financial Results	<ul style="list-style-type: none"> Since 2020, the Authority's key operating and financial metrics have remained stable or improved Operating revenue and coverage on the Sewer System has increased, <i>despite the COVID-19 pandemic</i>
Strong Rate Covenant / Pro Forma Coverage	<ul style="list-style-type: none"> Strong Rate Covenant of 1.2x Senior Lien, 1.1x for Second Lien and 1.0x for all bonds Post proposed Series 2022 issuances, minimum pro forma debt service coverage Water: 1.41x Sewer: 1.84x Conservative debt profile with no swap exposure
Legal Agreements Mitigate Credit Risk	<ul style="list-style-type: none"> Foundational agreements codify: revenue requirement parameters, allocation of costs/liabilities, step-in authority, closed loop lease payment, WRAP funding, and management and oversight standards 2018 MOU clarifies the foundational agreements, improves alignment between parties and provides for long-term stability

Positive Trend in Financing Metrics



Member Partner Credit Statistics

	State of Michigan	City of Detroit	Macomb County	Oakland County	Wayne County
Ratings (M/S/F)	Aa1/AA/AA	Ba2/BB/NR	Aa1/AA+/NR	Aaa/AAA/NR	A3/BBB+/BBB+
Median Household Income	\$57.1k	\$30.8k	\$62.6k	\$79.7k	\$47.3k
Population	10,077,331	639,111	881,217	1,274,395	1,793,561
Operating Revenue (\$MM)	\$27,469.0	\$111.8	\$258.5	\$620.9	\$111.9
General Fund Balance (\$MM)	\$5,500.0	\$854.2	\$72.4	\$267.0	\$191.9
Long-Term Debt (\$MM)	\$6,000.0	\$2,300.0	\$271.3	\$633.2	\$813.2

Revitalization of Cities and Counties

Wayne County:

- ✓ 2018: Upgraded by S&P to **BBB+** from **BBB-**
- ✓ 2019: Upgraded by Fitch to **BBB+** from **BBB-**
- ✓ 2021: Upgraded by Moody's to **A3** from **Baa1**

City of Detroit:

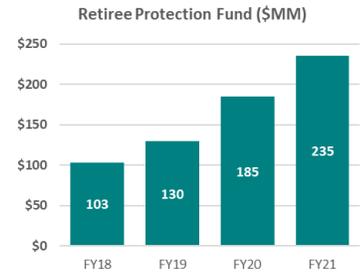
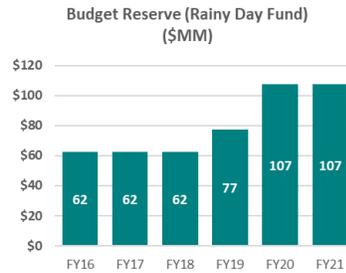
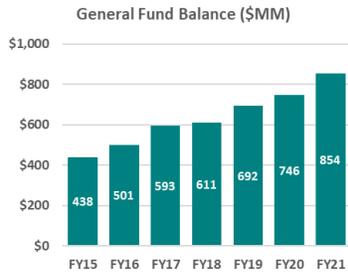
- ✓ 2018: Upgrade by Moody's and S&P
- ✓ 2020: Outlook revised to **Positive** from **Stable** by Moody's
- ✓ 2021: Outlook revised to **Stable** from **Negative** by S&P
- ✓ 2022: Upgrade by Moody's and S&P to **Ba2** and **BB**, respectively **Positive** Outlooks

Strengths	Considerations
<ul style="list-style-type: none"> Management: Strong budgetary oversight Relationship with DWSD: Oversight/Relationship with Detroit Water and Sewer Department that sets financial targets and internal controls Independent Operating Performance: 4 years of operating separately from DWSD Superior Bondholder Protections – all GLWA and DWSD payments deposited to Bond Trust Account Limited future exposure to pension cost escalation from legacy Detroit obligations resulting from prior bankruptcy negotiations Diverse revenue stream / Customer base Low Delinquencies: No current or historical collection concerns in the wholesale customer base with exception of Highland Park 	<ul style="list-style-type: none"> Pandemic Related Population Loss: Risk due to COVID-19 Mitigants to Detroit Economic Exposure <p>January 2021 Outlook Upgrade: - In January 2021, SWS helped Detroit receive an Outlook Upgrade from Negative to Stable</p> <p>March 2022 Detroit Upgrades: - UTGO: Upgraded to Ba2 by Moody's and BB by S&P, both with Positive Outlooks - Income Tax: Upgraded to BBB- by S&P, Positive Outlook</p>
<p>↑ What Could Change the Rating Up</p> <ul style="list-style-type: none"> Significant economic improvement within City of Detroit 	<p>↓ What Could Change Down</p> <ul style="list-style-type: none"> Economic stress or capital cost escalation

Highland Park. As of November 2019, Highland Park was the only wholesale customer with a past due balance. Highland Park’s sewer payment performance has improved in recent years, with sewer payments representing 73% and 93% of amounts billed during 2018 and 2019, respectively. The FY20 and FY21 payment performance was lower, with sewer payments representing 53% and 49% respectively. It is expected that Sewer charges will increase by 3.66% for all member partners, with 1.15% of that increase to account for revenue requirements allocable to Highland Park.

Recent City of Detroit Upgrades.

Detroit has maintained six years of balanced budgets, surpluses, and a fund balance grown to \$854 million by FY2021. Detroit implemented policies to budget conservatively and to only use non-recurring resources for one-time purposes and increased its



Rainy Day Fund to almost 10% of expenditures by FY21. Detroit also created the Retiree Protection Fund (“RPF”) to meet the FY24 pension funding schedule and built up budgetary and position control, revenue estimation, fiscal analysis, and long-term planning capabilities. Finally, the City established ongoing partnership with Michigan universities for Detroit economic forecasting and analyses. All these actions helped achieved the City’s recent UTGO rating upgrade to **Ba2** and **BB** by Moody’s and S&P, respectively and the City’s Income Tax upgrade to **BBB-** by S&P.

2021 Flooding. The Detroit area experience massive flooding in June 2021. In Wayne County, a class action lawsuit was filed after half of the 16 pumps were not working in two of the Authority’s pump houses. In Grosse Pointe Park, eleven (11) homeowners filed a lawsuit against the Authority, Detroit, Grosse Pointe Park and the Detroit Water and Sewerage Department claiming eight feet of sewage back-up.

Liability Coverage. Under Michigan’s Governmental Liability for Negligence Act, “a defect in the sewage disposal system must be substantial proximate cause of the sewer backup event and the property damage and physical injury.” The Authority maintains \$10 million general liability coverage that may cover claims related to flooding. It is possible federal funding can be allocated to help offset the costs of fixing the pumps.

Wastewater Master Plan: The Authority previously established a [Wastewater Master Plan](#) that is affordable to all while addressing the region’s wastewater service and source water protection needs for the next 40 years. The Plan establishes regional critical HGL and control strategies to reduce the risk of basement flooding and sanitary sewer overflows and takes a holistic and regionally integrated approach to wastewater treatment, stormwater, capacity management, and receiving water quality while leveraging regional collaboration.

Sector Trends and Pressures:

- 1) **Forecasting** - In 2021, Fitch released its **FAST** analysis which aimed to assess “how operating decisions could affect a utility’s financial profile in both a base and stress case scenario”. It is important for the Authority to present its pro forma capital plan in its entirety and how it will be impacted projected coverage levels when meeting with agencies.
- 2) **Liquidity** - The Authority has been building its cash reserves. In FY2021, unrestricted cash and investments in the Water System totaled \$415 million and unrestricted cash and investments in the sewer system total \$358 Million. **The fact the Authority built up its reserves prior to the pandemic will be viewed as a credit positive.**
- 3) **Environmental, Social, and Governance (ESG)** - In 2021, rating agencies began issuing a ESG Score for cities across the U.S. While this score is not included in rating scorecards, it is taken into account and could sway an indicative rating either up or down for municipal issuers.
- 4) **Cyber-Attacks** - Cyber-attacks across all infrastructure in the U.S. has increased. Phishing and attacks on older systems have been the most common. **Sharing the Authority’s anti-cyber-attack plan to the agencies will be critical.** The Infrastructure Investment and Jobs Act (IIJA) includes increased support for cyber security including \$250 million authorized for Cyber Grant Assistance Program.
- 5) **COVID-19 Response and Customer Assistance** - At the onset of the COVID-19 pandemic, the Authority acted quickly. Management projected at the April 2020 Board Meeting a budget shortfall of approximately \$7.4 million (which was offset by projected net expenditure reductions). GLWA and DWSD staff have been meeting regularly since the start of the pandemic to prioritize essential projects. Affordability programs such as the **Water Residential Assistance Program (“WRAP”)** has helped reduce customer’s monthly water bills.

vii. If your firm offers direct placements or other alternatives to traditional underwriting to its municipal clients, please describe those products and their application to GLWA.

Although SWS does not currently offer any sort of direct placement or bridge loan product, we have recently announced a strategic partnership with Apollo (NYSE: APO) under which Apollo, along with its managed funds, will make a combined equity and credit investment in SWS that will, among other things, enhance SWS’ ability to bridge the investment and liability management needs of both its corporate and municipal clients. Although this partnership was just established this week, and as such, we have not yet developed a specific bridge loan-type product for our municipal clients, we do expect to be able to effectively leverage the additional financial resources offered by Apollo to this partnership and we will continue to apprise the Authority of our expanded capabilities in this area as they are developed.

viii. Describe any enhancements GLWA should consider with respect to investor outreach and marketing strategies to diversify and strengthen its investor base.

Marketing Strategy and Investor Outreach. SWS has extensive experience aggressively marketing and pricing Michigan, water and sewer, and taxable new issues with similar credit ratings to the Authority. SWS will work with the Authority to develop a comprehensive marketing plan:

- ✓ Sell bonds at the lowest interest cost, regardless of the credit being issued
- ✓ Create an extensive investor target list
- ✓ Educate and enhance the investment community’s perception of the Authority’s credits
- ✓ Create an active, liquid secondary market for the Authority’s securities and enable tracking the performance of its bonds in secondary market

Key recommendations are as follows:

1) Aggressive Marketing to Active Buyers during the Pandemic – Ever since the municipal bond market began recovering from its essential shutdown in early March 2020, SWS’ sales desk has actively tracked changing investor interest in the primary market. Since January 2021, SWS has served as underwriter on approximately \$95 billion in primary market debt issuance and we know intimately the database of top investors (out of **over 610 institutional investors**) including where along the yield curve they bought bonds since the onset of COVID-19.

2) Targeting Active Secondary Market Investors. Since the onset of the pandemic in March 2020, **SWS’ trading desk has completed \$43.4 billion in secondary market trades with over 250 institutional investors, including over \$658 million of bonds for Michigan-based issuers through 2,391 transactions in the secondary market.** By analyzing investor buying data patterns and demand in the secondary market during the pandemic, SWS can effectively tap pockets of demand to generate a larger universe of investors and push interest rates lower for the Authority.

3) Deepen the Authority’s Investor Base. We also recognize a broader investor segment who could be primary targets based on their large holdings of Michigan bonds, wastewater and water bonds, and ESG/green bonds. Accordingly, the table to the right lists potential investors that SWS would target for the Authority’s upcoming new money financing based off their current holdings of bonds that are similar to the Authority’s credit.

4) Analyzing Monthly Investor Cash Flow. SWS analyzes investor demand capacity based on their estimated reinvestment cash flow returns. SWS’ sales desk then prioritizes marketing efforts by targeting those investors that are not only comfortable with the credit and/or structure, but also have available cash to reinvest. The colorful tables to the right list the monthly cash flow of select major investors of Michigan bonds, Water and Sewer bonds, and Taxable bonds.

Anticipated Buyer Breakdown. For the Authority’s issuance, SWS will target (i) bond funds, (ii) professional retail (SMA) (iii) trading accounts, (iv) insurance companies, (v) and individual retail as key investors. Based on the anticipated size and structure of the transaction, SWS anticipates a composition of buyers of the **Senior Water and Sewer Lien** to include 37% bond funds, 30% professional retail (SMA), 15% trading accounts, 15% insurance companies, and 3% individual retail. For the Water and Sewer **Second Lien**, SWS anticipates buyers to include 43% bond funds, 30% professional retail (SMA), 12% trading accounts, 12% insurance companies, and 3% individual retail.

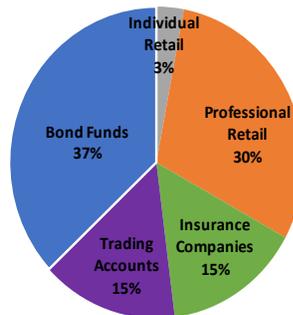
Additional GLWA Investor Targets		
GLWA Top Holders	National Wastewater & Water Top Holders	National ESG/Green Top Holders
Vanguard	Vanguard	Vanguard
TIAA-CREF	State Farm	Blackrock
T Rowe Price	Nuveen	TIAA-CREF
MacKay Shields	BlackRock	Capital Group Co.
Nuveen	Franklin Advisers	Franklin Resources
Capital Research	Travelers	Invesco
Fidelity	Capital Research	Fidelity
Alliance Bernstein	MacKay Shields	Goldman Sachs
Wells Capital	T Rowe Price	Alliance Bernstein
Western Asset Management	Oppenheimer Funds	New York Life Group

Source: eMAXX

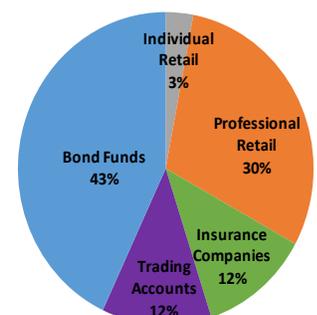
Firms with the Most 2022 Cash Flows from Michigan Bonds (\$000's)					
Firm	22-Apr	22-May	22-Jun	22-Jul	22-Aug
Vanguard Group	27,414	88,291	100,144	117,548	7,055
Nuveen Asset Management	14,788	27,987	69,202	43,020	2,340
BlackRock	9,979	19,250	18,851	103,613	4,240
Capital Research & Management	1,337	30,597	41,386	24,425	1,404
Fidelity Management & Research	3,075	27,526	18,762	18,704	21,602
Franklin Advisers,	3,952	15,305	31,449	26,506	1,082
INVESCO	1,150	11,042	25,558	33,220	481
MacKay Shields	702	22,324	8,193	28,741	1,206
Goldman Sachs Asset Management	5,131	16,456	17,366	17,402	1,354
T Rowe Price Associates	5,078	5,273	22,755	21,163	812
All Others	94,043	350,268	159,619	232,057	27,260
Total	166,650	614,319	513,286	666,398	68,835

Firms with the Most Cash Flows Water and Sewer Bonds (\$000's)					
Firm	22-Apr	22-May	22-Jun	22-Jul	22-Aug
Vanguard Group	72,311	97,741	195,945	237,525	77,462
Nuveen Asset Management	35,235	26,525	51,473	237,303	28,170
Franklin Advisers,	14,110	84,813	42,292	146,637	33,489
BlackRock	23,312	38,537	47,024	168,076	10,086
State Farm Insurance Companies	41,549	35,407	40,618	76,279	69,252
OppenheimerFunds	9,025	8,964	31,033	163,985	2,421
Travelers Companies	35,158	12,861	29,168	41,728	44,723
T Rowe Price Associates	7,640	6,275	51,971	57,952	1,865
J.P. Morgan Asset Management	10,285	20,593	35,281	42,931	12,319
Capital Research & Management	16,180	16,690	29,538	42,427	16,212
All Others	218,433	434,029	498,456	863,332	267,309
Total	483,237	782,434	1,052,798	2,078,174	563,306

Senior Lien Anticipated Buyer Breakdown



Subordinate Lien Anticipated Buyer Breakdown



Investor Relations Strategies and Tools	
EMMA Posting – Notice of Potential Sale	▪ When receiving Board approval for the bond sale(s), post an early notice of sale on EMMA to alert the market to the upcoming bond sale that investors could put that on their future deal calendar
Early Coordination with Co-Manager	▪ SWS will be in contact with co-managers often to ensure that they are aware of and ready to actively market the Authority's bonds. Early contact and coordination is important to ensure the widest distribution of bonds, particularly to retail investors.
Monitor Primary Markets and Economic Calendar	▪ The Authority should maintain flexibility to modify, to the extent possible, the sale date to avoid pricing when other comparable offerings are in the market and major geopolitical events that could produce volatility
Internet Roadshow	▪ An internet roadshow can provide wide groups of investors with relevant information about the proposed bond sale and differentiate the Authority's credit.
One-on-One Investor Calls	▪ Following the release of the POS (approximately two weeks prior to pricing) speaking directly to specific investor targets gives the Authority the opportunity to address any concerns investors may have.
COVID-19 Disclosure	▪ Include detailed descriptions about the impact of the pandemic on operations and finances
Multiple Coupon Pricing Wire	▪ Release pricing wires that show multiple coupon options for each maturity to investors to garner feedback and determine interest

Improve Marketability with ESG Designation. Utilization of the ESG label has the proven potential to attract additional investors and lower the overall borrowing cost. In analyzing upcoming GLWA projects, we have identified several that may qualify for this designation. For example, the significant improvements expected to be made to the Southeast Michigan Water Systems include the following projects: *Chapaton Retention Basin and Martin Drain System* (sewage prevention/overflow reduction and beach/fishing protection), *Detroit River Interceptor Upgrade* (flood prevention), *City of St. Clair Water Treatment Plant Improvements* (growing and boosting economic development), *St. Clair County Clay-Ira Interceptor Project* (protection of natural resources and keeping water safe/clean), and *Pontiac Drinking Water Improvements* (replacing lead pipes to keep drinking water safe for children). Each of these projects closely correlates to the International Capital Markets Association Green Bond Principles (“GBPs”) as well as the UN Sustainable Development Goals (“UN SDGs”), which are used to substantiate the ESG designation. While the Green label is most evidently applicable, an argument can also be made for a Social and ultimately Sustainable label, which combines the Green and Social Bond Principles (“SBPs”). The most applicable eligible Social Project Category is “Access to Basic Infrastructure (e.g. clean drinking water and sewers). Target populations include “Living below the Poverty Line” and “Excluded and/or Marginalized Populations and/or Communities”. Therefore, if a project benefits residents of Wayne County, for example, which is within the Wastewater Service Area and whose population is over 52% minority (37% black or African American) with a high percentage living below poverty line, it may qualify as a Social or Sustainable Bond. Alignment and mapping to these standards is more fully described in Appendix D.



In addition to the projects being financed, ESG investors are acutely interested in the overall sustainability efforts of issuers. Fortunately, GLWA has a great story to tell in this regard. The Authority has recently made upgrades to regional system resiliency, including improvements to the utility power supply feeding its pump stations, changes to operational procedures and enhanced collaboration and coordination with member partner communities. Moreover, the Authority's long-standing sustainability efforts have been award-winning, such as *Best Pilot Demonstration in the Water Utility Energy Challenge* (reducing energy related pollution emissions) and the *Gold Award for Exceptional Utility Performance* (leading the nation in efforts toward sustainability). The Siebert team will highlight these ongoing efforts to ensure that investors comprehend the Authority's enduring commitment to sustainability.

SWS ESG Leadership. As a leader in the ESG space, SWS is prepared to guide GLWA through the entire bond issuance process. Siebert has done so for a variety of issuer types across the country, including those issuing inaugural ESG financings. The Firm's expertise in the space has resulted in the industry recognizing our leadership on multiple occasions. Since the Bond Buyer created the ESG/Green category in 2019 for its Deal of the Year (“DOY”) Awards, **SWS has won two of the three ESG/Green DOY Awards.** Furthermore, of the multitude of municipal ESG financings to come to market over the years, only a handful have been able to achieve a pricing benefit on its Green Bonds. Siebert was able to accomplish just that in November 2021 when it senior managed Fairfax County Economic Development Authority's **Green Bonds, which priced 1-3 basis points tighter than the non-Green Bonds.** The success of this financing is discussed further in Appendix D. As these accomplishments demonstrate, the Firm has long placed an importance on the ESG space. It also employs a **dedicated ESG Specialist** in Jamiyl Flemming, Senior Vice President, who will be available to assist the Authority with all ESG matters and guide GLWA towards a successful transaction. Mr. Flemming's expertise and the Firm's extensive experience has resulted in SWS developing numerous effective ESG marketing strategies, providing a comprehensive education to investors, and fostering relationships that we will leverage on behalf of GLWA.



2019 and 2021 ESG/Green Deals of the Year

- Los Angeles County Metropolitan Transit Authority (2019)
- Newark Public Schools (2021)

ix. GLWA's outstanding Sewer Series 2006D Bonds are variable rate bonds that reset based on LIBOR. The Series 2006D Bonds provide a low-cost option (3-month LIBOR + 0.60% through maturity) with a favorable risk profile, but the existing fallback language relating to the Series 2006D Bonds is not workable. Please provide commentary on strategies and timing to address the Series 2006D bonds, should legislative solutions not materialize.

Outstanding Series 2006D Sewer Disposal System Bonds: The 2006D Sewer Bonds are Senior Lien Tax-Exempt Floating LIBOR Notes that mature on July 1, 2032 (CUSIP 251237W66). The variable interest rate on these bonds is calculated at 67% of 3-month LIBOR plus a fixed interest spread of 0.60%; the interest rate adjusts quarterly and interest is paid quarterly. \$370 million bonds were originally issued as a single term bond; annual sinking funds commenced on July 1, 2007 and \$169.390 million in par remains outstanding. The 2006D Bonds are subject to optional call by the Authority on any interest payment date at par. There was originally an interest rate swap associated with these bonds that effectively fixed the interest rate on the bonds; this swap was terminated and the Bonds are currently carried as an unhedged variable rate position by the Authority. There is currently no liquidity or remarketing risk with these Bonds for the Authority as there are no mandatory tender features built into the Bonds.

Current Holders: The 2006D Bonds are held by large funds and investment managers; holders of \$233 million of the outstanding \$169.390 million in bonds outstanding (Note: Per Bloomberg, reported holdings can be greater than 100% if reporting periods are inconsistent amongst investors) can be identified (see table of holders in **Appendix C**).

LIBOR Phase-Out: Although the formal daily calculation and reporting of many LIBOR tenor and currency rates by ICE Benchmark Administration (“IBA”) was eliminated after December 31, 2021. The 3-month LIBOR index that is used in the calculation of the 2006D interest rate will continue to be calculated and published until June 30, 2023. **Beginning after June of 2023, LIBOR will likely be phased out completely.** The Secured Overnight Financing Rate (“SOFR”) will be used in replacing LIBOR as a U.S. dollar-denominated reference rate for derivatives. Spread adjustments to SOFR have been established by the FCA as fallback indices for all euro, sterling, Swiss franc, US dollar and yen LIBOR tenors. However, because the fallback language contained in the Authority’s existing 2006D contract with bondholders is very limited and does not allow for the unilateral application of this FCE-adopted fallback solution by the Authority, a more deliberate process for transitioning the interest rate setting process will need to be crafted and executed by the Authority. Additionally, all bondholders would not be expected to act in unison with regard to accepting a uniform alternative index and spread, and the Authority would need to undertake a communication/dialogue and ultimately some form of agreement process with holders to determine a single uniform rate formula that would be acceptable to all holders.

Recommended Solution. SWS’ recommended solution for the 2006D Bonds would be to craft a new variable rate index that would be favorable to the Authority as well as being acceptable to as many existing bondholders as possible. The Authority would then offer its existing 2006D bondholders the ability to convert their bonds into new bonds with this new variable interest rate index; bondholders who accept the offer would receive a modified bond with the new variable rate index in a par-for-par exchange; bondholders who do not wish to accept the new index would have their bonds redeemed from the proceeds of a fixed interest rate current refunding that would take place in conjunction with the Authority’s planned new money/refunding transaction. A conversion to a fixed interest rate is a very efficient solution for the 2006D bond position given the relatively short final maturity of these bonds and the robust market for fixed rate bonds at that spot on the curve, and combined with the fact that a fixed rate new money transaction is currently being planned by GLWA. As such SWS would recommend that the best course of action for the 2006D Bonds would be We believe this to be the simplest and most effective and efficient solution for these bonds at this time.

Timing. Given that three-month LIBOR will continue to be published through June 30, 2023 there is still plenty of time for GLWA to implement a conversion from the LIBOR index. However, we strongly recommend that our recommended solution for the 2006D Bonds be implemented in conjunction with the upcoming offering to take advantage of the fact that an offering document, rating and sale process is already taking place and will not need to be unnecessarily duplicated solely for the 2006D bond issue in the future.

References

- i. Provide the names and telephone numbers and e-mail addresses of at least three (3) persons representing clients for whom the proposer has performed work similar to that proposed, and who may be contacted as references. Preferably, these references should include municipalities or utilities similar to GLWA and should include the types of recent projects cited above.

Issuer References. We encourage the Authority to contact the following client references who can attest to SWS’ experience and our ability to serve as senior managing underwriter on the Authority’s transaction.

New York State Environmental Facilities Corp	New York City Municipal Water Finance Authority (NYW)	Los Angeles Department of Water and Power (LADWP)	City of Phoenix Civic Improvement Corporation	District of Columbia Water and Sewer Authority
Brian McClintock Director of Public Finance (518) 402-7085 Brian.Mcclintock@efc.ny.gov	Olga Chernat Executive Director (212) 788-4969 chernato@omb.nyc.gov	Peter Huynh Assistant CFO & Treasurer (213) 367-4671 peter.huynh@ladwp.com	Andrew Durket Investment & Debt Manager (602) 534-2168 andrew.durket@phoenix.gov	Matthew Brown CFO and Executive VP (202) 787-2714 matthew.brown@dcwater.com

- ii. List descriptions of any contracts which have been terminated, including the circumstances surrounding the termination. Provide the name and telephone number of your client's representatives of any such contracts.

No previous contracts have been terminated.

Proposal Presentation

- i. Proposal presentation in alignment with the proposal document that demonstrates the value that your firm provides for a successful 2022 bond program.
- ii. The presentation document should be limited to twelve slides.
- iii. Ten minutes will be allowed for the proposal presentation with an additional ten minutes for Audit Committee questions.

Please refer to **Appendix E** for the Firm’s proposal presentation for the proposed Series 2022 issuances.

Appendix A: Project Team and Key Individuals

Appendix A – Project Team and Key Individuals

1. Key Individuals - Provide staff resumes for all individuals assigned to this project.

Suzanne Shank
President & CEO

150 West Jefferson, Detroit, MI 48226
Ph: (313) 496-4500 | Fax: (313) 496-4550
sshank@siebertwilliams.com

Ms. Shank, President & CEO, is a 30+ year veteran of the industry, is a founding partner of the firm, its largest shareholder and currently serves as CEO. She has led the financings for large scale projects for a variety of issuers, including the cities of Detroit, New York, Chicago, St. Louis, Philadelphia, and the states of Michigan, Ohio, Connecticut, Massachusetts and New York.

Ms. Shank has a longstanding relationship with Michigan issuers, having led the firm as senior manager on numerous transactions since the firm's founding. Ms. Shank's experience extends to issuers across the State of Michigan for over 60 senior managed transactions for a combined par of over \$12 billion. This includes transactions for the Detroit Water and Wastewater Supply Systems, City of Detroit, Detroit Downtown Development Authority bonds, Detroit Public Schools, Ann Arbor Public Schools, Ypsilanti Public Schools, Bloomfield Hills School District, Wayne County Airport Authority, Wayne County, Michigan Finance Authority, Michigan State Building Authority, and the State of Michigan. Ms. Shank has been instrumental in crafting financing structures and investor outreach strategies for numerous issuers across the country. Water and Sewer experience includes Great Lakes Water Authority (including DWSD), Houston Combined Utility System, Philadelphia Water, NY Water Authority, Chicago Water & Wastewater and many others.

Ms. Shank actively serves on several boards, including Invest Detroit, Kresge Foundation, Skillman Foundation, Invest Detroit, Detroit Regional Chamber (Executive Committee) and is a member of the International Women's Forum. Ms. Shank is a graduate of The Wharton School, University of Pennsylvania with a Masters of Business Administration degree in Finance, and the Georgia Institute of Technology with a Bachelor of Science degree in Civil Engineering. FINRA securities registrations held include the Series 7, 24, 50, 52, 53, 63 and 79.

Sean Werdlow
Head of the Mid-West Region
Senior Managing Director

150 West Jefferson Street, Detroit, MI 48226
Ph: (313) 496-4500 | Fax: (313) 496-4550
swerdlow@siebertwilliams.com

Mr. Werdlow has over 27 years of diversified and progressive experience within the commercial finance, investment banking and governmental industries. Mr. Werdlow has demonstrated expertise in raising capital for public and private needs, determining minimal credit risk, managing rating agency and investor relationships as well as SEC disclosure requirements.

Mr. Werdlow is responsible for managing a large universe of municipal clients in the Midwest and Southeast. Most recently, Mr. Werdlow was the lead banker on SWS' senior managed \$206 million Michigan State Building Authority transaction which priced in June 2021. In addition, Mr. Werdlow, a Detroit native, has a long history of serving Michigan issuers, including Detroit Wayne County Joint Building Authority, Wayne County Community College, Wayne State University, Wayne County Airport Authority, Michigan Department of Transportation, Michigan Finance Authority and Ann Arbor Schools, among others. His water and sewer experience includes transactions for the City of Atlanta, City of Cleveland, Northeast Ohio Regional Sewer District, Jackson and Broward County, and the Michigan Strategic Fund (Flint Water Settlement) transactions.

Mr. Werdlow serves on the boards of the Detroit Zoological Society and the Community Foundation of Southeastern Michigan. Mr. Werdlow is a graduate of Wayne State University with a Bachelors of Science degree in Corporate Finance. FINRA securities registrations held include Series 7, 50, 52, 53, 63.

SWS acknowledges that Team Resumes are to be excluded from the page count

John Carter, CFA
Senior Managing Director

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4881 | Fax: (646) 576-9680
jcarter@siebertwilliams.com

Mr. Carter has been involved in the municipal finance field for over 35 years and has been with SWS for over 17 years. Mr. Carter has worked on numerous transactions for Michigan clients over the years including Great Lakes Water Authority and its predecessor, the Detroit Water and Sewerage Department, and the City of Detroit. Mr. Carter has also served as SWS' primary transaction banker for clients such as: the City of New York, the New York City Transitional Finance Authority, the New York City Municipal Water Finance Authority, the New York State Environmental Facilities Corporation, the Dormitory Authority of the State of New York, the Metropolitan Transportation Authority, the New York State Housing Finance Agency, the Battery Park City Authority, the New York City Housing Development Corporation, and the New York State Thruway Authority.

Mr. Carter started his career at E. F. Hutton in the tax-exempt housing finance group in 1982. He moved to Paine Webber in 1987 where he helped to develop taxable mortgage and CMO products for state agency clients. In 1989, Mr. Carter joined MBIA Insurance Corporation where he was charged with developing financial guarantee business in the taxable mortgage and asset backed finance area. Mr. Carter joined M. R. Beal & Co. in 1990 where he served as Executive Vice President and Co-Head of Investment Banking. He joined Siebert Williams Shank in February of 2005.

Laura McGraw
Senior Vice President

100 Wall Street, 18th Floor New York, NY 10005
Ph: (212) 373-4290 | Fax: (646) 576-9680
lmcgraw@siebertwilliams.com

Ms. McGraw joined SWS in July of 2020 and works primarily with municipal issuers located within the Midwest. Ms. McGraw has performed extensive quantitative analyses such as bond restructurings, refinancings, asset monetizations and credit research for issuers across the country. Her experience includes recent senior managed transactions for the Michigan State Building Authority (\$206MM, June 2021), University of Michigan (\$55MM, March 2022) and City of Phoenix Water System (\$469MM, May 2021), and co-senior managed transactions for the Michigan Strategic Fund (\$603MM Flint Water Settlement, June 2021), University of Michigan (\$413MM, April 2022), City of Detroit (\$255MM, Feb. 2021 & Oct. 2020), and Wayne County (\$245MM, October 2020).

Ms. McGraw additional experience includes serving as senior manager on nine new money and refunding transactions between 2008 to 2017 for the Idaho Housing and Finance Association totaling over \$876.3 million, serving as senior manager on \$556.62 million Special Obligation Revenue Bonds, Series 2017 A&B for the Alabama Federal Aid Highway Finance Authority and serving as senior manager on \$1.5 billion Tobacco Settlement Revenue Bonds for the Railsplitter Tobacco Settlement Authority (State of Illinois). She also has extensive credit experience having worked at Build America Mutual.

Phong Pham, CPA
Senior Vice President

250 Monroe Ave NW, Suite 400, Grand Rapids, MI 49503
Ph: (616) 655-1710
ppham@siebertwilliams.com

Phong Pham joined SWS in January 2019 as a Senior Vice President. Mr. Pham is a Certified Public Accountant and previously worked for the State of Michigan holding positions with the Michigan Department of State, Michigan Department of Health and Human Services and Michigan Office of the Auditor General.

In addition to his Michigan government experience, Mr. Pham has over 18 years of public finance experience with RBC Capital Markets and Stone & Youngberg (currently Stifel) serving state agencies, counties, cities and towns, K-12 school districts and charter schools, and special districts. He has been involved in over 300 transactions totaling more than \$15 billion par amount.

Since joining SWS in 2019, Mr. Pham has served several Michigan issuers including the State of Michigan, Michigan State Building Authority, Michigan Strategic Fund, Michigan Department of Transportation, Michigan Finance Authority (School Loan Revolving Fund and Local Government Loan Program), Great Lakes Water Authority, City of Lansing, City of Detroit, Detroit Public Schools,

Wayne County, City of Wayne, Branch County, Lansing Community College, Western Michigan University, Grandville Public Schools, and West Ottawa Public Schools, to name a few. Mr. Pham has also served issuers in Arizona including the cities of Phoenix, Tucson, Mesa, Scottsdale, Flagstaff, and Nogales, to name a few; Greater Arizona Development Authority, Arizona Water Infrastructure Financing Authority, Arizona School Facilities Board, Graham County, and Santa Cruz County. Some of the recent transactions on which Mr. Pham served as the co-lead and/or day-to-day banker include City of Phoenix Civic Improvement Corporation Water System Revenue and Refunding (\$469MM Senior, May 2021), Detroit Public Schools (\$41.15MM Senior, May 2020), Flint Public Schools (\$30.62MM Co-Senior, June 2020), and Lansing Community College (\$38MM Senior, October 2019).

Mr. Pham holds a bachelor's degree in accounting from Grand Valley State University and is licensed Certified Public Accountant (Michigan). He is currently registered with FINRA with Series 7, 50, 52, 53 and 63.

Jamiyl Flemming
Senior Vice President

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4855
jfflemming@siebertwilliams.com

Mr. Flemming has been in the municipal finance industry for 15 years. Mr. Flemming is the firm's ESG/Climate Bond expert, recently being honored as a Rising Star by The Bond Buyer in September 2019. He has served as senior manager to multiple issuers of ESG bonds, such as the State of Connecticut (Green Bonds), W.K. Kellogg Foundation (Social Bonds) and Community Preservation Corporation (Sustainable Bonds) and provided green bond insight to a variety of other municipal issuers. His most recent ESG experience includes working on the firm's senior managed transaction for the LA County Metropolitan Transportation Authority, which included \$419 million of green bonds. He also sits on SIFMA's Sustainable Finance Task Force. He has experience with a variety of financing types including green bonds, water and wastewater, general obligations, pooled financings, state revolving funds, tobacco, education, tax increment financings and transportation.

Mr. Flemming has a Bachelor of Arts in Economics from Wesleyan University and holds FINRA Series 7 and 63 securities licenses.

Anthony Piccinich
Vice President

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4898 | Fax: (646) 576-9680
apiccinich@siebertwilliams.com

Mr. Piccinich joined SWS in July 2017 after graduating from Fordham University with a Bachelor of Science in Finance with a minor in Economics. He is solely dedicated to covering the Firm's clients in Michigan and Ohio, including Great Lakes Water Authority, City of Detroit, Wayne County, Detroit-Wayne County Joint Building Authority, University of Michigan, City of Lansing, Flint Public Schools, and Detroit Public Schools, among others. He has also served the City of Columbia (SC), Dormitory Authority of the State of New York (DASNY), New Jersey Education Facilities Authority (NJEFA), City of Philadelphia, and Pennsylvania Turnpike Commission, among many others.

He has served as primary and quantitative support banker on over \$2.5 billion in senior managed par for a variety of credits and bond structures. He has significant experience structuring water and sewer utility bonds, general obligation, and revenue bonds using DBC, Excel, and "What's Best" Linear optimization software.

Mr. Piccinich holds FINRA Series 52, 63, and SIE licenses.

Olivia Nelson
Associate

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4876 | Fax: (646) 576-9680
onelson@siebertwilliams.com

Ms. Nelson joined Siebert Williams Shank's Investment Banking team in August 2019. Her responsibilities include both quantitative and credit analysis, as well as assisting senior bankers on transactions and analyses for SWS' Northeast Banking Group. Ms. Nelson's primary client responsibilities are the New York City Municipal Water Finance Authority, the New York State Environmental Facilities Corporation, the City and State of New York, and the Commonwealth of Massachusetts, among others. Since joining Siebert Williams Shank, Ms. Nelson has worked on senior managed transactions for clients including the New York City Municipal Water Finance Authority, the City of New York, the New York State Thruway Authority, and the Dormitory Authority of the State

of New York, among others. She most recently supported the Northeast Banking Group on SWS' senior managed \$500 million New York City Municipal Water Finance Authority Water and Sewer System Second General Resolution Revenue Bonds, Fiscal 2022 Series CC transaction.

Ms. Nelson graduated from Boston College in 2019 with a Bachelor of Arts in Economics. She holds SIE, Series 52 and Series 63 Licenses.

Sean Conway
Analyst

100 Wall Street, 18th Floor New York, NY 10005
Ph: (212) 373-4202 | Fax: (646) 576-9680
sconway@siebertwilliams.com

Mr. Conway joined SWS in August 2021 after graduating from the University of Minnesota with a Bachelor of Science in Finance with a minor in Accounting. He is covering the firm's Midwest clients with a focus on Michigan and Ohio issuers. Mr. Conway provides day-to-day banking support and has been involved in transactions for the Michigan Strategic Fund, Michigan State Building Authority, and University of Michigan, to name a few. He assists in running new money and refunding analyses and creating RFPs/presentations for SWS' municipal issuer clients. He holds FINRA Series 7, 52, 63, and SIE licenses.

Drew Gurley
Managing Director
Underwriter

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4872 | Fax: (646) 576-9681
agurley@siebertwilliams.com

A 34-year veteran in municipal securities, Mr. Gurley has had extensive experience serving as a senior underwriter for a wide variety of clients. Mr. Gurley began his career at Matthews & Wright in 1985 and worked at UBS Securities LLC for 20 years. Prior to joining SWS in October 2010, Mr. Gurley served as Senior Vice President in municipal underwriting for First Southwest Co.

Mr. Gurley has extensive experience serving as underwriter on municipal securities for a wide variety of clients. Mr. Gurley has served on transactions for many Michigan issuers including Great Lakes Water Authority, Detroit Public Schools, Wayne State University, Wayne County Airport Authority, State of Michigan, Michigan Strategic Fund, Michigan State Building Authority, Michigan Finance Authority, University of Michigan, and Oakland University, among many others.

Some of his other Water and Sewer utility experience includes transactions for Great Lakes Water Authority, City of Wayne (MI), New York City Municipal Water Finance Authority, City of Philadelphia, City of Cleveland, Rhode Island Infrastructure Bank (SRF), District of Columbia Water & Sewer Authority, Broward County (FL), Northeast Ohio Regional Sewer District, Pittsburgh Water & Sewer Authority, among many others.

Mr. Gurley is a graduate of the University of Vermont with a Bachelor of Science degree in Finance. He holds FINRA security licenses Series 7, 53, and 63.

Cindy Ashmore
Managing Director
Underwriter

100 Wall Street, 18th Floor New York, NY 10005
Ph: (646) 775-4880
cashmore@siebertwilliams.com

Ms. Ashmore joined SWS from Jefferies where she spent over eight years as a senior vice president/underwriter. In this capacity, she structured and priced \$30 billion in primary market municipal bonds across a variety of sectors as book-running underwriter and has worked with issuers in the Commonwealth of Pennsylvania, and states of Connecticut, New Jersey, New York, California, Ohio, Illinois and Michigan. With 20 years of experience in the municipal sector, Ms. Ashmore has held senior positions with J.P. Morgan as well as Bear Stearns.

2. Project Team - Summarize the roles and pertinent experience of each key individual and indicate the percentage of time planned for them to be dedicated to this project using the following format in Table 2 below:

Part 1 Summary of contractor's current involvement with all projects:					
	Contract No.	Client Name	Involvement Time	Contract Title	Type of Involvement
Involvement time for this project	2200290	Great Lakes Water Authority	100%, as necessary	Series 2022	TBD (Senior, Co-Senior or Co-Manager)
Other Projects	TBD	Tribridge Bridge and Tunnel Authority	Limited	Series 2022C	Senior Manager
	N/A	All Other Projects	Limited	N/A	Senior and/or Co-Manager

Part 2 Explain how the commitments listed under part 1 will impact performance on this project.
SWS is committed to providing GLWA with the full resources of the firm throughout the Authority's 2022 transaction process (i.e., from inception of engagement through closing of the transaction). Other projects in which the firm is involved with will not interfere in any way with the responsibilities of our engagement with the Authority.

Part 3 Explain how the project manager or consultant representatives allocated percentage of time to this contract will be utilized.
SWS has a fully dedicated Michigan Banking and Underwriting team assigned to serve the Authority. The team consists of the below senior level individuals and includes the Firm's President & CEO, two (2) Senior Managing Directors, two (2) Managing Directors, three (3) Senior Vice Presidents, and one (1) Vice President. We have allocated up to 100% of each member's time, as necessary, to ensure the effective and efficient execution of the Authority's 2022 transaction.

Table 1

3. Staff experience - Identify by name and title the individuals the vendor considers to be key to the successful completion of this project using the format in Table 3 below.

No.	Staff Name	Employer Name	Total Years of Related Exp.	Related Projects*	Project Role
1	Suzanne Shank	Siebert Williams Shank & Co. LLC (SWS)	30+	GLWA, Detroit Water & Sewerage, City of Detroit, Detroit Downtown Development Auth. (DDDA), Wayne County, State of Michigan (SOM)	Project Manager and Resource Allocation
2	Sean Werdlow	SWS	30+	Detroit Water & Sewerage, City of Detroit, DDDA, Wayne County, SOM	Co-Lead Banker
3	John Carter	SWS	30+	GLWA, Detroit Water & Sewerage, NYC Water	Co-Lead Banker
4	Laura McGraw	SWS	15+	GLWA, City of Phoenix (Water), City of Detroit, Wayne County, SOM	Credit Specialist / Day-to-Day Banker
5	Phong Pham	SWS	18+	GLWA, City of Phoenix (Water), City of Detroit, Wayne County, SOM	Regional / Day-to-Day Banker
6	Jamiyl Flemming	SWS	15+	LA County MTA, Fairfax Cty. EDC, NY Water	ESG Specialist
7	Anthony Piccinich	SWS	5+	GLWA, Wayne County, Detroit, SOM	Support Banker
8	Olivia Nelson	SWS	3+	NYC Water, Mass. Clean Water Trust	Support Banker
9	Sean Conway	SWS	.75	SOM, University of Michigan	Support Banker
10	Drew Gurly	SWS	30+	GLWA, SOM, NYC Water, D.C. Water & Sewer Authority	Taxable Underwriter/ Co-Head of Sales
11	Cindy Ashmore	SWS	20+	Pittsburgh W&S Authority, NYC Water, D.C. Water & Sewer Authority	Tax-Exempt Underwriter

Table 2

* State of Michigan (SOM) includes the State, Michigan Finance Authority (LGLP and SRF), and Michigan Strategic Fund (Flint Water)

Appendix B: Indicative Rating Scorecards

Moody's Scorecard –

Moody's Utility Scorecard											
Description	Weight	Aaa	Aa	A	Baa	WATER			SEWER		
		0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	Metric	Score	Weighted Score	Metric	Score	Weighted Score
Asset Condition (Remaining Useful Life)	10%	> 75 years	75 years ≥ n > 25 years	25 years ≥ n > 12 years	12 years ≥ n > 9 years	17 Yrs	3.0	0.300	19 Yrs	3.0	0.300
Service Area Wealth (Median Family Income)	12.5%	> 150% of US median	150% to 90% of US median	90% to 75% of US median	75% to 50% of US median	96.8%	2.0	0.250	96.8%	2.0	0.250
System Size (O&M) (\$000)	7.5%	O&M > \$65M	\$65M ≥ O&M > \$30M	\$30M ≥ O&M > \$10M	\$10M ≥ O&M > \$3M	\$164.995	0.5	0.038	\$255.908	0.5	0.038
Debt Service Coverage (Sr. & Sub.)	15%	> 2.00x	2.00x ≥ n > 1.70x	1.70x ≥ n > 1.25x	1.25x ≥ n > 1.00x	1.4x	3.0	0.450	1.3x	2.50	0.375
Days Cash on Hand	15%	> 250 days	250 days ≥ n > 150 days	150 days ≥ n > 35 days	35 days ≥ n > 15 days	1043 DCOH	0.5	0.075	664 DCOH	0.5	0.075
Debt to Operating Revenues	10%	< 2.00X	2.00x < n ≤ 4.00x	4.00x < n ≤ 7.00x	7.00x < n ≤ 8.00x	5.5x	3.0	0.300	5.2x	3.0	0.300
Rate Management	10%	Excellent rate-setting record; no material political, practical, or regulatory limits on rate increases	Strong rate-setting record; little political, practical, or regulatory limits on rate increases	Average rate-setting record; some political, practical, or regulatory limits on rate increases	Adequate rate-setting record; political, practical, or regulatory impediments place material limits on rate increases	Track record of ability to raise rates	3.0	0.300	Track record of ability to raise rates	3.0	0.300
Regulatory Compliance and Capital Planning	10%	Fully compliant OR proactively addressing compliance issues; Maintains sophisticated and manageable Capital Improvement Plan that addresses more than a 10-year period	Actively addressing minor compliance issues; Maintains comprehensive and manageable 10-year Capital Improvement Plan	Moderate violations with adopted plan to address issues; Maintains manageable 5-year Capital Improvement Plan	Significant compliance violations with limited solutions adopted; Maintains single-year Capital Improvement Plan	Fully Compliant	3.0	0.300	Fully Compliant	3.0	0.300
Rate Covenant	5%	> 1.30x	1.30x ≥ n > 1.20x	1.20x ≥ n > 1.10x	1.10x ≥ n > 1.00x	1.20x	3.0	0.150	1.20x	3.0	0.150
Debt Service Reserve Requirement	5%	DSRF funded at MADS	DSRF funded at lesser of standard 3-prong test	DSRF funded at less than 3-prong test OR springing DSRF	NO explicit DSRF; OR funded with speculative grade surety	Lesser of 3-Pronged Test	2.0	0.100	Lesser of 3-Pronged Test	2.0	0.100
Total Score:								2.263	Total Score:		2.188
Suggested Rating								Aa3	Suggested Rating		Aa2

Standard & Poor's Scorecard –

Enterprise Risk Profile	Financial Risk Profile					
	1 Extremely Strong	2 Very Strong	3 Strong	4 Adequate	5 Vulnerable	6 Highly Vulnerable
1 Extremely Strong	aaa	aa+	aa-	a	bbb+/bbb	bb+/bb
2 Very Strong	aa+	aa/aa-	a+	a-	bbb/bbb-	bb/bb-
3 Strong	aa-	a+	a	bbb+/bbb	bbb-/bb+	bb-
4 Adequate	a	a/a-	a-/bbb+	bbb/bbb-	bb	b+
5 Vulnerable	bbb+	bbb/bbb-	bbb-/bb+	bb	bb-	b
6 Highly Vulnerable	bbb-	bb	bb-	b+	b	b-

WATER				
	Weighted Score	Input	Great Lakes	Score
Economic Fundamentals	45%	98%	3	1.35
Industry Risk	20%	1	1	0.20
Market Position	25%	Between 20-30% live below poverty line	3	0.75
Operational Management Assessment	10%	2	2	0.20
Enterprise Risk Profile Score:				2.50
	Weighted Score	Input	Great Lakes	Score
Sr. and Sub. Coverage	40%	1.40x	2	0.80
Liquidity and Reserves	40%	1,043 Days	1	0.40
Debt and Liabilities	10%	> 80%	6	0.60
Financial Management	10%	Very Strong	2	0.20
Financial Risk Profile Score:				2.00

SEWER				
	Weighted Score	Input	Great Lakes	Score
Economic Fundamentals	45%	98%	3	1.35
Industry Risk	20%	1	1	0.20
Market Position	25%	Between 20-30% live below poverty line	3	0.75
Operational Management Assessment	10%	2	2	0.20
Enterprise Risk Profile Score:				2.50
	Weighted Score	Input	Great Lakes	Score
Sr. and Sub. Coverage	40%	1.72x	3	1.20
Liquidity and Reserves	40%	664 Days	1	0.40
Debt and Liabilities	10%	> 80%	6	0.60
Financial Management	10%	Very Strong	2	0.20
Financial Risk Profile Score:				2.40

Fitch Scorecard –

Revenue Defensibility	AA	A	BBB	BB	
Revenue Source Characteristics	Very Strong. Nearly all revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is insignificant.	Strong. A significant portion of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is manageable.	Midrange. The majority of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance of revenue from competitive sources is meaningful.	Weak. Less than 50% of revenue is derived from services or business lines exhibiting monopoly characteristics. Reliance on revenue from competitive sources is significant.	
Service Area Characteristics	Very strong demographic trends generally characterized by strong customer growth, above-average income levels and low unemployment rates.	Strong demographic trends generally characterized by average customer growth, with average income levels and average unemployment rates.	Midrange demographic trends generally characterized by little or no customer growth and below-average income or above-average unemployment rates.	Weak demographic trends generally characterized by a declining customer base, well below-average income and high unemployment rates.	
Rate Flexibility	Independent legal ability to increase service rates without external approval.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation of operating and capital costs being recovered on a timing basis are strong.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation that operating and capital costs may not be recovered on a full or timely basis.	Legal ability to increase service rates is subject to approval of external authorities. History and expectation that operating and capital cost recovery will be neither full nor timely.	
	Utility costs are affordable for the vast majority of the population.	Utility costs are affordable for a significant majority of the population but are high for a meaningful portion of the population.	Utility costs are affordable for the majority of the population but are high for a significant portion of the population.	Utility costs are high for an exceedingly large segment of the population.	
Asymmetric Rating Driver Considerations	None				
Operating Risk	AA	A	BBB	BB	
Operating Cost Burden	Very low operating cost burden	Low operating cost burden	Midrange operating cost burden	Midrange operating cost burden	High operating cost burden
Capital Planning and Management	Moderate life cycle investment needs supported by adequate capital investment.	Elevated life cycle investment needs but supported by adequate capital investment.	Elevated life cycle investment needs with weak capital investment.	Elevated life cycle investment needs with extremely weak capital investment.	
Financial Profile	AAA	AA	A	BBB	BB
Leverage Profile	Exceptionally Strong	Very Strong	Strong	Midrange	Weak
Liquidity Profile	Great Lake's has a favorable liquidity profile with 920 Days Cash on Hand (Water) and 512 Days Cash on Hand (Sewer) as of FY21				
Asymmetric Additional Risk Considerations	The Authority's outlook has remained Stable because of its sound financial metrics, strong budget management and commitment and ability to raise rates				

Takeaway - We note Fitch does not have formulaic ratings/weights however the agency relies heavily on qualitative metrics for utilities. SWS argues that liquidity, management of capital plan, diverse revenue stream of wholesale customers are strong credit drivers for Fitch.

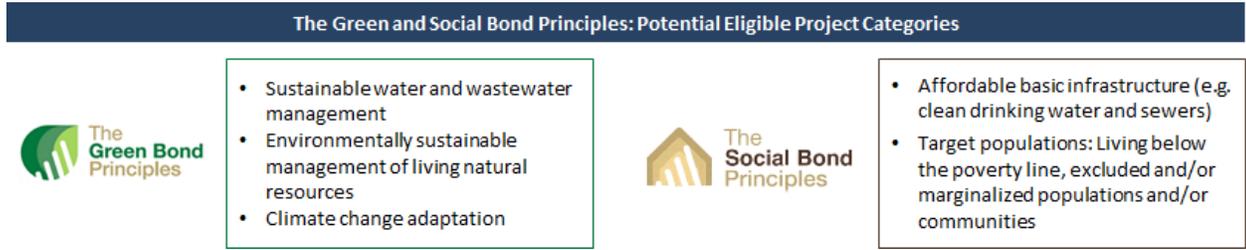
Appendix C: Holders of Detroit 2006D Bonds

Series 2006D Bondholders		
#	Firm	Par (\$000)
1	Capital Research And Management	54,160
2	Nuveen Asset Management LLC	50,000
3	Goldman Sachs Group Inc	32,915
4	Alliancebernstein LP	22,605
5	Pacific Investment Management Co	15,430
6	Mackay Shields LLC	12,500
7	Ace American Ins Co	10,425
8	Ace Prop & Cas Ins Co	8,735
9	Invesco LTD	7,825
10	Blackrock Advisors Llc	5,685
11	Csaa Insurance Exchange	4,000
12	Sanford C Bernstein & Company In	2,530
13	Russell Investments Group Ltd	2,325
14	Mag Mutual Insurance Company	2,000
15	Six Circles Trust	1,000
16	Allianz Global Inv Of America Lp	1,000
17	Blue Cross Of Id Health Service	500
18	Brinker Capital Inc	160
Total		233,795

Appendix D: ESG Considerations

Alignment with the GBPs and SBPs. The GBPs and SBPs Principles are voluntary issuance guidelines established by the ICMA to promote transparency and integrity in the ESG market. The four core components are: 1) Use of Proceeds, 2) Process for Project Evaluation and Selection, 3) Management of Proceeds, and 4) Reporting. Depending on the specific projects being financed by GLWA, the graphic below presents potential eligible project categories for Green and Social (together, Sustainability) Bonds.

Preliminary Mapping to the UN SDGs. In conjunction with the Principles referenced above, issuers regularly map their projects to the UN SDGs as further justification for the ESG designation.



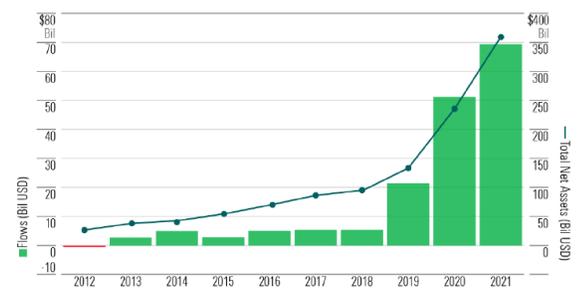
The 17 SDGs are at the heart of the 2030 Agenda for Sustainable Development, adopted by all UN Member States in 2015 in a global partnership. Based on the sample projects detailed in our response to Question E (viii), the following is a high level mapping of potential GLWA projects to the UN SDGs.

Third-Party Verification vs. Self-Designation. Third-party verifiers attempt to provide investors with more transparency and validate the ESG designation.



While self-certification is feasible, a verifier can be valuable to assist GLWA and ensure that the projects meet the GBPs/SBPs. While most investors utilize internal ESG criteria when determining their participation, the designation/certification can provide additional validity. The cost for third-party verification tends to range from \$15,000 to \$25,000. Should GLWA decide to issue ESG bonds, but not commission a third-party verifier, the bonds may be still self-certified and labeled as ESG so long as they follow the GBPs/SBPs.

Sustainable Funds Annual Flows and Assets ¹



¹ Source: Morningstar Direct. Data as of December 31, 2021

Capitalize on ESG Fund Flows and Investors. In recent years, an increasing number of investors have been creating municipal/corporate ESG Funds or implementing ESG strategies and policies. For the sixth consecutive calendar year, sustainable funds set an annual record for net flows in 2021. Sustainable funds enjoyed nearly \$70 billion in net flows, a 35% increase over 2020's record. Marketing the Authority's bonds to these buyers has the potential to increase investor demand, which can be leveraged to improve pricing.

Top ESG Muni Investors (\$ in mils) ²

	Vanguard Group	\$ 9,715
	Blackrock	7,172
	TIAA-CREF	6,305
	Capital Group Co. Inc.	3,551
	Franklin Resources	3,222
	Invesco	2,340
	FMR LLC	2,052
	Goldman Sachs Group Inc.	1,670
	Alliance Bernstein	1,634
	New York Life Group	1,414

² Source: Bloomberg. Data as of March 30, 2022

ESG Pricing Benefit Potential. The pricing benefit for ESG bonds is fairly nascent in the municipal primary market. This benefit is more widely seen in the international and corporate markets, which often portends trends to come in the municipal market. In turn, it is not uncommon for municipal ESG bonds to trade tighter in the secondary market as investors anticipate a future pricing differential. That said, there have been a select few municipal ESG financings to realize a pricing benefit. SWS was able to accomplish feat for a client in November 2021 when we served as senior manager on Fairfax County Economic Development Authority's Series 2021A&B Bonds, of which Series 2021A was labeled as tax-exempt Green Bonds. The Green Bonds maturing between 2037 and 2041 priced up to 3 bps tighter than the overlapping vanilla maturities of Series 2021B, with the Green series being up to 8.9x oversubscribed and the vanilla series being up to 4.5x oversubscribed.

Appendix E: Proposal Presentation



PRESENTATION TO:

GREAT LAKES WATER AUTHORITY

PRESENTATION TO SERVE AS SENIOR MANAGING UNDERWRITER



HIGHLY EXPERIENCED FINANCE TEAM

INVESTMENT BANKING AND EXECUTION



Suzanne Shank
President and CEO
Project Manager/Resource Allocation
30+ Years Experience
Detroit



Sean Werdlow
Senior Managing Director/Head of Midwest Region
Co-Lead Banker
30+ Years Experience
Detroit



John Carter
Senior Managing Director
Co-Lead Banker
30+ Years Experience
New York



Laura McGraw
Senior Vice President
Credit Specialist / Day-to-Day Banker
15+ Years Experience
New York



Phong Pham
Senior Vice President
Regional / Day-to-Day Banker
18+ Years Experience
Grand Rapids



Jamiyl Flemming
Senior Vice President
ESG Specialist
15+ Years Experience
New York



Anthony Piccinich
Vice President
Support Banker
5+ Years Experience
New York



Olivia Nelson
Associate
Support Banker
3+ Years Experience
New York



Sean Conway
Analyst
Support Banker
0.75+ Years Experience
New York

MUNICIPAL SALES, TRADING AND RESEARCH



Drew Gurley
Managing Director
Taxable Underwriter / Co-Head Sales
30+ Years Experience
New York



Cindy Ashmore
Managing Director
Tax-Exempt Underwriter
20+ Years Experience
New York



SWS - MUNICIPAL FINANCE LEADERSHIP

LEADER IN MUNICIPAL FINANCE

- Underwriter on over \$1.7 trillion in municipal bond transactions; Bookrunning manager for transactions from \$3 million to \$1.75 billion in par amount
- Ranked #3 senior manager based on largest average deal size from 2019 to 2021 and among the top-10 senior managers by par in several industry segments
- Leader in ESG

STRONG LOCAL PRESENCE

- Certified Detroit Based Business
- Served as underwriter on 286 Michigan transactions totaling over \$58.7 billion; 78 transactions as senior manager totaling nearly \$13 billion
- Deep community engagement
 - Kresge Foundation, Skillman Foundation, Community Foundation of SE Michigan, Detroit Zoo, Invest Detroit, Detroit Children’s Fund, Detroit Regional Chamber, Charles Wright Museum



Select Michigan Senior Managed Transactions

\$56 MILLION / \$413 MILLION



UNIVERSITY OF MICHIGAN
Senior / Joint-Senior
Priced Mar. 10, 2022 / Apr. 5, 2022

\$83 MILLION



MICHIGAN STRATEGIC FUND
Senior Manager
Priced Mar. 2, 2022

\$206 MILLION



MICHIGAN STATE BUILDING AUTHORITY
Senior Manager
Priced Jun. 29, 2021

\$151 MILLION



WAYNE COUNTY AIRPORT AUTHORITY
Senior Manager
Priced Jun. 9, 2021

Select Large Senior Managed Transactions

\$1 BILLION*



METROPOLITAN TRANSPORTATION AUTH
Senior Manager
Expected May 2022

\$638 MILLION



NY LIBERTY DEV CORP FOR PORT AUTH OF NY & NJ
Senior Manager
Priced Dec. 14, 2021

\$932 MILLION



NYC TRANSITIONAL FINANCE AUTHORITY
Senior Manager
Priced Aug. 4, 2021

\$505 MILLION



DISTRICT OF COLUMBIA WATER AND SEWER
Senior Manager
Priced Oct. 8, 2019

Recent Industry Accolades for Siebert Williams Shank

IFR AWARDS 2021 Awarded International Financing Review’s inaugural U.S. Diversity and Inclusion House of the Year Award for 2021

THE BOND BUYER Deal of the Year Awards

2021 – ESG/Green Bond Deal of the Year
City of Newark, NJ Board of Education

2020 – Southwest Deal of the Year
Dallas/Fort Worth Airport

2019 – ESG/Green Bond Deal of the Year
Los Angeles County MTA



Source: Combined firm internal/external information
*Preliminary, subject to change

WATER & SEWER – TOP RANKED SENIOR MANAGER

2020-2022YTD National Water Neg. Senior Manager Ranking

(Full to Bookrunner – Full if Joint)	Par (\$MM)	Ranking
BofA Securities Inc	8,243	1
Citi	7,569	2
J.P. Morgan	7,445	3
Morgan Stanley	7,121	4
Barclays	5,731	5
Siebert Williams Shank	4,898	6
Raymond James	4,470	7
Jefferies	3,980	8
Wells Fargo	3,802	9
Stifel	3,348	10
Industry Total	\$56,605	

- Significant experience structuring, marketing and pricing Water and Sewer bonds for large prolific issuers
- Ranked #2 as Senior Manager of negotiated Water and Sewer revenue deals in 2020; #6 for Senior Manager for 2020-2022YTD; #4 for combined Senior and Co-Manager for 2020-2022YTD
- Many of our senior managed Water and Sewer transactions are for repeat clients

Demonstrated Pricing Leadership

- As Senior Manager on the City of Phoenix \$469 million Water System Revenue and Refunding transaction in 2021, SWS achieved the tightest 10-year tax-exempt and taxable spreads of any of the City's issuances since 2011
- As Senior Manager to the New York Municipal Water Finance Authority's \$500 million transaction, SWS tightened spreads by up to 8bps on day of pricing in February 2022 during volatile market conditions

Recent Senior Managed Water and Sewer Transactions

 <p>Los Angeles Dept of Water and Power Senior Manager \$325 million* June 2, 2022</p>	 <p>NYC Municipal Water Finance Authority Senior Manager \$500 million February 3, 2022</p>	 <p>Broward Co, FL Water & Sewer Senior Manager \$155 million February 2, 2022</p>	 <p>Kansas City, MO Water and Sewer Senior Manager \$171 million October 2021</p>	 <p>Southern California Metro Water District Senior Manager \$98 million June 23, 2021</p>	 <p>City of Phoenix Civic Improvement Corp Senior Manager \$469 million May 18, 2021</p>	 <p>Los Angeles Dept of Water & Power Senior Manager \$243 million December 8, 2020</p>	 <p>Santa Clara Valley Water District Senior Manager \$216 million September 30, 2020</p>
---	---	--	---	--	---	--	--

FINANCING CONSIDERATIONS AND LIEN STRATEGY FOR WATER AND SEWER CREDITS

Key Financing Issues:

Lien Strategy	Future Capital Plans	Debt Service Reserve Funds	Refunding Savings	Market Conditions
<ul style="list-style-type: none"> Utilization of Senior Lien vs. Second Lien 	<ul style="list-style-type: none"> Future Capital Plan Considerations 	<ul style="list-style-type: none"> Maximize DSRF Cash Release Eliminate new reserve deposits Consider expiring surety policies 	<ul style="list-style-type: none"> Refunding candidate selection criteria and justification 	<ul style="list-style-type: none"> Current market conditions and projected investor interest

New Money Lien Considerations

- Develop most efficient overall cost of borrowing
- Preserve maximum lien capacity for future borrowing
- Target 50%/50% senior/second lien allocation to achieve balance
- Modify lien allocation to achieve optimal DSRF cash release amounts

DSRF Considerations

- Three-pronged DSRF requirement on both systems
- Average annual debt service prong is determining factor
- 60%/40% lien split on Water new money results in incremental DSRF cash release of \$1.6 million (versus 50%/50%)
- 40%/60% lien split on Sewer results in incremental DSRF cash release of \$1.3 million (versus 50%/50%)
- Total incremental DSRF release under both programs from modest lien allocation modification: \$2.9 million

REFUNDING CRITERIA AND PRESENT VALUE SAVINGS

Recommended Refunding Candidate Pool

- Candidates with individual present value savings in excess of 2.5% (per GLWA's Debt Management Policy)

Credit		Total Refunded Par		PV Savings (\$)		PV Savings (%)	
Water – Senior Lien		\$101.77 million		\$2.7 million		2.67%	
Sewer – Senior Lien		\$134.83 million		\$3.6 million		2.69%	

System	Series	Maturity	Coupon	Principal	Call Date	Call Price	Taxable Advance Refunding			Future Current Refunding		Break Even(bps)
							Savings \$	Savings %	Savings Eff.	Savings \$	Savings %	
Water	2014D_D4	7/1/2032	5.00%	18,950,000	7/1/2024	100	548,752	2.90%	50.00%	2,977,608	15.71%	172
Water	2014D_D4	7/1/2031	5.00%	28,515,000	7/1/2024	100	745,157	2.61%	48.27%	4,097,019	14.37%	178
Water	2014D_D4	7/1/2030	5.00%	54,305,000	7/1/2024	100	1,402,430	2.58%	49.73%	7,069,320	13.02%	181
Water Total				101,770,000								
Sewer	2014E_C6	7/1/2032	5.00%	9,100,000	7/1/2024	100	263,517	2.90%	50.00%	1,429,881	15.71%	172
Sewer	2014C_C3	7/1/2032	5.00%	50,515,000	7/1/2024	100	1,462,807	2.90%	50.00%	7,937,408	15.71%	172
Sewer	2014C_C3	7/1/2031	5.00%	31,945,000	7/1/2024	100	834,790	2.61%	48.27%	4,589,839	14.37%	178
Sewer	2014C_C3	7/1/2030	5.00%	25,285,000	7/1/2024	100	652,987	2.58%	49.73%	3,291,552	13.02%	181
Sewer	2012A*	7/1/2023	5.00%	17,985,000	7/1/2022	100	N/A	N/A	N/A	463,109	2.57%	N/A
Sewer Total				134,830,000								

* The 2023 maturity of the Sewer Series 2012A bonds is a tax-exempt current refunding candidate and savings reflect such

Interest Rate Sensitivity (+/- 50bps and 100bps)

Movement (bps)	Water System Taxable Advance Refunding					Sewer System Combined Refunding				
	-100 bps	-50 bps	0 bps	50 bps	100 bps	-100 bps	-50 bps	0 bps	50 bps	100 bps
Refunded Par	101,770,000	101,770,000	101,770,000	101,770,000	101,770,000	134,830,000	134,830,000	134,830,000	134,830,000	134,830,000
All-In TIC	2.97%	3.47%	3.97%	4.47%	4.97%	2.99%	3.49%	3.99%	4.49%	4.99%
Net PV Savings	10,774,133	6,662,630	2,721,717	-1,056,054	-4,678,263	13,612,684	8,507,636	3,623,945	-1,048,801	-5,520,989
% Savings	10.59%	6.55%	2.67%	-1.04%	-4.60%	10.10%	6.31%	2.69%	-0.78%	-4.09%

- Breakevens are high due to shorter candidate maturity range
- However, interest rate sensitivity is high also – creates incentive to proceed with refunding
- Very low initial option cost of candidates results in high ROI of refunding despite low savings levels
- Total recommended advance refunding of only \$225 million par of a total universe of \$3.3 billion in callable bonds
- Strategy consideration would be to refund Water for coverage benefits but consider foregoing Sewer refunding

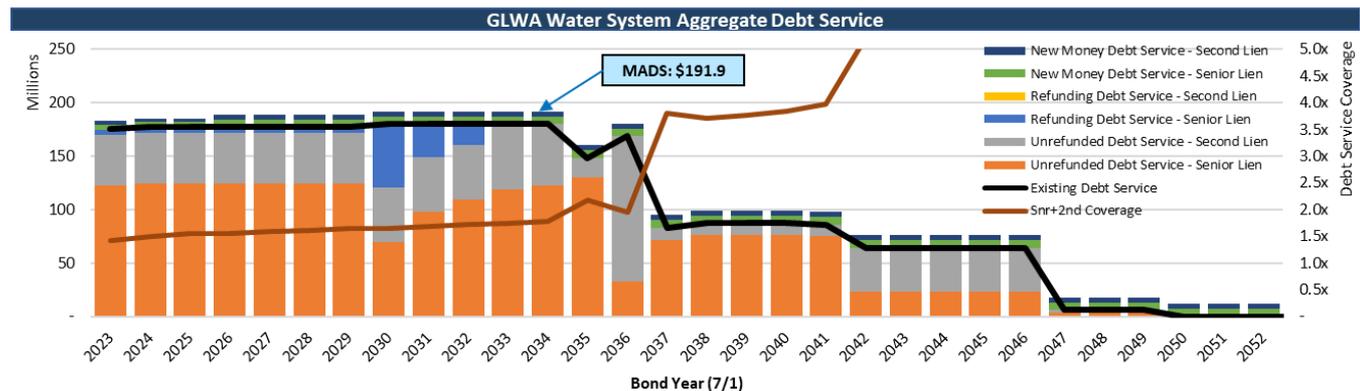
Note: Preliminary, Subject to Change.
Rates as of April 6, 2022

WATER SYSTEM: SUMMARY OF FINANCING RESULTS

- Senior and Second Lien new money issuances structured with level debt service and a 30-year final maturity
 - Wrapped and deferred principal structures can also be used to enhance coverage if desired
- No new money principal payments from 2023 through 2025 to alleviate upfront pressure on debt service coverage
- Senior/Second Lien new money split of approximately 60%/40% to maximize DSRF release
- Refundings were structured for uniform savings, although these savings could be accelerated into 2023 and 2024 in order to maximize debt service coverage in those years to 1.45x and 1.50x respectively

Sources	Senior Lien			Second Lien		Aggregate		
	2022A New Money	2022C Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Par Amount	104,920,000	105,305,000	210,225,000	68,530,000	68,530,000	173,450,000	105,305,000	278,755,000
Premium/OID	15,503,246	-	15,503,246	9,701,560	9,701,560	25,204,806	-	25,204,806
DSF Release	-	424,042	424,042	-	-	-	424,042	424,042
DSRF Release	-	1,488,052	1,488,052	2,046,156	2,046,156	2,046,156	1,488,052	3,534,208
Total	120,423,246	107,217,094	227,640,340	80,277,717	80,277,717	200,700,963	107,217,094	307,918,056

Uses	Senior Lien			Second Lien		Aggregate		
	2022A New Money	2022C Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Deposit to Escrow Fund	-	106,792,642	106,792,642	-	-	-	106,792,642	106,792,642
Deposit For New Money	120,000,000	-	120,000,000	80,000,000	80,000,000	200,000,000	-	200,000,000
DSRF Deposit	-	-	-	-	-	-	-	-
UWD	209,840	210,610	420,450	137,060	137,060	346,900	210,610	557,510
COI	209,840	210,610	420,450	137,060	137,060	346,900	210,610	557,510
Contingency	3,566	3,232	6,798	3,597	3,597	7,163	3,232	10,394
Total	120,423,246	107,217,094	227,640,340	80,277,717	80,277,717	200,700,963	107,217,094	307,918,056



Financing Scenario	Estimated Debt Service Coverage	
	Senior	Senior + Second
Recommended Case	1.95x	1.41x

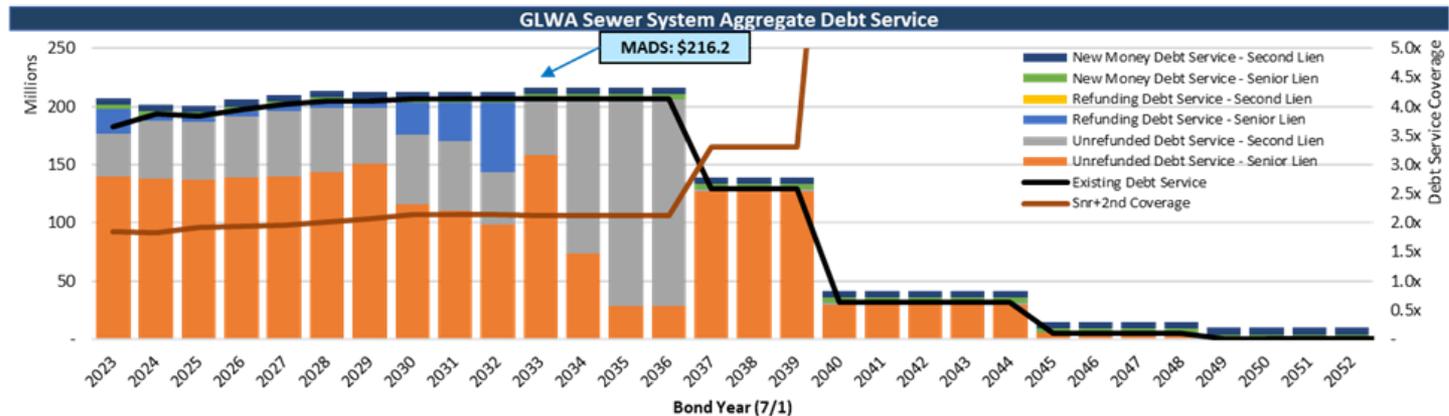
Note: Preliminary, Subject to Change.
Rates as of April 6, 2022. Assumes \$4/bond Cost of Issuance.

SEWER SYSTEM: SUMMARY OF FINANCING RESULTS

- Senior and Second Lien new money issuances structured with level debt service and a 30-year final maturity
- Senior/Second new money Lien split of approximately 40%/60%
- Refundings structured for uniform savings
- \$14.193 million in DSRF cash released from Senior Lien and \$6.043 million of cash released from the Second Lien

Sources	Senior Lien				Second Lien		Aggregate		
	2022A New Money	2022C Refunding	2022E Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Par Amount	61,455,000	110,270,000	15,705,000	187,430,000	87,330,000	87,330,000	148,785,000	125,975,000	274,760,000
Premium/OID	8,794,395	-	450,105	9,244,500	11,977,726	11,977,726	20,772,121	450,105	21,222,226
DSF Release	-	486,854	-	486,854	-	-	-	486,854	486,854
DSRF Release*	-	12,300,380	1,893,297	14,193,677	6,043,348	6,043,348	6,043,348	14,193,677	20,237,025
Total	70,249,395	123,057,234	18,048,403	211,355,032	105,351,074	105,351,074	175,600,469	141,105,637	316,706,106

Uses	Senior Lien				Second Lien		Aggregate		
	2022A New Money	2022C Refunding	2022E Refunding	Aggregate	2022B New Money	Aggregate	New Money	Refunding	Aggregate
Deposit to Escrow Fund	-	122,611,636	17,985,002	140,596,638	-	-	-	140,596,638	140,596,638
Deposit For New Money	70,000,000	-	-	70,000,000	105,000,000	105,000,000	175,000,000	-	175,000,000
DSRF Deposit	-	-	-	-	-	-	-	-	-
UWD	122,910	220,540	31,410	374,860	174,660	174,660	297,570	251,950	549,520
COI	122,910	220,540	31,410	374,860	174,660	174,660	297,570	251,950	549,520
Contingency	3,575	4,518	581	8,674	1,754	1,754	5,329	5,099	10,428
Total	70,249,395	123,057,234	18,048,403	211,355,032	105,351,074	105,351,074	175,600,469	141,105,637	316,706,106



Financing Scenario	Estimated Debt Service Coverage	
	Senior	Senior + Second
Recommended Case	2.39x	1.84x

Note: Preliminary, Subject to Change.
Rates as of April 6, 2022. Assumes \$4/bond Cost of Issuance.

REFUNDING ENHANCEMENTS

Tender / Exchange

- ***Tender/Exchange can increase PV savings by up to \$14.3 million***
- 90% of total bondholders identified
- Process is as follows:
 - GLWA issues EMMA voluntary notice
 - SWS conducts dialogue with investors to gauge interest
 - Formal tender/exchange process initiated depending upon investor interest

Cash Optimization

- Requires no participation from investors
- ***Can potentially increase PV savings by up to \$20 million***
- Optimizes use of existing pay-go cash to enhance debt service savings
- Replaces pay-go cash with new money tax-exempt borrowing
- Must be evaluated by bond counsel for tax considerations

2006D Conversion

- SWS recommends that 2006D solution be implemented in conjunction with upcoming new money and refunding transaction
- New replacement variable rate index to be developed by GLWA and offered to existing 2006D bond holders
- 2006D bondholders willing to accept replacement index would receive a replacement variable rate bond with new index
- A fixed rate current refunding would be implemented to retire bonds of any bondholder choosing not to accept the new replacement index

CREDIT STRATEGY FOCUSED ON UPGRADES

	MOODY'S	S&P Global	FitchRatings
Water and Sewer Ratings (Senior/Second Lien)	A1/A2 (Stable)	AA-/A+ (Stable)	A+/A (Stable)
Pursue One-Notch Rating Upgrade?	Scorecard reflects AA- category rating on Sr. Lien	Pursue Upgrade/Positive Outlook	Pursue Upgrade/Positive Outlook
Indicative Scorecard Rating (Senior Lien)	Aa3/A1 (Stable)	AA/AA- (Stable)	AA-/A+ (Stable)

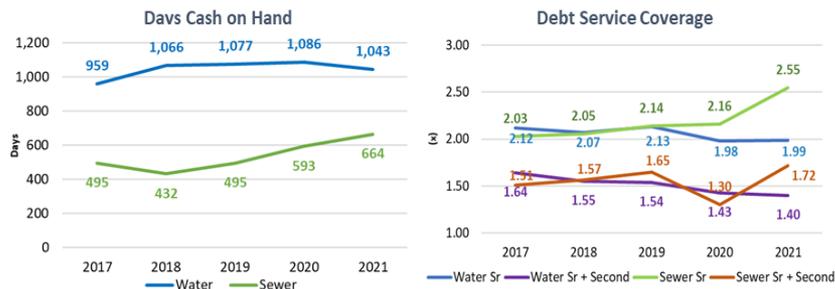
Strengths

- **Seasoned Management:** Strong budgetary oversight
- **Relationship with DWSD:** Oversight/Relationship with Detroit Water and Sewer Department that sets financial targets and internal controls
- **Independent Operating Performance:** 4 years of operating separately from DWSD
- **Healthy Liquidity:** Water 1,043 DCOH | Sewer 664 DCOH
- **Superior Bondholder Protections** – all GLWA and DWSD payments deposited to Bond Trust Account
- **Limited Pension Exposure** - Limited future exposure to pension cost escalation from legacy Detroit obligations
- **Diverse revenue stream / Customer base**
- **Low Delinquencies:** No current or historical collection concerns in the wholesale customer base with exception of Highland Park

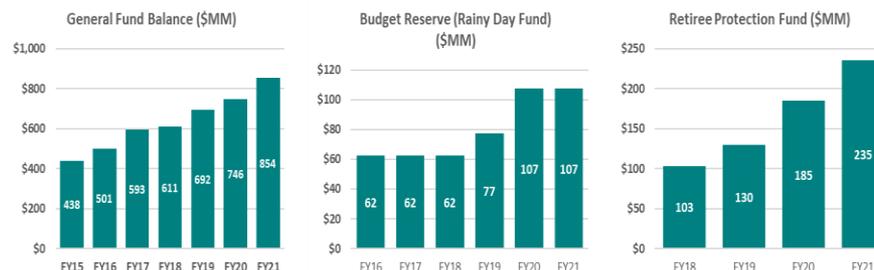
Considerations

- Increasing occurrence of extreme wet weather
Mitigant: Established Wastewater Master Plan extending 40 years that establishes regional critical HGL and control strategies to reduce the risk of basement flooding and sanitary sewer overflows
- Revitalization of Member Partners' Economies:
Mitigants: Positive economy growth and recent upgrades:
 - 1) **Detroit:**
 - ✓ UTGO: Upgraded to **Ba2** by Moody's and **BB** by S&P (Positive)
 - ✓ Income Tax: Upgraded to **BBB-** by S&P (Positive)
 - 2) **Wayne County:**
 - ✓ Upgraded by Moody's to **A3** from **Baa1**
- Significant Long-Term Capital Needs
Mitigant: Strong DSC of 1.2x for Senior and 1.1x for Second Liens

Great Lake's Positive Financial Metrics



Detroit's Growing Economy: Six Years of Positive Financial Trends

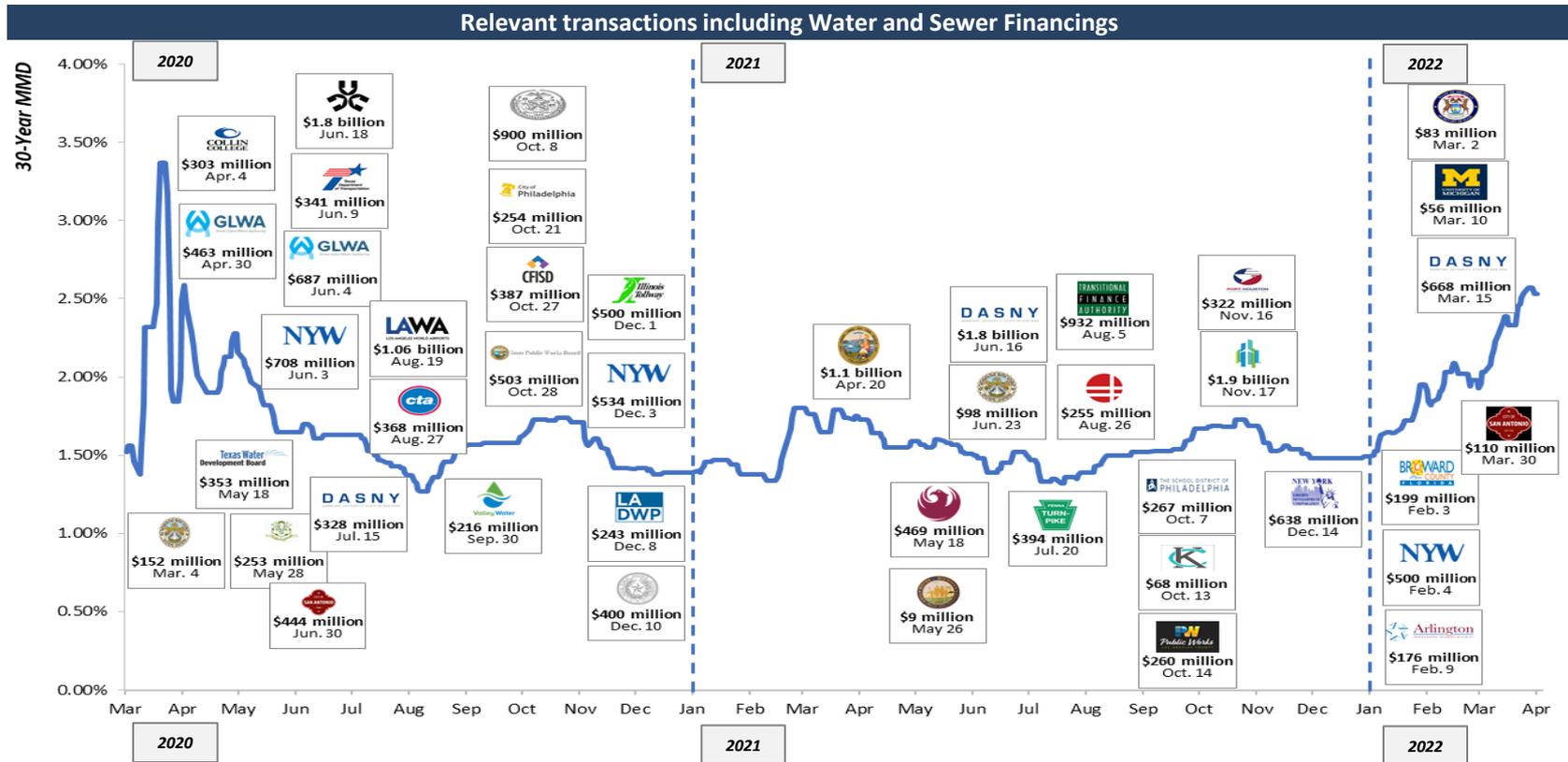


We believe at a minimum the Authority is poised for an Outlook increase to Positive from each of the three agencies



SIGNIFICANT RELEVANT PRICING EXPERIENCE DURING MARKET VOLATILITY

- Since the Firm's founding in 1996, SWS has had the opportunity to serve as Senior Manager in all market environments, including transactions sold amidst the significant instability of the Financial Crisis and market disruption brought on by the Covid-19 pandemic as well as current market volatility
 - Brought \$391mm DFW Airport deal- first major airport deal to price after the start of the pandemic
 - Priced \$674mm MTA deal amid significant volatility due to Brexit vote
 - Brought \$500mm State of Connecticut deal- first major transaction to price after the market shutdown due to Financial Crisis



ASSESSING PROPER TRANSACTION TIMING FOR GLWA'S 2022 FINANCING

- Investor Cashflows:** Cashflows in both Michigan and the Water and Sewer sector are heaviest in July 2022
 Target investors with heavy redemptions of both Water and Sewer and Michigan bonds such as Vanguard, Nuveen, and Blackrock
- FOMC Meetings and Political Events:** The FOMC meetings scheduled for the Spring and Summer of 2022 are on May 4th, June 15th, and July 27th
 Pricing on or around the 2022 G-7 summit (June 26th – June 28th) should be done with caution as decisions made at this meeting could move the market
- Forward Calendar:** Monitor the forward calendar for other large Water and Sewer issuances
- ESG:** Consider Green Bonds designation to enhance buyer base

Water and Sewer Forward Calendar		
Expected Sale Date*	Issuer	Par (\$mm)
4/20/2022	Texas Water Development Board	272
April	San Francisco Public Utilities Commission	100+
May	East Bay Municipal Utility District	275
6/2/2022	Los Angeles Department of Water & Power	325
June	Metropolitan St. Louis Sewer District	125
June	Metropolitan Water District of Southern California	400
June	City of Philadelphia Water and Wastewater Revenue Bonds	250
June	Texas Water Development Board	260
June	Metropolitan Sewer District of St. Louis	115
June/2Q	Chicago Water	Up to 600
June/2Q	Chicago Wastewater	Up to 600
July	Metropolitan Water District of Southern California	600
TBD 2Q	South Carolina Waterworks & Sewer System	100
TBD 2Q/3Q	Contra Costa Water District	45
TBD 2Q/3Q	Boise, Idaho	80
TBD 2Q/3Q*	San Francisco Public Utilities Commission	400
TBD	City of Fort Worth Water and Sewer	80

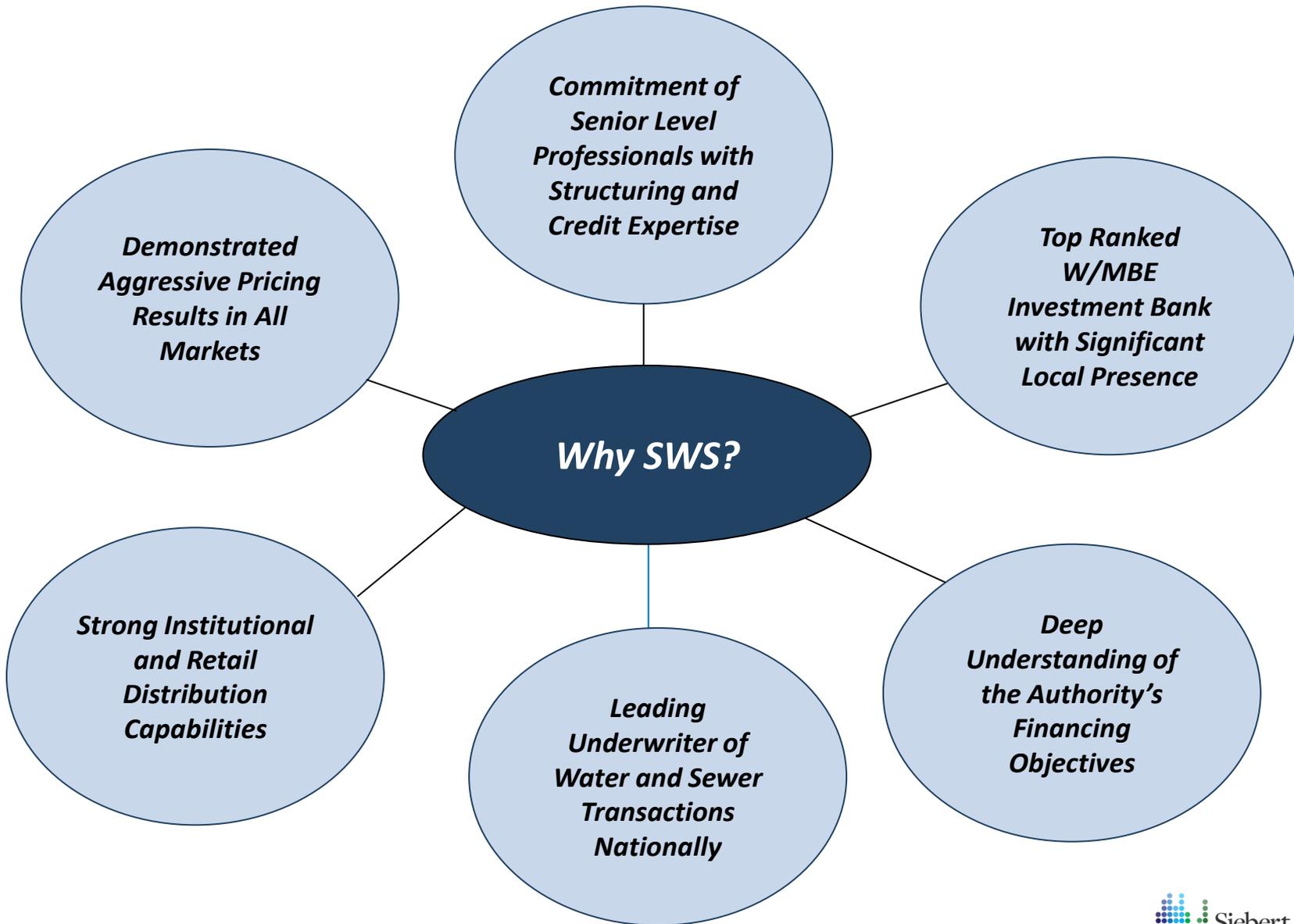
Firms with the Most Cash Flows from Michigan Bonds (\$000's)					
Firm	22-Apr	22-May	22-Jun	22-Jul	22-Aug
Vanguard Group	27,414	88,291	100,144	117,548	7,055
Nuveen Asset Management	14,788	27,987	69,202	43,020	2,340
BlackRock	9,979	19,250	18,851	103,613	4,240
Capital Research & Management	1,337	30,597	41,386	24,425	1,404
Fidelity Management & Research	3,075	27,526	18,762	18,704	21,602
Franklin Advisers,	3,952	15,305	31,449	26,506	1,082
INVESCO	1,150	11,042	25,558	33,220	481
MacKay Shields	702	22,324	8,193	28,741	1,206
Goldman Sachs Asset Management	5,131	16,456	17,366	17,402	1,354
T Rowe Price Associates	5,078	5,273	22,755	21,163	812
AllianceBernstein	3,291	26,274	3,809	20,083	166
State Farm Insurance Companies	529	45,032	1,339	1,990	419
Eaton Vance Management	1,546	3,344	1,016	41,514	188
Dimensional Fund Advisors	227	2,558	27,536	6,173	-
Loews Corporation	555	29,674	323	-	-
All Others	87,895	243,386	125,596	162,297	26,487
Total	166,650	614,319	513,286	666,398	68,835

Firms with the Most Cash Flows Water and Sewer Bonds (\$000's)					
Firm	22-Apr	22-May	22-Jun	22-Jul	22-Aug
Vanguard Group	72,311	97,741	195,945	237,525	77,462
Nuveen Asset Management	35,235	26,525	51,473	237,303	28,170
Franklin Advisers,	14,110	84,813	42,292	146,637	33,489
BlackRock	23,312	38,537	47,024	168,076	10,086
State Farm Insurance Companies	41,549	35,407	40,618	76,279	69,252
OppenheimerFunds	9,025	8,964	31,033	163,985	2,421
Travelers Companies	35,158	12,861	29,168	41,728	44,723
T Rowe Price Associates	7,640	6,275	51,971	57,952	1,865
J.P. Morgan Asset Management	10,285	20,593	35,281	42,931	12,319
Capital Research & Management	16,180	16,690	29,538	42,427	16,212
AllianceBernstein	6,183	14,667	10,249	71,617	14,537
MacKay Shields	6,411	6,341	13,041	74,014	2,551
Dimensional Fund Advisors	15,093	18,931	16,696	16,230	31,732
Deutsche Asset Management	3,205	24,789	38,068	24,800	5,341
Fidelity Management & Research	4,436	11,520	26,136	33,580	8,774
All Others	183,105	357,781	394,266	643,091	204,374
Total	483,237	782,434	1,052,798	2,078,174	563,306

¹Note: All Figures in \$ thousands, Green is 90th percentile or greater, Red is 10th percentile or less

¹Source: eMAXX. Note, not all investors are required to report holdings

¹Assumptions: All bonds that are callable are called at par and pay interest semi-annually



Disclosures About SWS's Role as Underwriter, Not as Municipal Advisor

SWS is providing the information contained in this document for discussion purposes only as underwriter or in anticipation of serving as underwriter on a future transaction, and not as financial advisor or municipal advisor. The primary role of SWS, as underwriter, is to purchase securities with a view to distribution and/or for resale to investors in an arm's-length commercial transaction with an issuer. SWS has financial and other interests that differ from those of the Issuer. An underwriter is required to deal fairly at all times with both issuers and investors. An underwriter has a duty to purchase securities from an issuer at a fair and reasonable price, but must balance that duty with its duty to sell municipal securities to investors at prices that are fair and reasonable. SWS, as underwriter, will review any official statement for the Issuer's securities in accordance with, and as part of, its responsibilities to investors under the federal securities laws, as applied to the facts and circumstances of the transaction.

SWS is not acting as a municipal advisor to the Issuer. Rather, as an underwriter acting for its own interest and unlike a municipal advisor, SWS does not have or owe a fiduciary duty to the Issuer pursuant to Section 15B of the Securities Exchange Act of 1934, as amended (the "Act"), and, therefore, is not required by federal law to act in the best interests of the Issuer without regard to its own financial or other interests. The Issuer should consult with its own financial and/or municipal, legal, accounting, tax and other advisors, as applicable, to the extent it deems appropriate before acting on any information or material herein. If the Issuer would like a municipal advisor in this transaction and does not have one that owes fiduciary duties to the Issuer, then the Issuer is free to engage a municipal advisor to serve in that capacity.

No Recommendations or Advice

SWS is not recommending any action to the Issuer. Unless otherwise expressly stated herein, the information provided consists of general information that is factual in nature and may incorporate certain hypothetical information based on the facts and assumptions described herein. Such information, hypotheticals, facts and assumptions are not intended to be or to imply a recommendation or to be construed as "advice" within the meaning of Section 15B of the Act.

Additional Disclosures and Disclaimer

All information contained in this document was obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness. All information, hypotheticals, facts and assumptions (including prices, rates, yields and other calculations) are current only as of the date of this report, and are subject to change without notice. Any estimations or hypothetical results based on market conditions or the occurrence of future events are based upon the best judgment of SWS from publicly available information as of the date of this report.

**THERE IS NO GUARANTEE THAT ANY OF THESE
ESTIMATES OR HYPOTHETICALS WILL BE ACHIEVED.**



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

Vendor Certifications Regarding Debarment, Equal Opportunity, Non-Collusion and Agreement to Contract Terms and Conditions

I, the undersigned, am a representative of Siebert Williams Shank & Co., LLC, (“Vendor”), and affirm that I am authorized to make the following certifications on behalf of Vendor, its owners, and principals. Vendor acknowledges that the below certifications are material to this solicitation and any contract or purchase order (collectively, “Contract”) resulting therefrom and will be relied on by the Great Lakes Water Authority (“GLWA”) in awarding the Contract. Vendor acknowledges that any fraud, misrepresentation, or falsification in these certifications is and shall be treated as fraudulent concealment from GLWA of the true facts relating to the submission of Vendor’s offer and subject Vendor to certain penalties, including loss of the Contract or debarment, as further stated herein.

Part I. Debarment Certification

A. Debarment Pursuant to Federal Law.

Vendor certifies, to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal non-procurement programs by any federal department or agency;
2. Have not, within the three-year period preceding Vendor’s offer on this solicitation, had one or more public transactions (federal, state, or local) terminated for cause or default; and
3. Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding Vendor’s offer on this solicitation, been convicted of or had a civil judgment rendered against it:
 - a. For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;
 - b. For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or
 - c. For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

Vendor understands that a false statement on this Debarment Certification may be grounds for the rejection of Vendor’s offer under this solicitation or the termination of an award thereunder. In addition, under 18 U.S.C. §1001, a false statement may result in a fine or imprisonment for up to five years, or both.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

B. Debarment Pursuant to GLWA Procurement Policy.

Vendor certifies that:

1. It has read and understands the GLWA Procurement Policy (“Policy”) located at glwater.org/vendors, and in particular, Section 13 – Vendor Suspension/Debarment.
2. No federal, state, or local government entity has found Vendor (as defined in footnote 2 of the Policy) in violation of Section 13.1(a) through (p) in the past three (3) years.

Vendor is unable to certify to all the above statements. Attached is Vendor’s explanation.

Part II. Equal Opportunity Certification

1. Vendor makes this Equal Opportunity Certification (“EOC”) with GLWA, effective upon the execution of a Contract between Vendor and GLWA resulting from this solicitation, obligating Vendor and all sub-contractors on the Contract to not discriminate against any employee or applicant for employment, training, education, or apprenticeship connected directly or indirectly with the performance of the Contract, with respect to their hire, promotion, job assignment, tenure, terms, conditions or privileges of employment because of race, color, religious beliefs, public benefit status, national origin, age, marital status, disability, sex, sexual orientation, or gender identity or expression.
2. Vendor shall ensure that all potential sub-contractors on the Contract are reported to GLWA and that each such sub-contractor has executed its own EOC prior to working on the Contract.
3. Furthermore, Vendor understands that this EOC is valid for the duration of the Contract and that a breach of this EOC shall be deemed a material breach of the Contract.

Part III. Non-Collusion Certification

Vendor certifies that:

1. The prices in and amount of this offer have been arrived at independently and without consultation, communication, or agreement with any other vendor or potential vendor.
2. Neither the prices nor the amount of this offer, and neither the approximate prices nor the approximate amount of this offer, have been disclosed to any other firm or person that is a vendor or potential vendor to this solicitation, and the same shall not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from offering on this solicitation, or to submit a cost higher than this offer, or to submit any intentionally high or noncompetitive offer or other form of complementary offer.
4. The offer of Vendor is made in good faith and fair dealing and not pursuant to any agreement or discussion with, or inducement from, any firm or person.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

5. Vendor, its affiliates, subsidiaries, principals, officers, directors, partners, members, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable in any jurisdiction for any act prohibited by state or federal law involving conspiracy or collusion with respect to public contracting, except as follows:

Accordingly, Vendor, by its authorized signature below, acknowledges its agreement with the foregoing certifications.

Siebert Williams Shank & Co., LLC

(Vendor):

Print Name: John Carter

Title: Senior Managing Director

Dated: April 14, 2022

Signature: 



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Please complete the following form and attach all supporting documentation.

A. Prime Vendor: Name and Contact Information (mandatory)

1. Vendor Name(s):

2. Vendor Mailing Address(es):

3. Contact Person(s) and Title(s):

4. Contact Email(s):

5. Contact Phone/Cell:

B. Prime Vendor: Diversity Certifications (if applicable)

Vendor Name	Certifying Organization	Certifying Public Agency (if applicable)	Date of Certification

C. Prime Vendor: Diversity and Inclusion Efforts Summary (mandatory)

Instructions: Provide a summary of diversity and inclusion efforts undertaken or strategies employed to maximize opportunities for small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

D. Prime Vendor: Targeted Outreach Efforts Summary (mandatory)

Instructions: Provide a summary of the targeted outreach efforts undertaken or strategies employed to encourage participation by small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.

E. Prime Vendor: Targeted Outreach Communications Log (mandatory)

Subcontractor Name	Certifying Organization	Date of Outreach	Subcontractor Response (bid, no bid, and why)



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

F. Prime Vendor: Resources Utilized (*mandatory*)

Instructions: Please note the resources used to identify small, minority-owned, and disadvantaged subcontractors (e.g., Federal or Michigan-based databases, certification programs, websites, listservs, or advertisements).

G. Prime Vendor: Additional Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe or summarize below any additional diversity and inclusion efforts undertaken (as related to the specific GLWA solicitation to which you are responding) that are not addressed in the above fields.

H. Prime Vendor: Internal Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe below any inclusion and diversity efforts, programs, initiatives, professional associations, or awards that your organization has undertaken, belonged to, or won.



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

I. Proposed Subcontractor(s) Information (mandatory)

Subcontracted Goods and/or Services	Subcontractor Name	Certifying Organization

J. Supporting Documentation (mandatory)

Instructions: Provide a short description of any supporting or supplemental documentation included with this form.

Document No.	Description
1.	
2.	
3.	
4.	
5.	
6.	

THIS CERTIFIES THAT

Siebert Williams Shank & Co., LLC



* Nationally certified by the: **NEW YORK & NEW JERSEY MINORITY SUPPLIER DEVELOPMENT COUNCIL**

*NAICS Code(s): 523110

* Description of their product/services as defined by the North American Industry Classification System (NAICS)

06/25/2021

Issued Date

NY03409

Certificate Number

07/28/2022

Expiration Date

Jose Turkiewicz

NMSDC Board Chair

Terrence Clark

Terrence Clark, President & CEO

By using your password (NMSDC issued only), authorized users may log into NMSDC Central to view the entire profile: <http://nmsdc.org>

Certify, Develop, Connect, Advocate.

* MBEs certified by an Affiliate of the National Minority Supplier Development Council, Inc.®



COLEMAN A. YOUNG MUNICIPAL CENTER
2 WOODWARD AVENUE, SUITE 1240
DETROIT, MICHIGAN 48226
PHONE 313•224•4950 TTY 313•224•4960
FAX 313•224•3434
WWW.DETROITMI.GOV

July 26, 2021

Siebert Williams Shank & Co., LLC
150 W. Jefferson Street, Suite 1350
Detroit, MI 48226
Attn: Melissa Little

RE: DETROIT BUSINESS CERTIFICATION- APPROVAL
(Approval Date: 07/26/2021-07/26/2022)

Dear Applicant:

Congratulations! This letter shall serve as your notification that this office has completed its evaluation of the Certification Application and supporting documents submitted by your company.

Based upon our review it has been determined that your company meets the eligibility criteria of the Detroit Business Opportunity Program. Therefore, your company's certification status as Detroit Based Business (DBB), Woman-Owned Business Enterprise (WBE) and Minority-Owned Business Enterprise (MBE) is effective for a period of one (1) year.

Please keep this office apprised of any changes that may affect the status of your company's certification, i.e. ownership, management, location, etc. Also this office may request additional information at any time to verify your continued eligibility.

Remember to visit our web page for any updates to the program, resources, events and most current application for next year at detroitmi.gov/crrio. In addition, Detroit Means Business is a new initiative that is here to support Detroit Businesses as they pursue success and continue to scale through COVID-19. Find out more information on Detroit Means Business and get connected to more resources at: <http://detroitmeansbusiness.org>

Stay connected on how we are working daily to ensure equity and inclusion on behalf of Detroiters at <https://www.facebook.com/criondepartment>

Your continued interest in and support of the Detroit Business Opportunity Program is greatly appreciated.

Sincerely,

Bianca Owens, MBA
Detroit Business Opportunity Program Manager
Civil Rights, Inclusive and Opportunity (CRIO)

FY 2021 – 2022

Detroit Business Certification Program

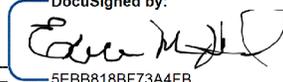
This is to certify the business below has met all requirements set forth by the City of Detroit, Civil Rights, Inclusion & Opportunity Department as

Siebert Williams Shank & Co., LLC

**Detroit Based Business (DBB)
Woman-Owned Business Enterprise (WBE)
Minority-Owned Business Enterprise (MBE)**

Commencing **July 26, 2021** expiring on **July 26, 2022.**

DocuSigned by:



**Erica M. Hill, Deputy Director
Civil Rights, Inclusion & Opportunity**

**City of Detroit
Michael E. Duggan, Mayor**

WBENC

WOMEN'S BUSINESS ENTERPRISE
NATIONAL COUNCIL

JOIN FORCES. SUCCEED TOGETHER.

hereby grants

National Women's Business Enterprise Certification

to

Siebert Williams Shank & Co., LLC

who has successfully met WBENC's standards as a Women's Business Enterprise (WBE).
This certification affirms the business is woman-owned, operated and controlled and is valid through the date herein.

WBENC National WBE Certification was processed and validated by Women's Business Enterprise Council Metro NY, a WBENC Regional Partner Organization.

Certification Granted: April 29, 2016

Expiration Date: April 29, 2022

WBENC National Certification Number: 2005128798



Sandra Eberhard, President & CEO Women's
Business Enterprise Council Metro NY

WBECMETRONY
WOMEN'S BUSINESS ENTERPRISE CENTER
JOIN FORCES. SUCCEED TOGETHER.

NAICS: 523110
UNSPSC: 84111700, 93151600



April 14, 2022

Executive Summary

Affirmative Action Plan & Equal Employment Opportunity Policy

As Wall Street's preeminent Black, Hispanic and Woman owned firm, Siebert Williams Shank & Co., LLC (SWS) is fully committed to the concept and practice of diversity and equal employment opportunities. This commitment is demonstrated in our mission, all aspects of employment as well as its charitable and community work.

Pursuant to this commitment, SWS has developed this Affirmative Action Plan and Equal Employment Opportunity Policy with the objective of achieving genuine equal employment opportunity for all qualified individuals, to ensure its practices personnel policies are in complete accord with applicable federal and state equal employment opportunity laws, forbidding any type of unlawful discrimination against its employees or job applicants. It is SWS's policy that employment and employment opportunities should be based on an individual's qualifications and competence to perform the job, without regard to the individual's race, color, religion, sex, age, national origin, handicap, disability, disabled veteran or veteran status, marital status, sexual orientation, genetic information, or any other characteristic protected by applicable law. This policy applies to all aspects of the employment relationship including hiring, termination, promotion, transfer, training, layoff, recall, leave of absence and wage, salary and benefit administration. Further, SWS expects that each employee will respect every other employee. Derogatory comments about someone's background, or unlawful harassment or retaliation of any kind, will not be tolerated.

In addition, SWS's commitment to the concept and practice of diversity and equal employment opportunities is led by the belief that having a diverse workforce is essential to stimulate an environment of ingenuity, innovation, and high-quality inclusivity. In addition, our employees should mirror the cities in which we conduct business. As such, in an effort to sustain an inclusive hiring and promotion process, SWS:

- Evaluates job descriptions to ensure job duties are in line with reasonable work-related requirements for employment.
- Advertises position vacancies with community organizations likely to refer women and minorities.
- Uses a team-based approach when interviewing for all positions.
- Pinpoints other methods of improving its recruitment and retention of women and minorities.

As a result of this effort, in the past four years, SWS has promoted 20 employees – 15 of whom are women and minorities – to the roles of managing director, senior vice president, vice president, and associate. Specifically, within the last twelve months, SWS has hired 21 new employees of which 9 are women and 14 are minorities. Additionally, 11 employees were promoted – 3 women, 7 minorities. These promotions were based on consistent displays of a diligent work ethic, a commitment to being the best teammate, and overall ensuring that SWS consistently provides high levels of outstanding service to our clients.

Executive Summary

Affirmative Action Plan & Equal Employment Opportunity Policy

Of note, the Firm's ownership comprises of 92% minorities and 61% women. The workforce is 57% minorities and 31% women. The management team, including the President & CEO, COO, CAO, Controller, and the heads of the Public Finance, Equity, and Taxable Fixed Income departments, consists of 60% minorities and 30% women. Of SWS's ownership, it is 92.87% minority-owned and 61.24% woman-owned. Also, of senior management, 65% are minorities and 25% are women. Of SWS's 127 employees, 31% are women and 57% are minorities.

Recruitment

SWS is an equal employment opportunity employer: EOE/M/F/V/D; and will be identified in all employment advertisements as such using the above italicized tagline. Recruitment efforts at colleges, universities, high schools and vocational institutions with significant populations of women and minority students are encouraged. Through its many charitable donations, SWS also encourages the support of fraternal, sorority, civic and community-based organizations.

Hiring

In order to eliminate or minimize intentional or unintentional bias against minority applicants during the interview process, candidates will be interviewed by an interview committee of two to three Firm employees. The interview committee will also evaluate each candidate and decide on the most viable applicant. If selected, all offers of employment will be made by either the President & CEO or the Chairman of SWS.

Promotion

As a means of identifying qualified minority employees who are eligible for promotions or transfers to more upwardly mobile positions in the organization, the Firm will conduct a review process. All employees' reviews will be assessed by the President & CEO, COO, CAO and the respective department manager. Further consideration may be determined by the Board of Directors.

Procurement

SWS does not discriminate against minority and women owned businesses in its own procurement of goods, supplies and services. In such instances, minority groups and agencies, e.g. government, educational, civic and/or community study groups, should be consulted for the purpose of identifying potentially qualified minority professional applicants.

Grievances

Any employee may bring matters of unfair treatment or other personal concerns to the attention of the Affirmative Action Officer, DiAnne Calabrisotto.

Program Reporting

Employment statistical records relative to SWS's affirmative action policies are available for inspection during normal working hours to appropriate government representatives. These records are located in the New York office. Government representatives wishing to inspect these records should contact our office at 212-830-4559.

Annual Review

The Affirmative Action Plan is evaluated, and updated if necessary, as part of the review of the Firm's policies and procedures.

Minority/Women Participation

SWS also actively participates in New York State’s annual MWBE conference in order to develop opportunities and relationships to promote maximum MWBE participation. SWS seeks to create value for society through a broad range of community initiatives, volunteerism, and supporting under- utilized organizations. The Firm places a specific focus on collaborating with, advocating for, and engaging minority- and women-owned law firms as underwriters’ counsel, bond counsel, and/or special or co-counsel on transactions in which we are involved.

- ✓ The Firm voluntarily participates in work-study and internship programs to encourage students of diverse economic and cultural backgrounds to pursue an investment banking career;
- ✓ SWS actively maintains a policy to assist local and regional minority law firms to gain valuable municipal bond experience by utilizing them as sole or co-underwriter’s counsel when it is selected as senior manager;
- ✓ As an underwriter, the Firm consistently and successfully places significant minority firms in our financial transactions as co-underwriter, bond counsel, special counsel, and underwriters’ counsel; and
- ✓ SWS makes every effort to utilize Historically Underutilized Businesses for any available work associated with all financings it accepts.

Sexual Harassment

SWS is committed to maintaining a work environment in which people are treated with dignity, decency and respect. This environment should be characterized by mutual trust and the absence of intimidation, oppression and exploitation. Sexual harassment is illegal under local, state and federal civil rights laws. It is against company policy for any employee to subject any other employee to unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature at any time. SWS will not tolerate unlawful discrimination or harassment of any kind. Through enforcement of its Policy Against Discrimination, Harassment and Sexual Harassment, and by education of its employees, SWS will seek to prevent, correct and discipline behavior that violates this policy.

All employees, regardless of their positions, are covered by and are expected to comply with this policy and to take appropriate measures to ensure that prohibited conduct does not occur. Appropriate disciplinary action will be taken against any employee who violates this policy. Based on the seriousness of the offense, disciplinary action may include verbal or written reprimand, suspension, or termination of employment.

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Quantity Required	Numeric	
					\$\$ Per Bond	Total Cost
Success: All values provided	Bid	#0-1	Management Fee	1	\$ 0.00	\$ 0.00
Success: All values provided	Bid	#0-2	Risk Fee \$\$ Per Bond (if applicable)	1	\$ 0.00	\$ 0.00
Success: All values provided	Bid	#0-3	Other Fee \$\$ Per Bond (if applicable)	1	\$ 0.00	\$ 0.00

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Numeric	Text	Numeric	Total Cost
				Quantity anticipated	Expense Description	Unit Price	
Success: All values provided	Bid	#0-1	Expense	1	IPREO - Base Fee	\$ 34,207.23	\$ 34,207.23
Success: All values provided	Bid	#0-2	Expense	1	IPREO - Wire System	\$ 240.00	\$ 240.00
Success: All values provided	Bid	#0-3	Expense	1	IPREO - Dealer EOE	\$ 1,000.00	\$ 1,000.00
Success: All values provided	Bid	#0-4	Expense	1	IPREO - Gameday	\$ 16,605.45	\$ 16,605.45
Success: All values provided	Bid	#0-5	Expense	1	DTC Fees	\$ 1,600.00	\$ 1,600.00
Success: All values provided	Bid	#0-6	Expense	1	CUSIP Fees	\$ 5,543.50	\$ 5,543.50
Success: All values provided	Bid	#0-7	Expense	1	Day Loan	\$ 16,624.35	\$ 16,624.35
Success: All values provided	Bid	#0-8	Expense	1	NetRoadShow	\$ 4,000.00	\$ 4,000.00
Success: All values provided	Bid	#0-9	Expense	1	DAC Fee	\$ 1,000.00	\$ 1,000.00
Success: All values provided	Bid	#0-10	Expense	1	Out of Pocket (Contingency)	\$ 1,000.00	\$ 1,000.00

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-1	Uninsured \$ per Bond	1	Per Bond	\$ 2.50	\$ 2.50
Success: All values provided	Bid	#0-2	Uninsured \$ per Bond	2	Per Bond	\$ 2.50	\$ 5.00
Success: All values provided	Bid	#0-3	Uninsured \$ per Bond	3	Per Bond	\$ 2.50	\$ 7.50
Success: All values provided	Bid	#0-4	Uninsured \$ per Bond	4	Per Bond	\$ 2.50	\$ 10.00
Success: All values provided	Bid	#0-5	Uninsured \$ per Bond	5	Per Bond	\$ 2.50	\$ 12.50
Success: All values provided	Bid	#0-6	Uninsured \$ per Bond	6	Per Bond	\$ 2.50	\$ 15.00
Success: All values provided	Bid	#0-7	Uninsured \$ per Bond	7	Per Bond	\$ 2.50	\$ 17.50
Success: All values provided	Bid	#0-8	Uninsured \$ per Bond	8	Per Bond	\$ 2.50	\$ 20.00
Success: All values provided	Bid	#0-9	Uninsured \$ per Bond	9	Per Bond	\$ 2.50	\$ 22.50
Success: All values provided	Bid	#0-10	Uninsured \$ per Bond	10	Per Bond	\$ 2.50	\$ 25.00
Success: All values provided	Bid	#0-11	Uninsured \$ per Bond	11	Per Bond	\$ 2.50	\$ 27.50
Success: All values provided	Bid	#0-12	Uninsured \$ per Bond	12	Per Bond	\$ 2.50	\$ 30.00
Success: All values provided	Bid	#0-13	Uninsured \$ per Bond	13	Per Bond	\$ 2.50	\$ 32.50
Success: All values provided	Bid	#0-14	Uninsured \$ per Bond	14	Per Bond	\$ 2.50	\$ 35.00
Success: All values provided	Bid	#0-15	Uninsured \$ per Bond	15	Per Bond	\$ 2.50	\$ 37.50

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-16	Uninsured \$ per Bond	16	Per Bond	\$ 2.50	\$ 40.00
Success: All values provided	Bid	#0-17	Uninsured \$ per Bond	17	Per Bond	\$ 2.50	\$ 42.50
Success: All values provided	Bid	#0-18	Uninsured \$ per Bond	18	Per Bond	\$ 2.50	\$ 45.00
Success: All values provided	Bid	#0-19	Uninsured \$ per Bond	19	Per Bond	\$ 2.50	\$ 47.50
Success: All values provided	Bid	#0-20	Uninsured \$ per Bond	20	Per Bond	\$ 2.50	\$ 50.00
Success: All values provided	Bid	#0-21	Uninsured \$ per Bond	21	Per Bond	\$ 2.50	\$ 52.50
Success: All values provided	Bid	#0-22	Uninsured \$ per Bond	22	Per Bond	\$ 2.50	\$ 55.00
Success: All values provided	Bid	#0-23	Uninsured \$ per Bond	23	Per Bond	\$ 2.50	\$ 57.50
Success: All values provided	Bid	#0-24	Uninsured \$ per Bond	24	Per Bond	\$ 2.50	\$ 60.00
Success: All values provided	Bid	#0-25	Uninsured \$ per Bond	25	Per Bond	\$ 2.50	\$ 62.50
Success: All values provided	Bid	#0-26	Uninsured \$ per Bond	26	Per Bond	\$ 2.50	\$ 65.00
Success: All values provided	Bid	#0-27	Uninsured \$ per Bond	27	Per Bond	\$ 2.50	\$ 67.50
Success: All values provided	Bid	#0-28	Uninsured \$ per Bond	28	Per Bond	\$ 2.50	\$ 70.00
Success: All values provided	Bid	#0-29	Uninsured \$ per Bond	29	Per Bond	\$ 2.50	\$ 72.50
Success: All values provided	Bid	#0-30	Uninsured \$ per Bond	30	Per Bond	\$ 2.50	\$ 75.00

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-31	Insured \$ per Bond	1	Per Bond	\$ 2.50	\$ 2.50
Success: All values provided	Bid	#0-32	Insured \$ per Bond	2	Per Bond	\$ 2.50	\$ 5.00
Success: All values provided	Bid	#0-33	Insured \$ per Bond	3	Per Bond	\$ 2.50	\$ 7.50
Success: All values provided	Bid	#0-34	Insured \$ per Bond	4	Per Bond	\$ 2.50	\$ 10.00
Success: All values provided	Bid	#0-35	Insured \$ per Bond	5	Per Bond	\$ 2.50	\$ 12.50
Success: All values provided	Bid	#0-36	Insured \$ per Bond	6	Per Bond	\$ 2.50	\$ 15.00
Success: All values provided	Bid	#0-37	Insured \$ per Bond	7	Per Bond	\$ 2.50	\$ 17.50
Success: All values provided	Bid	#0-38	Insured \$ per Bond	8	Per Bond	\$ 2.50	\$ 20.00
Success: All values provided	Bid	#0-39	Insured \$ per Bond	9	Per Bond	\$ 2.50	\$ 22.50
Success: All values provided	Bid	#0-40	Insured \$ per Bond	10	Per Bond	\$ 2.50	\$ 25.00
Success: All values provided	Bid	#0-41	Insured \$ per Bond	11	Per Bond	\$ 2.50	\$ 27.50
Success: All values provided	Bid	#0-42	Insured \$ per Bond	12	Per Bond	\$ 2.50	\$ 30.00
Success: All values provided	Bid	#0-43	Insured \$ per Bond	13	Per Bond	\$ 2.50	\$ 32.50
Success: All values provided	Bid	#0-44	Insured \$ per Bond	14	Per Bond	\$ 2.50	\$ 35.00
Success: All values provided	Bid	#0-45	Insured \$ per Bond	15	Per Bond	\$ 2.50	\$ 37.50
Success: All values provided	Bid	#0-46	Insured \$ per Bond	16	Per Bond	\$ 2.50	\$ 40.00
Success: All values provided	Bid	#0-47	Insured \$ per Bond	17	Per Bond	\$ 2.50	\$ 42.50
Success: All values provided	Bid	#0-48	Insured \$ per Bond	18	Per Bond	\$ 2.50	\$ 45.00
Success: All values provided	Bid	#0-49	Insured \$ per Bond	19	Per Bond	\$ 2.50	\$ 47.50

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-50	Insured \$ per Bond	20	Per Bond	\$ 2.50	\$ 50.00
Success: All values provided	Bid	#0-51	Insured \$ per Bond	21	Per Bond	\$ 2.50	\$ 52.50
Success: All values provided	Bid	#0-52	Insured \$ per Bond	22	Per Bond	\$ 2.50	\$ 55.00
Success: All values provided	Bid	#0-53	Insured \$ per Bond	23	Per Bond	\$ 2.50	\$ 57.50
Success: All values provided	Bid	#0-54	Insured \$ per Bond	24	Per Bond	\$ 2.50	\$ 60.00
Success: All values provided	Bid	#0-55	Insured \$ per Bond	25	Per Bond	\$ 2.50	\$ 62.50
Success: All values provided	Bid	#0-56	Insured \$ per Bond	26	Per Bond	\$ 2.50	\$ 65.00
Success: All values provided	Bid	#0-57	Insured \$ per Bond	27	Per Bond	\$ 2.50	\$ 67.50
Success: All values provided	Bid	#0-58	Insured \$ per Bond	28	Per Bond	\$ 2.50	\$ 70.00
Success: All values provided	Bid	#0-59	Insured \$ per Bond	29	Per Bond	\$ 2.50	\$ 72.50
Success: All values provided	Bid	#0-60	Insured \$ per Bond	30	Per Bond	\$ 2.50	\$ 75.00

*Note: The underwriter
presentation starts on
PDF page 169.*



Response to Procurement Solicitation for Bond Underwriting Services Project/Contract No.: 2200290

April 14, 2022



April 14, 2022

Nicolette Bateson, *Chief Financial Officer and Treasurer*
Great Lakes Water Authority

Dear Ms. Bateson,

On behalf of Wells Fargo Corporate and Investment Banking (“WF CIB” or “Wells Fargo”) we thank you for the opportunity to submit our proposal to serve the Great Lakes Water Authority (“GLWA” or “Authority”) as senior manager in connection with its upcoming new money and refunding transaction. We believe our proposal will show evidence of our complete understanding of all considerations with a new money and refinancing transaction and further evidence that we understand what is important to the Authority. We do believe our competition will have that same knowledge, but that said, **the Wells Fargo team believes we possess a unique selling proposition to the Authority** in that we:

- Subject to final document and terms approval, offer \$150 million or more of credit that can be used in a variety of ways as detailed in our response: Creating refunding value well in excess of what is available in the public markets, providing a bridge for the 2006D issuance, or serving as an interim financing vehicle. All at what we believe are attractive rates.
- We have a track record of showing capital commitment to hold spreads in volatile markets such as the one we are in, which could result in better pricing and execution for GLWA.
- We are a leader in ESG space, currently ranked #2 in par in 2020-2021.¹
- Carry the distinction of leading the investment banking effort with GLWA and PFM to achieve the triple notch upgrade from S&P in 2018.

It is very likely that the market environment GLWA will enter in 2022 will be the most volatile of any in the years the Authority has been in existence. It may also be the first time GLWA chooses to travel down the path of ESG, one of the hottest topics in the municipal market over the last 18 months and now one that offers empirical value. While the market’s volatility cannot be controlled, a bank with a strong balance sheet and a history of using it to hold spreads can mitigate those concerns. Wells Fargo is that bank as you’ll see in this RFP. Further, Wells Fargo is one of the top underwriters in ESG space, ready to make that path a smooth one for the Authority. It would be our hope to pick up 2-3 basis points through an ESG designation.

This could also be the first time GLWA is able to release all reserve funds from its Senior lien debt by achieving two “AA” category ratings. We show a path to those upgrades, from either Moody’s or Fitch in our very detailed credit section. Our path is one that you can trust as we have led GLWA in the right direction in the past. When the upgrade happens, we believe with a structuring of the new money bonds, GLWA should be able to release all cash from its Second Lien credits as well. You will see that approach in our structuring section. While all of these wins are in close reach of GLWA, we caution that the Authority may see spreads to MMD that are slightly wider than what it could achieve in a normal market environment. That fact is offset by the overall low interest rate environment where rates on the longer end have only been lower 8% of time in history. Lastly, as you’ll see in our structuring section, Wells Fargo has a firm grasp on all the important factors GLWA considers during financings of new money and refunding transactions. We always have the following in mind: releasing cash portions of reserve requirements, fully understanding the 2018 MOU and its implications for GLWA, upholding coverage in the current issuances and expected future issuances to drive further ratings upgrades, cross lien refundings if they help release more cash reserves, using an appropriate criteria for refundings and suggesting to wait if breakevens to current refundings are high, among many others we talk about in this RFP.

We are confident that our team of seasoned credit, banking, and underwriting professionals offers the Authority the knowledge and experience necessary to successfully implement GLWA’s plan of finance as Senior Manager and hope that you will place your trust in us for this 2022 issuance.

We are extremely grateful for the opportunity to present our financing recommendations and credentials to the GLWA Board on the 22nd. We look forward to seeing you all then. As requested in the RFP, our proposal will remain valid for a period of 6 months and thereafter until withdrawal. Should you have any questions concerning our proposal, or require further information, please do not hesitate to contact us.

Sincerely,


Kevin Hoecker, *Managing Director*
Co-Head of West Region and Head of Limited Public Offerings
(424) 350-6500, kevin.hoecker@wellsfargo.com


Michael Engelbrecht, *Managing Director*
Co-Head of West Region and Co-Head of Utilities
(213) 253-7219, michael.j.engelbrecht@wellsfargo.com


Kristen Fontana, *Director*
Lead Public Finance Credit Strategist
212-214-2836; kristen.fontana@wellsfargo.com

¹ Source: Bloomberg. True Economics to Bookrunner. Represents combined negotiated and competitive long-term new issues underwritten from 1/1/20 to 12/31/21. Includes WFBNA MFG and WFSLLC transactions, including corporate CUSIP transactions such as for Ford Foundation.

Section B. Table of Contents

Section:

Page:

Section C. Disclosure Statement.....1

Section D. Firm Background and Related Experience.....2

Section E. Key Financing Issues.....5

Section F. References.....15

Appendix A: Project Team and Key Individuals

Appendix B: Conflict of Interest Disclosure

Appendix C: Litigation Statement

Appendix D: Taxable Advance Refunding and Cash Optimization Monitor of Bonds Callable through 2026

Appendix E: Insurance Breakeven Analysis

Important Information & Disclaimer

This document and any other materials accompanying this document (collectively, the “Materials”) are provided for general informational purposes only. By accepting any Materials, the recipient acknowledges and agrees to the matters set forth below.

Wells Fargo Corporate & Investment Banking and Wells Fargo Securities (each referred to herein as “CIB” and may be referred to elsewhere as “WFS”) are trade names used for the corporate banking, capital markets and investment banking services of Wells Fargo & Company (“WFC”) and its subsidiaries, including but not limited to Wells Fargo Bank, N.A. Municipal Finance Group, a separately identifiable department of Wells Fargo Bank, N.A. which is registered with the U.S. Securities and Exchange Commission (“SEC”) as a municipal securities dealer.

Commercial banking products and services are provided by Wells Fargo Bank, N.A. (“WFBNA”). Investment banking and capital markets products and services provided by CIB are not a condition to any banking product or service.

CIB, as potential underwriter or placement agent (together with any of its affiliates as context may require, “we”, or “Wells Fargo”) is providing the information contained in the Materials for discussion purposes only in anticipation of, or in connection with, engaging in arm’s length commercial transactions with you in which Wells Fargo would be acting solely as a principal or agent, as applicable, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether we have or are currently acting as such on a separate transaction (the use of the term “agent” does not imply any fiduciary relationship).

These Materials are being provided to you for the purpose of working with you as an underwriter or placement agent (collectively, “underwriter”) on the transaction(s) described in the Materials. As part of its services as underwriter, CIB may provide information concerning the structure, timing, terms, and other similar matters concerning the issue of municipal securities that CIB proposes to underwrite as described in the Materials. The Materials may also contain such information. Any such information has been, and would be, provided by CIB in the context of serving as an underwriter and not as your municipal or financial advisor. Additionally, CIB, as underwriter, has financial and other interests that differ from your interests (or those of the issuer). In its capacity as underwriter, CIB’s primary role would be to purchase securities from you (or the issuer in the case of a conduit transaction) for resale to investors, or arrange for the placement of securities with investors on your behalf. Wells Fargo will not have any duties or liability to any person or entity in connection with the information being provided in the Materials.

The information provided herein is not intended to be and should not be construed as advice within the meaning of Section 15B of the Securities Exchange Act of 1934, and Wells Fargo will not be acting as your municipal advisor under the municipal advisor rules (“Muni Advisor Rules”) of the SEC and the SEC’s guidance in its Registration of Municipal Advisors Frequently Asked Questions dated May 19, 2014, as supplemented (collectively, “Muni Advisor Rules”).

CIB distributes municipal securities to institutional investors primarily through Wells Fargo Bank, N.A. Municipal Finance Group (“WFBNA MFG”) and Wells Fargo Securities, LLC (“WFSLLC”). Distribution to middle market clients is provided primarily through WFSLLC. Retail distribution is primarily provided by Wells Fargo Advisors, which is the trade name used by Wells Fargo Clearing Services, LLC (“WFCS”) and Wells Fargo Advisors Financial Network, LLC (“WFAFN”), two non-bank separate registered broker-dealers (members FINRA and SIPC). WFSLLC, WFBNA MFG, WFCS, and WFAFN are affiliates and are each wholly-owned subsidiaries of WFC.

Any municipal underwriting, commercial paper and remarketing rankings referenced herein represent combined totals for WFBNA MFG and WFSLLC. Non-municipal underwriting, commercial paper and remarketing rankings referenced herein represent totals for WFSLLC only. Source information for any ranking information not otherwise provided herein is available on request.

If the Materials are being provided to you under any of the following events, the information contained in the Materials and any subsequent discussions between us, including any and all information, advice, recommendations, opinions, indicative pricing, quotations and analysis with respect to any issuance of municipal securities, are provided to you in reliance upon the Bank, RFP, IRMA exemptions and underwriter exclusion, as applicable, provided under the Muni Advisor Rules. In the event the Bank, RFP, IRMA exemptions, or underwriter exclusion do not apply, the information included in the Materials are provided in reliance on the general information exclusion to advice under the Muni Advisor Rules.

Any information related to a bank-purchased bond transaction (“Direct Purchase”) included in the Materials is a product offering of WFBNA or a subsidiary thereof as purchaser / investor (“Purchaser”). CIB will not participate in any manner in any Direct Purchase transaction between you and Purchaser, and Wells Fargo employees involved with a Direct Purchase transaction are not acting on behalf of or as representatives of CIB. The information contained herein regarding Purchaser’s Direct Purchase is being provided to you by CIB only for purposes of providing financing alternatives that may be available to you from WFC and its affiliates. Information contained in this document regarding Direct Purchase is for discussion purposes only in anticipation of engaging in arm’s length commercial transactions with you in which Purchaser would be acting solely as a principal to purchase securities from you or a conduit issuer, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether Purchaser, or an affiliate has or is currently acting as such on a separate transaction. Additionally, Purchaser has financial and other interests that differ from your interests. Purchaser’s sole role would be to purchase securities from you (or the conduit issuer). Any information relating to a Direct Purchase is being provided to you pursuant to and in reliance on the “Bank exemption” under the Muni Advisor Rules and the general information exclusion to advice under the Muni Advisor Rules.

In the event the Materials are being provided in connection with a RFP, the SEC exempts from the definition of municipal advisor “any person providing a response in writing or orally to a request for proposals or qualifications from a municipal entity or obligated person for services in connection with a municipal financial product or the issuance of municipal securities; provided however, that such person does not receive separate direct or indirect compensation for advice provided as part of such response” (“RFP exemption”). In such event, we have relied upon the RFP exemption, and on your distribution and execution of this RFP through a competitive process. In the event WFBNA MFG is the party providing the Materials, responses to all questions, certifications, attestations, information requests, and similar in the RFP or RFQ to which this response relates are specifically limited to, in context of, and as applied to, WFBNA MFG in its capacity as a separately identifiable department of a national bank that is registered as a municipal securities dealer with the Securities and Exchange Commission, Office of the Comptroller of the Currency, and Municipal Securities Rulemaking Board; and not on behalf of WFBNA, unless specified otherwise in our response.

In the event that you have provided us with your written representation that you are represented by an independent registered municipal advisor (an “IRMA”) within the meaning of the Muni Advisor Rules, with respect to the transaction(s) described in the Materials we have provided you with our written disclosure that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable, and have taken certain other steps to establish the “IRMA exemption” under the Muni Advisor Rules.

In the event that you have engaged us to serve as an underwriter with respect to the municipal securities issuance described in the Materials we have provided you with our written disclosure regarding our role as an underwriter, that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable.

If savings threshold level information is contained herein, please be advised that CIB is not recommending nor providing advice regarding which maturities should be refunded by you.

See additional important disclosures at the end of the Materials.

Section C. Disclosure Statement

i. State your firm's name and address

Wells Fargo & Company ("WFC") Headquarters: 420 Montgomery Street, San Francisco, CA 94104

Wells Fargo's Municipal Finance Group (incl. Public Finance) Headquarters: 500 W. 33rd Street, New York, NY 10001

Midwest Public Finance Office: 10 S. Wacker Dr., Floor 18, Chicago, IL 60606

It is also important to note that Wells Fargo is local in that it has offices and hundreds of employees located in the GLWA service area.

ii. Describe your firm's organizational structure (i.e., partnership, corporation, etc.) and list any controlling stockholder, general partners, or principals.

Wells Fargo & Company, a publicly-held organization (NYSE: WFC), is a diversified financial services corporation providing banking, mortgage, consumer finance, asset and wealth management, and investment banking products and services. Wells Fargo Corporate & Investment Banking ("WF CIB") is the trade name under which WFC conducts certain of its investment banking, capital markets and institutional securities business through Wells Fargo Bank, N.A. ("WFBNA"). Municipal investment banking business is conducted through WFBNA's Municipal Finance Group ("MFG"). We provide a fuller discussion of the MFG and its sub-groups (such as Public Finance) within our answer to question D.ii.



Municipal Finance Group Overview. WF CIB conducts its municipal investment banking business through WFBNA's 126-member Municipal Finance Group ("MFG"). WF CIB's Public Finance Department is located within MFG and operates in 12 offices nationwide. The group provides a full range of capital market products, including banking and origination, underwriting, credit analysis, sales and trading, infrastructure/P3 advisory, and access to derivative solutions. WF CIB is a leading senior manager of municipal debt nationally and consistently ranks among the top ten municipal underwriters over the past decade. **In 2022, WF CIB is ranked as the #5 senior manager nationwide, having lead managed 53 negotiated and competitive long-term municipal issues totaling \$7.35 billion.²**

- Public Finance Investment Banking:** This group is staffed with 89 public finance professionals who are dedicated to serving governmental, utility and water/sewer, public power, transportation, higher education, healthcare, and other nonprofit institutions in every facet of the municipal market through both historically conventional capital markets solutions as well as bespoke structured finance debt solutions.
- Top-Tier Municipal Syndicate, Institutional Sales, and Credit Strategies:** Staffed with 21 professionals, this group has an experienced syndicate that underwrites negotiated and competitive municipal issues nationwide, an institutional sales team that concentrates its efforts on selling municipal and structured finance products to top-tier institutional buyers throughout the nation, and a credit strategy investor marketing team that facilitates ongoing dialogue with key investors, translating into demand at pricing.
- Bond Trading:** This 16-member group is an active participant in all aspects of the secondary market and maintains positions in various types of municipal bonds. In 2021, our average daily inventory of municipal fixed rate securities was \$1.8 billion.

2022 Year-to-Date Municipal New Issues

Rank	Manager	Par (\$000)	Market Share	No. of Issues
1	BofA Securities	14,102.8	12.6%	85
2	JP Morgan	12,913.4	11.5%	76
3	Citi	9,404.0	8.4%	54
4	RBC Capital Markets	8,304.5	7.4%	112
5	Wells Fargo	7,346.8	6.6%	53
6	Morgan Stanley	5,971.2	5.3%	52
7	Goldman Sachs	5,402.4	4.8%	17
8	Stifel	5,247.6	4.7%	229
9	Jefferies	4,473.3	4.0%	23
10	Barclays	4,303.1	3.8%	14
11	Raymond James	4,081.6	3.6%	133
12	Piper Sandler	3,619.5	3.2%	158
13	Robert W Baird	3,388.1	3.0%	189
14	Samuel A Ramirez	3,340.2	3.0%	11
15	Loop Capital Markets	2,048.6	1.8%	9
16	FHN Financial	1,518.2	1.4%	60
17	UBS	1,496.0	1.3%	25
18	Siebert Williams Shank	1,473.5	1.3%	8
19	Hilltop Holdings Inc	1,289.8	1.2%	46
20	DA Davidson	1,160.7	1.0%	113

Source: Bloomberg; Represents negotiated and competitive municipal new issues underwritten from 1/1/2020 to 4/13/2022 by CIB (includes WFBNA MFG & WFSLLC). Par amount only includes lead-managed credit.

iii. Briefly describe your firm's equal employment opportunity policies and programs.

As an indication of Wells Fargo & Company's deep focus on diversity, 73% of Wells Fargo's employees are either women or minorities, exemplifying Wells Fargo's dedication to diversity within the firm. We are recognized nationally for our diversity leadership by DiversityInc magazine, the Human Rights Campaign Foundation, and others. In fact, in May 2021, DiversityInc announced its 2021 Top 50 Companies for Diversity, and WFC was recognized as the #25 overall company (across all industries) on the list (source: DiversityInc). This commitment to diversity is further exemplified in our public finance department's approach, and our team has worked on many financings with MBE/WBE firms. We further show this in our submission to our B.I.D. form where we propose GLWA finding a role for Loop Capital Markets whom has an office in Detroit. Our firm also has established an Affirmative Action Program that is in compliance with all applicable federal, state and local laws to ensure equal employment opportunities to all employees and applicants. We would be happy to share a document detailing our program upon request.

WFC recently created a new Operating Committee role to lead diversity and inclusion in our workplace and marketplace. The new role is led by Kleber Santos and reports directly to WFC's CEO Charlie Scharf. One of the key recommended procedures in order to create a meaningful change to Diversity and Inclusion is to have accountability across all levels in the company; creating this new role is an example that WFC is making this a top priority in how we conduct business. As a firm, we sponsor and are a member of several organizations committed to promoting diversity. Specifically, within the public finance sector – WF CIB is a member of Women Public Finance, Asian Americans in Public Finance, and Latinos in Public Finance.

² Source: Bloomberg; from 1/1/2021 to 4/9/2022 for WFBNA MFG and WFSLLC. True economics to book runner, negotiated and competitive long term transactions



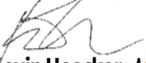
Our diversity and inclusion strategy provides common direction and clear goals across Wells Fargo. We focus on three areas: **1) Workforce diversity and inclusion:** We strive for a culture with inclusive policies and programs that attract, develop, engage, and retain the best talent; **2) Marketplace:** We integrate diversity and inclusion into the business decisions we make every day, including how to increase work with diverse vendors and suppliers; **3) Advocacy:** We demonstrate leadership and commitment through our interactions in both the workplace and in our communities. WFC helps create stronger communities through our commitment to diversity and inclusion. Our work is ongoing and impactful, as demonstrated by our workforce profile and the diversity of selected recognitions in 2021. For additional information, please go to: <https://www.wellsfargo.com/about/diversity/diversity-and-inclusion/>.

iv. Indicate any jurisdictions where your firm or officer, director, etc is or has been the subject of any pending or anticipated investigation or inquiry since January 1, 2017.

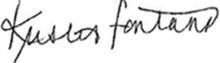
None of the members of Wells Fargo’s team for GLWA have been a part of any investigation or inquiry. As with any large diversified financial services company of its size, WFBNA and WFC are subject to receiving inquiries and subpoenas from regulators and law enforcement, as well as being subject to civil litigation. WFC responds regularly to inquiries and investigations by governmental entities and, as a highly regulated institution, has in the past entered into settlements of some of those investigations, including those specified in Appendix C.

v. Indicate any conflicts or potential conflicts your firm may have in serving as a bond underwriting firm for GLWA.

Please note that we are not aware of any conflict of interest that would preclude WF CIB from serving as underwriter for GLWA. We have included our firm’s standard conflict of interest disclosure as Appendix B.


Kevin Hoecker, *Managing Director*
 Co-Head of West Region and Head of Limited Public Offerings


Michael Engelbrecht, *Managing Director*
 Co-Head of West Region and Co-Head of Utilities


Kristen Fontana, *Director*
 Lead Public Finance Credit Strategist

Section D. Firm Background and Related Experience

i. Detail your firm credit ratings and other relevant financial information, such as net capital position and underwriting capacity and/or limitations.

As a bank dealer, WF CIB has access to the capital base of WFBNA (*the legal entity that provides municipal securities underwriting services for Wells Fargo & Company*). WFBNA is one of the premier U.S.-domiciled banks with **credit ratings of Aa2/A+/AA-** from Moody’s, S&P and Fitch, respectively.³ As of December 31, 2021 WFBNA maintained equity capital of **\$171.1 billion**, risk-based capital of \$163.2 billion, and tier one capital of \$149.3 billion (*source: WFBNA 4Q2021 Call Report*). **A capital position of this magnitude gives WFBNA the strength to underwrite securities of significant size (well in excess of any issuance size that GLWA or any other municipal issuer would ever contemplate), and the ability to commit capital to unsold balances in an effort to support an issuer’s offering**, actively bid for competitive issues, and support secondary markets. In addition to the above capital figures, WFBNA’s hypothetically-calculated excess net capital figure is \$139.0 billion.

As requested, as follows are links to Wells Fargo’s most recent annual reports and quarterly earnings.

Annual Report Link: <https://www.wellsfargo.com/about/investor-relations/annual-reports/>

Quarterly Earnings Report Link: <https://www.wellsfargo.com/about/investor-relations/quarterly-earnings/>

ii. Describe your firm’s experience with municipal utility revenue bonds.

Municipal Utility Revenue Bond Experience. WF CIB is an industry leader in the water and sewer sector and has senior managed recent financings for some of the largest municipal water and sewer agencies in the nation, including Ohio Water Development Authority, Los Angeles Department of Water and Power, Texas Water Development Board, Cities of Houston and Charlotte (water & sewer credits for both), Metro Wastewater Reclamation District (Colorado), St. Louis Metropolitan Sewer District, and San Antonio Water System, among others. The firm’s water and sewer efforts are led by Michael Engelbrecht, who is Co-Head of the West Region and Co-Head of Utilities and has over 30 years of experience covering water and wastewater utilities. Michael is also one of the leads on the GLWA account. **Over the past 5+ years (since the beginning of 2017), Wells Fargo CIB is the 5th ranked senior manager of water and sewer bonds nationally, having led 109 deals in the sector for over \$9.8 billion in par amount.**⁴ We have provided the following tombstones that represent a sampling of some of the large water and sewer deals that we have executed, all of which have some relevance to GLWA.

Wells Fargo CIB Select Negotiated Water and Sewer Financing Experience

<p>City of San Diego (Sewer credit) Expected \$150,000,000 Expected April 2022 <i>Lead Bookrunner</i></p>	<p>Los Angeles Dept. of Water and Power \$494,670,000 March 2022 <i>Lead Bookrunner</i></p>	<p>Indianapolis Bond Bank (Stormwater credit) \$50,000,000 February 2022 <i>Lead Bookrunner</i></p>	<p>Texas Water Development Board \$444,735,000 September 2021 <i>Lead Bookrunner</i></p>	<p>Broomfield (CO) City / County (Water credit) \$131,500,000 August 2021 <i>Lead Bookrunner</i></p>	<p>Metro Wastewater Reclamation Dist. (CO) \$146,545,000 October 2020 <i>Lead Bookrunner</i></p>
<p>Ohio Water Development Authority \$250,000,000 October 2020 <i>Lead Bookrunner</i></p>	<p>City of Charlotte (Water / Sewer credits) \$333,445,000 September 2020 <i>Lead Bookrunner</i></p>	<p>San Antonio Water System \$153,390,000 July 2020 <i>Lead Bookrunner</i></p>	<p>City of Houston Combined Util. System \$610,720,000 June 2020 <i>Lead Bookrunner</i></p>	<p>Metro Water District of Southern California \$267,995,000 June 2020 <i>Lead Bookrunner</i></p>	<p>Great Lakes Water Authority \$413,060,000 September 2018 <i>Joint Bookrunner</i></p>

Source: Wells Fargo Internal Data and Official Statements; Represents select negotiated water and sewer transactions underwritten by WFCIB since 2018 in order to demonstrate similar transactions to GLWA’s

³ <https://www.wellsfargo.com/about/investor-relations/credit-ratings/> as of 4/9/2022

⁴ Bloomberg from 1/1/17 to 4/9/22 for negotiated and competitive long-term water and sewer financings. True economics to bookrunner.



iii. Describe your firm's experience with municipal utility financings in Michigan.

Wells Fargo Helps GLWA and PFM Achieve a Triple Notch Upgrade. As Co-Senior Manager on the Authority's 2018 transaction, WF CIB was instrumental in leading the rating agency strategy for GLWA which enabled the Authority to achieve upgrades from Moody's and S&P and a positive outlook from Fitch. GLWA's strong credit story resonated with S&P, and ultimately the water supply system debt earned an elusive three notch upgrade along with a two notch upgrade with a positive outlook on the sewer system debt. The other rating agencies demonstrated an incremental response, with a one notch upgrade on all debt from Moody's and a positive outlook from Fitch. As follows is the full case study from the 2018 GLWA financing which summarizes the rating agency strategy, process, and result in greater detail. We believe our past experience with GLWA is the most relevant in Michigan Utility financing.

Case Study: Great Lakes Water Authority; WF CIB Role: Co-Senior Manager

\$257,465,000 Sewage Disposal System Revenue and Revenue Refunding Bonds, Series 2018ABC

\$155,595,000 Water Supply System Revenue Second Lien Bonds, Series 2018A

In September 2018, WF CIB served as co-senior manager on GLWA's \$155.595mm Water Supply System Revenue Second Lien Bonds and \$257.465mm Sewer Supply System Revenue Senior Lien Bonds. WF CIB was selected to lead the rating agency strategy for the 2018 transaction, and achieving significant rating upgrades was an explicit priority because of the Authority's strong financial and operational trends, as well as strong legal provisions and a broad service area.

Our recommended rating agency approach included requesting a wide audience of rating analysts, including senior committee members. Direct access to key leaders allowed the Authority to directly communicate their credit story. Additionally, the Authority scheduled pre-meeting calls with the primary analysts to explain the nuances of the Authority's financial results versus its audited financial statements, as well as the unique credit protections associated with the core legal agreements. Altogether, this strategy yielded upgrades from Moody's and S&P and a 'Positive' Outlook from Fitch. S&P upgraded the Senior and Second Lien Water System Revenue bonds three notches from A-/BBB+ to AA-/A+ and two notches with a 'Positive' Outlook on the Senior and Second Lien Sewer System Revenue bonds from A-/BBB+ to A+/A. Moody's assigned a one notch upgrade on both the Senior and Second Lien Water and Sewer System bonds from A3/Baa1 to A2/A3. Despite the metrics and scorecard results indicating a multi-notch upgrade, Moody's credit committee chose to increase the rating only one notch. Although Fitch took a measured approach it is important to note that they had previously assigned a three notch upgrade in 2016. The transactions also furthered majority consent to a springing debt service reserve fund amendment. The amendment removed the obligation to fund a reserve fund when the Authority receives either 'Aa3' or 'AA-' Senior Lien ratings from at least two rating agencies.

Wells Fargo's Commitment to Michigan and the GLWA Service Area. WFC maintains a longstanding commitment to Michigan and currently employs 581 team members throughout the state in 27 Cities, **some of which are within the GLWA service area (Birmingham, Farmington Hills, Troy and Grosse Pointe Woods) and some of which are in GLWA's disadvantaged areas (Pontiac and Flint).** In 2020, Wells Fargo & Company donated \$2.7 million to Michigan nonprofits, schools, and community organizations, as well as \$750,000 from its Open for Business Fund which provides grants to small, minority-owned businesses in response to the COVID-19 pandemic. In addition, WFC's Michigan employees contributed over 6,200 hours of community service in 2020. Since 2017, WF CIB has served as managing underwriter on 25 Michigan municipal new issues, totaling a par amount of \$7.4 billion, including 8 deals as senior manager for a par amount of \$2.0 billion.⁵ WF CIB's trading desk is an active market maker for all sectors and regions, and since 2019, we have executed \$3.5 billion of trades for Michigan issuers. Our retail distribution capabilities in the State are particularly notable, as Wells Fargo Advisors maintains a network of 450 retail brokers in 58 offices who work with clients within the state who hold \$36.6 billion in assets.⁶

iv. Indicate your firm's current ability and willingness to underwrite bonds and hold bonds in inventory. Provide specific examples since January 1, 2021 through today.

This question is essential to achieving proper execution in this current, very volatile, interest rate environment. As described in Section E. i below, we discuss the stressful day to day and intraday volatility that, if not managed correctly, can cause a multiple basis point deviation from proper execution. One of the most trusted ways to achieve proper execution is to be certain investors know that the bookrunning Senior Manager has a track record of underwriting bonds onto their own balance sheet to uphold spreads for its issuer client. Wells Fargo is that bank and we believe we have a unique selling proposition in this area vs. the other firms being considered for the Senior Role. As discussed in our response to question D.i. of this RFP, WF CIB has access to the capital base of WFBNA (which maintains current equity capital of \$171.1 billion). A capital position of this magnitude gives us the strength to underwrite securities of significant size and to choose to commit capital to unsold balances in an effort to support an issuer's offering. While a number of firms have a large capital base, **it is most important that such firms evidence their willingness to deploy that capital in the municipal market on behalf of their clients, we do.**

Though the municipal bond market has experienced periods of stress and volatility since March 2020, WF CIB is a firm that has consistently supported clients' transactions in the negotiated and competitive primary markets. WF CIB has never imposed any prohibition on underwriting unsold balances and continues to frequently commit capital for our municipal clients' benefit. **Wells Fargo's frequent practice of underwriting unsold balances to preserve pre-pricing spreads has the potential to be meaningful for GLWA, as the present value of 1 basis point for our proposed our base case new money and refunding analysis (within question E.ii) is over \$281,000.** The table below highlights our practice of taking down unsold balances and includes WFBNA's largest negotiated capital commitments since the beginning of 2021. These represent just a fraction of the total instances in which we underwrote bonds for clients.

⁵ Source: WF CIB and WFBNA internal data. Includes competitive and negotiated new issues by WFBNA and WFSLLC for the time period 1/1/17 to 4/9/22.

⁶ WFA statistical information as of 4Q2021.



Wells Fargo CIB's Largest Municipal Negotiated Capital Commitments since 1/1/2021

Issuer Name	Pricing Date	Par Amount	Underwritten	% Underwritten	PV of 1 Basis Point
Metropolitan Washington Airports Auth.	01/20/2022	\$421,715,000*	\$113,245,000	26.9%	\$548,944
Piedmont Municipal Power Agency	09/28/2021	\$183,260,000	\$90,930,000	49.6%	\$134,782
Texas Water Development Board	09/30/2021	\$443,740,000	\$58,640,000	13.2%	\$425,983
Miami-Dade County	08/18/2021	\$701,405,000*	\$56,910,000	8.1%	\$689,113
County of Wake (NC)	03/17/2021	\$184,425,000	\$56,300,000	30.5%	\$131,984
Dist. of Columbia Housing Finance Agency	09/02/2021	\$54,455,000	\$33,840,000	62.1%	\$26,180

*Represents tax-exempt series of transaction; **Note:** Balances may have been placed with investors at any of various points after pricing.

v. Financing Team: Provide a description of the team you plan to assign to work with GLWA and the responsibilities of each team member. In an appendix, provide a brief resume for each team member.

Wells Fargo takes a team approach to GLWA, bringing the best of the platform whenever necessary whether it be banking or underwriting. The team has the understanding of GLWA's goals, a proven ratings strategy and the financial modeling capability to assure new money transactions, reserve fund releases and refundings are structured in the appropriate way. **Kevin Hoecker**, *Managing Director*, **Michael Engelbrecht**, *Managing Director*, and **Kristen Fontana**, *Director*, are very familiar to the GLWA team as these three were the main contacts for the 2018 transaction. Kevin, Michael, and Kristen work together on a daily basis and both will be readily available to the Authority to provide specialized water/sewer financing and credit expertise. Our banking team will interface regularly with **Amanda Amaro**, *Director*, our lead underwriter for GLWA, on market, investor communication, and structuring discussions.

Kevin currently serves as Co-Head of the Public Finance West Region (which includes Michigan) and Head of Limited Public Offerings, and he has 22 years of extensive experience with complex municipal finance clients in the Midwest region. Kevin is an expert in the structuring and marketing of bond issuances for best execution and results and will take on that role for GLWA. He will also serve as the point of contact for deal management assuring a smooth transaction. He serves as the lead banker for all state-level Michigan issuers and continues to serve as the primary investment banking contact to all major municipal issuers in the Midwestern United States, including within the states of Michigan, Ohio, Illinois, Wisconsin, and Indiana, to name a few. In addition to his prior GLWA experience, he has served as senior manager for water, sewer, and SRF clients such as the Indianapolis Local Public Improvement Bond Bank (Stormwater), St. Louis Metropolitan Sewer District, Indiana Finance Authority's SRF Program, Ohio Water Development Authority, City of Chicago and Illinois Finance Authority, among others.

Michael serves as Co-Head of the West Region and Co-Head of our firm's municipal Utilities group. Michael is our firm's water and sewer specialist and has over 30 years of capital markets experience during which he has provided investment banking services to water utilities, special districts and general municipal clients nationally. He worked served GLWA on its 2018 transaction and other of his clients include the Los Angeles Department of Water and Power, State of California Department of Water Resources, Bonneville Power Administration, Indiana Finance Authority (SRF program), Metropolitan Water District of Southern CA, Texas Water Development Board, and numerous other water and power agencies. He is known as a national expert in Water and Sewer finance and will be the go to professional for all matters in that regard.

Kristen serves as Head of Public Finance Credit Strategy and will be an invaluable resource in assisting GLWA in developing its rating agency and investor presentations. She was instrumental in developing the rating strategy on GLWA's 2018 financing which allowed the Authority to obtain ratings upgrades from Moody's and S&P. Kristen has worked with other utilities including: Indianapolis Public Improvement Bond Bank (Stormwater credit), San Diego Sewer System and the City of Charlotte, to name a few. She provides our municipal clients with insightful credit perspective regarding debt structure, bond indenture provisions and rating agency strategy. She is well versed in the current fiscal, regulatory and economic environment offering clients highly customized strategies to achieve their ratings goals. She will provide continued and in-depth rating agency strategic guidance, investor credit analyst insights, and investor credit support during the marketing period for GLWA. Kristen joined WF CIB in 2010 and has over 15 years of municipal experience overall.

Amanda serves as an underwriter for the Midwest region and will manage the Authority's underwriting and provide day-to-day marketing and structuring insight. Her insight will make for a valuable addition to the GLWA's underwriting syndicate. She has over a decade of experience with WF CIB on the Municipal Syndicate Desk and has served as lead underwriter on WF CIB-led transactions for the Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Metropolitan Water District of Salt Lake & Sandy (Utah), Beaufort-Jasper (South Carolina) Water and Sewer Authority, and Water/Sewer transactions for the Town of Mount Pleasant and City of Myrtle Beach (South Carolina), among many others. Amanda serves as lead underwriter for all state-level entities in Michigan and was underwriter in our role as joint bookrunner for the Michigan State Building Authority's 2020 Series I & II transaction.

Scott Goldstein, *Director*, will serve as the Authority's quantitative specialist and has over 30 years of experience developing innovative financing structures for many of the nation's most complex issuers. He has structured over 1,000 senior managed municipal transactions with significant emphasis on refunding and structured financial solutions. Scott will run point on all quantitative modeling, for which there will be several. **Brian LePenske**, *Director*, will be heavily involved on a day-to-day basis for GLWA, working closely with the lead banking team. He will also work closely with Scott on structure modeling and will interface regularly with Amanda on market and structure discussions. Brian plays a key role in the origination, project management and transaction execution for large, complex issuers in the Midwest region. Additional transaction support will be provided by **Ryan Trauffer**, Associate, and **Samantha Fong**, Associate, who possess the skills to assure excellent transactional processes. Ryan served as the key support team member for our team during GLWA's 2018 financing.

Resumes for each member of the finance team are provided within Appendix A, as requested.



Section E. Key Financing Issues

i. Strategic issues to be considered by GLWA in the implementation of its potential transaction(s). Key challenges encountered for financing plans in 2022 and how to mitigate these challenges.

It is very likely that the market environment GLWA will enter in 2022 will be the most volatile of any in the years the Authority has been in existence. It may also be the first time GLWA chooses to travel down the path of ESG, one of the hottest topics in the municipal market over the last 18 months and now one that offers empirical value. While the market's volatility cannot be controlled, a bank with a strong balance sheet and a history of using it to hold spreads can mitigate those concerns. Wells Fargo is that bank as you'll see in this RFP. Further, Wells Fargo is one of the top underwriters in ESG space, ready to make that path a smooth one for the Authority. It would be our hope to pick up 2-3 basis points through an ESG designation.

This could also be the first time GLWA is able to release all reserve funds from its Senior lien debt by achieving two "AA" category ratings. We show a path to those upgrades, from either Moody's or Fitch in our credit section. If/When that happens, we believe with a structuring of the new money bonds GLWA should be able to release all cash from its Second Lien credits as well. You will see that approach in our structuring section. While all of these wins are in close reach of GLWA, we caution that the Authority may see spreads to MMD that are slightly wider than what it could achieve in a normal market environment. That fact is offset by the overall low interest rate environment where rates on the longer end have only been lower 8% of time in history. Lastly, as you'll see in our structuring section, Wells Fargo has a firm grasp on all the important factors GLWA considers during financings of new money and refunding transactions. We always have the following in mind: releasing cash portions of reserve requirements, fully understanding the 2018 MOU and its implications for GLWA, upholding coverage in the current issuances and expected future issuances to drive further ratings upgrades, cross lien refundings if they help release more cash reserves, using an appropriate criteria for refundings and suggesting to wait if breakevens to current refundings are high, among others we talk about in this RFP. For this section we will focus on GLWA's step into ESG designation and the overall market volatility.

Wells Fargo believes this transaction could be GLWA's first step into the ESG world and we, as the #2 ranked Underwriter in that space, want to help. WF

CIB has developed into a leading underwriter of ESG financings in the municipal market, ranking as the #2 underwriter of ESG bonds from 2020 through 2021 with \$6.5 billion of par issued and 11.8% market share⁷. We can make the going through the ESG process very comfortable for GLWA, including choose a second party provider (Kestrel or Sustainability). We would recommend the Authority consider labeling its Water and Sewage bond issuances as "Green Bonds," as the uses of proceeds of GLWA's bonds are consistent with "Goal 6: Clean Water and Sanitation" of the United Nations 17 Sustainable Development Goals. Due to our market leading experience placing municipal ESG paper, WF CIB understands the rapidly developing green investor community and will actively market the sustainable aspects of a GLWA transaction to a comprehensive group of ESG buyers. A portion of tax-exempt municipal market issuers who have entered the municipal ESG market have experienced increased investor participation and attracted new investors, ultimately leading to some transactions where a pricing benefit, or "Greenium," has been observed. In November 2021, the State Public Works Board of the State of California (2021 Series C) realized a spread advantage of 2-3 basis points on its tax-exempt Green Bonds compared to its non-labeled bonds with the same maturities and coupons. We believe that these pricing benefits should persist and continue. There are now five investors with dedicated tax-exempt ESG/SRI funds, as well as 19 crossover investors with ESG funds. **A possible Greenium realized by GLWA could have a meaningful impact on its upcoming financing; the present value of 1 basis point for our proposed our base case new money and refunding analysis (within question E.ii) is over \$281,000, so a Greenium of 2-3 bps could save the Authority between \$562,000-\$843,000.**

2020-2021 Muni Long-Term Negotiated ESG Rankings

Rank	Mgr	Par (\$MM)	Deals	Mkt Share
1	Citi	\$6,765.33	32	12.2%
2	WFCIB	6,515.99	40	11.8%
3	BofA	6,079.24	36	11.0%

Volatility is the new norm in the Municipal Market and has to be managed appropriately. In the second half of 2020 and in 2021 we observed a stable tax-exempt and taxable market in which many issuers successfully issued new municipal bonds. After over a year of "business-as-usual", the market environment in 2022 has taken a marked turn and seen high levels of volatility, Treasuries increasing to levels last seen in 2019, and MMD yields last experienced during March and April 2020.⁸ At right, we have demonstrated some of the most extreme daily MMD moves since February 1 of this year. From January 1, 2022 through April 6, 2022 (the date of requested rates for our analysis in this RFP) the MMD curve as a whole rose by between 118 to 165 basis points across the curve. **This rate rise has greatly affected GLWA's refunding opportunities as you will see in the next section. That said, a decrease in rates of 50 basis points creates a very different refunding result and GLWA needs to work with a bank that can quickly access the market if necessary.** Market uncertainty has stemmed from factors such as the rate of anticipated FOMC policy tightening (short-end) and inflation fears continuing (long-end) in addition to global market moving events such as the ongoing war in Ukraine. As tax-exempt yields have risen, investors have pulled money from municipal funds, currently to the tune of \$26.6 billion in outflows since the beginning of 2022, which followed record inflows in 2021.⁹ This market dynamic has caused credit spreads to widen significantly. During markets conditions of this sort, selecting an underwriter with a deep and broad distribution platform that has proven successes in similar markets is important so that GLWA can be confident in its ability to access the market and price its 2022 issuance at correct levels.

Daily Adjustment in MMD on Select Dates (in bps)

	1	2	3	5	7	10	20	30
4/6/2022	12	12	12	12	12	12	12	12
3/22/2022	12	12	12	12	12	12	12	12
3/14/2022	10	10	10	10	10	10	10	10
2/11/2022	10	10	10	10	10	8	7	7
3/25/2022	10	10	10	10	5	5	3	3
3/24/2022	9	9	9	7	5	4	4	4
3/10/2022	5	7	7	7	7	5	5	5
2/15/2022	6	6	6	6	6	6	6	6
2/10/2022	5	5	5	5	5	5	5	5
3/9/2022	5	5	5	5	5	5	5	5
3/17/2022	0	-3	-3	-4	-5	-5	-6	-6
3/31/2022	-3	-3	-3	-4	-4	-4	-4	-4
2/24/2022	-6	-6	-8	-8	-8	-8	-8	-8
Total YTD Adjustments	155	165	164	151	132	129	124	118

Source: Refinitiv TM3

⁷ Source: Bloomberg. True Economics to Bookrunner. Represents combined negotiated and competitive long-term new issues underwritten from 1/1/20 to 12/31/21. Includes WFBNA MFG and WFSLLC transactions, including corporate CUSIP transactions such as for Ford Foundation.

⁸ Refinitiv TM3 from 1/1/2022 to 4/6/2022

⁹ Lipper as of 4/6/2022



ii. Provide potential 2022 transaction recommendations for the plan of finance and structural features including its advantages, disadvantages, or any alternatives GLWA should consider.

New Money and 2012A Refunding: A Conservative Base Case. In structuring our proposed base case new money scenario, we sought to allocate bonds between the senior and second lien (for both the Water System and Sewer System credits) such that cash releases from the respective DSRFs could be maximized. Pursuant to the RFP, we have assumed a new money borrowing size of \$200 million for the Water Supply System and \$175 million for the Sewage Disposal System. We have utilized interest rates and market conditions as of April 6, 2022 and structured the bonds to produce level debt service, similar to what GLWA has done in the past and importantly a good foundation for future capital programs as detailed in several GLWA documents. In addition, we have analyzed an all 5% coupon structure and have incorporated a par call of 7/1/2032 into our analyses. For this analysis, we used an uninsured scale, however we do believe insurance in some cases could be impactful to the results/augment what the reader sees in this section.

In our base case, to remain conservative, we have assumed that GLWA continues to hold just one rating in the 'AA' category (mimicking April 6th, 2022 circumstances) and thus must retain its Reserve Requirements. We have utilized a proprietary model (further discussed in our response to question E.v.) to determine the optimal mix of senior and second lien new money bonds in order to maximize cash releases from the reserve funds (our goal seek), while also ensuring that the par amount of a senior lien issuance is sufficiently large to garner ample investor interest in the primary market (i.e. at least approximately \$20 million of par amount). **In optimizing the reduction in the reserve requirement in order to release the maximum amount of cash, our analysis recognizes the difference between the second lien reserve requirements for the Sewage Disposal System (i.e. lesser of average annual debt service and the maximum permitted by the Code) and the Water Supply System (i.e. lesser of MADs and the maximum permitted by the Code). As seen in this section in the yellow highlighted rows, our structure releases a net total of \$16.1 million in cash from the Sewage System reserve funds and \$262k from the Water System reserve funds.** Given current market conditions this is the best result available to GLWA. That said, we do believe GLWA will achieve an upgrade to 2 "AA" ratings on its Senior Liens and will therefore be able to release all Senior Lien reserve requirements (more on that below). We also note that we have not used the DSRF releases for any purpose in this base case, yet they can be used as a deposit to the project fund (reduce borrowing amount) or pay current-year debt service.

We also demonstrate pre-and post-issuance coverage patterns by year through 2032 in the table above and to the right. Upon issuance of the base case bonds in this analysis, sewer system senior lien coverage remains at or above 2.21x and senior plus second lien coverage remains at or above 1.68x. Water system senior lien coverage remains at or above 1.78x and senior plus second lien coverage remains at or above 1.32x.

The base case analysis also includes a tax-exempt current refunding of the Sewage System Series 2012A Bonds which will be callable on 7/1/2022. Because the Series 2012A Bonds' 2023 maturity is the only one available to be refunded, NPV savings (\$373,873 or 2.08%) are limited due to the near-term nature of the maturity compared to the call date. We did not include other refunding candidates in our base case scenario as the traditional means of achieving savings on those longer calls in 2024-2026 is a taxable advance refunding and in the current market, the breakevens to current refunding are high and no PV savings percentages are higher than 3.3%. This is discussed more below.

New Money and Refunding Alternative/Target Case: Achieving two "AA" Ratings and Releasing ALL Cash Reserves. In our alternative financing case, we have analyzed an issuance under which GLWA achieves two "AA" category ratings on its senior lien credits during the rating process and thus is able to release all senior lien reserve requirements. For this scenario we have contributed the entirety of the senior lien cash

Sewage System Debt Service Coverage Patterns through 2032

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior Lien	Sr + 2nd Lien	Senior Lien	Sr + 2nd Lien
7/1/2023	2.22x	1.77x	2.21x	1.69x
7/1/2024	2.38x	1.77x	2.35x	1.68x
7/1/2025	2.41x	1.79x	2.39x	1.70x
7/1/2026	2.45x	1.79x	2.42x	1.71x
7/1/2027	2.50x	1.80x	2.47x	1.72x
7/1/2028	2.50x	1.82x	2.48x	1.74x
7/1/2029	2.44x	1.87x	2.42x	1.79x
7/1/2030	2.67x	1.90x	2.64x	1.82x
7/1/2031	2.74x	1.95x	2.71x	1.86x
7/1/2032	2.57x	2.00x	2.54x	1.91x

Water System Debt Service Coverage Patterns through 2032

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior Lien	Sr + 2nd Lien	Senior Lien	Sr + 2nd Lien
7/1/2023	1.91	1.39	1.78x	1.32x
7/1/2024	2.04	1.48	1.89x	1.39x
7/1/2025	2.02	1.47	1.87x	1.38x
7/1/2026	2.11	1.54	1.96x	1.45x
7/1/2027	2.19	1.60	2.03x	1.50x
7/1/2028	2.28	1.66	2.11x	1.56x
7/1/2029	2.37	1.72	2.20x	1.62x
7/1/2030	2.46	1.76	2.28x	1.66x
7/1/2031	2.55	1.83	2.36x	1.72x
7/1/2032	2.66	1.91	2.47x	1.79x

Pre-issue D/S and coverage utilizes existing debt service from 2020 transactions' official statements; These projections only include the 2022 GLWA issuance; The 2025-2032 projections are based off of the 2023 Cost of Service Study and represent only the wholesale system.

Proposed Sewage Disposal System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Current Ref. of Senior 2012A	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$21,930,000	\$132,585,000	\$17,620,000	\$172,135,000
Project Fund	\$25,000,000	\$150,000,000	-	\$175,000,000
Arbitrage Yield	3.21%	3.21%	3.21%	3.21%
True Interest Cost	3.85%	3.91%	1.99%	3.89%
Average Life	19.0	19.0	0.9	17.1
PV of 1 Basis Point	\$18,630	\$111,907	\$1,762	\$132,299
Total Debt Service of Issue	\$42,725,875	\$258,332,313	\$18,427,583	\$319,485,771
Average Annual D/S of Issue	\$1,424,196	\$8,611,077	\$18,427,583	\$10,649,526
Max. Annual D/S of Issue	\$1,430,750	\$8,637,250	\$18,427,583	\$27,654,521
Prior Reserve Requirement	\$110,819,563	\$48,500,349	-	-
New Reserve Requirement	\$98,880,606	\$44,301,058	-	-
Reduction (Increase) in Req.	\$11,938,957	\$4,199,291	-	-
Available Cash	\$14,350,467	\$6,292,854	-	-
Cash Release (Addition)	\$11,938,957	\$4,199,291	-	\$16,138,248
Par Amount Refunded	-	-	\$17,985,000	\$17,985,000
Maturity Refunded	-	-	2023	2023
NPV Savings (\$)	-	-	\$373,843	\$373,843
NPV Savings (%)	-	-	2.08%	2.08%

Proposed Water Supply System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$154,470,000	\$21,125,000	\$175,595,000
Project Fund	\$176,100,000	\$23,900,000	\$200,000,000
Arbitrage Yield	3.15%	3.15%	3.15%
True Interest Cost	3.85%	3.91%	3.86%
Average Life	19.0	19.0	19.0
PV of 1 Basis Point	\$131,230	\$17,830	\$149,060
Total Debt Service of Issue	\$300,981,625	\$41,161,229	\$342,142,854
Average Annual D/S of Issue	\$10,032,721	\$1,372,041	\$11,404,762
Max. Annual D/S of Issue	\$10,063,750	\$1,378,250	\$11,442,000
Prior Reserve Requirement	\$101,583,914	\$47,732,579	-
New Reserve Requirement	\$104,256,024	\$44,798,813	-
Reduction (Increase) in Req.	(\$2,672,110)	\$2,933,766	-
Available Cash	\$1,575,413	\$2,934,922	-
Cash Release (Addition)	(\$2,672,110)	\$2,933,766	\$261,656

Assumptions: Moody's/S&P/Fitch senior lien ratings of A1/AA-/A+ and second lien ratings of A2/A+/A; market rates as of 4/6/2022; 7/1 principal payments; 10-year par call on 7/1/2032; \$6.25 per bond all-in COI & UWD; Available cash figures sourced from PFM's 2022 Municipal Market Outlook and GLWA Borrowing Considerations presentation from 2/25/2022

Proposed Sewage Disposal System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Current Ref. of Senior 2012A	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$18,575,000	\$22,020,000	\$17,615,000	\$158,210,000
Project Fund	\$150,000,000	\$25,000,000	-	\$175,000,000
Arbitrage Yield	3.09%	3.09%	3.09%	3.09%
True Interest Cost	3.82%	3.88%	1.97%	3.82%
Average Life	19.0	19.0	0.9	17.0
PV of 1 Basis Point	\$101,454	\$18,737	\$1,585	\$121,777
Total Debt Service of Issue	\$231,040,438	\$42,905,000	\$18,422,354	\$292,367,792
Average Annual D/S of Issue	\$7,701,348	\$1,430,167	\$18,422,354	\$9,745,593
Max. Annual D/S of Issue	\$7,725,000	\$1,435,750	\$18,422,354	\$26,816,292
Prior Reserve Requirement	\$110,819,563	\$48,500,349	-	-
New Reserve Requirement	\$0	\$37,100,145	-	-
Reduction (Increase) in Req.	\$110,819,563	\$11,400,204	-	-
Available Cash	\$14,350,467	\$6,292,854	-	-
Cash Release (Addition)	\$14,350,467	\$6,292,854	-	\$20,643,321
Par Amount Refunded	-	-	\$17,985,000	\$17,985,000
Maturity Refunded	-	-	2023	2023
NPV Savings (\$)	-	-	\$377,422	\$377,422
NPV Savings (%)	-	-	2.10%	2.10%

Proposed Water Supply System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$152,495,000	\$21,110,000	\$173,605,000
Project Fund	\$176,035,000	\$23,965,000	\$200,000,000
Arbitrage Yield	3.10%	3.10%	3.10%
True Interest Cost	3.82%	3.88%	3.83%
Average Life	19.0	19.0	19.0
PV of 1 Basis Point	\$130,472	\$17,963	\$148,435
Total Debt Service of Issue	\$297,122,604	\$41,126,542	\$338,249,146
Average Annual D/S of Issue	\$9,904,087	\$1,370,885	\$11,274,972
Max. Annual D/S of Issue	\$9,934,000	\$1,372,250	\$11,310,250
Prior Reserve Requirement	\$101,583,914	\$47,732,579	-
New Reserve Requirement	\$0	\$44,797,364	-
Reduction (Increase) in Req.	\$101,583,914	\$2,935,215	-
Available Cash	\$1,575,413	\$2,934,922	-
Cash Release (Addition)	\$1,575,413	\$2,934,922	\$4,510,335

Assumptions: Moody's/S&P/Fitch senior lien ratings of Aa3/AA-/A+ and second lien ratings of A1/A+/A; market rates as of 4/6/2022; 7/1 principal payments; 10-year par call on 7/1/2032; \$6.25 per bond all-in COI & UWD; Available cash figures sourced from PFM's 2022 Municipal Market Outlook and GLWA Borrowing Considerations presentation from 2/25/2022



reserve releases as a source of funds for the financing analysis. However, we have continued to *not* utilize the second lien cash DSRF releases for any purpose in the analysis (GLWA to choose). That said, **this scenario is able to release all cash reserves from all liens and credits with a total of \$25,153,656 released between Senior and Second.** We have structured the senior/second lien distribution of bonds in this alternative to achieve a maximum level of second lien cash reserve release coupled with a structure that achieves an advantageous cost of capital for GLWA by issuing a larger proportion of senior lien bonds. Stated differently, we have incorporated enough second lien bonds in the sewer and water analyses to allow GLWA to release the maximum amount of cash from its second lien DSRF, while also ensuring that the par amount of a second lien issuance is sufficiently large to garner ample investor interest in the primary market (i.e. at least approximately \$20 million of par amount). This structure allows for GLWA to issue a greater amount of senior lien bonds and realize additional pricing benefit by issuing more under its senior liens. We note that post-issuance coverage across all credits and liens under this alternative remains strong and should not be a cause for concern by the rating agencies.

You will notice in our sewage system analysis below, when compared to our base case, the distribution of bond proceeds is completely flipped, with a base case senior lien to second lien split of \$25.0mm and \$150.0mm, respectively, versus a respective split of \$150mm to \$25mm in our alternative case. You might then also observe that the water system distribution of proceeds is very similar between senior and second lien when comparing the base case and the alternative case. When sizing the water issuances in the base case above, the maximum combined senior plus second lien cash reserve release occurred near the point when the second lien cash reserve release was maximized. Because maximizing the second lien cash reserve release was the explicit goal of our alternative case, the base case and alternative case water issuances demonstrated similar results as one another.

We also mentioned above the fact that this alternative case would allow GLWA to achieve a lower interest cost (under the sewer system analysis in particular) due to the greater proportion of senior lien bonds utilized. In comparing the sewage base case versus sewage alternative case, the true interest cost is 7 basis points lower in the alternative case. Part of this decrease is due to a slight pricing benefit of the single notch upgrade (which we have conservatively assumed to be 2-5 bps across the curve) and another portion of the decrease is due to this reallocation of senior/second bonds issued. If the benefit of this reallocation to include additional senior lien bonds is 3 bps, that translates to over \$360k in NPV savings (with the PV01 of the entire sewage alternative case being \$122k).

Augmentation Available for Alternative/Target Case: GRS Pension Payment Reduction. With GRS Pension payments terminating in 2023, O&M expense is reduced by approximately \$10.3 million for the Water System and \$13.6 million for the Sewer System in 2024 and beyond (Quarterly Budget Amendment Report). With this, coverage increases allowing for more bond principal to be placed in nearer term years. We'd like to explore this strategy with GLWA and PFM for this issuance, but also know that this room can be used with the expected Regional System Capital needs in FY2025 and the bonding associated with it.

Taxable Advance Refunding Considerations (Wait and See Approach in the Current Market). We have analyzed and provided below a taxable advance refunding monitor of individual bonds across GLWA's various credits with call dates through 2024; for a complete monitor that includes all callable bonds through 2026, please see Appendix D. Utilizing interest rates as of close of business on April 6, 2022, the refunding monitor demonstrates only a few candidates that meet a more relaxed 3% NPV savings + 50% savings efficiency test (candidates highlighted in green), which includes \$149 million of Water Senior 2014D-4 bonds and \$133 million of Sewage Senior 2014C-3 bonds. These results have weakened over the course of 2022 due to the recent run up in treasury rates (10-year and 30-year USTs increased 127 bps and 94 bps YTD, respectively) and widening of municipal credit spreads (*source: US Treasury*). In light of the high levels of volatility that currently persist in the market, we have also included results demonstrating a scenario in which interest rates decrease by 50 basis points (bright purple column). The candidates that would then meet our aforementioned refunding test are highlighted in yellow; the majority of candidates callable in 2024 meet the refunding criteria under this scenario. Finally, we also have provided a column in the below monitor in red representing the individual breakeven to a hypothetical tax-exempt current refunding at the call date, assuming today's rates exist in the future. The candidates currently highlighted in green under a taxable advance refunding scenario have breakevens ranging from 145 to 153 bps. **Given these relatively high breakevens and the relaxed refunding criteria to generate "green" candidates, we would not recommend that GLWA refund any of these bonds on a taxable basis if rates stay the same or get worse (4/6/2022 market conditions). If that were to happen we would encourage GLWA to wait for the call dates to approach or for market conditions to turn more favorable. In knowing the minus 50 bps scenario creates such attractive candidates, GLWA should be prepared to seek approval for refunding multiple series of bonds.**¹⁰

Sewage System Debt Service Coverage Patterns through 2032

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior Lien	Sr + 2nd Lien	Senior Lien	Sr + 2nd Lien
7/1/2023	2.22x	1.77x	2.12x	1.70x
7/1/2024	2.38x	1.77x	2.26x	1.69x
7/1/2025	2.41x	1.79x	2.29x	1.71x
7/1/2026	2.45x	1.79x	2.32x	1.71x
7/1/2027	2.50x	1.80x	2.37x	1.72x
7/1/2028	2.50x	1.82x	2.38x	1.74x
7/1/2029	2.44x	1.87x	2.33x	1.79x
7/1/2030	2.67x	1.90x	2.54x	1.82x
7/1/2031	2.74x	1.95x	2.60x	1.87x
7/1/2032	2.57x	2.00x	2.45x	1.92x

Water System Debt Service Coverage Patterns through 2032

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior Lien	Sr + 2nd Lien	Senior Lien	Sr + 2nd Lien
7/1/2023	1.91	1.39	1.78x	1.32x
7/1/2024	2.04	1.48	1.89x	1.40x
7/1/2025	2.02	1.47	1.87x	1.38x
7/1/2026	2.11	1.54	1.96x	1.45x
7/1/2027	2.19	1.60	2.03x	1.50x
7/1/2028	2.28	1.66	2.12x	1.56x
7/1/2029	2.37	1.72	2.20x	1.62x
7/1/2030	2.46	1.76	2.28x	1.66x
7/1/2031	2.55	1.83	2.37x	1.72x
7/1/2032	2.66	1.91	2.47x	1.79x

Pre-issue D/S and coverage utilizes existing debt service from 2020 transactions' official statements; These projections only include the 2022 GLWA issuance; The 2025-2032 projections are based off of the 2023 Cost of Service Study and represent only the wholesale system.

¹⁰ Subject to 10-year par call; Key Assumptions: A1 / AA- / A+ rating by Moody's, S&P, and Fitch for senior lien and A2 / A+ / A ratings for second lien; pricing is indicative as of 4/6/2022 and subject to market conditions at time of pricing; principal payments of 7/1; dated/delivery date of 8/1/2022; estimated all-in cost of issuance of \$6.25/bond; SLGS funded escrow for demonstrative purposes (if SLGS are not available at the time of pricing, alternate securities would be used); Green light indicates 3% or greater NPV savings or 50% escrow efficiency, yellow light indicates 2% to 3% NPV savings or 40% to 50% escrow efficiency, and red light indicates under 2% NPV savings or under 40% escrow efficiency; no effect on reserve fund; Savings (or Escrow Efficiency calculated as NPV Savings / (NPV Savings + Negative Arbitrage)



Credit	Series	Maturity	Par Amount (\$000s)	Prior Coupon	Next Call	Current Market				Current Market - 50bps			Cash Optimization Ref.	
						NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	Break-even to T/E Current Ref.	NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	% NPV Savings	Escrow Efficiency
Water Sr	2014D-1	07/01/35	20,020	5.000%	07/01/24	302	1.5%	30.9%	1.67%	1358	6.8%	73.4%	12.0%	92.4%
Water Sr	2014D-1	07/01/37	24,170	5.000%	07/01/24	137	0.6%	13.4%	1.68%	1537	6.4%	70.0%	11.9%	91.9%
Water Sr	2014D-2	07/01/25	29,525	5.000%	07/01/24	(9)	-0.1%	--	1.66%	406	1.4%	86.7%	2.2%	115.1%
Water Sr	2014D-2	07/01/26	50,370	5.000%	07/01/24	469	0.9%	38.3%	1.53%	1,431	2.8%	83.7%	4.3%	102.7%
Water Sr	2014D-2	07/01/27	34,340	5.000%	07/01/24	579	1.7%	48.6%	1.49%	1,391	4.1%	82.8%	6.2%	100.0%
Water Sr	2014D-2	07/01/28	22,690	5.000%	07/01/24	559	2.5%	55.8%	1.44%	1,196	5.3%	83.9%	8.1%	98.8%
Water Sr	2014D-4	07/01/29	47,265	5.000%	07/01/24	1,409	3.0%	58.3%	1.45%	2,938	6.2%	83.8%	9.5%	97.1%
Water Sr	2014D-4	07/01/30	54,305	5.000%	07/01/24	1,713	3.2%	57.2%	1.5%	3,686	6.8%	82.7%	10.9%	96.3%
Water Sr	2014D-4	07/01/31	28,515	5.000%	07/01/24	930	3.3%	56.2%	1.50%	2,075	7.3%	81.9%	12.2%	95.8%
Water Sr	2014D-4	07/01/32	18,950	5.000%	07/01/24	605	3.2%	53.9%	1.53%	1,434	7.6%	80.8%	13.3%	95.3%
Water Sr	2014D-4	07/01/33	7,765	5.000%	07/01/24	194	2.5%	45.3%	1.63%	558	7.2%	77.5%	12.8%	94.2%
Water Sr	2014D-4	07/01/34	52,560	5.000%	07/01/24	1,090	2.1%	39.4%	1.67%	3,713	7.1%	75.7%	12.3%	93.2%
Water 2nd	2014D-6	07/01/25	2,870	5.000%	07/01/24	(10)	-0.4%	--	--	31	1.1%	73.0%	1.9%	105.2%
Water 2nd	2014D-6	07/01/26	1,895	5.000%	07/01/24	10	0.6%	24.7%	1.62%	47	2.5%	76.7%	3.0%	85.1%
Water 2nd	2014D-6	07/01/27	1,930	5.000%	07/01/24	24	1.2%	38.3%	1.55%	69	3.6%	77.6%	5.8%	96.7%
Water 2nd	2014D-6	07/01/28	445	5.000%	07/01/24	9	1.9%	47.2%	1.26%	21	4.7%	79.7%	7.5%	96.3%
Water 2nd	2014D-6	07/01/29	500	5.000%	07/01/24	12	2.3%	50.3%	1.49%	28	5.6%	80.0%	8.8%	94.9%
Water 2nd	2014D-6	07/01/30	405	5.000%	07/01/24	10	2.4%	49.0%	1.55%	24	6.0%	79.0%	10.1%	94.3%
Water 2nd	2014D-6	07/01/31	420	5.000%	07/01/24	10	2.5%	47.6%	1.54%	27	6.5%	78.2%	11.3%	94.0%
Water 2nd	2014D-6	07/01/32	440	5.000%	07/01/24	10	2.3%	44.5%	1.56%	29	6.7%	77.1%	12.3%	93.6%
Water 2nd	2014D-6	07/01/33	455	5.000%	07/01/24	7	1.6%	33.2%	1.66%	28	6.2%	73.3%	11.8%	92.4%
Water 2nd	2014D-6	07/01/34	1,215	5.000%	07/01/24	13	1.1%	24.7%	1.69%	73	6.0%	71.1%	11.4%	91.3%
Water 2nd	2014D-6	07/01/36	33,115	5.000%	07/01/24	(82)	-0.2%	--	--	1,726	5.2%	64.9%	11.0%	90.2%
Sewage Sr	2014C-3	07/01/25	47,045	5.000%	07/01/24	(31)	-0.1%	--	--	647	1.4%	86.7%	2.2%	115.1%
Sewage Sr	2014C-3	07/01/26	40,375	5.000%	07/01/24	376	0.9%	38.3%	1.54%	1,147	2.8%	83.7%	4.3%	102.7%
Sewage Sr	2014C-3	07/01/27	45,895	5.000%	07/01/24	774	1.7%	48.6%	1.49%	1,859	4.1%	82.8%	6.2%	100.0%
Sewage Sr	2014C-3	07/01/28	24,075	5.000%	07/01/24	593	2.5%	55.8%	1.44%	1,270	5.3%	83.9%	8.1%	98.8%
Sewage Sr	2014C-3	07/01/29	15,770	5.000%	07/01/24	470	3.0%	58.3%	1.46%	980	6.2%	83.8%	9.5%	97.1%
Sewage Sr	2014C-3	07/01/30	25,285	5.000%	07/01/24	797	3.2%	57.2%	1.52%	1,716	6.8%	82.7%	10.9%	96.3%
Sewage Sr	2014C-3	07/01/31	31,945	5.000%	07/01/24	1,042	3.3%	56.2%	1.5%	2,325	7.3%	81.9%	12.2%	95.8%
Sewage Sr	2014C-3	07/01/32	50,515	5.000%	07/01/24	1,612	3.2%	53.9%	1.53%	3,822	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-3	07/01/33	22,665	5.000%	07/01/24	566	2.5%	45.3%	1.63%	1,628	7.2%	77.5%	12.8%	94.2%
Sewage Sr	2014C-6	07/01/32	9,100	5.000%	07/01/24	290	3.2%	53.9%	1.53%	689	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-6	07/01/33	79,800	5.000%	07/01/24	1,992	2.5%	45.3%	1.63%	5,731	7.2%	77.5%	12.8%	94.2%
Sewage 2nd	2014C-7	07/01/25	5,025	5.000%	07/01/24	(15)	-0.4%	--	--	55	1.1%	73.0%	1.9%	105.2%
Sewage 2nd	2014C-7	07/01/26	4,945	5.000%	07/01/24	27	0.3%	24.7%	1.62%	121	2.5%	76.7%	3.0%	85.1%
Sewage 2nd	2014C-7	07/01/27	5,260	5.000%	07/01/24	64	1.2%	38.3%	1.55%	88	3.6%	77.6%	5.8%	96.7%
Sewage 2nd	2014C-7	07/01/28	5,480	5.000%	07/01/24	105	1.9%	47.2%	1.26%	258	4.7%	79.7%	7.5%	96.3%
Sewage 2nd	2014C-7	07/01/29	5,460	5.000%	07/01/24	128	2.3%	50.3%	1.49%	304	5.6%	80.0%	8.8%	94.9%
Sewage 2nd	2014C-7	07/01/30	275	5.000%	07/01/24	7	2.4%	49.0%	1.55%	17	6.0%	79.0%	10.1%	94.3%
Sewage 2nd	2014C-7	07/01/31	280	5.000%	07/01/24	7	2.5%	47.6%	1.54%	18	6.5%	78.2%	11.3%	94.0%
Sewage 2nd	2014C-7	07/01/32	14,450	5.000%	07/01/24	338	2.3%	44.5%	1.56%	964	6.7%	77.1%	12.3%	93.6%
Sewage 2nd	2014C-7	07/01/34	1,595	5.000%	07/01/24	18	1.1%	24.7%	1.69%	96	6.0%	71.1%	11.4%	91.3%
Sewage 2nd	2014C-7	07/01/35	910	5.000%	07/01/24	4	0.5%	12.2%	1.70%	52	5.7%	68.4%	11.0%	90.3%
Sewage 2nd	2014C-7	07/01/36	385	5.000%	07/01/24	(1)	-0.2%	--	--	20	5.2%	64.9%	11.0%	90.2%

Creating Value in the Current Market for Refundings: Cash Optimization Refunding Opportunities. On the far right of the monitor provided above (in the magenta-colored column) we have also included statistics for a cash optimization refunding of GLWA's bonds. Cash optimization is a strategy that would allow the Authority to apply excess cash in GLWAs unrestricted cash and investments funds to defease bonds and realize savings greater than those attainable from a taxable refunding; this strategy can closely mirror the results of a tax-exempt advance refunding (a tool which is not currently available for issuers). A cash defeasance involves applying cash to the purchase of a defeasance escrow for those maturities that produce an expected level of savings, and later (typically at least 15+ days later, but subject to counsel direction) GLWA would sell tax-exempt bonds with the same maturity structure as those they defeased with cash to replenish their cash. This structure mimics a tax-exempt advance refunding, but given the separation of at least 15 days, creates muted risk (consult with PFM) that the market must be open and available with proper spreads and rates when the bonds are issued 15 days later. In this instance the bonds would be issued with the current expected new money issuance and the defeasance would happen 15 days or greater prior to.

Cash Optimization Results

	Defeasance of Water Bonds	Defeasance of Sewer Bonds
Defeas. Escrow Funded	8/1/2022	8/1/2022
Par Defeased	\$63,140,000	\$22,060,000
Escrow Yield	2.50%	2.50%
Escrow Cost	\$66,340,592	\$23,178,230
Gross Savings	\$10,405,208	\$3,124,313
NPV Savings (\$)	\$7,776,395	\$2,509,469
NPV Savings (%)	12.32%	11.38%

New Money Transaction Sold 25+ Days Later

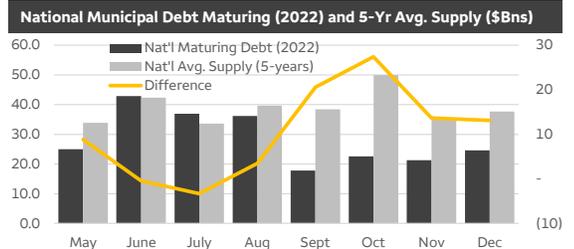
	Defeasance of Water Bonds	Defeasance of Sewer Bonds
Sale Date	8/27/2022	8/27/2022
Dated/Delivery Date	9/11/2022	9/11/2022
Par Amount	\$56,930,000	\$19,995,000
Arbitrage Yield	2.99%	2.92%
All-In TIC	3.39%	3.01%
PV of 1 bp change	\$53,285	\$17,485

Key Assumptions: SLGS funded escrow (if SLGS are unavailable at the time of defeasance, other securities would be used); savings based on indicative GLWA pricing as of 4/6/2022; COI of \$6.25/bond; subject to a 10-year par call

For the analysis at right, we have analyzed GLWA's existing days cash on hand and total unrestricted cash and investments figures for both its Water and Sewer funds and calculated the amount of cash that could be expended for GLWA to have 365 days cash on hand leftover in each fund. We note that 250 days cash on hand or more is considered strong by the rating agencies, and thus we don't believe there would be any negative effect in that regard, especially considering it is only a brief decline of approximately 15-30 or so days. We'd note that the 365 days is used as an example and a number greater or less than can be used to GLWA's comfort.

To arrive at 365 days cash on hand for each fund, we have modeled a defeasance of up to \$70 million of Water bonds and up to \$23.5 million of sewer bonds. We have selected a combination of high-performing candidates from the magenta column above (specific candidates highlighted in light pink) and tried to approach our stated defeasance thresholds as closely as possible. As seen in our summary table of results, we have selected \$85.2 million of Water and Sewer bonds to analyze under a cash optimization refunding. These candidates currently demonstrate aggregate NPV savings of \$10.3 million, or 12.1% of par refunded. **These results are very compelling and far above anything possible in the taxable advance refunding market.**

Market Timing Considerations. WF CIB will dedicate our firm's resources to provide a successful financing for the Authority. Absent the immediate need for the project fund proceeds at on a particular date, GLWA can look to various muni market data, global news and the economic calendar to assist in the issuance timing decision. First, GLWA can look to the relationship between expected national maturing municipal debt in 2022 and the 5-year average of new issuance supply. As detailed at right, the relationship between maturing debt and the average supply would be beneficial for issuance during the summer month of June



Source: Bloomberg - Municipal Bond Market Profile as of 4/12/22



through August. Supply outstrips maturing debt by \$20 to \$25 mm in September and October before plateauing for the remainder of the year (Bloomberg, 4/12/22).

Monitor Global News and the Associated Effects on Markets. As described in more detail in our response to Question E.i., the impacts of the war in Ukraine and continued elevated inflation has led to market uncertainty and volatility. These factors have had a major impact on the municipal bond market in 2022 as many investors have pulled money from the market which has reduced demand and pushed interest rates higher.

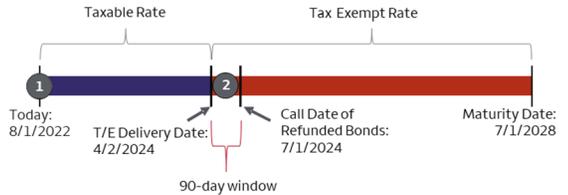
Monitor Significant Calendar Items. As we work with GLWA and its Municipal Advisor on a timeline, we would monitor the primary markets for competing transactions and the economic calendar for important market reports. If a particular day or week can be found where the primary calendar is lighter, co-managers and investors might pay more attention to the offering, and the pricing and distribution of the bonds may benefit. Additionally, we suggest trying to avoid planning to price immediately before or after major economic data releases and Fed meetings (2022 economic calendar from WFSLLC).

Market-Moving Events – Summer 2022

Event	Dates
FOMC Statement	6/15; 7/27; 9/21
FOMC Minutes	7/6; 8/17
CPI	6/10; 7/13; 8/10; 9/13
Employment	6/3; 7/8/ 8/5; 9/2
GDP	6/29; 7/28

iii. Provide examples of innovative financing techniques, financial products, structures, suggestions, or ideas that would be relevant to GLWA and how they would be specifically applied to GLWA.

Wells Fargo could buy GLWA’s Bonds to Create Refunding Value well in excess of Public Markets: Wells Fargo Bank, N.A. Convertible Direct Purchase (“CDP”)¹¹. As an alternative to issuing public market taxable advance refunding bonds, while still mitigating interest rate risk and locking in savings, the Authority may wish to consider a WFBNA convertible direct purchase refunding of bonds maturing through 2032. **This is one of Wells Fargo’s competitive advantages, as many of our competitors do not offer this product.** Under a CDP, WFBNA would purchase a fixed rate, taxable bond that converts to tax-exempt (both taxable and tax-exempt rates are determined upfront) from GLWA with proceeds that would defease selected bonds. While initially taxable, the bond converts to tax-exempt within 90 days of the call date of the refunded bonds. This is usually done with the Authority delivering a tax-exempt bond opinion to WFBNA. A graphic explaining the mechanics is included in this section. Please note that the CDP is subject to further due diligence and WFBNA credit approval. We also note our current approved bank capacity for GLWA is \$150 million, or more if desired by GLWA.



WFBNA Convertible Direct Purchase Refunding Statistics

Summary Statistics	Water Senior Series 2014D-2	Sewer Senior Series 2014C-3
Maturities Refunded	2025 - 2028	2025 - 2032
Refunding Bond Par Amount	\$144,020,000	\$295,295,000
Par Amount of Refunded Bonds	\$136,925,000	\$280,905,000
Final Maturity	7/1/2028	7/1/2032
Arbitrage Yield	2.76%	2.81%
All-in TIC	2.78%	2.82%
Average Life (Years)	4.2	6.1
PV of 1 Basis Point Change	\$0	\$0
Net PV Savings (\$)	\$5,762,188	\$21,318,168
Net PV Savings (%)	4.21%	7.59%
Escrow Efficiency*	89.44%	92.61%
Taxable Advance Ref. NPV Savings	\$1,588,385	\$5,905,893
NPV Svgs: Convertible DP Advantage	\$4,173,802	\$15,412,275

*Escrow Efficiency = NPV Savings / (NPV Savings + Negative Arbitrage); Key Assumptions: Assumed dated/delivery date of 8/1/2022; Pricing is indicative as of 4/6/2022 and subject to market conditions at pricing; Ratings of AA-/A+ by Moody's, S&P, and Fitch; all-in COI: \$150k per convertible series refunded and 0.625% of par amount for taxable advance refunding

In this section as well, we demonstrate the results of a CDP for the Authority’s Water Senior 2014D-2 Bonds and Sewer Senior 2014C-3 Bonds as an example (excluding the 2033 maturity of the Sewer Senior 2014C-3 Bonds). In aggregate across the two demonstrated opportunities and **when compared to a taxable advance refunding of the same maturities (yellow highlight), the CDP provides an additional \$19.6 million in NPV savings (4.7% of par refunded). Given the significant CDP advantage versus a taxable advance refunding, this is an alternative financing strategy that GLWA may want to consider.**

Sewage Series 2014C-3 and 2014C-6 – Top Bondholders

Top Publicly Reporting Holders	Amount Held	% Held of Total Par Outstanding
Vanguard	\$69,420,000	17.7%
Alliance Bernstein	\$47,740,000	12.2%
Eaton Vance	\$23,925,000	6.1%
Franklin	\$23,000,000	5.9%
Blackrock	\$21,653,180	5.5%
BNY Mellon	\$18,625,000	4.7%
Invesco	\$16,925,000	4.3%
Nuveen	\$14,635,000	3.7%
Fidelity	\$8,641,670	2.2%
Columbia	\$6,650,000	1.7%
Bank of Montreal	\$6,225,000	1.6%

Publicly reporting bondholders sourced from Bloomberg on 4/12/2022

Creating Value in the Current Market for Refundings: Tender Refunding. As another alternative to a purely taxable refunding, the Authority could seek to execute a bond tender whereby current bondholders would sell back their existing debt to GLWA at a specific price (the tender price), with such cost paid for by GLWA through the issuance of tax-exempt (instead of taxable) refunding bonds. A tender or exchange is a means to boost savings by shifting from a taxable advance refunding to a tax-exempt current refunding for tendered bonds. In addition, a tender is ideally used as a means to increase refunding savings, not a driver to complete a refunding. While it is difficult to forecast how successful a tender process will be, any bonds tendered would

be an enhancement to the refunding savings. **We have had success with recent tenders and have the most relevant recent case study; On April 12, 2022, Wells Fargo CIB completed a tender process for Anaheim Public Utilities in which four series of bonds were**

Series	Maturity (7/1)	Par (\$)	Coupon	Taxable Advance Refunding (Escrow)		Tax-Exempt Bond Tender				Tender Advantage		Combined Transaction (assumes 25% tendered)			
				PV Savings \$	PV Savings %	Tender Price	B/E Tender	PV Savings \$	PV Savings %	PV Savings \$	PV Savings %	Tendered Par \$	TX Ref'd Par \$	PV Savings \$	PV Savings %
2014C-3	7/1/2025	47,045,000	5.00%	(41,084)	-0.09%	106.286	107.682	102,088	0.22%	143,172	0.30%	11,760,000	35,285,000	-5,295	-0.01%
2014C-3	7/1/2026	40,375,000	5.00%	366,755	0.91%	106.286	109.190	905,878	2.24%	539,124	1.34%	10,095,000	30,280,000	501,552	1.24%
2014C-3	7/1/2027	45,895,000	5.00%	764,086	1.66%	106.286	110.623	1,900,139	4.14%	1,136,052	2.48%	11,475,000	34,420,000	1,048,130	2.28%
2014C-3	7/1/2028	24,075,000	5.00%	588,050	2.44%	106.286	111.918	1,419,220	5.89%	831,170	3.45%	6,020,000	18,055,000	795,886	3.31%
2014C-3	7/1/2029	15,770,000	5.00%	466,856	2.96%	106.286	112.857	1,129,850	7.16%	662,994	4.20%	3,945,000	11,825,000	632,710	4.01%
2014C-3	7/1/2030	25,285,000	5.00%	792,176	3.13%	106.286	113.905	2,119,835	8.38%	1,327,659	5.25%	6,320,000	18,965,000	1,124,025	4.45%
2014C-3	7/1/2031	31,945,000	5.00%	1,035,617	3.24%	106.282	113.416	3,033,989	9.50%	1,998,372	6.26%	7,985,000	23,960,000	1,535,132	4.81%
2014C-3	7/1/2032	50,515,000	5.00%	1,602,112	3.17%	106.282	114.585	5,272,562	10.44%	3,670,450	7.27%	12,630,000	37,885,000	2,519,815	4.99%
2014C-3	7/1/2033	22,665,000	5.00%	561,230	2.48%	106.282	115.851	2,225,584	9.82%	1,664,354	7.34%	5,665,000	17,000,000	977,227	4.31%
2014C-6	7/1/2032	9,100,000	5.00%	288,612	3.17%	106.283	115.682	949,779	10.44%	661,168	7.27%	2,275,000	6,825,000	453,903	4.99%
2014C-6	7/1/2033	79,800,000	5.00%	1,976,005	2.48%	106.283	115.708	7,835,556	9.82%	5,859,551	7.34%	19,950,000	59,850,000	3,440,893	4.31%
Totals		\$392,470,000		8,400,415	2.14%			26,894,481	6.85%	18,494,065	4.71%	98,120,000	294,350,000	13,023,879	3.32%

Assumptions: Rates as of 4/6/2022, \$6.25/bond COI, \$2.70/bond Tender Costs, Tender Price calculated with a 0.35% yield concession to estimated Pre-Refunded Yields

NPV Benefit of Tender (B minus A) = \$4,623,564

assumes 25% tendered

¹¹ Product of Wells Fargo Bank, N.A. Subject to credit approval and negotiation of terms and conditions



invited for tender aggregating to \$282.3 million in par; of this amount, \$139.9 million (or nearly 50% of the invited bonds) were offered for tender and \$118.6 million were accepted. We estimate the tender refunding provided NPV savings of \$5.0 million greater than an equivalent taxable refunding based on market conditions as of April 12, 2022.

One factor in the success of a tender is based on the concentration of bondholders. We have chosen to analyze a tender refunding for GLWA’s Sewage Disposal System Senior Lien Revenue Bonds, Series 2014C-3 and 2014C-6 bonds due to their relatively high concentration of a few bondholders. **As we demonstrate in the accompanying table, assuming a 25% tender success rate in the current market, GLWA could recognize NPV savings that are improved by approximately \$4.62 million versus solely a taxable refunding of these bonds.**

SRF Junior Lien Refunding Considerations. In recent years we have observed instances across the municipal market of some issuers’ subordinate SRF loans that can be refunded on a tax-exempt basis for near-term debt service savings and/or the creation of additional capacity. While coupon rates on these type of loans are typically low (often in the 2% range), we have found that it is frequently worth exploring an SRF loan refunding where applicable, and we have assisted multiple of our clients with refunding their SRF loans or refinancing their loans at a lower interest cost. As seen in the results at right, GLWA’s junior lien SRF loans do not produce compelling net present value savings at this time, however, all of the 2.5% coupon candidates do produce positive savings. If market conditions are to improve, this may be a strategy that the Authority may find worth exploring. **Ultimately, a theoretical refunding of SRF loans could create upfront room for additional debt service and allow GLWA to consider accelerating a portion of senior or second lien debt service that otherwise would have been placed out longer.**

Summary of Sewage Fund Junior Lien SRF Loans Analyzed

Series	Par Analyzed	Coupons	Refunded Maturities	Individual NPV Svgs %
2001 SRF-1	\$15,100,000	2.500%	10/22 – 10/24	0.26%
2001 SRF-2	\$10,995,000	2.500%	10/22 – 10/24	0.26%
2002 SRF-1	\$1,195,000	2.500%	10/22 – 04/23	0.20%
2002 SRF-3	\$5,335,000	2.500%	10/22 – 10/24	0.26%
2003 SRF-1	\$11,740,000	2.500%	10/22 – 10/25	0.23%
2003 SRF-2	\$4,580,000	2.500%	10/22 – 04/25	0.28%
2004 SRF-2	\$3,265,000	2.125%	10/22 – 04/25	-0.24%
2004 SRF-3	\$2,255,000	2.125%	10/22 – 04/25	-0.24%
Total	\$54,465,000			

Assumptions: Pricing is indicative as of 4/6/2022 and subject to market conditions at pricing; Assumes second lien ratings; delivery date of 8/1/22; uniform savings

iv. Tax-exempt and taxable scales from 1-30 years (July 1 maturities) for each of the Water Senior, Water Second, Sewer Senior, and Sewer Second liens. Assume market conditions as of April 6, 2022.

Indicative Pricing Scales. Within the table below, we have provided indicative tax-exempt and taxable pricing (uninsured) for the Authority’s Water Senior, Water Second, Sewer Senior, and Sewer Second liens based on interpolated MMD and US Treasury yields as of April 6, 2022. **We note that at present, we feel that GLWA’s water and sewer credits trade at the same spreads as each other given their equivalent ratings.** Please also note that while these spreads shown are as of 4/6/2022, a market environment demonstrating less volatility would likely allow GLWA’s spreads to be tighter than what is shown below. **A couple of other important points to note: If GLWA is upgraded a notch by either Moody’s or Fitch we believe they could see up to a 5 bps point improvement in these spreads, also, if GLWA were to choose to issue their bonds as ESG, we believe the increased interest could help tighten spreads shown below by 2-3 basis points.** Lastly, we believe insurance in this market is worth exploring. **We believe insurance would offer a pick up of approximately 5 basis points in spread on the Senior Lien and up to 10 basis points in spread on the Junior Lien.** Insurance could also be helpful to diversify the investor base in a difficult market environment. While insurance companies are never willing to guarantee pricing of insurance for RFP purposes, we believe insurance could be very inexpensive and may help. We have run an insurance breakeven and that is included in Appendix E. You will see the analysis is by maturity and by credit. Given conversations with insurers on other credits, we believe, in the current market, there may be some benefit to insurance.

Indicative Pricing - Great Lakes Water Authority - Water Supply System Revenue Bonds & Sewage Disposal System Revenue Bonds

Maturity (7/1)	Tax-Exempt Scales Senior Lien						Second Lien				Taxable Scales Senior Lien				Second Lien			
	MMD	Type	Spread	Coupon	YTC	YTM	Spread	Coupon	YTC	YTM	UST	Type	Spread	Coupon/Yield	Price	Spread	Coupon/Yield	Price
2023	1.74%	Serial	0.25%	5.00%	1.99%	-	0.34%	5.00%	2.08%	-	2.50%	Serial	0.15%	2.65%	100.0	0.25%	2.75%	100.0
2024	1.91%	Serial	0.30%	5.00%	2.21%	-	0.40%	5.00%	2.31%	-	2.50%	Serial	0.35%	2.85%	100.0	0.45%	2.95%	100.0
2025	2.02%	Serial	0.34%	5.00%	2.36%	-	0.44%	5.00%	2.46%	-	2.67%	Serial	0.45%	3.12%	100.0	0.55%	3.22%	100.0
2026	2.08%	Serial	0.37%	5.00%	2.45%	-	0.47%	5.00%	2.55%	-	2.70%	Serial	0.60%	3.30%	100.0	0.70%	3.40%	100.0
2027	2.11%	Serial	0.40%	5.00%	2.51%	-	0.50%	5.00%	2.61%	-	2.70%	Serial	0.75%	3.45%	100.0	0.85%	3.55%	100.0
2028	2.13%	Serial	0.43%	5.00%	2.56%	-	0.53%	5.00%	2.66%	-	2.69%	Serial	0.85%	3.54%	100.0	0.95%	3.64%	100.0
2029	2.20%	Serial	0.46%	5.00%	2.66%	-	0.56%	5.00%	2.76%	-	2.69%	Serial	0.95%	3.64%	100.0	1.05%	3.74%	100.0
2030	2.25%	Serial	0.48%	5.00%	2.73%	-	0.58%	5.00%	2.83%	-	2.61%	Serial	1.15%	3.76%	100.0	1.25%	3.86%	100.0
2031	2.29%	Serial	0.50%	5.00%	2.79%	-	0.60%	5.00%	2.89%	-	2.61%	Serial	1.25%	3.86%	100.0	1.35%	3.96%	100.0
2032	2.33%	Serial	0.52%	5.00%	2.85%	-	0.62%	5.00%	2.95%	-	2.61%	Serial	1.35%	3.96%	100.0	1.45%	4.06%	100.0
2033	2.37%	Serial	0.55%	5.00%	2.92%	3.07%	0.65%	5.00%	3.02%	3.16%	2.61%	Serial	1.50%	4.11%	100.0	1.60%	4.21%	100.0
2034	2.40%	Serial	0.58%	5.00%	2.98%	3.24%	0.68%	5.00%	3.08%	3.33%	2.61%	Serial	1.60%	4.21%	100.0	1.70%	4.31%	100.0
2035	2.43%	Serial	0.60%	5.00%	3.03%	3.39%	0.70%	5.00%	3.13%	3.47%	2.61%	Serial	1.70%	4.31%	100.0	1.80%	4.41%	100.0
2036	2.44%	Serial	0.60%	5.00%	3.04%	3.48%	0.70%	5.00%	3.14%	3.56%	2.61%	Serial	1.80%	4.41%	100.0	1.90%	4.51%	100.0
2037	2.46%	Serial	0.60%	5.00%	3.06%	3.57%	0.70%	5.00%	3.16%	3.64%	2.61%	Serial	1.85%	4.46%	100.0	1.95%	4.56%	100.0
2038	2.48%	Serial	0.60%	5.00%	3.08%	3.64%	0.70%	5.00%	3.18%	3.71%	2.63%	-	-	-	-	-	-	-
2039	2.50%	Serial	0.60%	5.00%	3.10%	3.71%	0.70%	5.00%	3.20%	3.78%	2.63%	-	-	-	-	-	-	-
2040	2.51%	Serial	0.60%	5.00%	3.11%	3.76%	0.70%	5.00%	3.21%	3.83%	2.63%	-	-	-	-	-	-	-
2041	2.52%	Serial	0.60%	5.00%	3.12%	3.81%	0.70%	5.00%	3.22%	3.87%	2.63%	-	-	-	-	-	-	-
2042	2.54%	Serial	0.60%	5.00%	3.14%	3.86%	0.70%	5.00%	3.24%	3.92%	2.63%	Term	1.90%	4.53%	100.0	2.00%	4.63%	100.0
2047	2.62%	Term	0.63%	5.00%	3.25%	4.06%	0.73%	5.00%	3.35%	4.11%	2.63%	-	-	-	-	-	-	-
2052	2.67%	Term	0.65%	5.00%	3.32%	4.17%	0.75%	5.00%	3.42%	4.22%	2.63%	Term	2.00%	4.63%	100.0	2.10%	4.73%	100.0

Interpolated MMD Rates & UST rates as of 4/6/2022; Delivery date of 8/1/2022; Rated A1 / AA- / A+ for senior lien and A2 / A+ / A for second lien by Moody's, S&P, Fitch; 10-year par call on 7/1/2032; pricing is indicative & subject to market conditions

v. Analytical Capabilities: Provide a brief description of your firm’s analytic capabilities and how your firm proposes to use such capabilities to assist the Authority.

All the members of GLWA’s team, including Kevin, Michael and Kristen are very quantitatively driven. This fact, marked with the addition of Scott Goldstein as head quantitative specialist, allows us to create models for anything GLWA or PFM could contemplate. In fact, we believe we already have all the models necessary



to serve GLWA as shown in our responses to the new money/refunding sections. As previously mentioned, Scott Goldstein, who has over 30 years of directly relevant experience, has served as our quantitative expert for the Authority since our response to GLWA's 2018 RFP. Scott has structured some of the most complex transactions executed in the municipal market (over 1,000) and has extensive experience working on water and sewer revenue financings. Scott will be responsible for providing GLWA with cash flow and coverage analysis, working closely with Kevin Hoecker, Michael Engelbrecht, Kristen Fontana, and Ryan Trauffer. **For GLWA we employ What'sBest!, DBC Finance and other useful excel modeling.** Ultimately, we feel that our model and knowledge of the Authority's objectives will produce what we believe is the most efficient financing for GLWA, such as the various financing plans for the Authority's new money and refunding scenarios. We have also applied our model in determining the optimal breakdown of senior lien versus second lien new money proceeds for the upcoming water and sewer issuances. The model sizes multiple proceed combinations to determine the most advantageous structure for releasing maximum amounts of cash from the respective reserve funds based on the differing reserve requirements for each system's senior and second liens. It can also take into account cross lien refundings to maximize savings and reserve releases. Wells Fargo also has a break even insurance model as well, where we can calculate, given the expected pick up in spreads from insurance (in this instance 5-10 basis points) what insurance could cost while still being beneficial to GLWA.

vi. Provide a credit rating strategy for GLWA to maintain or upgrade its bond ratings over the planning horizon of two to three years.

Our alternate/target financing scenario contemplates the potential for upgrades in the near term. **We remain steadfast in our belief that GLWA's senior lien bonds should be rated in the low AA rating category with the Second lien remaining just one notch below.** Our updated credit analysis highlighted below in this section continues to underscore that conclusion. Indeed, the GLWA continues to make incremental progress with the 2020 issuances yielding yet another round of upgrades. We recommend redoubling efforts to earn additional upgrades in conjunction with the 2022 issuance. Our recommended rating strategy is to target a one notch upgrade from Fitch and Moody's. We recognize that this is an important threshold as it would engender the release of the senior lien water and sewer bonds from the current debt service reserve fund requirement. Our "alternate/target" scenarios underscore the impact of two AA-/Aa3 ratings on the financing structure and economics. While we believe that only two ratings are necessary to market the proposed issuances, given the goal of an upgrade from either Moody's or Fitch, we suggest pursuing ratings from all three agencies in conjunction with the 2022 issuance. **Once a second AA-/Aa3 rating is achieved then we suggest pursuing two ratings on issuances thereafter.** We recognize that all three rating agencies will maintain ratings on all outstanding prior debt yet only including the AA-/Aa3 rating on an issuance could have a marginal pricing benefit. Below we highlight a few aspects of GLWA's credit story which we believe will well-position the Authority for an upgrade or positive outlook from Moody's and/or Fitch.

GLWA is a Mature Organization with Demonstrated Strong Financial Performance and Management. We believe that it is critical to highlight that GLWA is a mature organization with proven ability to deliver strong financial and operational results. While GLWA has made incredible strides in receiving positive recognition for its accomplishments from the rating agencies, it is more difficult to earn upgrades than downgrades. As such, despite the plethora of peer data and financial metrics to support a Aa3/AA- senior lien rating, we believe that GLWA has been underrated due in part to the relatively short tenure of the organization. However, the Authority has now reached a milestone of 5 years of audited financial results that demonstrate strong financial performance over time. Furthermore, GLWA performed well despite a global pandemic as well as the continued incidence of severe weather events. Despite these headwinds, financial margins remain strong and FY 2021 debt service coverage exceeded budget forecasts. Further, the Biennial Budget/Five Year Plan, 2023 Cost of Service Study as well as our pro-forma debt service coverage provide debt service coverage ratios in-line with AA-/Aa3 rating senior lien water and sewer system ratings. It is important to note that the expiration of the GRS Legacy Pension and step-down in Accelerated Pension payments provides notable relief in FY 2024 and beyond. While GLWA's day's cash on hand is projected to fall from 1,043 days for the water system and 664 days for the sewer in FY 2021 to 538 and 413 days in FY 2022, these levels still provide ample liquidity. The reduction in cash is a deliberate strategy to limit debt issuance and rely on pay-go for capital improvements.

CIP Focused on Strategic Investments and Maintaining Manageable Long Term Liabilities. In an effort to conservatively manage its liabilities and preserve flexibility for future issuance, in FY 2021 GLWA intentionally shifted to rely solely on I&E funds to fund its CIP through FY 2022. The 2023-2027 CIP represents a very modest increase of 3-4% from the prior plan. Further, GLWA's capital investments are not driven by regulatory mandates but on the critical improvements including: continuing to right-size the water system, protecting public health and safety while maintaining strong service. We believe that GLWA's responsible use of debt to fund its CIP is an important mitigant to rating agency concerns associated with leverage.

GLWA Agreements Bolster Financial and Operational Resilience. We believe that it is important to continue to emphasize the mechanics of the water and sewer services agreement ("WSSA"), lease agreements, the master bond ordinance ("MBO"), MOU and charge structure as contributing to GLWA's resilience. For example, highlighting the ability of the local system to use its lease payment for its debt service obligation can have a negative impact on debt service. Also, collection issues associated with Highland Park are absorbed by member partners through the rate setting process. Lastly, the 2018 MOU has been functioning as intended to resolve periodic DWSD budget shortfalls. GLWA's unique agreements provide solid bondholder security and have supported its continued financial and operational strength.

Strong Regional Economic Recovery. It is important to continue to reinforce GLWA's very large and diverse regional service area economy. Moody's in particular references improved credit profile of the City of Detroit and sustained diversification of the service area's economic base as driver for a rating upgrade. While the area economy was impacted by the pandemic, the Detroit-Warren-Dearborn MSA unemployment rates rebounded to pre-pandemic levels in 2021. Furthermore, Moody's upgraded the City of Detroit to Ba2 (positive outlook) in March 2022. Overall, we suggest providing the rating agencies an update on regional economic trends as it will likely be an important driver for a Moody's upgrade.

Fitch Strategy. Fitch's upgraded GLWA's ratings in conjunction with the 2020 issuance using their revised criteria. Their new criteria focuses heavily on debt and capital investment needs in addition to operating and financial measures. Fitch has cited GLWA's leverage ratio, as measured by debt to funds available for debt service, falling below 10x as a driver for an upgrade. In Fitch's 2020 report they cite leverage ratios of 11.6x and 10.4x for the water and sewer systems,



respectively. Fitch revised Miami-Dade County Water and Sewer system to ‘positive’ outlook (rated A+ by Fitch, peer data below) due to their leverage ratio falling to around 10x. Thus we recommend focusing on projected trends in debt metrics and GLWA’s conservative CIP. Further, the peer analysis below underscores that Fitch rates highly levered issuers such as Massachusetts Water Resources Authority and Atlanta in the ‘AA’ category.

Moody’s Strategy. To the right, we provide our estimated Moody’s scorecard output for GLWA’s senior lien water and sewer credits. Similar to our past analyses, GLWA’s water and sewer revenue bond grid indicative scores are within the ‘Aa3’ rating range suggesting that the Authority should continue to pursue upgrades from Moody’s. Moody’s most recent rating report cited three key factors that could lead to an upgrade including: (i) sustained expansion and diversification of the service area economy, (ii) revenue growth that outpaces debt issuance and (iii) improved credit profile of the Detroit. As previously mentioned, GLWA continues to demonstrate strong financial margins and coverage, the regional economy has demonstrated a strong recovery, and Detroit was upgraded.

The second table to the right provides a summary of key credit metrics as compared to Moody’s published medians which support our scorecard analysis conclusions that many of the Authority’s credit characteristics such as: system size, wealth levels, and liquidity are consistent with ‘Aa’ rated water and sewer medians.

Peer Analysis. The below table summarizes key metrics for a variety of water and sewer utilities in the low AA category/high A category. We believe that the wholesale peers such as San Francisco Public Utilities Commission and Massachusetts Water Resources Authority are a good representation of AA category, large, established wholesale systems with leverage metrics and financial margins consistent with GLWA. Of the hybrid systems, Baltimore is a AA category water and sewer system and has less liquidity than GLWA with an urban base within its service area. Overall, we believe that GLWA compares well to both AA category wholesale and hybrid systems.

Factors	Weight	Water Sr. Lien 2021	Sewer Sr. Lien 2021	Factor Metrics/Rating Level	Aaa	Aa	A	Baa	Rating	Overall Weighted Score
System Characteristics	30%	2021	Grade	Value	2021	Grade	Value			
Asset Condition (Remaining Useful Life)	10%	16	A	3	19	A	3		Aaa	0.5 - 1.5
Service Area Wealth (% of US)	12.5%	97	Aa	2	97	Aa	2		Aa1	1.51 - 1.83
System Size (\$MM)	7.5%	155	Aaa	1	242	Aaa	1		Aa2	1.84 - 2.17
Financial Strength	40%									2.18 - 2.25
Total Annual Debt Service Coverage	15%	1.4	A	3	1.5	A	3		A1	2.51 - 2.83
Days Cash On Hand	15%	1,043	Aaa	1	664	Aaa	1		A2	2.84 - 3.17
Debt to Operating Revenues	10%	8.4	Ba	5	7.5	Baa	4		A3	3.18 - 3.5
Management	20%									
Rate Management	10%	Excel	Aa	2	Excel	Aa	2		Baa1	3.51 - 3.83
Regulatory Compliance and Capital Planning	10%	Mod	A	3	Mod	A	3		Baa2	3.84 - 4.17
Legal Provisions	10%									
Rate Covenant	5%	A	A	3	A	A	3		Baa3	4.18 - 4.5
Debt Service Requirement	5%	Aa	A	2	Aa	A	2		Ba1	4.51 - 4.83
Raw Quantitative Rating				2.2			2.2			
Total Notch Adjustments				0			0			
Final Grid Indicated Score				Aa3			2.2			

Source: Moody's Financial Ratios, GLWA FY 2021 ACFR, Audit Committee Binders

	GLWA FY 2021		Water Medians		Sewer Medians	
	Water	Sewer	A	AA	A	AA
Asset Condition (Remaining Useful Life)	16	19	28	32	27	30
System Size (O&M in 000's)	154,674	242,229	3,731	14,980	6,275	17,843
Service Area Wealth (% of US) (%)	96.8	96.8	92	105	97	102
Annual Debt Service Coverage	2.0	2.9	1.8	2.3	1.7	2.3
Days Cash on Hand	1,043	664	419	439	630	622
Debt to Operating Revenues	5.5	5.3	2.1	1.7	2.1	2.2

Source: Moody's Financial Ratio Analysis, Moody's, and "Municipal Water and Sewer Utilities- US Medians- Rate increases support stable financial metrics on 2019", May 11, 2021, GLWA FY 2021 ACFR and Audit Committee Binder 3/25/2022
Green signifies stronger than 'A' category median, yellow signifies weaker than 'AA' category median

Issuing Entity and Credit	Senior Lien Ratings			Debt Service		Liquidity		Leverage		System Characteristics		
	Moody's	S&P	Fitch	Sr. Lien DSC(x)	Total Annual DSC(x)	Cash (\$000)	Days Cash on Hand	Debt Ratio (%)	Debt to Revenue	MEI %	Net Fixed Op of US Assets/Deprec (years)	O&M Expense (\$000)
Great Lakes Water Authority Water Enterprise	A1	AA-	A+	2.0	1.4	353,308	1,043	119	5.5	97	16	154,674
Great Lakes Water Authority Sewer Enterprise	A1	AA-	A+	2.9	1.5	323,973	664	115	5.3	97	19	242,229
San Francisco Public Utilities Commission Water System	Aa2	AA-	NR	1.2	1.2	484,128	617	80.8	8.1	166	45	309,797
Massachusetts Water Resources Authority	Aa1	AA+	AA+	1.8	1.1	74,674	93	71	5.4	107	27	294,059
Atlanta (City Of) Water & Wastewater	Aa2	AA-	AA	1.8	1.7	798,289	1,098	43.5	6	105	51	265,368
Baltimore (City of) Sewer Enterprise	Aa2*	AA*	NR	2.6	1.7	176,171	453	35	4.9	82	44	142,078
Baltimore (City of) Water Enterprise	Aa2*	AA*	NR	3.4 ⁽¹⁾	2.0 ⁽¹⁾	125,323	460	45	4.2	82	48	134,534
Miami-Dade (County Of) Water & Sewer	Aa3	AA-	A+**	1.8	1.7	144,451	117	45	3.8	75	25	450,023
Philadelphia (City of) Water and Sewer	A1	A+	A+	1.9	1.9	170,619	103	56.3	3.2	71	22	411,065
Sub Group Median				1.8	1.7	170,619	453	45	4.9	82	44	294,059

Source: Moody's Municipal Financial Ratio Analysis, Rating Reports, Issuer ACFRs, Audit Committee Binders
Debt Ratio=Net Funded Debt/(Total Current and Non-Current Debt, minus Debt Service and Debt Service Reserve Funds) divided by the sum of Net Working Capital and Net Fixed Assets
*Moody's and S&P have Baltimore on negative outlook. In February 2022 due to governance concerns associated with an action from
**Fitch upgraded to positive outlook on April 1, 2022 due to expectations that leverage is expected to be below 1x over the next 5 years.
(1) FY 2021 debt service was higher than historical averages. FY 2020 senior lien coverage was 2x and subordinate lien was 1.2x

vii. If your firm offers direct placements or other alternatives to traditional underwriting to its municipal clients, please describe those products and their application to GLWA.

Subject to final terms and document approval, Wells Fargo would like to offer GLWA \$150 million or more of credit to be used as GLWA sees fit. We have already shown the power of our balance sheet in the section E. iii above referencing the Direct Purchase of Convertible Bonds to boost refunding savings when the current public market does not allow for a compelling solution. In that instance, we demonstrate the results of a CDP for the Authority’s Water Senior 2014D-2 Bonds and Sewer Senior 2014C-3 Bonds. When compared to a taxable advance refunding of the same maturities, **the CDP provides an additional \$19.6 million in NPV savings (4.7% of par refunded).** This is not a product that many banks offer and we would like to explore its use for GLWA.

Drawdown Direct Purchase as a Consideration. Under a Drawdown Direct Purchase (“DDP”), the Bank would commit to purchase a bond or note that can be drawn over time up to a predetermined amount, operating much like a revolving credit facility. We will talk about this product more in the last question as we believe it has some applicability to GLWA’s concerns about its Series 2006D. As compensation for the Bank’s purchase of DDP, the Authority would pay a fee that would generally have two components: (i) a flat fee charged on the portion of the DDP that is available but not drawn down (“undrawn”), and (ii) a floating interest rate on the “drawn” portion. The variable rate would be based on

Mechanics of a Wells Fargo Bank Drawdown Direct Purchase



% of SOFR plus a spread, with the spread fixed and determined at the time that the DDP is established. **In the current market, a sample market range for a 2-year term would be 80% of SOFR plus a spread of 23-25 bps for the drawn portion and 8-10 bps for the undrawn portion.**

viii. Describe any enhancements GLWA should consider with respect to investor outreach and marketing strategies to diversify and strengthen its investor base.

Wells Fargo, with each transaction it Senior Manages, seeks to add additional investors to our clients existing investors. This results in more demand in the near term and for years to come. Our distribution strength is detailed in this section, but we would also like to briefly revisit two topics discussed earlier in this RFP response. **The first is ESG and labelling the 2022 bonds as such.** We, as the number 2 underwriter in this space for the 2020-2021 time period, believe this will add value to the transactions by labeling the Water and Sewage bond issuances as “Green Bonds,” as the uses of proceeds of GLWA’s bonds are consistent with “Goal 6: Clean Water and Sanitation” of the United Nations 17 Sustainable Development Goals. There are now five investors with dedicated tax-exempt ESG/SRI funds, as well as 19 crossover investors with ESG funds. We would target these investors. **A possible Greenium realized by GLWA could have a meaningful impact on its upcoming financing; the present value of 1 basis point for our proposed our base case new money and refunding analysis (within question E.ii) is over \$281,000, so a Greenium of 2-3 bps could save the Authority between \$562,000-\$843,000.** This contrasts to the cost of a second party opinions which we have seen in the range of \$20-30,000 for transactions such as GLWA’s. The second party opinion process is rather straight forward requiring the choice of provider (Kestrel or Sustainalytics in our minds) and working with them to provide the necessary documentation for the OS and Investor Presentation.

Bond Insurance. The second enhancement to discuss is bond insurance. In this volatile market, even being as highly rated as GLWA is, we have seen insurance benefit a transaction and diversify an investor base. We believe insurance will create a scale improvement by up to 10 basis points on the Second Lien and up to 5 basis points on the Senior Lien. We have detailed our insurance breakeven model in Appendix E for review. If a deal has insurance, it may bring in more investors.

Wells Fargo’s Distribution Capabilities as the Backbone of a Successful Transaction. WF CIB offers distribution resources that can aid GLWA in executing a targeted investor approach and maximize investor demand. Wells Fargo remains one of the few firms that covers all investor segments through our three in-house distribution channels: (1) institutional sales; (2) middle-market sales; and (3) retail brokerage. This three-tiered distribution channel and broad coverage of investors provides us with flexibility to adapt our marketing strategy to the current investor landscape. Furthermore, with Wells Fargo’s broad distribution network and active participation in the municipal market, WF CIB brings the Authority an extensive knowledge and understanding of municipal investors.

Wells Fargo’s Extensive Distribution Network

Municipal Institutional Sales	Middle Market Sales*	Retail Sales**
<ul style="list-style-type: none"> ▪ 12 municipal sales professionals ▪ 2 offices ▪ 250 key buyers of municipal securities ▪ 425-account institutional base 	<ul style="list-style-type: none"> ▪ 75 sales professionals ▪ 17 offices throughout the country ▪ Extensive network covering 6,300+ “Tier 2” and “Tier 3” investors 	<ul style="list-style-type: none"> ▪ 3rd Largest Brokerage: 12,819 (450 brokers in 58 offices in Michigan) ▪ Brokerage Locations: 3,000+ ▪ Total Assets held by WFA clients: \$2.1 trillion

*Provided by Wells Fargo Securities, LLC.; **Provided by Wells Fargo Advisors

Municipal Institutional Sales. WF CIB’s municipal institutional sales force is comprised of 12 dedicated municipal institutional sales professionals based in either New York City or Charlotte. These professionals distribute municipal products in the primary and secondary markets, serving the investment and risk management needs of institutional investors nationwide. **Middle Market Sales.** Among WF CIB’s competitive advantages is an ability to reach middle market investors, where we are confident in being able to find several new investors for the Authority. “Middle market” investors (also known as Tier 2 and Tier 3 institutional investors) are smaller institutions, including state and local community banks, asset managers, regional depositories, corporate trust departments, municipalities, corporations, and local insurance companies. Wells Fargo has 75 middle-market sales professionals in 17 regional sales offices in our affiliate WFSLLC who have relationships with more than 6,300 middle-markets investors, many of which are longstanding and proprietary relationships exclusive to WF CIB. **Retail Sales.** WF CIB’s retail distribution is effected through our affiliate, Wells Fargo Advisors (“WFA”), the 3rd largest retail brokerage network in the country (by number of advisors) which employs approximately 12,800 full-service financial advisors.¹² WFA’s Michigan platform consists of 450 financial advisors in 58 offices across the state. Our retail system is fully-integrated (as opposed to a third-party distribution model), so we have control over a transaction’s economics and can provide more incentive for retail brokers to participate.

Investor Marketing Strategies. WF CIB maintains a marketing staff whose sole focus is to coordinate and expand the sale of municipal securities through our multi-channel distribution system. With the help of these internal marketing resources, and our syndicate desk, we have developed a comprehensive plan to reach as many investors as possible. Below we have highlighted a few relevant strategies we believe could be of value within GLWA’s investor outreach campaign.

- **Identify Couponing and Other Structural Considerations.** While market conditions will ultimately drive the structure, WF CIB would work to offer maturities with sub-5% coupons, including potentially bifurcating maturities to achieve more diverse participation. WF CIB has priced a number of transactions where we were able to incorporate term bonds with sinking fund schedules aligned to retail investor demand which helped to lower the issuer’s cost of funds. We note, however, that 5% coupon bonds have become more prevalent in the current market and associated recent levels of high volatility.
- **Internal Dissemination of Marketing Materials.** WF CIB will disseminate the POS and ratings agency reports internally to our sales force with a sales point memorandum, providing a detailed summary of the financing.
- **Sales Force Teach-In.** WF CIB will hold internal “teach-in” conference calls to promote the upcoming bond issue within our retail and institutional distribution networks.

¹² Source: Peer group analysis based on number of financial advisors as disclosed in company reports, as of 2Q2021. WFA statistical information is as of 2Q2021.



- **Internet Roadshow.** WF CIB believes that an internet roadshow will provide GLWA with an excellent opportunity to emphasize the credit and structural strengths of its proposed financing to investors. WF CIB typically uses the MuniOS platform, which offers the options of a slides only presentation, a pre-recorded presentation or a live internet presentation allowing for an open Q&A session with investors.
- **One-on-One Calls or Individual Meetings.** In addition to making an investor presentation, WF CIB can assist the Authority in scheduling one-on-one calls meetings with institutional investors. **Virtual meetings can be incorporated into GLWA’s marketing strategy and are a very efficient use of time and resources while reaching the maximum amount of investors. They also afford middle market and retail investors, which are more disbursed across the country, more opportunity to participate in these events.**

Targeting Institutional Investors. Many high-probability purchasers of GLWA’s future offerings currently hold outstanding GLWA bonds, and such investors would be the focus of WF CIB’s institutional marketing efforts. Additionally, in order to diversify GLWA’s investor base, the optimal approach to reaching institutional investors includes identifying the firms that are missing and developing targeted marketing plan to win them over. WF CIB has the ability to conduct a thorough bond analysis to identify current holders and potential new buyers. Due to our active participation in the secondary market, WF CIB maintains strong relationships with these institutions and will target them early in the premarketing phase to ensure that they are aware of the offering and ready to support the transaction. WF CIB would also focus its marketing efforts on new institutional buyers who value similar bonds and may have an appetite for GLWA’s bonds.

Targeting Specific Investors. Below, we have provided a comparison of the current top 15 bondholders (by par amount) of the Authority’s water and sewage bonds and overlaid these investors with:

- 1) Top 15 holders of MI muni water/sewer debt who hold little/no GLWA debt
- 2) Top 15 holders of national water/sewer municipal debt that hold little or no GLWA nor Michigan water/sewer debt

As shown, GLWA already has a strong core of active, high-impact institutional investors including Vanguard, Nuveen (TIAA-CREF), Wells Fargo, Alliance Bernstein, BlackRock, and Invesco, to name a few. We also note, however, several other large accounts such as Travelers, State Farm, Dimensional, Thornburg, Bessemer, and Liberty Mutual have sizeable positions in other Michigan water/sewer and national water/sewer municipal credits but have minimal or no positions in GLWA’s debt. The water/sewer bond investors seen in the table, especially those that also have large appetite for Michigan debt, would be targeted in our pre-marketing efforts. Lastly, for a GLWA issuance we would also target Michigan-specific bond funds that exist at investment firms such as Franklin, BlackRock, Fidelity, Nuveen, Federated, Putnam, Oppenheimer, and Eaton Vance, among others. We are confident that a coordinated and concentrated outreach to the investors we have identified, emphasizing GLWA’s strengths, can produce the incremental demand necessary to achieve a low cost of capital at pricing.

GLWA Debt Top 15 Bondholders	Michigan Water/Sewer Debt Top 15 Bondholders (Hold <\$1mm GLWA Debt)	National Water/Sewer Debt Top 15 Holders (Hold <\$1mm GLWA & MI W&S Debt)
Vanguard Group	Travelers Companies Inc	Dimensional Fund Advisors Lp
Tiaa-Cref	State Farm Mutual Auto Insurance	Thornburg Investment Mgmt Inc
Wells Fargo & Company	Indexq Advisors Llc	Cbre Group Inc
Alliance Bernstein	Royal Bank Of Canada	Bessemer Group Incorporated
T Rowe Price Group Inc	Country Trust Bank	Credit Agricole Groupe
Capital Group Companies Inc	Tennessee Farmers Group	Markel-Gayner Asset Management
Goldman Sachs Group Inc	Calvert Investment Management	Knights Of Columbus
Blackrock	Auto Owners Group	Kentucky Farm Bureau Group
Invesco Ltd	Ce Investment Management Llc	Loews Corporation
Fmr Llc	Merastar Insurance Company	Provident Investment Management
Bank Of New York Mellon	Rivermorth Capital Management	Liberty Mutual Group Asset Mgmt
New York Life Group	Donegal Group	Waddell & Reed Financial Inc
Ameriprise Fin Grp	Charles Schwab Corporation	General Electric Company
Legg Mason	Adams Street Partners Llc	Liberty Mutual Investment Adviso
Franklin Resources	American Equity Life Holdings	Stancorp Mortgage Investors Llc

Source: Bloomberg as of 4/9/2022; includes publicly reporting bondholders

ix. Please provide commentary on strategies and timing to address the Series 2006D bonds, should legislative solutions not materialize.

Understanding of Current Situation. With the LIBOR cessation in June 2023, we recommend the Authority prepare a plan to refinance its Series 2006D Bonds. Upon LIBOR cessation there will not be a sufficient number of banks to quote the required rates to set 3-Month LIBOR for the Interest Rate Adjustment Date. At that point, unless there is a legislative solution, the 3-Month LIBOR rate will be set at the one in effect on the prior Interest Determination Date. In short, if legislation with fallback language isn’t adopted, the interest rate going forward will be fixed at the last 3-Month LIBOR rate plus 60 basis points. This could be good or bad. The 2018 MOU adjusted the DSWD share of annual debt service of Pre-Effective Date Bond Indebtedness to a level debt service structure which would not be altered in the future if any of the Pre-Effective Date Bond Indebtedness was refunded. Thus, if and when the Series 2006D Bonds are refinanced, any increase or decrease in interest cost would be borne or benefited by the GLWA system.

Legislative Solutions Discussion. The “Adjustable Interest Rate (LIBOR) Act,” signed into law on March 15, 2022, nullifies certain fallback provisions in the Series 2006D Bonds and imposes a SOFR-based replacement rate and spread adjustment to be designated by the Board of Governors of the Federal Reserve (“Federal Reserve” or “Board”) later this year. Specifically, section 104(b) of the Act nullifies references in the fallback provisions of the Series 2006D Bonds to: (i) any requirement to poll for quotes or information concerning interbank lending or deposit rates and (ii) any replacement rate based on a value of LIBOR (e.g., “last LIBOR”). In addition, section 104(a) of the Act automatically imposes on the Series 2006D Bonds a benchmark replacement rate and spread adjustment selected by the Federal Reserve. These provisions take effect as of the first London banking day after June 23, 2023, unless the Federal Reserve designates another date. The Federal Reserve is required to issue rulemaking that identifies the replacement rate that will apply to contracts subject to the Act, called the “Board-Selected Benchmark Replacement,” by September 11, 2022. The Board-Selected Benchmark Replacement for bonds must be based on SOFR and must include a specified spread adjustment consistent with the ISDA fallback spreads. The spread adjustment for 3-month LIBOR is 0.26161 percent.

If legislative solutions were to not materialize for the Series 2006D Bonds, we propose some alternative financing solutions for GLWA’s consideration. Our contemplated solutions include private market (i.e. bank direct placement variable rate notes) and public market (i.e. either SIFMA or % of SOFR Index Floating Rate Notes) financing options. **Additionally, as part of the refinancing, we propose that GLWA could consider running a tender process for the Series 2006D Bonds which may result in a redemption price below par.**



Public Market Floating Rate Notes (“FRN”). We understand GLWA has enjoyed the cost and risk profile benefits of the Series 2006D FRNs, thus we propose the option to reissue the bonds as FRNs with a different index, either SIFMA or 80% of SOFR. **Currently, Wells Fargo ranks 1st as the bookrunner of SOFR-based corporate FRNs with \$1.2B issued to date.** Historically, more FRNs have been issued with a hard mandatory put or maturity than a soft mandatory put. From 2018 through 2021, the par amount of FRNs issued with a hard maturity or a hard put totaled nearly \$8.8 billion. By comparison, FRNs issued during that period with a soft put totaled \$6.6 billion. Soft put FRNs provide more flexibility to borrowers by allowing the bonds to remain with investors at an elevated rate in the event of an unsuccessful remarketing, versus a hard maturity or put option that requires the borrower to redeem the bonds to avoid an event of default. To compensate investors for providing this flexibility, soft put FRNs have historically had 5-15 bps wider spreads to the reference index compared to hard put equivalents.

Tenor & Pricing. Currently, investors appear to have appetite for FRNs with mandatory put dates as long as five (5) years after issuance. In the table at right, we provide indicative SIFMA and 80% of SOFR-based FRN pricing for Senior Lien Sewer Bonds assuming mandatory tender dates of 2, 3, 4 and 5-years. The pricing assumes a “hard put” structure. To enhance optionality, the FRN pricings shown above assume the incorporation of a 12-month call window prior to the put date.

Indicative FRN Spreads		
Put Period	SIFMA	80% of SOFR
2-year	+40 bps	+60 bps
3-year	+45 bps	+70 bps
4-year	+55 bps	+85 bps
5-year	+65 bps	+100 bps

Assumes hard put FRNs issued as Sewer Bonds with ratings of A1/AA-/A+ as of 4/6/2022

Public Market “Fix-Out.” As a public market alternative, GLWA could consider refunding and fixing out its Series 2006D Bonds in order to remove any future interest rate risk. A fix-out would utilize long-term, public market bonds for a tax-exempt current refunding of the 2006D Bonds. In modeling the debt service of the outstanding Series 2006D Bonds, we have assumed coupons of 1.99285%, as stated on the Debt Service Requirements page of the Sewage Series 2020AB Official Statement. While this produces NPV dissavings of 4.99%, it would eliminate variable rate risk on the bonds and produces annual gross savings beginning in 2026 after realizing more significant negative savings in 2023 – 2025. At right is a debt service table comparing the outstanding bonds against the potential refunding bonds. We have also provided the expected sewer aggregate debt service coverage after the fix-out, taking into consideration our modeled base case 2022 new money financing.

Savings Patterns and Coverage

Date	Series 2006D D/S	Fix-Out Ref. D/S	Gross Savings	New Sr Coverage after New Money Base Case
7/1/2023	4,772,378	9,636,458	-4,864,081	2.13x
7/1/2024	4,772,378	10,512,500	-5,740,122	2.25x
7/1/2025	4,772,378	10,512,500	-5,740,122	2.29x
7/1/2026	35,097,378	34,447,500	649,878	2.42x
7/1/2027	39,393,046	38,740,750	652,296	2.47x
7/1/2028	27,346,064	26,694,500	651,564	2.48x
7/1/2029	34,690,172	34,042,000	648,172	2.42x
7/1/2030	52,843,438	52,195,000	648,438	2.64x
7/1/2031	52,472,348	51,822,500	649,848	2.71x
7/1/2032	17,073,603	16,422,000	651,603	2.54x
Total	\$273,233,182	\$285,025,708	-\$11,792,527	

Key Assumptions: Rated A1 / AA- / A+ by Moody's, S&P, and Fitch; Delivery Date of 8/1/22; maturity dates of 7/1; first coupon payment on 1/1/23; level annual savings; pricing indicative as of 4/6/2022 and subject to market conditions at time of pricing; 10-year par call; estimated all-in cost of issuance of \$6.25/bond; SLGS funded escrow (if SLGS are not available at the time of pricing, alternate securities would be used)

Wells Fargo Bank, N.A. Direct Pay Letter of Credit or Direct Purchase Alternatives. Should the public markets become unattractive at the time of the refinancing, WFBNA is pleased to be able to offer GLWA direct placement alternatives that leverage our balance sheet and position GLWA to achieve the optimal solution while also limiting execution risk. WFBNA’s DPs have similar characteristics to fixed and floating rate notes: term of typically 3-5 years; pricing based on a fixed spread against an index (or a fixed yield), and renewal risk at the end of the term. Benefits of bank financing may include a lower cost of funds (depending on prevailing public market conditions) and limited overall disclosure and ongoing administration. The DP bonds would also enjoy many of the benefits of public markets FRN, including no bank trading risk (the bonds are held by a bank and do not price based on the credit strength of the bank), and the avoidance of remarketing risk and related fees. For GLWA, the availability of a DP from WFBNA will expand options and can reduce risks related to recent market volatility. **A sample market range for a bank DP for a 2-year term would be 80% of SOFR plus a spread of 23-25 bps or 80% of SOFR plus a spread of 28-33 bps for a 3-year term,** subject to credit and internal approvals and negotiation of terms.

Section F. References

i. Names, numbers, and e-mail addresses of at least three (3) persons representing clients for whom the proposer has performed work similar to that proposed, and who may be contacted as references.

The accompanying three references will be able to attest to the strength of the WF CIB platform. We would encourage GLWA to contact these clients of our firm.

Ohio Water Development Authority	Indianapolis Local Public Improvement Bond Bank (Stormwater Project)	Los Angeles Department of Water & Power
Ken Heigel Executive Director 614.466.0257, kheigel@owda.org	Sarah Steele Riordan Executive Director and General Counsel 317.327.5793, Sarah.Riordan@Indy.Gov	Peter Huynh Chief Financial Officer and Treasurer 213.367.4671; Peter.Huynh@ladwp.com

ii. Descriptions of any contracts which have been terminated, including the circumstances surrounding the termination. Provide the name and telephone number of your client's representatives of any.

The team members assigned to the GLWA account have never been terminated from an assignment. Except as set forth below, WFBNA MFG, a separately identifiable department of WFBNA, has not been terminated from any engagement or contract for the provision of municipal securities underwriting services. In 3Q 2016, WFBNA entered into settlements with the City of Los Angeles, the Consumer Financial Protection Bureau, and the Office of the Comptroller of the Currency regarding certain sales practices stemming from Wells Fargo’s retail bank (not Wells Fargo Securities nor Public Finance). Following the 2016 Settlement discussed above, certain state and local governmental bodies and municipal entities temporarily suspended or removed WFBNA MFG as underwriter from certain of such issuers’ municipal underwritings as a result of the referenced settlement. In reference to Los Angeles, we note that all such sanctions have since been lifted and the prior staff is no longer employed at the City. The City’s contact info is Ha To, *Chief of Debt Management*, (213) 473-7529.



APPENDIX A

Wells Fargo CIB Team Member Biographies

Appendix A, 1. Key Individuals

PRIMARY BANKER*Chicago, IL***Kevin Hoecker, Managing Director***Co-Head of West Region and Head of Limited Public Offerings*

Mr. Hoecker brings 22 years of municipal finance experience and has several years of experience working with water issuers in the Midwest. He joined WFCIB in May 2018 and is Co-Head of the West Region and Head of National Limited Public Offerings. Kevin joined WFCIB after years as an investment banker at both RBC Capital Markets and JPMorgan Securities, where he covered some of the largest and most complex municipal finance clients in the Midwestern region. He has served as lead banker on over \$25 billion of senior managed issuance, and in addition to serving as lead banker for GLWA in our joint bookrunner role in 2018, his client list and experience includes serving as senior manager for financings for Ohio Water Development Authority, Indiana Finance Authority's SRF Program, Illinois Finance Authority's SRF Program, the Indianapolis Bond Bank's Stormwater credit, St. Louis Metropolitan Sewer District, City of Chicago, Chicago Transit Authority, State of Illinois, Illinois Tollway, and the State of Wisconsin, among many others. His Michigan-specific experience, outside of GLWA, includes leading transactions for the Michigan State Building Authority, Michigan Department of Transportation, and Pontiac School District. Kevin is an expert in the structuring and marketing of bond issuances for best execution and result. Kevin's leadership responsibility with the firm has recently expanded, and he now serves as Co-Head of the Midwest and West regions (called the common "West Region") which encompasses 24 states and for which he is responsible for setting strategy and continuing to provide investment banking services to his clients. He serves as the lead banker for all state-level Michigan issuers and continues to serve as the primary investment banking contact to all major municipal issuers in the Midwestern United States, including within the states of Michigan, Illinois, Wisconsin, Indiana, and Ohio, to name a few.

PRIMARY BANKER*Los Angeles, CA***Michael Engelbrecht, Managing Director***Co-Head of West Region and Co-Head of Utilities*

Mr. Engelbrecht serves as Co-Head of the West Region (alongside Kevin) and leads our Utility and Corporate-Backed Group which includes all Water and Wastewater transactions as well as SRF deals across the country. Michael has more than 30 years of capital markets experience during which he has provided investment banking services to water and sewer utilities, general municipal clients, and special districts nationally. He is known as a national expert in Water and Sewer finance and will be the go to professional for all matters in that regard. His utility experience includes senior managed financings totaling in excess of \$16.0 billion for over 150 separate water utility deals since 2015 and includes serving as senior and sole manager on financings for agricultural water agencies, urban water agencies, wholesale water agencies and direct retail water agencies. In addition to GLWA's 2018 transaction, he has played a pivotal role in leading several large utility financings in recent years, including: \$345 million for Anaheim Public Utilities (priced on 4/13/2022, just prior to this RFP response), \$250 million for Ohio Water Development Authority, \$628.6 million of bonds for Los Angeles Department of Water and Power, \$765.8 million financing for the State of California Department of Water and Resources, \$444.7 million Texas Water Development Board, and \$192.8 million financing for East Bay Municipal Utility District, among others. Michael's experience leading ESG transactions include serving as sole manager on the SFPUC's inaugural Hetch Hetchy Power System Green Bond transaction. Mr. Engelbrecht has assisted clients with several unique financing structures including securitizations of third-party contracts for underground water banking facilities, financings to facilitate the historic San Joaquin River Restoration Settlement Act, and Green Bond financings. He also currently serves on the board of the Urban Water Institute.

HEAD OF PUBLIC FINANCE CREDIT STRATEGY*New York, NY***Kristen Fontana, Director***Capital Markets*

Ms. Fontana serves as Head of Public Finance Credit Strategy and will be an invaluable resource in assisting GLWA in developing its rating agency and investor presentations. She was instrumental in developing the rating strategy on GLWA's 2018 financing which allowed the Authority to obtain ratings upgrades from Moody's and S&P. She provides our municipal clients with insightful credit perspective regarding debt structure, bond indenture provisions and rating agency strategy. She is well versed in the current fiscal, regulatory and economic environment offering clients highly customized strategies to achieve their ratings goals. She will provide continued and in-depth rating agency strategic guidance, investor credit analyst insights, and investor credit support during the marketing period for GLWA. Mrs. Fontana joined WF CIB in 2010 and has over 15 years of municipal experience overall. She joined Wells Fargo upon graduation from the University of Chicago where her graduate work focused on public finance and included research at the U.S. Office of Management and Budget as well as a consulting project with the Chicago Community Trust. Prior to graduate school, Kristen spent a combined six years at two large investment banks where she both fostered relationships with

institutional equity clients and provided analytical support for the credit derivatives business. She has worked with a variety of issuers including state, local, water and sewer as well as transportation agencies. Kristen graduated cum laude with a B.S. in Finance from the University of Maryland, College Park and holds an M.P.P. from the University of Chicago. She is currently serving on the GASB Board.

QUANTITATIVE SPECIALIST*New York, NY***Scott Goldstein, Director***Capital Markets*

Mr. Goldstein joined Wells Fargo Securities in 1993 (via merger with A.G. Edwards). He has over 30 years of experience in investment banking as a quantitative specialist with extensive understanding of bond related tax code issues. He has structured over a 1,000 senior managed municipal transactions with significant emphasis for refunding and structured financial solutions. His primary focus has been in the area of system revenue, general infrastructure, and utility revenue issues. He has been instrumental in developing and applying several refunding innovations, providing analytical decision making framework for cash market and derivative solutions, as well as, improving escrow efficiencies to help issuers lower their cost of capital or overall funding cost. Scott is a graduate of the University of Maryland, College Park, Maryland, where he earned a B.S. degree in business with an emphasis in finance and accounting. He received his M.B.A. degree in finance from George Washington University, Washington, D.C. Mr. Goldstein maintains Series 7, 63 and 79 securities registrations.

SUPPORT BANKER*Chicago, IL***Brian LePenske, Director***West Public Finance*

Mr. LePenske joined Wells Fargo in July 2019 and has over 15 years of municipal finance experience as an investment banker and municipal advisor. Mr. LePenske plays a key role in the origination, project management and transaction execution for large, complex general government, utility, transportation, and higher education issuers in the Midwest region. He has executed financings for clients including Michigan State Building Authority; City of Pontiac School District; Ohio Water Development Authority; Ohio Turnpike & Infrastructure Commission; Ohio Treasurer; City of Cleveland; Indianapolis Local Public Improvement Bond Bank (Stormwater credit), State of Illinois; State of Wisconsin; City of Chicago; Will County (IL); Cook County (IL); Illinois Tollway; and Northern Illinois University, among many others. He brings a diverse expertise related to debt structuring and project finance through the use of revenue bonds, general obligation bonds, lease revenue bonds and interim financing. Mr. LePenske's banking and advisor perspective enhances the broad-based client-centered approach which ensures results meet the client's strategic goals and objectives via thorough analysis and creative planning. Prior to joining Wells Fargo, he worked as a municipal investment banker for 6 years at Piper Sandler (formerly Piper Jaffray) and BMO Capital Markets, and as a municipal advisor for 7 years at Scott Balice Strategies and at PFM.

BANKING & TRANSACTION SUPPORT*Chicago, Illinois***Ryan Trauffler, Associate***West Public Finance*

Mr. Trauffler joined Wells Fargo CIB in 2017 and is responsible for providing day-to-day analytical, quantitative, and transaction support for a variety of municipal clients throughout the Midwest. He has served on senior managed financings issuers including GLWA's 2018 transaction, Michigan State Building Authority, Michigan Strategic Fund, City of Pontiac School District, Ohio Water Development Authority, Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Ohio Turnpike & Infrastructure Commission, Indiana Finance Authority SRF, State of California, State of Wisconsin, Illinois State Toll Highway Authority, and Northern Illinois University, to name a few.

BANKING & TRANSACTION SUPPORT*San Francisco, California***Samantha Fong, Associate***West Public Finance*

Ms. Fong joined Wells Fargo CIB in 2022 after spending the previous 2.5 years at Bank of America and Siebert Williams Shank. She provides quantitative and deal execution support and has wide-ranging experience working with various utility credits across the Western US region. Some of her clients for which she has executed water/wastewater transactions as senior manager include: Metropolitan Water District of Southern CA, Santa Clara Valley Water District, San Mateo-Foster City Public Financing Authority, City of Chico, and City of San Buenaventura.

LEAD FIXED RATE MUNICIPAL UNDERWRITER*New York, NY***Amanda Amaro, Director***Municipal Syndicate*

Ms. Amaro has originally joined Wells Fargo as a general analyst supporting the municipal sales, trading and underwriting desks, and for nearly a decade has worked in a dedicated underwriting role providing marketing, pricing, and distribution services for various fixed rate financings. Her experience includes, but is not limited to utility revenue, general obligation, higher education, housing, transportation, and taxable, with a current focus on the Midwest, Southeast, and Southwest regions. Ms. Amaro has served as lead underwriter on recent WF CIB-led transactions in the utility space for the Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Metropolitan Water District of Salt Lake & Sandy (Utah), Beaufort-Jasper (South Carolina) Water and Sewer Authority, and Water/Sewer transactions for the Town of Mount Pleasant and City of Myrtle Beach (South Carolina), among many others. She also serves as lead underwriter for all state-level entities in Michigan and was underwriter in our role as joint bookrunner for the Michigan State Building Authority's 2020 Series I & II transaction. Ms. Amaro is a graduate of the University of North Carolina at Chapel Hill, where she earned a B.S. in Business Administration and a B.A. in Economics.

SUPPORTING FIXED RATE UNDERWRITER*Charlotte, NC***Will Illingworth, Director***Municipal Syndicate*

Mr. Illingworth has been with Wells Fargo's Municipal Finance Group since 2006 and currently serves as underwriter for both long term and short term financings and provides assistance in marketing and distribution of all new issue products. In addition to providing second chair support on many WFCIB senior managed transactions, Mr. Illingworth has served as lead underwriter on 37 transactions totaling over \$2.1 billion of senior managed transactions since 2017. Mr. Illingworth's expertise ranges from general market paper across the country to complex credits. His experience extends back over two decades where he acted in many capacities and roles and has assisted WF CIB's efforts in the competitive underwriting space. This level of transactional experience will allow Mr. Illingworth to provide a thorough understanding through the entire marketing and pricing process so that best execution will be achieved for the Authority's transactions.

SYNDICATE COORDINATION*Charlotte, NC***Rebekah Wales, Director***Municipal Syndicate*

Ms. Wales joined Wells Fargo CIB Municipal Finance in 2011 after four years of service in the public sector. Rebekah's roles within Wells Fargo have focused on regulatory risk mitigation, both for Public Finance transactions and on the Syndicate Desk. She focuses on ensuring adherence to all regulatory requirements while providing seamless execution for Wells Fargo's clients. Rebekah has a B.A. in English and a Juris Doctorate from the University of Alabama School of Law.

Appendix A, 2. Project Team

Part 1 – Summary of contractor’s current involvement with all projects					
	Contract No.	Client Name	Involvement Time	Contract Title	Type of involvement
Involvement time for this project – Kevin Hoecker	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Overall Project Mgmt, Structuring, Marketing
Involvement time for this project – Michael Engelbrecht	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Water/Sewer Expertise
Involvement time for this project – Kristen Fontana	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Credit & Rating Strategy
Involvement time for this project – Scott Goldstein	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Quantitative Support
Involvement time for this project – Brian LePenske	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Additional Banking Support
Involvement time for this project – Ryan Trauffer	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Deal Execution Support
Involvement time for this project – Samantha Fong	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Deal Execution Support
Involvement time for this project – Amanda Amaro	2200290	Great Lakes Water Authority	25%	Bond Underwriting Services	Underwriting and Marketing
Other projects					
Part 2 – Explain how the commitments listed under part 1 will impact performance on this project					
The commitments listed under Part 1 detailed each individual’s time dedicated to the GLWA project out of their total available time.					
Part 3 – Explain how the project manager or consultant representatives allocated percentage of time to this contract will be utilized					
The project manager, Kevin Hoecker, will dedicate as much time to this project as required for ultimate success. This same approach will be taken by all employees listed above.					

Appendix A, 3. Staff Experience

No.	Staff Name	Employer Name	Total Yrs of Related Exp.	Related Projects	Project Role
1	Kevin Hoecker	Wells Fargo CIB	22	Ohio Water Development Authority, Indiana Finance Authority's SRF Program, Illinois Finance Authority's SRF Program, the Indianapolis Bond Bank's Stormwater credit, St. Louis Metropolitan Sewer Dist.	Overall Project Mgmt, Structuring, Marketing
2	Michael Engelbrecht	Wells Fargo CIB	30	Anaheim Public Utilities, Ohio Water Development Auth., Los Angeles Department of Water and Power, State of CA Dept. of Water & Resources, Texas Water Development Board	Water/Sewer Expertise
3	Kristen Fontana	Wells Fargo CIB	15	Indianapolis Bond Bank's Stormwater credit, San Diego Sewer Rev., Charlotte (NC) W&S	Credit & Rating Strategy
4	Scott Goldstein	Wells Fargo CIB	30	State of California Department of Water and Resources, Anaheim Public Utilities, Los Angeles Department of Water and Power	Quantitative Support
5	Brian LePenske	Wells Fargo CIB	15	Michigan State Building Authority, Ohio Water Development Authority, Indianapolis Bond Bank's Stormwater credit, State of Wisconsin	Additional Banking Support
6	Ryan Trauffler	Wells Fargo CIB	5	Michigan State Building Authority, Ohio Water Development Authority, Indiana Finance Authority SRF	Deal Execution Support
7	Samantha Fong	Wells Fargo CIB	2.5	Metropolitan Water District of Southern CA, Santa Clara Valley Water District, City of Chico	Deal Execution Support
8	Amanda Amaro	Wells Fargo CIB	12	Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Metropolitan Water District of Salt Lake & Sandy (Utah), Beaufort-Jasper (SC) Water and Sewer Auth.	Underwriting and Marketing

APPENDIX B

Wells Fargo CIB Conflict of Interest Disclosure

Wells Fargo CIB Conflict of Interest Disclosure.

Wells Fargo CIB would like to ensure that you are aware of the following.

CIB anticipates that as underwriter for GLWA, CIB would be compensated by a fee and/or an underwriting discount that would be set forth in the bond purchase agreement to be negotiated and entered into in connection with the issuance of the bonds. Payment or receipt of the underwriting fee or discount would be contingent on the closing of the transaction and the amount of the fee or discount may be based, in whole or in part, on a percentage of the principal amount of the bonds. While this form of compensation is customary in the municipal securities market, it presents a conflict of interest since an underwriter may have an incentive to recommend a transaction that is unnecessary or to recommend that the size of a transaction be larger than is necessary.

Wells Fargo Bank, N.A., acting through its Municipal Finance Group (“WFBNA MFG”), has entered into an agreement with its affiliate, Wells Fargo Clearing Services, LLC (“WFCS”) for the distribution of certain municipal securities offerings, including the Bonds. Pursuant to this agreement, WFBNA MFG shares a portion of its underwriting compensation with respect to the Bonds with WFCS. WFBNA MFG and WFCS are each wholly-owned subsidiaries of Wells Fargo & Company.

WFBNA MFG also utilizes the distribution capabilities of its affiliate Wells Fargo Securities, LLC (“WFSLLC”) for the distribution of municipal securities offerings, including the Bonds. In connection with utilizing the distribution capabilities of WFSLLC, WFBNA MFG pays a portion of WFSLLC’s expenses based on its municipal securities transactions. WFBNA MFG and WFSLLC are each wholly-owned subsidiaries of Wells Fargo & Company.

Various Wells Fargo & Company subsidiaries may place orders for their own accounts for the bonds to be issued by GLWA. CIB and its broker-dealer affiliate Wells Fargo Advisors may also place orders for GLWA’s bonds for their own accounts, for the purpose of subsequent resale to customers. As required by MSRB rules, CIB will not allocate bonds to any such orders over orders received from prospective purchasers that are not affiliates of CIB, without first obtaining your consent. While your consent must be received before making any such allocations, this nonetheless may present a conflict of interest for CIB to allocate bonds to itself or to an affiliate over orders from non-affiliates.

It is possible that certain purchasers to which CIB allocates bonds may look to CIB to provide liquidity to such purchasers by offering their bonds for sale to CIB in the immediate short term after allocations have been confirmed. While CIB does not intend to allocate bonds to a purchaser that CIB reasonably believes intends to sell the bonds in the immediate short term, this nonetheless may present a conflict of interest for CIB in the allocation process.

At the time of pricing for the Bonds, the Issuer may request or authorize the sale of certain maturities of the Bonds via competitive bid among the group of underwriters. To the extent that Wells Fargo Corporate & Investment Banking as senior syndicate manager is responsible for receiving bids from the other underwriters, and notwithstanding the mitigating controls that Wells Fargo Corporate & Investment Banking has instituted, a conflict of interest would nevertheless exist due to the fact that Wells Fargo Corporate & Investment Banking would have knowledge of which underwriters were submitting bids and the level of any such bid, which could influence Wells Fargo Corporate & Investment Banking’ decision whether to submit a bid for the bonds, or the level of any such bid.

To the best of CIB’s knowledge, CIB is not aware of any conflict of interest that would preclude CIB from serving as underwriter for the financing(s) contemplated by this RFP.

APPENDIX C

WFBNA Litigation Statement

Wells Fargo Bank N.A. Litigation Statement.

Wells Fargo Bank N.A. ("WFBNA") is a subsidiary of Wells Fargo & Company ("WFC"), a corporation organized under the laws of Delaware.

As with any large diversified financial institution in the highly regulated banking and securities field, Wells Fargo receives inquiries and subpoenas from regulators and law enforcement from time to time, some of which may be confidential in nature, and is subject to civil litigation. Wells Fargo responds regularly to inquiries and investigations by governmental entities and has in the past entered into settlements of some of those investigations, including those listed below. None have resulted in any material restrictions on Wells Fargo's ability to operate its businesses as related to the services and products addressed in our responses to this RFP.

Wells Fargo Bank, NA Municipal Finance Group ("WFBNA MFG"), the party responding to this RFP, is a separately identifiable department of WFBNA and is registered with the Securities and Exchange Commission ("SEC") as a municipal securities dealer, authorized to provide underwriting and investment banking services in connection with municipal securities.

Below is a summary of (i) certain resolved regulatory matters related to WFBNA MFG and WFBNA that are related to municipal securities and (ii) certain matters relating to actions involving municipal entities.

During the fourth quarter of 2011, WFBNA entered into a settlement with various regulators regarding municipal derivatives contracts. Please see the Legal Actions section of WFC's 2011 Annual Report for additional information regarding the municipal derivatives bid practices settlement with the Office of the Comptroller of the Currency ("OCC"), SEC, the U.S. Internal Revenue Service, U.S. Department of Justice and a group of state Attorneys General. See press release dated December 8, 2011 at <https://www.sec.gov/litigation/litreleases/2011/lr22183.htm>.

WFBNA has paid municipal fines in connection with a small number of houses for alleged violations of local housing ordinances, some of which are characterized as misdemeanors.

During the third quarter of 2016, WFBNA entered into settlements with the City of Los Angeles, the Consumer Financial Protection Bureau and the Office of the Comptroller of the Currency regarding certain sales practices. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-issues-statement-agreements-related-sales>. (the "2016 Settlement").

Following the announcement of the 2016 Settlement discussed above, certain state and local governmental bodies and municipal entities have temporarily suspended or removed WFBNA MFG as underwriter from certain of such issuers' municipal underwritings.

On February 2, 2016, WFBNA MFG entered into an agreement with the SEC resulting from a self-report submitted to the SEC by WFBNA MFG pursuant to the SEC's Municipalities Continuing Disclosure Cooperation Initiative ("MCDC") (see <https://www.sec.gov/litigation/admin/2016/33-10028.pdf>).

On December 26, 2018, WFC was served with a Complaint for a qui tam action pending in San Francisco County, California, which was subsequently amended to add WFBNA as a defendant. State of California, ex rel., Edelweiss Fund, LLC v. JP Morgan Chase & Co., et al., Case No. CGC-14-540777. The California qui tam action alleges Wells Fargo and other remarketing agents conspired to inflate the interest rates on certain tax-exempt bonds issued by public entities called variable rate demand obligations issued by the State of California or its political subdivisions. In July 2019, the San Francisco Superior Court dismissed the claims against a group of defendants, including WFC, due to untimely service, and the Court of Appeals upheld that dismissal in December 2020. On June 1, 2021, the Court dismissed the Relator's, Edelweiss Fund, LLC, seventh amended complaint without leave to amend. On July 27, 2021, Relator appealed the Court's June 1, 2021 Order. On or about July 26, 2019, another qui tam action was unsealed in Mercer County, New Jersey. State of New Jersey, ex rel., Edelweiss Fund, LLC v. JP Morgan Chase & Co., et al., Docket No. L. 885-15. The New Jersey qui tam action names Wells Fargo & Co. and several other financial institutions as defendants. The allegations in the New Jersey qui tam action are substantially similar to the California qui tam action. On February 20, 2019, the City of Philadelphia filed a putative class action against WFBNA and related entities, along with six other banks and their related entities. The City of Philadelphia v. Bank of America Corporation, et al., No. 1:19-cv-01608, U.S.D.C., S.D.N.Y. The plaintiff alleges that the defendants conspired to inflate the interest rates on certain tax-exempt bonds issued by public entities called variable rate demand obligations from February 1, 2008 to June 30, 2016. On March 25, 2019, the City of Baltimore filed a similar putative class action complaint against WFBNA and related entities, along with nine other banks and related entities. Mayor and City Council of Baltimore v. Bank of America Corporation, et al., No. 1:19-cv-02667, U.S.D.C., S.D.N.Y. The City of Baltimore's allegations are substantially similar to the allegations in the City of Philadelphia case. The Philadelphia and Baltimore cases were consolidated and an amended consolidated complaint was filed on May 31, 2019, naming WFBNA and related entities, along with seven other banks and related entities. On June 2, 2021, a substantially similar class action complaint was filed in the Southern District of New York on behalf of a putative class of California issuers of variable rate demand obligations against the same defendants. (Board of Directors of the San Diego Association of Governments v. Bank of America Corporation, et al., No. 1:21-cv-4893, U.S.D.C., S.D.N.Y.) The complaint includes the same defendants and class period as the Philadelphia and Baltimore consolidated complaint, and largely tracks the allegations asserted in that complaint. In August 2021, the San Diego Association of Governments action was consolidated with the Philadelphia and Baltimore action through an amended consolidated class action complaint. In August 2021, the San Diego Association of Governments action was consolidated with the Philadelphia and Baltimore action through an amended consolidated class action complaint.

WFBNA was named as a defendant in an antitrust case filed in the U.S. District Court for the Middle District of Louisiana on October 21, 2019, by the City of Baton Rouge/East Baton Rouge Parish, Consolidated Parish Employees Retirement System and Police Guaranty Fund. No. 3:19-cv-00725. The plaintiffs allege that WFBNA and 11 other defendants colluded to keep the bid-offer spreads artificially wide in secondary market trading for Government Sponsored Enterprise bonds, including those issued by Fannie Mae, Freddie Mac, and Federal Home Loan Banks. WFC and Wells Fargo Securities, LLC ("WFSLLC") and 23 other parties were named as defendants in a case filed in the U.S. District Court for the Eastern District of Louisiana on July 17, 2020, by the Louisiana Asset Management Pool ("LAMP"). No. 2:20-cv-1095. WFC and WFSLLC and 22 other parties were named as defendants in a case filed in the U.S. District Court for the Eastern District of Louisiana on September 21, 2020, by the City of New Orleans, the New Orleans Municipal Employees Retirement System and the New Orleans Aviation Board. No. 2:20-cv-2570. The allegations in the LAMP and City of New Orleans cases are substantially similar to the allegations in the City of Baton Rouge case. All three cases were settled and dismissed on June 9, 2021.

On October 7, 2020, WFBNA, JPMorgan Chase & Co., and Stifel, Nicolaus & Co., Inc. were sued in the U.S. District Court for the Eastern District of Michigan federal court on behalf of children who allegedly were harmed by polluted water in the City of Flint, Michigan, LeeAnne Walters et al. v. J.P. Morgan Chase & Co., Wells Fargo Bank, N.A., and Stifel Nicolaus, No. 5:20-cv-12726. The plaintiffs allege that the banks violated their Constitutional rights and Michigan law by underwriting a 2014 municipal bond offering for a Michigan-based water authority with alleged knowledge that the bond offering would result in the City of Flint, Michigan transitioning to an unsafe water source. On March 29, 2022, the Court dismissed the plaintiffs' lawsuit. The plaintiffs have until April 26, 2022 to move for reconsideration and April 28, 2022 to appeal the Court's ruling.

Please be further advised of the following:

On February 2, 2018, WFC entered into a consent order with the Board of Governors of the Federal Reserve System, relating to governance oversight and the company's compliance and operational risk management program. This consent order does not relate to new matters, but rather to prior issues including the 2016 sales practices matter. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-commits-satisfying-consent-order-federal>.

In April 2018, WFC entered into consent orders with the Consumer Financial Protection Bureau and the Office of the Comptroller of the Currency that address matters relating to WFC's compliance risk management program and issues regarding certain interest rate-lock extensions on home mortgages and collateral protection insurance placed on certain auto loans. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-enters-consent-orders-occ-and-cfpb>.

In August 2018, WFC announced that it entered into an agreement with the U.S. Department of Justice ("DOJ") to resolve a previously disclosed investigation by the DOJ regarding claims related to certain 2005-07 residential mortgage-backed securities activities. For additional information, see the press release at <https://newsroom.wf.com/press-release/consumer-lending/wells-fargo-reaches-agreement-doj-resolve-legacy-rmbs-claims>.

On December 4, 2018, WFC reached an agreement with the Attorney General of the State of Illinois, pursuant to which it agreed to pay \$17.25 million in remediation relating to certain prior RMBS activities.

On December 28, 2018, WFC entered into a settlement with all 50 state Attorneys General and the District of Columbia regarding previously disclosed retail sales practices, auto collateral protection insurance and guaranteed asset/auto protection, and mortgage interest rate lock matters. For additional information, see the press release at <https://newsroom.wf.com/press-release/community-banking-and-small-business/wells-fargo-reaches-agreement-state-attorneys>.

The SEC filed a civil lawsuit in 2016 against Wells Fargo Securities, LLC ("WFSLLC") and a Wells Fargo employee, among others, regarding a 2010 Rhode Island Economic Development Corporation bond offering document. WFSLLC settled the matter with the SEC on March 20, 2019. The Court dismissed all claims against the Wells Fargo employee on June 11, 2019. SEC v. Rhode Island Commerce Corporation (f/k/a Rhode Island Economic Development Corporation), et al., No. 1:16-cv-107-M-PAS (D.R.I.).

On February 21, 2020, WFC entered into settlement agreements with the U.S. Department of Justice and the U.S. Securities and Exchange Commission to resolve these agencies' investigations into Community Bank sales practices and related disclosures. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-reaches-settlements-resolve-outstanding-doj-and>.

WFC also reached an agreement with the Attorney General of the State of Maryland on June 15, 2020, pursuant to which it agreed to pay \$20 million in remediation to resolve claims relating to certain prior RMBS activities.

On January 5, 2021, the Office of the Comptroller of the Currency terminated a 2015 consent order related to WFC's anti-money laundering compliance program. For additional information, please see the press release at newsroom.wf.com/English/news-releases/news-release-details/2021/Wells-Fargo-Announces-Termination-of-AML-Related-Consent-Order/default.aspx.

On September 9, 2021, WFC announced that the Office of the Comptroller of the Currency issued an enforcement action against WFBNA related to loss mitigation practices in the bank's Home Lending business, as well as a civil monetary penalty related to those loss mitigation practices and insufficient progress in addressing requirements under the OCC's April 2018 Compliance Risk Management and Customer Remediation consent order. For additional information, see the press release at Wells Fargo Newsroom - Wells Fargo Issues Statement on OCC Enforcement Action, Expiration of CFPB Consent Order ([wf.com](https://www.wellsfargo.com)).

On September 27, 2021, WFBNA reached an agreement with the United States District Court for the Southern District of New York pursuant to which WFBNA paid \$37.5 million to the United States and provided customer remediation in order to resolve an investigation related to certain activities in WFBNA's foreign exchange business, including whether customers may have received pricing inconsistent with commitments made to those customers. Furthermore, no member of the proposed deal team identified in this RFP has a reportable item on his or her broker check report (available online through FINRA's Broker Check), regarding investigations during his or her tenure with WFBNA MFG.

Many of the actions that Wells Fargo has taken in connection with these settlements are described at <https://www.wellsfargo.com/assets/pdf/commitment/progress-report.pdf>

To the extent any litigation or regulatory matters are required to be reported, they are disclosed in WFC's SEC filings and are matters of public record.

Copies of the (i) Legal Proceedings sections from Wells Fargo & Company recent public filings and (ii) Wells Fargo & Company's most recent periodic reports are available via the internet link below:

https://www.wellsfargo.com/invest_relations/filings

Wells Fargo & Company Annual Report Link:

https://www.wellsfargo.com/invest_relations/annual

APPENDIX D

Taxable Advance Refunding and Cash Optimization Monitor of Bonds Callable through 2026

Credit	Series	Maturity	Par Amount (\$000s)	Prior Coupon	Next Call	Current Market				Current Market - 50bps			Cash Optimization Ref.	
						NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	Breakeven to T/E Current Ref	NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	% NPV Savings	Escrow Efficiency
Water Sr	2014D-1	07/01/35	20,020	5.000%	07/01/24	302	1.5%	30.9%	167%	1,358	6.8%	73.4%	12.0%	92.4%
Water Sr	2014D-1	07/01/37	24,170	5.000%	07/01/24	137	0.6%	13.4%	168%	1,537	6.4%	70.0%	11.9%	91.9%
Water Sr	2014D-2	07/01/25	29,525	5.000%	07/01/24	(19)	-0.1%	--	166%	406	1.4%	86.7%	2.2%	115.1%
Water Sr	2014D-2	07/01/26	50,370	5.000%	07/01/24	469	0.9%	38.3%	153%	1,431	2.8%	83.7%	4.3%	102.7%
Water Sr	2014D-2	07/01/27	34,340	5.000%	07/01/24	579	0.7%	48.6%	149%	1,391	4.1%	82.8%	6.2%	100.0%
Water Sr	2014D-2	07/01/28	22,690	5.000%	07/01/24	559	2.5%	55.8%	144%	1,196	5.3%	83.9%	8.1%	98.8%
Water Sr	2014D-4	07/01/29	47,265	5.000%	07/01/24	1,409	3.0%	58.3%	145%	2,938	6.2%	83.8%	9.5%	97.1%
Water Sr	2014D-4	07/01/30	54,305	5.000%	07/01/24	1,713	3.2%	57.2%	15%	3,686	6.8%	82.7%	10.9%	96.3%
Water Sr	2014D-4	07/01/31	28,515	5.000%	07/01/24	930	3.3%	56.2%	150%	2,075	7.3%	81.9%	12.2%	95.8%
Water Sr	2014D-4	07/01/32	18,950	5.000%	07/01/24	605	3.2%	53.9%	153%	1,434	7.6%	80.8%	13.3%	95.3%
Water Sr	2014D-4	07/01/33	7,775	5.000%	07/01/24	94	2.5%	45.3%	163%	558	7.2%	77.5%	12.8%	94.2%
Water Sr	2014D-4	07/01/34	52,560	5.000%	07/01/24	1,090	2.1%	39.4%	167%	3,713	7.1%	75.7%	12.3%	93.2%
Water Sr	2015D-1	07/01/27	3,175	5.000%	07/01/25	(1)	0.0%	--	2.0%	74	2.3%	77.8%	4.5%	115.5%
Water Sr	2015D-1	07/01/28	8,250	5.000%	07/01/25	60	0.7%	23.9%	180%	292	3.5%	79.4%	6.4%	107.8%
Water Sr	2015D-1	07/01/29	9,270	5.000%	07/01/25	116	1.3%	32.3%	175%	416	4.5%	78.8%	7.8%	102.3%
Water Sr	2015D-1	07/01/30	5,085	5.000%	07/01/25	72	1.4%	32.5%	178%	257	5.7%	76.6%	9.2%	99.7%
Water Sr	2015D-1	07/01/31	5,660	5.000%	07/01/25	87	1.5%	32.1%	18%	314	5.5%	75.2%	10.4%	98.1%
Water Sr	2015D-1	07/01/32	5,985	5.000%	07/01/25	87	1.5%	29.4%	179%	349	5.8%	73.4%	11.6%	96.8%
Water Sr	2015D-1	07/01/33	6,405	5.000%	07/01/25	49	0.8%	16.3%	189%	349	5.5%	68.2%	11.0%	95.0%
Water Sr	2015D-1	07/01/34	18,915	5.000%	07/01/25	65	0.3%	7.5%	193%	1,009	5.3%	65.4%	10.6%	93.4%
Water Sr	2015D-1	07/01/35	6,530	5.000%	07/01/25	(14)	-0.2%	--	--	330	5.1%	62.0%	10.2%	91.9%
Water Sr	2016A	07/01/27	5	5.000%	07/01/26	(0.1)	-2.0%	--	--	0.0	0.4%	31.6%	2.6%	156.1%
Water Sr	2016A	07/01/28	5	5.000%	07/01/26	(0.1)	-1.2%	--	--	0.1	1.6%	58.5%	4.4%	120.0%
Water Sr	2016A	07/01/29	5	5.000%	07/01/26	(0.0)	-0.7%	--	--	0.1	2.5%	62.7%	5.8%	106.2%
Water Sr	2016A	07/01/30	5	5.000%	07/01/26	(0.0)	-0.5%	--	--	0.2	3.1%	61.3%	7.2%	101.1%
Water Sr	2016A	07/01/31	5	5.000%	07/01/26	(0.0)	-0.4%	--	--	0.2	3.6%	60.5%	8.5%	98.1%
Water Sr	2016A	07/01/32	5	5.000%	07/01/26	(0.0)	-0.5%	--	--	0.2	3.9%	59.0%	9.6%	96.2%
Water Sr	2016A	07/01/33	5	5.000%	07/01/26	(0.1)	-1.2%	--	--	0.2	3.5%	51.6%	9.0%	93.2%
Water Sr	2016A	07/01/34	5	5.000%	07/01/26	(0.1)	-1.6%	--	--	0.2	3.4%	48.1%	8.6%	90.7%
Water Sr	2016A	07/01/35	5	5.000%	07/01/26	(0.1)	-2.2%	--	--	0.2	3.1%	43.5%	8.2%	88.3%
Water Sr	2016A	07/01/36	5	5.000%	07/01/26	(0.1)	-2.9%	--	--	0.1	2.7%	37.8%	8.1%	87.9%
Water Sr	2016A	07/01/37	5	5.000%	07/01/26	(0.2)	-3.1%	--	--	0.1	2.7%	36.8%	8.0%	87.0%
Water Sr	2016A	07/01/38	5	5.000%	07/01/26	(0.2)	-3.7%	--	--	0.1	2.4%	32.9%	7.9%	86.2%
Water Sr	2016A	07/01/39	5	5.000%	07/01/26	(0.2)	-3.4%	--	--	0.1	2.9%	37.2%	7.8%	85.3%
Water Sr	2016A	07/01/40	5	5.000%	07/01/26	(0.2)	-3.2%	--	--	0.2	3.3%	40.9%	7.7%	84.8%
Water Sr	2016A	07/01/41	5	5.000%	07/01/26	(0.2)	-3.0%	--	--	0.2	3.8%	44.1%	7.7%	84.4%
Water Sr	2016A	07/01/42	15,905	5.000%	07/01/26	(45.1)	-3.0%	--	--	674	4.2%	46.8%	7.5%	83.4%
Water Sr	2016A	07/01/43	16,705	5.000%	07/01/26	(67.5)	-4.0%	--	--	526	3.1%	37.8%	6.4%	77.0%
Water Sr	2016A	07/01/44	17,535	5.000%	07/01/26	(684)	-3.9%	--	--	615	3.5%	40.3%	6.3%	77.1%
Water Sr	2016A	07/01/45	19,415	5.000%	07/01/26	(694)	-3.8%	--	--	709	3.8%	42.6%	6.5%	77.2%
Water Sr	2016A	07/01/46	19,335	5.000%	07/01/26	(705)	-3.6%	--	--	808	4.2%	44.6%	6.4%	77.3%
Water Sr	2016C	07/01/27	20,110	5.000%	07/01/26	(403)	-2.0%	--	--	72	0.4%	31.8%	2.8%	157.1%
Water Sr	2016C	07/01/28	39,855	5.000%	07/01/26	(489)	-1.2%	--	--	630	1.6%	58.6%	4.4%	119.9%
Water Sr	2016C	07/01/29	18,025	5.000%	07/01/26	(128)	-0.7%	--	--	455	2.5%	62.8%	5.8%	106.3%
Water Sr	2016C	07/01/30	19,640	5.000%	07/01/26	(106)	-0.5%	--	--	608	3.1%	61.3%	7.2%	101.1%
Water Sr	2016C	07/01/31	48,860	5.000%	07/01/26	(210)	-0.4%	--	--	1,752	3.6%	60.6%	8.5%	98.2%
Water Sr	2016C	07/01/32	62,395	5.000%	07/01/26	(312)	-0.5%	--	--	2,418	3.9%	58.9%	9.6%	96.1%
Water Sr	2016C	07/01/33	30,915	5.000%	07/01/26	(370)	-1.2%	--	--	1,079	3.5%	51.6%	9.0%	93.2%
Water Sr	2016C	07/01/33	36,000	5.250%	07/01/26	21	0.1%	1.1%	2.28%	1,728	4.8%	59.4%	10.4%	94.0%
Water Sr	2016C	07/01/34	17,775	5.250%	07/01/26	(39)	-0.2%	--	--	860	4.8%	56.9%	10.1%	91.9%
Water Sr	2016C	07/01/35	43,380	5.000%	07/01/26	(946)	-2.2%	--	--	1,341	3.1%	43.2%	8.2%	88.3%
Water Sr	2016C	07/01/35	30,730	5.250%	07/01/26	(201)	-0.7%	--	--	1,443	4.7%	53.8%	9.9%	90.1%
Water 2nd	2014D-6	07/01/25	2,870	5.000%	07/01/24	(10)	-0.4%	--	--	31	1.1%	73.0%	1.9%	105.2%
Water 2nd	2014D-6	07/01/26	1,895	5.000%	07/01/24	10	0.5%	--	--	47	2.5%	76.7%	3.0%	85.4%
Water 2nd	2014D-6	07/01/27	1,930	5.000%	07/01/24	24	1.2%	38.3%	155%	69	3.6%	77.6%	5.8%	96.7%
Water 2nd	2014D-6	07/01/28	445	5.000%	07/01/24	9	1.9%	47.2%	126%	21	4.7%	79.7%	7.5%	96.3%
Water 2nd	2014D-6	07/01/29	500	5.000%	07/01/24	12	2.4%	50.3%	149%	28	5.6%	80.0%	8.8%	94.9%
Water 2nd	2014D-6	07/01/30	405	5.000%	07/01/24	10	2.3%	49.0%	155%	24	6.0%	79.0%	10.1%	94.3%
Water 2nd	2014D-6	07/01/31	420	5.000%	07/01/24	10	2.5%	47.6%	154%	27	6.5%	78.2%	11.3%	94.0%
Water 2nd	2014D-6	07/01/32	440	5.000%	07/01/24	10	2.3%	44.5%	156%	29	6.7%	77.1%	12.3%	93.6%
Water 2nd	2014D-6	07/01/33	455	5.000%	07/01/24	7	1.6%	33.2%	166%	28	6.2%	73.3%	11.8%	92.4%
Water 2nd	2014D-6	07/01/34	1,215	5.000%	07/01/24	13	1.1%	24.7%	169%	73	6.0%	71.1%	11.4%	91.3%
Water 2nd	2014D-6	07/01/36	33,115	5.000%	07/01/24	(82)	-0.2%	--	--	1,726	5.2%	64.9%	11.0%	90.2%
Water 2nd	2015D-2	07/01/34	37,235	5.000%	07/01/25	(232)	-0.6%	--	--	1,606	4.3%	58.2%	9.6%	90.3%
Sewage Sr	2014C-3	07/01/25	47,045	5.000%	07/01/24	(31)	-0.1%	--	--	647	1.4%	86.7%	2.2%	115.1%
Sewage Sr	2014C-3	07/01/26	40,375	5.000%	07/01/24	376	0.9%	38.3%	154%	1,147	2.8%	83.7%	4.3%	102.7%
Sewage Sr	2014C-3	07/01/27	45,895	5.000%	07/01/24	774	1.7%	48.6%	149%	1,659	4.1%	82.8%	6.2%	100.0%
Sewage Sr	2014C-3	07/01/28	24,075	5.000%	07/01/24	593	2.5%	55.8%	144%	1,270	5.3%	83.9%	8.1%	98.8%
Sewage Sr	2014C-3	07/01/29	15,770	5.000%	07/01/24	470	3.0%	58.3%	146%	980	6.2%	83.8%	9.5%	97.1%
Sewage Sr	2014C-3	07/01/30	25,285	5.000%	07/01/24	797	3.2%	57.2%	152%	1,716	6.8%	82.7%	10.9%	96.3%
Sewage Sr	2014C-3	07/01/31	31,945	5.000%	07/01/24	1,042	3.3%	56.2%	15%	2,325	7.3%	81.9%	12.2%	95.8%
Sewage Sr	2014C-3	07/01/32	50,515	5.000%	07/01/24	1,612	3.2%	53.9%	153%	3,822	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-3	07/01/33	22,665	5.000%	07/01/24	566	2.5%	45.3%	163%	1,628	7.2%	77.5%	12.8%	94.2%
Sewage Sr	2014C-6	07/01/32	9,100	5.000%	07/01/24	290	3.2%	53.9%	153%	689	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-6	07/01/33	79,800	5.000%	07/01/24	1,992	2.5%	45.3%	163%	5,731	7.2%	77.5%	12.8%	94.2%
Sewage Sr	2016B	07/01/27	405	5.000%	07/01/26	(8)	-2.0%	--	--	1	0.4%	31.8%	2.6%	157.1%
Sewage Sr	2016B	07/01/30	27,710	5.000%	07/01/26									

APPENDIX E

Insurance Breakeven Analysis

Great Lakes Water Authority - Senior Lien Sewage Disposal System and Water Supply System Revenue Bonds

Maturity-by-Maturity Insurance Breakeven Analysis

Maturity	Uninsured Coupon	Insured Coupon	Uninsured Yield	Insured Yield	Maturity/ Call Date	Call Price	Uninsured Price	Insured Price	Price Difference	Years to Maturity	Breakeven Premium to Maturity
07/01/23	5.000%	5.000%	1.990%	1.970%	07/01/23	100	102.719	102.737	0.018	0.92	0.017%
07/01/24	5.000%	5.000%	2.210%	2.180%	07/01/24	100	105.205	105.263	0.058	1.92	0.053%
07/01/25	5.000%	5.000%	2.360%	2.320%	07/01/25	100	107.396	107.514	0.118	2.92	0.103%
07/01/26	5.000%	5.000%	2.450%	2.400%	07/01/26	100	109.466	109.662	0.196	3.92	0.164%
07/01/27	5.000%	5.000%	2.510%	2.460%	07/01/27	100	111.447	111.693	0.246	4.92	0.197%
07/01/28	5.000%	5.000%	2.560%	2.510%	07/01/28	100	113.315	113.609	0.294	5.92	0.227%
07/01/29	5.000%	5.000%	2.660%	2.610%	07/01/29	100	114.692	115.033	0.341	6.92	0.253%
07/01/30	5.000%	5.000%	2.730%	2.680%	07/01/30	100	116.061	116.448	0.387	7.92	0.277%
07/01/31	5.000%	5.000%	2.790%	2.740%	07/01/31	100	117.337	117.769	0.432	8.92	0.299%
07/01/32	5.000%	5.000%	2.850%	2.800%	07/01/32	100	118.456	118.932	0.476	9.92	0.318%
07/01/33	5.000%	5.000%	2.920%	2.870%	07/01/32	100	117.794	118.267	0.473	10.92	0.306%
07/01/34	5.000%	5.000%	2.980%	2.930%	07/01/32	100	117.230	117.700	0.470	11.92	0.295%
07/01/35	5.000%	5.000%	3.030%	2.980%	07/01/32	100	116.762	117.230	0.468	12.92	0.284%
07/01/36	5.000%	5.000%	3.040%	2.990%	07/01/32	100	116.669	117.136	0.467	13.92	0.275%
07/01/37	5.000%	5.000%	3.060%	3.010%	07/01/32	100	116.483	116.949	0.466	14.92	0.267%
07/01/38	5.000%	5.000%	3.080%	3.030%	07/01/32	100	116.297	116.762	0.465	15.92	0.259%
07/01/39	5.000%	5.000%	3.100%	3.050%	07/01/32	100	116.111	116.576	0.465	16.92	0.252%
07/01/40	5.000%	5.000%	3.110%	3.060%	07/01/32	100	116.019	116.483	0.464	17.92	0.245%
07/01/41	5.000%	5.000%	3.120%	3.070%	07/01/32	100	115.926	116.390	0.464	18.92	0.238%
07/01/42	5.000%	5.000%	3.140%	3.090%	07/01/32	100	115.741	116.204	0.463	19.92	0.232%
07/01/47 T	5.000%	5.000%	3.250%	3.200%	07/01/32	100	114.731	115.189	0.458	24.92	0.204%
07/01/52 T	5.000%	5.000%	3.320%	3.270%	07/01/32	100	114.093	114.548	0.455	29.92	0.182%
Total											0.247%

Key assumptions: A1/AA-/A+ underlying ratings from Moody's, S&P and Fitch; AGM or BAM insurance assumed for insured scenario; Dated/delivery date of 8/1/2022; interpolated MMD as of 4/6/2022, conditions subject to change; bonds maturing on or after 7/1/2033 callable on 7/1/2032 @ par

Great Lakes Water Authority - Second Lien Sewage Disposal System and Water Supply System Revenue Bonds

Maturity-by-Maturity Insurance Breakeven Analysis

Maturity	Uninsured Coupon	Insured Coupon	Uninsured Yield	Insured Yield	Maturity/ Call Date	Call Price	Uninsured Price	Insured Price	Price Difference	Years to Maturity	Breakeven Premium to Maturity
07/01/23	5.000%	5.000%	2.080%	2.030%	07/01/23	100	102.635	102.682	0.047	0.92	0.045%
07/01/24	5.000%	5.000%	2.310%	2.250%	07/01/24	100	105.013	105.128	0.115	1.92	0.105%
07/01/25	5.000%	5.000%	2.470%	2.400%	07/01/25	100	107.075	107.279	0.204	2.92	0.178%
07/01/26	5.000%	5.000%	2.540%	2.460%	07/01/26	100	109.114	109.426	0.312	3.92	0.261%
07/01/27	5.000%	5.000%	2.610%	2.520%	07/01/27	100	110.958	111.398	0.440	4.92	0.353%
07/01/28	5.000%	5.000%	2.660%	2.560%	07/01/28	100	112.730	113.315	0.585	5.92	0.451%
07/01/29	5.000%	5.000%	2.760%	2.660%	07/01/29	100	114.014	114.692	0.678	6.92	0.504%
07/01/30	5.000%	5.000%	2.830%	2.730%	07/01/30	100	115.292	116.061	0.769	7.92	0.551%
07/01/31	5.000%	5.000%	2.890%	2.790%	07/01/31	100	116.478	117.337	0.859	8.92	0.594%
07/01/32	5.000%	5.000%	2.950%	2.850%	07/01/32	100	117.512	118.456	0.944	9.92	0.631%
07/01/33	5.000%	5.000%	3.020%	2.920%	07/01/32	100	116.856	117.794	0.938	10.92	0.607%
07/01/34	5.000%	5.000%	3.080%	2.980%	07/01/32	100	116.297	117.230	0.933	11.92	0.585%
07/01/35	5.000%	5.000%	3.130%	3.030%	07/01/32	100	115.834	116.762	0.928	12.92	0.564%
07/01/36	5.000%	5.000%	3.140%	3.040%	07/01/32	100	115.741	116.669	0.928	13.92	0.547%
07/01/37	5.000%	5.000%	3.160%	3.060%	07/01/32	100	115.557	116.483	0.926	14.92	0.530%
07/01/38	5.000%	5.000%	3.180%	3.080%	07/01/32	100	115.373	116.297	0.924	15.92	0.515%
07/01/39	5.000%	5.000%	3.200%	3.100%	07/01/32	100	115.189	116.111	0.922	16.92	0.500%
07/01/40	5.000%	5.000%	3.210%	3.110%	07/01/32	100	115.097	116.019	0.922	17.92	0.486%
07/01/41	5.000%	5.000%	3.220%	3.120%	07/01/32	100	115.005	115.926	0.921	18.92	0.473%
07/01/42	5.000%	5.000%	3.240%	3.140%	07/01/32	100	114.822	115.741	0.919	19.92	0.460%
07/01/47 T	5.000%	5.000%	3.350%	3.250%	07/01/32	100	113.821	114.731	0.910	24.92	0.405%
07/01/52 T	5.000%	5.000%	3.420%	3.320%	07/01/32	100	113.190	114.093	0.903	29.92	0.362%
Total											0.488%

Key assumptions: A2/A+/A underlying ratings from Moody's, S&P and Fitch; AGM or BAM insurance assumed for insured scenario; Dated/delivery date of 8/1/2022; interpolated MMD as of 4/6/2022, conditions subject to change; bonds maturing on or after 7/1/2033 callable on 7/1/2032 @ par

Disclosures (Continued):

Informational Purposes Only; Important Information Regarding These Materials

The Materials are provided for general information about the transactions described herein. The Materials do not constitute an offer to sell or a solicitation of an offer to buy, or a recommendation or commitment for any transaction involving the securities or financial products named or described herein, and are not intended as investment advice or as a confirmation of any transaction. Assumptions stated herein may or may not be valid. Externally sourced information contained in the Materials has been obtained or derived from sources we reasonably believe to be reliable, but CIB makes no representation or warranty, express or implied, with respect thereto, and does not represent or guarantee that such information is accurate or complete. Such information is subject to change without notice and CIB accepts no responsibility to update or keep it current. CIB does not assume or accept any liability for any loss which may result from reliance thereon. CIB and/or one or more of its affiliates may provide advice or may from time to time have proprietary positions in, or trade as principal in, any securities or other financial products that may be mentioned in the Materials, or in derivatives related thereto.

Historical data, past trends and past performance do not reflect or guarantee future results. Examples in the Materials are hypothetical only and are not a prediction of future results.

Updating the Materials

We reserve the right to amend, supplement or replace the Materials at any time, and your use of the Materials constitutes your agreement to update the Materials with any such amendments, supplements or replacements we furnish you.

Confidentiality

The information in the Materials is confidential and may not be disclosed by you to anyone without our written consent, other than to your advisors, and judicial or other governmental authorities or regulators having jurisdiction over you (including, without limitation, federal, state or local tax authorities). Notwithstanding anything to the contrary contained in the Materials, all persons may disclose to any and all persons, without limitations of any kind, the U.S. federal, state or local tax treatment or tax structure of any transaction, any fact that may be relevant to understanding the U.S. federal, state or local tax treatment or tax structure of any transaction, and all materials of any kind (including opinions or other tax analyses) relating to such U.S. federal, state or local tax treatment or tax structure, other than the name of the parties or any other person named herein, or information that would permit identification of the parties or such other persons, and any pricing terms or nonpublic business or financial information that is unrelated to the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer and is not relevant to understanding the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer.

Limitation of Liability

In no event shall Wells Fargo be liable to you or any third party for any direct or indirect, special, incidental, or consequential damages, losses, liabilities, costs or expenses arising directly or indirectly out of or in connection with the Materials.

Wells Fargo does not provide tax advice. Any tax statement herein regarding U.S. federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purpose of avoiding any penalties. Any such statement herein was written to support the marketing or promotion of a transaction or matter to which the statement relates. Each taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

If you have any questions or concerns about the disclosures presented herein, you should make those questions or concerns known immediately to Wells Fargo.



Procurement Solicitation for Bond Underwriting Services Project/Contract No.: 2200290

Appendix A

April 14, 2022



Appendix A, 1. Key Individuals

PRIMARY BANKER*Chicago, IL***Kevin Hoecker, Managing Director***Co-Head of West Region and Head of Limited Public Offerings*

Mr. Hoecker brings 22 years of municipal finance experience and has several years of experience working with water issuers in the Midwest. He joined WFCIB in May 2018 and is Co-Head of the West Region and Head of National Limited Public Offerings. Kevin joined WFCIB after years as an investment banker at both RBC Capital Markets and JPMorgan Securities, where he covered some of the largest and most complex municipal finance clients in the Midwestern region. He has served as lead banker on over \$25 billion of senior managed issuance, and in addition to serving as lead banker for GLWA in our joint bookrunner role in 2018, his client list and experience includes serving as senior manager for financings for Ohio Water Development Authority, Indiana Finance Authority's SRF Program, Illinois Finance Authority's SRF Program, the Indianapolis Bond Bank's Stormwater credit, St. Louis Metropolitan Sewer District, City of Chicago, Chicago Transit Authority, State of Illinois, Illinois Tollway, and the State of Wisconsin, among many others. His Michigan-specific experience, outside of GLWA, includes leading transactions for the Michigan State Building Authority, Michigan Department of Transportation, and Pontiac School District. Kevin is an expert in the structuring and marketing of bond issuances for best execution and result. Kevin's leadership responsibility with the firm has recently expanded, and he now serves as Co-Head of the Midwest and West regions (called the common "West Region") which encompasses 24 states and for which he is responsible for setting strategy and continuing to provide investment banking services to his clients. He serves as the lead banker for all state-level Michigan issuers and continues to serve as the primary investment banking contact to all major municipal issuers in the Midwestern United States, including within the states of Michigan, Illinois, Wisconsin, Indiana, and Ohio, to name a few.

PRIMARY BANKER*Los Angeles, CA***Michael Engelbrecht, Managing Director***Co-Head of West Region and Co-Head of Utilities*

Mr. Engelbrecht serves as Co-Head of the West Region (alongside Kevin) and leads our Utility and Corporate-Backed Group which includes all Water and Wastewater transactions as well as SRF deals across the country. Michael has more than 30 years of capital markets experience during which he has provided investment banking services to water and sewer utilities, general municipal clients, and special districts nationally. He is known as a national expert in Water and Sewer finance and will be the go to professional for all matters in that regard. His utility experience includes senior managed financings totaling in excess of \$16.0 billion for over 150 separate water utility deals since 2015 and includes serving as senior and sole manager on financings for agricultural water agencies, urban water agencies, wholesale water agencies and direct retail water agencies. In addition to GLWA's 2018 transaction, he has played a pivotal role in leading several large utility financings in recent years, including: \$345 million for Anaheim Public Utilities (priced on 4/13/2022, just prior to this RFP response), \$250 million for Ohio Water Development Authority, \$628.6 million of bonds for Los Angeles Department of Water and Power, \$765.8 million financing for the State of California Department of Water and Resources, \$444.7 million Texas Water Development Board, and \$192.8 million financing for East Bay Municipal Utility District, among others. Michael's experience leading ESG transactions include serving as sole manager on the SFPUC's inaugural Hetch Hetchy Power System Green Bond transaction. Mr. Engelbrecht has assisted clients with several unique financing structures including securitizations of third-party contracts for underground water banking facilities, financings to facilitate the historic San Joaquin River Restoration Settlement Act, and Green Bond financings. He also currently serves on the board of the Urban Water Institute.

HEAD OF PUBLIC FINANCE CREDIT STRATEGY*New York, NY***Kristen Fontana, Director***Capital Markets*

Ms. Fontana serves as Head of Public Finance Credit Strategy and will be an invaluable resource in assisting GLWA in developing its rating agency and investor presentations. She was instrumental in developing the rating strategy on GLWA's 2018 financing which allowed the Authority to obtain ratings upgrades from Moody's and S&P. She provides our municipal clients with insightful credit perspective regarding debt structure, bond indenture provisions and rating agency strategy. She is well versed in the current fiscal, regulatory and economic environment offering clients highly customized strategies to achieve their ratings goals. She will provide continued and in-depth rating agency strategic guidance, investor credit analyst insights, and investor credit support during the marketing period for GLWA. Mrs. Fontana joined WF CIB in 2010 and has over 15 years of municipal experience overall. She joined Wells Fargo upon graduation from the University of Chicago where her graduate work focused on public finance and included research at the U.S. Office of Management and Budget as well as a consulting project with the Chicago Community Trust. Prior to graduate school, Kristen spent a combined six years at two large investment banks where she both fostered relationships with

institutional equity clients and provided analytical support for the credit derivatives business. She has worked with a variety of issuers including state, local, water and sewer as well as transportation agencies. Kristen graduated cum laude with a B.S. in Finance from the University of Maryland, College Park and holds an M.P.P. from the University of Chicago. She is currently serving on the GASB Board.

QUANTITATIVE SPECIALIST

Scott Goldstein, Director

*New York, NY
Capital Markets*

Mr. Goldstein joined Wells Fargo Securities in 1993 (via merger with A.G. Edwards). He has over 30 years of experience in investment banking as a quantitative specialist with extensive understanding of bond related tax code issues. He has structured over a 1,000 senior managed municipal transactions with significant emphasis for refunding and structured financial solutions. His primary focus has been in the area of system revenue, general infrastructure, and utility revenue issues. He has been instrumental in developing and applying several refunding innovations, providing analytical decision making framework for cash market and derivative solutions, as well as, improving escrow efficiencies to help issuers lower their cost of capital or overall funding cost. Scott is a graduate of the University of Maryland, College Park, Maryland, where he earned a B.S. degree in business with an emphasis in finance and accounting. He received his M.B.A. degree in finance from George Washington University, Washington, D.C. Mr. Goldstein maintains Series 7, 63 and 79 securities registrations.

SUPPORT BANKER

Brian LePenske, Director

*Chicago, IL
West Public Finance*

Mr. LePenske joined Wells Fargo in July 2019 and has over 15 years of municipal finance experience as an investment banker and municipal advisor. Mr. LePenske plays a key role in the origination, project management and transaction execution for large, complex general government, utility, transportation, and higher education issuers in the Midwest region. He has executed financings for clients including Michigan State Building Authority; City of Pontiac School District; Ohio Water Development Authority; Ohio Turnpike & Infrastructure Commission; Ohio Treasurer; City of Cleveland; Indianapolis Local Public Improvement Bond Bank (Stormwater credit), State of Illinois; State of Wisconsin; City of Chicago; Will County (IL); Cook County (IL); Illinois Tollway; and Northern Illinois University, among many others. He brings a diverse expertise related to debt structuring and project finance through the use of revenue bonds, general obligation bonds, lease revenue bonds and interim financing. Mr. LePenske's banking and advisor perspective enhances the broad-based client-centered approach which ensures results meet the client's strategic goals and objectives via thorough analysis and creative planning. Prior to joining Wells Fargo, he worked as a municipal investment banker for 6 years at Piper Sandler (formerly Piper Jaffray) and BMO Capital Markets, and as a municipal advisor for 7 years at Scott Balice Strategies and at PFM.

BANKING & TRANSACTION SUPPORT

Ryan Trauffler, Associate

*Chicago, Illinois
West Public Finance*

Mr. Trauffler joined Wells Fargo CIB in 2017 and is responsible for providing day-to-day analytical, quantitative, and transaction support for a variety of municipal clients throughout the Midwest. He has served on senior managed financings issuers including GLWA's 2018 transaction, Michigan State Building Authority, Michigan Strategic Fund, City of Pontiac School District, Ohio Water Development Authority, Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Ohio Turnpike & Infrastructure Commission, Indiana Finance Authority SRF, State of California, State of Wisconsin, Illinois State Toll Highway Authority, and Northern Illinois University, to name a few.

BANKING & TRANSACTION SUPPORT

Samantha Fong, Associate

*San Francisco, California
West Public Finance*

Ms. Fong joined Wells Fargo CIB in 2022 after spending the previous 2.5 years at Bank of America and Siebert Williams Shank. She provides quantitative and deal execution support and has wide-ranging experience working with various utility credits across the Western US region. Some of her clients for which she has executed water/wastewater transactions as senior manager include: Metropolitan Water District of Southern CA, Santa Clara Valley Water District, San Mateo-Foster City Public Financing Authority, City of Chico, and City of San Buenaventura.

LEAD FIXED RATE MUNICIPAL UNDERWRITER*New York, NY***Amanda Amaro, Director***Municipal Syndicate*

Ms. Amaro has originally joined Wells Fargo as a general analyst supporting the municipal sales, trading and underwriting desks, and for nearly a decade has worked in a dedicated underwriting role providing marketing, pricing, and distribution services for various fixed rate financings. Her experience includes, but is not limited to utility revenue, general obligation, higher education, housing, transportation, and taxable, with a current focus on the Midwest, Southeast, and Southwest regions. Ms. Amaro has served as lead underwriter on recent WF CIB-led transactions in the utility space for the Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Metropolitan Water District of Salt Lake & Sandy (Utah), Beaufort-Jasper (South Carolina) Water and Sewer Authority, and Water/Sewer transactions for the Town of Mount Pleasant and City of Myrtle Beach (South Carolina), among many others. She also serves as lead underwriter for all state-level entities in Michigan and was underwriter in our role as joint bookrunner for the Michigan State Building Authority's 2020 Series I & II transaction. Ms. Amaro is a graduate of the University of North Carolina at Chapel Hill, where she earned a B.S. in Business Administration and a B.A. in Economics.

SUPPORTING FIXED RATE UNDERWRITER*Charlotte, NC***Will Illingworth, Director***Municipal Syndicate*

Mr. Illingworth has been with Wells Fargo's Municipal Finance Group since 2006 and currently serves as underwriter for both long term and short term financings and provides assistance in marketing and distribution of all new issue products. In addition to providing second chair support on many WFCIB senior managed transactions, Mr. Illingworth has served as lead underwriter on 37 transactions totaling over \$2.1 billion of senior managed transactions since 2017. Mr. Illingworth's expertise ranges from general market paper across the country to complex credits. His experience extends back over two decades where he acted in many capacities and roles and has assisted WF CIB's efforts in the competitive underwriting space. This level of transactional experience will allow Mr. Illingworth to provide a thorough understanding through the entire marketing and pricing process so that best execution will be achieved for the Authority's transactions.

SYNDICATE COORDINATION*Charlotte, NC***Rebekah Wales, Director***Municipal Syndicate*

Ms. Wales joined Wells Fargo CIB Municipal Finance in 2011 after four years of service in the public sector. Rebekah's roles within Wells Fargo have focused on regulatory risk mitigation, both for Public Finance transactions and on the Syndicate Desk. She focuses on ensuring adherence to all regulatory requirements while providing seamless execution for Wells Fargo's clients. Rebekah has a B.A. in English and a Juris Doctorate from the University of Alabama School of Law.

Appendix A, 2. Project Team

Part 1 – Summary of contractor’s current involvement with all projects					
	Contract No.	Client Name	Involvement Time	Contract Title	Type of involvement
Involvement time for this project – Kevin Hoecker	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Overall Project Mgmt, Structuring, Marketing
Involvement time for this project – Michael Engelbrecht	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Water/Sewer Expertise
Involvement time for this project – Kristen Fontana	2200290	Great Lakes Water Authority	40%	Bond Underwriting Services	Credit & Rating Strategy
Involvement time for this project – Scott Goldstein	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Quantitative Support
Involvement time for this project – Brian LePenske	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Additional Banking Support
Involvement time for this project – Ryan Trauffer	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Deal Execution Support
Involvement time for this project – Samantha Fong	2200290	Great Lakes Water Authority	30%	Bond Underwriting Services	Deal Execution Support
Involvement time for this project – Amanda Amaro	2200290	Great Lakes Water Authority	25%	Bond Underwriting Services	Underwriting and Marketing
Other projects					
Part 2 – Explain how the commitments listed under part 1 will impact performance on this project					
The commitments listed under Part 1 detailed each individual’s time dedicated to the GLWA project out of their total available time.					
Part 3 – Explain how the project manager or consultant representatives allocated percentage of time to this contract will be utilized					
The project manager, Kevin Hoecker, will dedicate as much time to this project as required for ultimate success. This same approach will be taken by all employees listed above.					

Appendix A, 3. Staff Experience

No.	Staff Name	Employer Name	Total Yrs of Related Exp.	Related Projects	Project Role
1	Kevin Hoecker	Wells Fargo CIB	22	Ohio Water Development Authority, Indiana Finance Authority's SRF Program, Illinois Finance Authority's SRF Program, the Indianapolis Bond Bank's Stormwater credit, St. Louis Metropolitan Sewer Dist.	Overall Project Mgmt, Structuring, Marketing
2	Michael Engelbrecht	Wells Fargo CIB	30	Anaheim Public Utilities, Ohio Water Development Auth., Los Angeles Department of Water and Power, State of CA Dept. of Water & Resources, Texas Water Development Board	Water/Sewer Expertise
3	Kristen Fontana	Wells Fargo CIB	15	Indianapolis Bond Bank's Stormwater credit, San Diego Sewer Rev., Charlotte (NC) W&S	Credit & Rating Strategy
4	Scott Goldstein	Wells Fargo CIB	30	State of California Department of Water and Resources, Anaheim Public Utilities, Los Angeles Department of Water and Power	Quantitative Support
5	Brian LePenske	Wells Fargo CIB	15	Michigan State Building Authority, Ohio Water Development Authority, Indianapolis Bond Bank's Stormwater credit, State of Wisconsin	Additional Banking Support
6	Ryan Trauffler	Wells Fargo CIB	5	Michigan State Building Authority, Ohio Water Development Authority, Indiana Finance Authority SRF	Deal Execution Support
7	Samantha Fong	Wells Fargo CIB	2.5	Metropolitan Water District of Southern CA, Santa Clara Valley Water District, City of Chico	Deal Execution Support
8	Amanda Amaro	Wells Fargo CIB	12	Indianapolis Local Public Improvement Bond Bank (Stormwater credit), Metropolitan Water District of Salt Lake & Sandy (Utah), Beaufort-Jasper (SC) Water and Sewer Auth.	Underwriting and Marketing

Great Lakes Water Authority

Bond Underwriting Services – Oral Interview

April 22, 2022



Important Information & Disclaimer

Important Information & Disclaimer

This document and any other materials accompanying this document (collectively, the “Materials”) are provided for general informational purposes only. By accepting any Materials, the recipient acknowledges and agrees to the matters set forth below.

Wells Fargo Corporate & Investment Banking and Wells Fargo Securities (each referred to herein as “CIB” and may be referred to elsewhere as “WFS”) are trade names used for the corporate banking, capital markets and investment banking services of Wells Fargo & Company (“WFC”) and its subsidiaries, including but not limited to Wells Fargo Bank, N.A. Municipal Finance Group, a separately identifiable department of Wells Fargo Bank, N.A. which is registered with the U.S. Securities and Exchange Commission (“SEC”) as a municipal securities dealer.

Commercial banking products and services are provided by Wells Fargo Bank, N.A. (“WFBNA”). Investment banking and capital markets products and services provided by CIB are not a condition to any banking product or service.

CIB, as potential underwriter or placement agent (together with any of its affiliates as context may require, “we”, or “Wells Fargo”) is providing the information contained in the Materials for discussion purposes only in anticipation of, or in connection with, engaging in arm’s length commercial transactions with you in which Wells Fargo would be acting solely as a principal or agent, as applicable, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether we have or are currently acting as such on a separate transaction (the use of the term “agent” does not imply any fiduciary relationship).

These Materials are being provided to you for the purpose of working with you as an underwriter or placement agent (collectively, “underwriter”) on the transaction(s) described in the Materials. As part of its services as underwriter, CIB may provide information concerning the structure, timing, terms, and other similar matters concerning the issue of municipal securities that CIB proposes to underwrite as described in the Materials. The Materials may also contain such information. Any such information has been, and would be, provided by CIB in the context of serving as an underwriter and not as your municipal or financial advisor. Additionally, CIB, as underwriter, has financial and other interests that differ from your interests (or those of the issuer). In its capacity as underwriter, CIB’s primary role would be to purchase securities from you (or the issuer in the case of a conduit transaction) for resale to investors, or arrange for the placement of securities with investors on your behalf. Wells Fargo will not have any duties or liability to any person or entity in connection with the information being provided in the Materials.

The information provided herein is not intended to be and should not be construed as advice within the meaning of Section 15B of the Securities Exchange Act of 1934, and Wells Fargo will not be acting as your municipal advisor under the municipal advisor rules (“Muni Advisor Rules”) of the SEC and the SEC’s guidance in its Registration of Municipal Advisors Frequently Asked Questions dated May 19, 2014, as supplemented (collectively, “Muni Advisor Rules”).

CIB distributes municipal securities to institutional investors primarily through Wells Fargo Bank, N.A. Municipal Finance Group (“WFBNA MFG”) and Wells Fargo Securities, LLC (“WFSLLC”). Distribution to middle market clients is provided primarily through WFSLLC. Retail distribution is primarily provided by Wells Fargo Advisors, which is the trade name used by Wells Fargo Clearing Services, LLC (“WFCS”) and Wells Fargo Advisors Financial Network, LLC (“WFAFN”), two non-bank separate registered broker-dealers (members FINRA and SIPC). WFSLLC, WFBNA MFG, WFCS, and WFAFN are affiliates and are each wholly-owned subsidiaries of WFC.

Disclosures (continued)

Any municipal underwriting, commercial paper and remarketing rankings referenced herein represent combined totals for WFBNA MFG and WFSLLC. Non-municipal underwriting, commercial paper and remarketing rankings referenced herein represent totals for WFSLLC only. Source information for any ranking information not otherwise provided herein is available on request.

If the Materials are being provided to you under any of the following events, the information contained in the Materials and any subsequent discussions between us, including any and all information, advice, recommendations, opinions, indicative pricing, quotations and analysis with respect to any issuance of municipal securities, are provided to you in reliance upon the Bank, RFP, IRMA exemptions and underwriter exclusion, as applicable, provided under the Muni Advisor Rules. In the event the Bank, RFP, IRMA exemptions, or underwriter exclusion do not apply, the information included in the Materials are provided in reliance on the general information exclusion to advice under the Muni Advisor Rules.

Any information related to a bank-purchased bond transaction (“Direct Purchase”) included in the Materials is a product offering of WFBNA or a subsidiary thereof as purchaser / investor (“Purchaser”). CIB will not participate in any manner in any Direct Purchase transaction between you and Purchaser, and Wells Fargo employees involved with a Direct Purchase transaction are not acting on behalf of or as representatives of CIB. The information contained herein regarding Purchaser’s Direct Purchase is being provided to you by CIB only for purposes of providing financing alternatives that may be available to you from WFC and its affiliates. Information contained in this document regarding Direct Purchase is for discussion purposes only in anticipation of engaging in arm’s length commercial transactions with you in which Purchaser would be acting solely as a principal to purchase securities from you or a conduit issuer, and not as a municipal advisor, financial advisor or fiduciary to you or any other person or entity regardless of whether Purchaser, or an affiliate has or is currently acting as such on a separate transaction. Additionally, Purchaser has financial and other interests that differ from your interests. Purchaser’s sole role would be to purchase securities from you (or the conduit issuer). Any information relating to a Direct Purchase is being provided to you pursuant to and in reliance on the “Bank exemption” under the Muni Advisor Rules and the general information exclusion to advice under the Muni Advisor Rules.

In the event the Materials are being provided in connection with a RFP, the SEC exempts from the definition of municipal advisor “any person providing a response in writing or orally to a request for proposals or qualifications from a municipal entity or obligated person for services in connection with a municipal financial product or the issuance of municipal securities; provided however, that such person does not receive separate direct or indirect compensation for advice provided as part of such response” (“RFP exemption”). In such event, we have relied upon the RFP exemption, and on your distribution and execution of this RFP through a competitive process. In the event WFBNA MFG is the party providing the Materials, responses to all questions, certifications, attestations, information requests, and similar in the RFP or RFQ to which this response relates are specifically limited to, in context of, and as applied to, WFBNA MFG in its capacity as a separately identifiable department of a national bank that is registered as a municipal securities dealer with the Securities and Exchange Commission, Office of the Comptroller of the Currency, and Municipal Securities Rulemaking Board; and not on behalf of WFBNA, unless specified otherwise in our response.

In the event that you have provided us with your written representation that you are represented by an independent registered municipal advisor (an “IRMA”) within the meaning of the Muni Advisor Rules, with respect to the transaction(s) described in the Materials we have provided you with our written disclosure that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable, and have taken certain other steps to establish the “IRMA exemption” under the Muni Advisor Rules.

In the event that you have engaged us to serve as an underwriter with respect to the municipal securities issuance described in the Materials we have provided you with our written disclosure regarding our role as an underwriter, that we are not a municipal advisor to you and are not subject to the fiduciary duty under the Muni Advisor Rules, if applicable.

If savings threshold level information is contained herein, please be advised that CIB is not recommending nor providing advice regarding which maturities should be refunded by you.

See additional important disclosures at the end of the Materials.

Wells Fargo's Dedicated Finance Team for Great Lakes Water Authority (Question D.v. – Page 4)

Essential knowledge of GLWA, a proven rating strategy, national water/sewer expertise and extensive modeling capabilities

Wells Fargo Core Finance Team for the Authority



- 20+ years of industry experience
- \$25+ BN of sr. managed financings, including GLWA, Michigan SBA, Ohio Water Dev. Auth., Indiana Finance Auth. SRF, City of Cleveland
- Responsible for leading investment banking coverage for the firm's Midwest/West region

Kevin Hoecker, Managing Director
Co-Head of West Region & Head of Limited Public Offerings



- 30+ years of industry experience
- \$15 BN of senior managed financings since 2015 for utility and SRF issuers including Great Lakes Water Authority, Ohio Water Dev. Auth., Indiana Fin. Auth. SRF, Los Angeles Department of Water and Power, etc.

Michael Engelbrecht, Managing Director
Co-Head of West Region & Co-Head of Utilities



- 14+ years experience
- Expertise in credit research and analysis as well as rating agency strategy, including GLWA's 2018 deal
- Works alongside underwriters, salespeople, traders and investment bankers to provide credit and investor intelligence

Kristen Fontana, Director
Head of Public Finance Credit Strategies



- Fixed rate underwriter with focus on Midwest and Northeast regions
- Underwriter for recent Midwest region transactions for the Indianapolis Local Public Bank's Stormwater credit and the Michigan State Building Authority

Amanda Amaro, Director
Fixed Rate Underwriting



- 25 years of banking experience and has been a lead relationship manager or treasury officer for over 20 years
- Primary focal point for all bank-related products and services for his clients with a focus on MI and IL municipal issuers

Mark Lester, SVP & Relationship Manager. Wells Fargo Bank N.A. Government Commercial Banking



- 4.5 years of experience in public finance
- Analytics backup and transaction execution support
- Banking support for a number of Midwest issuers, including Great Lakes Water Authority, Michigan SBA, OWDA, Indiana Fin. Auth. SRF

Ryan Trauffer, Associate
Midwest Region Banking Coverage



- 2.5 years of public finance experience
- Provides quantitative and deal execution support
- Experience with various utility credits across the Western US region

Samantha Fong, Associate
West Region Banking Coverage



- Joined Wells Fargo in 1993 and has over 30 years of experience as a quantitative specialist
- Extensive understanding of bond related tax code issues and has structured over 1,000 senior managed municipal transactions

Scott Goldstein, Director
Public Finance Quantitative Structuring & Capital Markets Group

Additional Wells Fargo Finance Team Members for the Authority

Chuck Peck
Managing Director
Head of Public Finance

Matt Rosenberg
Managing Director
Head of Secondary Trading

Chris Lee
Managing Director
Head of Institutional Sales

Brian LePenske
Director
Midwest Region Banking Coverage

Parks Lineberger
Managing Director
Co-Head of Municipal Underwriting & Syndicate

Why Hire Wells Fargo as GLWA's Next Bookrunning Senior Manager? *(Cover Letter)*

Foundational Knowledge and Unique Selling Propositions with a Passion for Excellence in Execution

Foundational Knowledge: Our team possesses the required understanding of the nuances of GLWA's near and long-term goals with regards to its credit and debt structure

- Wells Fargo's collaborative banking team has not changed since 2018 and the knowledge remains
 - Understanding the foundational documents and their impact on GLWA's financial structure: MBO, 2018 MOU, Shared Services Agreement, Lease Agreements and Services Agreements
- 2022 Transaction Credit Rating Goals – Two or More “AA” ratings for both Water and Sewer Senior Lien, one notch upgrade on Second.
- We possess the high level of analytical and modeling capabilities required in order to structure the Series 2022 transaction to meet GLWA's goals, including:
 - New Money Model created to maximize DSRF cash releases while balancing coverage to achieve ratings upgrades as well as take into account future issuance expectations (structuring around surety policies)
 - Model created for analyzing refundings in several ways given criteria inputs (taxable advance refunding, cash optimization, tenders, convertible direct purchases, cross lien refundings)
 - All Models incorporate nuances such as: the difference in Second Lien Sewer's DSRF requirement, the impact of the GRS Pension Payment Reduction in 2024, the cost of service study and budget for coverage purposes, foundational documents, etc.

Unique Selling Proposition: Wells Fargo believes we possess unique selling propositions as Bookrunner

- We offer \$150 million or more of credit that can be used in a variety of ways as detailed in our response *(subject to final document and terms approval)*
 - Creating refunding value well in excess of what is available in the public markets
 - Providing a bridge for the 2006D issuance
 - Serving as an interim financing vehicle
- Track record of showing capital commitment to hold spreads in volatile markets such as the one we are in, which could result in better pricing and execution for GLWA
- Leader in ESG space, currently ranked #2 in par for 2020-2021, ready to make that path a smooth one for the Authority
- Distinction of leading the investment banking effort with GLWA and PFM to achieve the triple notch upgrade from S&P in 2018

Wells Fargo is a Leader in the Municipal New Issue Market, Committed to Diversity and Inclusion and is Local to GLWA

(Question C.ii. – Page 1, Question D.ii – Page 2, Question D.iii. – Page 3)

Recent Notable Negotiated Financings

<p>Harris County Flood Control District</p> <p>Expected \$300,000,000</p> <p>Lead Bookrunner Expected May 2022</p> 	<p>City of San Diego (Sewer Revenue)</p> <p>Expected \$150,000,000</p> <p>Lead Bookrunner Expected April 2022</p> 	<p>Anaheim Public Utilities</p> <p>\$344,735,000</p> <p>Lead Bookrunner April 2022</p> 	<p>Los Angeles Dept. of Water and Power</p> <p>\$494,670,000</p> <p>Lead Bookrunner March 2022</p> 
<p>City of San Antonio (CPS Energy)</p> <p>\$413,720,000</p> <p>Lead Bookrunner March 2022</p> 	<p>Indianapolis Local Public Improvement Bond Bank (Stormwater)</p> <p>\$50,000,000</p> <p>Lead Bookrunner February 2022</p> 	<p>Metropolitan Washington (DC) Airports Authority</p> <p>\$754,830,000</p> <p>Lead Bookrunner January 2022</p> 	<p>State of Louisiana</p> <p>\$642,790,000</p> <p>Lead Bookrunner January 2022</p> 
<p>State of Mississippi</p> <p>\$1,130,970,000</p> <p>Lead Bookrunner November 2021</p> 	<p>Texas Water Development Board</p> <p>\$444,735,000</p> <p>Lead Bookrunner September 2021</p> 	<p>Long Island Power Authority</p> <p>\$725,145,000</p> <p>Lead Bookrunner September 2021</p> 	<p>Miami-Dade County Seaport*</p> <p>\$1,242,830,000</p> <p>Lead Bookrunner August 2021</p> 

2022 Year-to-Date Municipal New Issues¹

Rank	Manager	Par (\$000)	Market Share	No. of Issues
1	BofA Securities	14,102.8	12.6%	85
2	JP Morgan	12,913.4	11.5%	76
3	Citi	9,404.0	8.4%	54
4	RBC Capital Markets	8,304.5	7.4%	112
5	Wells Fargo	7,346.8	6.6%	53
6	Morgan Stanley	5,971.2	5.3%	52
7	Goldman Sachs	5,402.4	4.8%	17
8	Stifel	5,247.6	4.7%	229
9	Jefferies	4,473.3	4.0%	23
10	Barclays	4,303.1	3.8%	14
11	Raymond James	4,081.6	3.6%	133
12	Piper Sandler	3,619.5	3.2%	158
13	Robert W Baird	3,388.1	3.0%	189
14	Samuel A Ramirez	3,340.2	3.0%	11
15	Loop Capital Markets	2,048.6	1.8%	9
16	FHN Financial	1,518.2	1.4%	60
17	UBS	1,496.0	1.3%	25
18	Siebert Williams Shank	1,473.5	1.3%	8
19	Hilltop Holdings Inc	1,289.8	1.2%	46
20	DA Davidson	1,160.7	1.0%	113

Local Presence and Focus on Diversity and Inclusion

- 229 team members within GLWA’s service area: (Birmingham, Farmington Hills, Troy and Grosse Pointe Woods) and some of which are in GLWA’s disadvantaged areas (Pontiac and Flint)
- WFC’s Michigan employees contributed over 6,200 hours of community service (2020)
- WFC donated \$2.7 million to Michigan nonprofits, schools, and community organizations (2020)
- 73% of Wells Fargo’s employees are either women or minorities
- Recognized nationally for our diversity leadership by DiversityInc magazine, the Human Rights Campaign Foundation, and others

(1) Source: Bloomberg; Represents negotiated and competitive municipal new issues underwritten from 1/1/2020 to 4/13/2022 by CIB (includes WFBNA MFG & WFSLLC). Par amount only includes lead-managed credit.
 (2) DiversityInc; (3) LinkedIn
 *Underwritten through WFS,LLC; Source: Wells Fargo Internal Data and respective official statements; Tombstones represent select transactions for which CIB served as or is mandated as underwriter since 1/1/2021 in order to show CIB’s capabilities in deals of large scale or for clients similar to GLWA

Wells Fargo's Ability to Commit Capital to Support Pricing Levels in a Potentially Volatile Market

A Unique Selling Proposition (Question D.iv. – Page 3)

Weekly Adjustment in MMD (in bps)

	1	2	3	5	7	10	20	30
1/7/2022	16	16	14	14	13	14	16	14
1/14/2022	3	6	11	8	3	1	1	1
1/21/2022	6	12	12	10	10	10	8	8
1/28/2022	22	31	31	30	27	27	24	23
2/4/2022	0	-1	-5	-5	-11	-11	-11	-11
2/11/2022	17	17	18	18	19	17	19	19
2/18/2022	6	6	7	7	7	4	-1	-1
2/25/2022	-3	-3	-5	-5	-5	-5	-4	-4
3/4/2022	3	0	0	-2	-2	1	7	5
3/11/2022	19	21	21	22	22	23	23	23
3/18/2022	13	10	10	9	8	9	8	7
3/22/2022	14	14	14	14	14	14	12	12
3/29/2022	28	26	26	22	16	15	12	12
4/6/2022	11	10	10	9	11	10	10	10
4/13/2022	8	14	14	12	12	14	14	14

Total Adjustments	163	179	178	163	144	143	138	132
--------------------------	-----	-----	-----	-----	-----	-----	-----	-----

Source: Thomson Reuters TM3 and U.S. Department of Treasury, as of 4/13/2022.

MMD / UST Ratios (%)

Date	1	2	3	5	7	10	20	30
1/7/2022	70%	46%	42%	49%	59%	66%	68%	77%
1/14/2022	65%	46%	48%	52%	60%	66%	67%	77%
1/21/2022	67%	57%	56%	59%	66%	73%	73%	83%
1/28/2022	81%	77%	75%	75%	80%	87%	84%	94%
2/4/2022	69%	67%	63%	65%	68%	75%	73%	83%
2/11/2022	73%	70%	68%	73%	77%	84%	81%	91%
2/18/2022	82%	76%	73%	77%	82%	86%	81%	90%
2/25/2022	72%	70%	67%	73%	77%	81%	77%	86%
3/4/2022	80%	72%	73%	81%	87%	93%	85%	94%
3/11/2022	84%	74%	73%	80%	85%	92%	87%	96%
3/18/2022	90%	71%	69%	77%	82%	90%	87%	96%
3/22/2022	82%	70%	68%	75%	79%	87%	86%	94%
3/29/2022	95%	76%	74%	81%	83%	92%	91%	102%
4/6/2022	94%	76%	75%	78%	81%	89%	90%	102%
4/13/2022	99%	86%	83%	83%	85%	91%	90%	100%

Source: Thomson Reuters TM3 and U.S. Department of Treasury, as of 4/13/2022.

Source: Refinitiv TM3 and US Treasury website for MMD rates; capital position from WFBNA 4Q 2021 call report

- Volatility is the new norm in the Municipal Market and if not managed correctly, can cause a multiple basis point deviation from proper execution
- As a “well-capitalized” bank under the Office of the Comptroller of the Currency’s capital regulation, WFBNA is authorized under applicable federal banking rules to underwrite municipal securities without any regulatory-defined capital constraint

Wells Fargo Bank, N.A. Capital Position (Q4 2021)	
Total Equity Capital	\$171,142,000
Total Risk-Based Capital	163,213,000
Tier 1 Capital	149,318,000

- **Utilizing an underwriter with a strong balance sheet and a history of using it to support its issuing clients is important in the current volatile market**
- This puts issuers in a position of strength. Investors know the underwriter may purchase any unsold balances instead of increasing spreads
- **We have calculated GLWA’s present value of 1 basis point to be \$281k in our base case analysis (for the aggregate sewer and water issues)**

WF CIB’s Largest Municipal Negotiated Capital Commitments since 1/1/2021

Issuer	Pricing Date	Par	Underwritten		PV of 1 BP (\$)
		(\$MM)	(\$MM)	(%)	
Metropolitan Washington Airports Auth.	1/20/2022	421.715*	113.245	26.90%	548,944
Piedmont Municipal Power Agency	9/28/2021	183.260	90.93	49.60%	134,782
Texas Water Development Board	9/30/2021	443.740	58.64	13.20%	425,983
Miami-Dade County	8/18/2021	701.405*	56.91	8.10%	689,113
County of Wake (NC)	3/17/2021	184.425	56.30	30.50%	131,984
Dist. of Columbia Housing Finance Agcy	9/2/2021	54.455	33.84	62.10%	26,180

*Represents tax-exempt series of transaction; Note: Balances may have been placed with investors at any of various points after pricing

Path to Ratings Upgrades In Conjunction with the Series 2022 Transaction (Question E.vi. – Page 11)

Rating Agency Strategy and Objectives

	Current: Water (Sr/2 nd)	Current: Sewer (Sr/2 nd)	2022 Target: Water Sewer (Sr/2 nd)	2022 Target: Sewer (Sr/2 nd)	Goals & Strategy	
FitchRatings	A+/A/Stable	A+/A/Stable	➔	AA-/A+/Stable	AA-/A+/Stable	Target an upgrade; Focus on moderating leverage ratios, capital plan and reduction in pension payments
MOODY'S	A1/A2/Stable	A1/A2/Stable	➔	Aa3/A1/Stable	Aa3/A1/Stable	Target an upgrade; Focus on continued strong financial results, economic recovery & recent Detroit upgrade
S&P Global Ratings	AA-/A+/Stable	AA-/A+/Stable	➔	AA-/A+/Stable	AA-/A+/Stable	Maintain current ratings in the near term

Credit Strategy Highlights

<p>Unique Agreements Foster Resilience</p>	<ul style="list-style-type: none"> Foundational agreements codify: revenue requirement parameters, allocation of costs/liabilities, step-in authority, closed loop lease payment, WRAP funding, and management and oversight standards The 2018 MOU has been effective at resolving periodic DWSD budget shortfalls Wholesale agreements have true-up provisions for bad debt expense Wholesale charge structure and billing promotes financial stability
<p>Success Driven Management Team</p>	<ul style="list-style-type: none"> GLWA continues to grow its extensive list of operating and financial accomplishments The Authority's management team has extensive experience and is focused on a best practices approach to management
<p>A Mature Organization With Proven Strong Financial Results</p>	<ul style="list-style-type: none"> FY 2021 audited debt service coverage outperformed budgeted; Financial metrics are consistent with 'AA' category peers Robust liquidity reduced due to increase in pay-go capital funding The expiration of GRS legacy payments provides increased flexibility in FY 2024 and beyond
<p>CIP Focused on Strategic Investments While Managing Leverage</p>	<ul style="list-style-type: none"> GLWA continues to succeed due to its strategic focus on reliability, redundancy, and resiliency Capital investments are driven by optimizing the system rather than mandates Water System investments are focused on flexibility and Sewer System projects target synergies within the region Increased usage of I&E funds as pay go for the CIP rather than debt Leverage ratios are in-line with AA category peers
<p>Strong Regional Economic Recovery</p>	<ul style="list-style-type: none"> Both systems serve an exceptionally large and diverse service area Detroit-Warren-Dearborn MSA unemployment rates rebounded to pre-pandemic levels in 2021 Moody's recently upgraded the City of Detroit's general obligation rating

GLWA Selected Financial Metrics								
Sewer	2018	2019	2020	2021	2021*	2022*	2023*	2024*
Senior lien DSC	2.04	2.11	2.15	2.92	2.44	2.42	2.23	2.28
Senior and Second DSC	1.56	1.62	1.64	1.97	1.73	1.74	1.79	1.72
All bonds DSC	1.25	1.29	1.29	1.51	1.34	1.35	1.4	1.35
Days Cash On Hand	1066	1058	1086	1043		538		
Water System								
Senior lien DSC	2.07	2.13	1.94	1.99	1.81	1.89	1.82	1.88
Senior and Second DSC	1.55	1.54	1.39	1.4	1.32	1.37	1.34	1.4
All bonds DSC	1.53	1.5	1.37	1.38	1.28	1.32	1.27	1.29
Days Cash On Hand	432	495	593	664		413		

Sources: 2021 ACFR, GLWA Audit Committee Combined Binder 2/25/2022 and 3/25/2022, FY 2022 and FY 2023 Biennial Budget Final
 * Budgeted debt service coverage. Days cash on hand for 2022 represents estimates provided in the financial update as of 3/25/2022
 Debt service coverage ("DSC") calculation based on rate covenants

The Series 2022 Transaction Could be GLWA’s First Step into the ESG World (Question E.i. – Page 5)

Wells Fargo is one of the top underwriters in ESG space, ready to make that path a smooth one for the Authority

Negotiated Municipal ESG League Table 2020 & 2021¹

Rank	Manager	Vol (\$MM)	Deals	Table Share (%)
1	Citi	6,765.33	32	12.24%
2	Wells Fargo	6,515.99	40	11.78%
3	BofA Securities	6,079.24	36	10.99%
4	JP Morgan	5,973.04	23	10.80%
5	Morgan Stanley	5,761.32	42	10.42%
6	Goldman Sachs	5,361.45	14	9.70%
7	RBC	4,422.13	62	8.00%
8	Jefferies	4,408.21	26	7.97%
9	Barclays	2,982.71	22	5.39%
10	Raymond James	1,297.11	24	2.35%
	Total	55,784.04	440	

- Wells Fargo understands the rapidly developing green investor community and will actively market the sustainable aspects of a GLWA transaction to a comprehensive group of ESG buyers
- Wells Fargo is proud to lead municipal ESG bond underwritings and has worked with clients to develop frameworks/disclosure that support an ESG designation that are in line with investor expectations
- Our team has had great success structuring, marketing, and selling labeled green, social, and sustainability bonds with ESG investor participation accounting for ~30% or more of recent order books

- Wells Fargo recommends the Authority consider labeling its Water and Sewage bond issuances as “Green Bonds,” as the uses of proceeds of GLWA’s bonds are consistent with “Goal 6: Clean Water and Sanitation” of the United Nations 17 Sustainable Development Goals
- Wells Fargo recommends GLWA obtain a Second Party Opinion (such as Kestrel Verifiers) to provide additional transparency and disclosure to ESG investors
- A possible Greenium realized by GLWA could have a meaningful impact on its upcoming financing; the present value of 1 basis point for our proposed our base case new money and refunding analysis (within question E.ii) is over \$281,000, so a Greenium of 2-3 bps could save the Authority between \$562,000-\$843,000
 - In November 2021, the State Public Works Board of the State of California (2021 Series C) realized a spread advantage of 2-3 basis points on its tax-exempt Green Bonds compared to its non-labeled bonds with the same maturities and coupons¹
 - In July 2021, Oberlin College sold taxable Green Bonds which achieved pricing 5 basis points tighter than similar non-labeled bonds¹

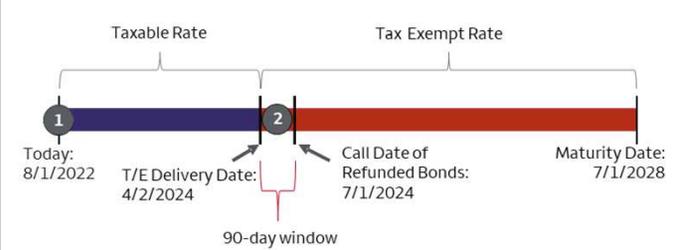
(1) Source: Bloomberg. True Economics to Bookrunner. Represents combined negotiated and competitive long-term new issues underwritten from 1/1/20 to 12/31/21. Includes WFBNA MFG and WFSLLC transactions, including corporate CUSIP transactions such as for Ford Foundation.

Ability to Provide Credit to Support GLWA Goals and Initiatives^{1,2}

A Unique Selling Proposition

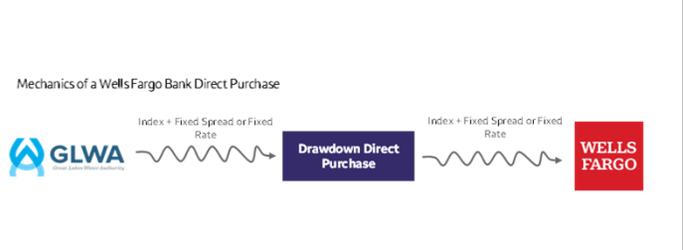
- Wells Fargo Bank, N.A. is willing to explore \$150 million or more of credit that can be used in a variety of ways as GLWA sees fit
- Wells Fargo has identified three (3) potential ways this credit can be put to work to support GLWA’s goals

Convertible Direct Purchase (“CDP”): Create advance refunding value well in excess of what is available in the public markets (Question E.iii. – Page 9)



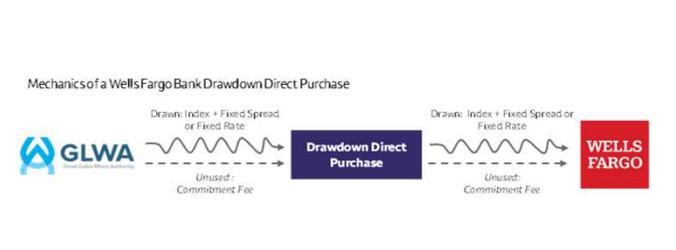
- Alternative to issuing public market taxable advance refunding bonds, while still mitigating interest rate risk and locking in savings
- WFBNA would purchase a fixed rate, taxable bond that converts to tax-exempt (both taxable and tax-exempt rates are determined upfront) within 90 days of the call date of the refunded bonds
- As an example, refunding the Authority’s Water Senior 2014D-2 Bonds and Sewer Senior 2014C-3 Bonds through a CDP **provides an additional \$19.6 million in NPV savings (4.7% of refunded par) compared to taxable advance refunding of the same bonds³**

Fixed or Variable Rate Direct Purchase: Provide a bridge financing for the Sewer Series 2006D Bonds (Question E.ix. – Page 14)



- WFBNA would commit to purchase a bond or note for a predetermined amount and time period
- Similar characteristics to fixed and floating rate notes: term of typically 3-5 years; pricing based on a fixed spread against an index (or a fixed yield), and renewal risk at the end of the term
- The availability of a DP from WFBNA will expand options and can reduce risks related to recent market volatility.
- A sample market range for a bank DP for a 2-year term would be 80% of SOFR plus a spread of 23-25 bps or 80% of SOFR plus a spread of 28-33 bps for a 3-year term³

Drawdown Direct Purchase (“DDP”): Serve as an interim financing vehicle (Question E.vii. – Page 12)



- WFBNA would commit to purchase a bond or note that can be drawn over time up to a predetermined amount, operating much like a revolving credit facility
- GLWA would pay a fee with two components: (i) a flat fee charged on the available but not drawn amount (“undrawn”), and (ii) a floating interest rate on the “drawn” portion
- The variable rate would be based on % of SOFR plus a spread, with the spread fixed and determined at the time that the DDP is established
- In the current market, a sample market range for a 2-year term would be 80% of SOFR plus a spread of 23-25 bps for the drawn portion and 8-10 bps for the undrawn portion³

(1) Direct purchase is a Wells Fargo Bank, N.A. product. Product is subject to future market conditions, final documentation, and credit approval.
 (2) Wells Fargo Municipal Capital Strategies, LLC (a wholly owned subsidiary of WFBNA) may serve as Purchaser of the bonds.
 (3) Indicative as of 4/6/2022 and subject to change

Indicative Pricing Scales (Question E.iv. – Page 10)

Opportunity to improve spreads with an Upgrade, ESG Designation or Insurance

Maturity (7/1)	Tax-Exempt Scales										Taxable Scales							
			Senior Lien				Second Lien						Senior Lien			Second Lien		
	MMD	Type	Spread	Coupon	YTC	YTM	Spread	Coupon	YTC	YTM	UST	Type	Spread	Coupon/Yield	Price	Spread	Coupon/Yield	Price
2023	1.74%	Serial	0.25%	5.00%	1.99%	-	0.34%	5.00%	2.08%	-	2.50%	Serial	0.15%	2.65%	100.0	0.25%	2.75%	100.0
2024	1.91%	Serial	0.30%	5.00%	2.21%	-	0.40%	5.00%	2.31%	-	2.50%	Serial	0.35%	2.85%	100.0	0.45%	2.95%	100.0
2025	2.02%	Serial	0.34%	5.00%	2.36%	-	0.44%	5.00%	2.46%	-	2.67%	Serial	0.45%	3.12%	100.0	0.55%	3.22%	100.0
2026	2.08%	Serial	0.37%	5.00%	2.45%	-	0.47%	5.00%	2.55%	-	2.70%	Serial	0.60%	3.30%	100.0	0.70%	3.40%	100.0
2027	2.11%	Serial	0.40%	5.00%	2.51%	-	0.50%	5.00%	2.61%	-	2.70%	Serial	0.75%	3.45%	100.0	0.85%	3.55%	100.0
2028	2.13%	Serial	0.43%	5.00%	2.56%	-	0.53%	5.00%	2.66%	-	2.69%	Serial	0.85%	3.54%	100.0	0.95%	3.64%	100.0
2029	2.20%	Serial	0.46%	5.00%	2.66%	-	0.56%	5.00%	2.76%	-	2.69%	Serial	0.95%	3.64%	100.0	1.05%	3.74%	100.0
2030	2.25%	Serial	0.48%	5.00%	2.73%	-	0.58%	5.00%	2.83%	-	2.61%	Serial	1.15%	3.76%	100.0	1.25%	3.86%	100.0
2031	2.29%	Serial	0.50%	5.00%	2.79%	-	0.60%	5.00%	2.89%	-	2.61%	Serial	1.25%	3.86%	100.0	1.35%	3.96%	100.0
2032	2.33%	Serial	0.52%	5.00%	2.85%	-	0.62%	5.00%	2.95%	-	2.61%	Serial	1.35%	3.96%	100.0	1.45%	4.06%	100.0
2033	2.37%	Serial	0.55%	5.00%	2.92%	3.07%	0.65%	5.00%	3.02%	3.16%	2.61%	Serial	1.50%	4.11%	100.0	1.60%	4.21%	100.0
2034	2.40%	Serial	0.58%	5.00%	2.98%	3.24%	0.68%	5.00%	3.08%	3.33%	2.61%	Serial	1.60%	4.21%	100.0	1.70%	4.31%	100.0
2035	2.43%	Serial	0.60%	5.00%	3.03%	3.39%	0.70%	5.00%	3.13%	3.47%	2.61%	Serial	1.70%	4.31%	100.0	1.80%	4.41%	100.0
2036	2.44%	Serial	0.60%	5.00%	3.04%	3.48%	0.70%	5.00%	3.14%	3.56%	2.61%	Serial	1.80%	4.41%	100.0	1.90%	4.51%	100.0
2037	2.46%	Serial	0.60%	5.00%	3.06%	3.57%	0.70%	5.00%	3.16%	3.64%	2.61%	Serial	1.85%	4.46%	100.0	1.95%	4.56%	100.0
2038	2.48%	Serial	0.60%	5.00%	3.08%	3.64%	0.70%	5.00%	3.18%	3.71%	2.63%	-	-	-	-	-	-	-
2039	2.50%	Serial	0.60%	5.00%	3.10%	3.71%	0.70%	5.00%	3.20%	3.78%	2.63%	-	-	-	-	-	-	-
2040	2.51%	Serial	0.60%	5.00%	3.11%	3.76%	0.70%	5.00%	3.21%	3.83%	2.63%	-	-	-	-	-	-	-
2041	2.52%	Serial	0.60%	5.00%	3.12%	3.81%	0.70%	5.00%	3.22%	3.87%	2.63%	-	-	-	-	-	-	-
2042	2.54%	Serial	0.60%	5.00%	3.14%	3.86%	0.70%	5.00%	3.24%	3.92%	2.63%	Term	1.90%	4.53%	100.0	2.00%	4.63%	100.0
2047	2.62%	Term	0.63%	5.00%	3.25%	4.06%	0.73%	5.00%	3.35%	4.11%	2.63%	-	-	-	-	-	-	-
2052	2.67%	Term	0.65%	5.00%	3.32%	4.17%	0.75%	5.00%	3.42%	4.22%	2.63%	Term	2.00%	4.63%	100.0	2.10%	4.73%	100.0

Interpolated MMD Rates & UST rates as of 4/6/2022; Delivery date of 8/1/2022; Rated A1 / AA- / A+ for senior lien and A2 / A+ / A for second lien by Moody's, S&P, Fitch; 10-year par call on 7/1/2032; pricing is indicative & subject to market conditions

- Wells Fargo believes there are opportunities for GLWA to improve upon the pricing levels provided
 - Ratings upgrades
 - “Green Bond” designation: It would be our hope to pick up 2-3 basis points through an ESG designation
 - Bond Insurance: We believe insurance will create a scale improvement by 10 basis points on the Second Lien and 5 on the Senior Lien

Base Case: 2022 New Money and Refunding Transaction (Question E.ii. – Page 6)

Maximizing the Cash Reserve Release

- Goals of the Transaction**
 - Allocate bonds between the senior and second liens such that cash releases from the respective DSRFs would be maximized
- Results of the Transaction**
 - Release \$16.1 million in cash from the Sewage System reserve fund and \$262k from the Water System reserve fund
 - Sewer System DSC: >2.21x (Senior); >1.68x (Senior + Second)
 - Water System DSC: >1.78x (Senior); >1.32x (Senior + Second)
- Common Assumptions**
 - Current bond ratings
 - Interest rates and market conditions as of April 6, 2022
 - \$200 million of proceeds for the Water Supply System
 - \$175 million of proceeds for the Sewage Disposal System
 - Level debt service structure (new money)
 - 5% coupon structure
 - Par call date of 7/1/2032
 - Use of DSRF releases is to be determined, but could be used to reduce bonded amount or to pay debt service

Proposed Sewage Disposal System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Current Ref. of Senior 2012A	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$21,930,000	\$132,585,000	\$17,620,000	\$172,135,000
Project Fund	\$25,000,000	\$150,000,000	-	\$175,000,000
Arbitrage Yield	3.21%	3.21%	3.21%	3.21%
True Interest Cost	3.85%	3.91%	1.99%	3.89%
Average Life	19.0	19.0	0.9	17.1
PV of 1 Basis Point	\$18,630	\$111,907	\$1,762	\$132,299
Issue Total Debt Service	\$42,725,875	\$258,332,313	\$18,427,583	\$319,485,771
Issue Average Ann. D/S	\$1,424,196	\$8,611,077	\$18,427,583	\$10,649,526
Issue Max. Annual D/S	\$1,430,750	\$8,637,250	\$18,427,583	\$27,654,521
Prior Reserve Req.	\$110,819,563	\$48,500,349	-	-
New Reserve Req.	\$98,880,606	\$44,301,058	-	-
Req. Reduction (or Incr.)	\$11,938,957	\$4,199,291	-	-
Available Cash	\$14,350,467	\$6,292,854	-	-
Cash Release (Addition)	\$11,938,957	\$4,199,291	-	\$16,138,248
Par Amount Refunded	-	-	\$17,985,000	\$17,985,000
Maturity Refunded	-	-	2023	2023
NPV Savings (\$)	-	-	\$373,843	\$373,843
NPV Savings (%)	-	-	2.08%	2.08%

Proposed Water Supply System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$154,470,000	\$21,125,000	\$175,595,000
Project Fund	\$176,100,000	\$23,900,000	\$200,000,000
Arbitrage Yield	3.15%	3.15%	3.15%
True Interest Cost	3.85%	3.91%	3.86%
Average Life	19.0	19.0	19.0
PV of 1 Basis Point	\$131,230	\$17,830	\$149,060
Issue Total Debt Service	\$300,981,625	\$41,161,229	\$342,142,854
Issue Average Ann. D/S	\$10,032,721	\$1,372,041	\$11,404,762
Issue Max. Annual D/S	\$10,063,750	\$1,378,250	\$11,440,750
Prior Reserve Req.	\$101,583,914	\$47,732,579	-
New Reserve Req.	\$104,256,024	\$44,798,813	-
Req. Reduction (or Incr.)	(\$2,672,110)	\$2,933,766	-
Available Cash	\$1,575,413	\$2,934,922	-
Cash Release (Addition)	(\$2,672,110)	\$2,933,766	\$261,656

Assumptions: Moody's/S&P/Fitch senior lien ratings of A1/AA-/A+ and second lien ratings of A2/A+/A; market rates as of 4/6/22; 7/1 principal payments; 10-year call on 7/1/2032; \$6.25 per bond all-in COI & UWD; Available cash figures sourced from PFM's 2022 Municipal Market Outlook and GLWA Borrowing Considerations presentation, 2/25/22

Sewage System D/S Coverage Patterns

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior	Sr + 2nd	Senior	Sr + 2nd
7/1/23	2.22x	1.77x	2.21x	1.69x
7/1/24	2.38x	1.77x	2.35x	1.68x
7/1/25	2.41x	1.79x	2.39x	1.70x
7/1/26	2.45x	1.79x	2.42x	1.71x
7/1/27	2.50x	1.80x	2.47x	1.72x
7/1/28	2.50x	1.82x	2.48x	1.74x
7/1/29	2.44x	1.87x	2.42x	1.79x
7/1/30	2.67x	1.90x	2.64x	1.82x
7/1/31	2.74x	1.95x	2.71x	1.86x
7/1/32	2.57x	2.00x	2.54x	1.91x

Water System D/S Coverage Patterns

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior	Sr + 2nd	Senior	Sr + 2nd
7/1/23	1.91x	1.39x	1.78x	1.32x
7/1/24	2.04x	1.48x	1.89x	1.39x
7/1/25	2.02x	1.47x	1.87x	1.38x
7/1/26	2.11x	1.54x	1.96x	1.45x
7/1/27	2.19x	1.60x	2.03x	1.50x
7/1/28	2.28x	1.66x	2.11x	1.56x
7/1/29	2.37x	1.72x	2.20x	1.62x
7/1/30	2.46x	1.76x	2.28x	1.66x
7/1/31	2.55x	1.83x	2.36x	1.72x
7/1/32	2.66x	1.91x	2.47x	1.79x

Pre-issue D/S and coverage utilizes existing debt service from 2020 transactions' official statements. These projections only include the 2022 GLWA issuance. The 2025-2032 projections are based off of the 2023 Cost of Service Study and represent only the wholesale system.

Alternative Case: 2022 New Money and Refunding Transaction (Question E.ii. – Page 6)

GLWA Achieves Two (2) “AA” Senior Lien Rating

- Goals of the Transaction**
 - Release all senior lien reserve requirements
 - Maximize release of second lien DSRF cash release while issuing as much under the senior lien as possible to achieve lowest total cost
- Results of the Transaction**
 - Release \$20.6 million in cash from the Sewage System reserve fund and \$4.5 million from the Water System reserve fund
 - Sewer System DSC: >2.12x (Senior); >1.69x (Senior + Second)
 - Water System DSC: >1.78x (Senior); >1.32x (Senior + Second)
- Common Assumptions**
 - GLWA achieves two (2) “AA” ratings on its senior lien
 - Senior lien DSRF cash release used as a source of funds. Second lien DSRF cash release use not determined
 - Market and proceeds assumptions same as Base Case
- Transaction Augmentations**
 - Convertible Direct Purchase utilized to refund additional bonds (slide 8)
 - Size around near-term reduction in pension payments
 - Bond Insurance to reduce d/s cost
 - Tender Process for refundings

Proposed Sewage Disposal System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Current Ref. of Senior 2012A	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$118,575,000	\$22,020,000	\$17,615,000	\$158,210,000
Project Fund	\$150,000,000	\$25,000,000	-	\$175,000,000
Arbitrage Yield	3.09%	3.09%	3.09%	3.09%
True Interest Cost	3.82%	3.88%	1.97%	3.82%
Average Life	19.0	19.0	0.9	17.0
PV of 1 Basis Point	\$101,454	\$18,737	\$1,585	\$121,777
Issue Total Debt Service	\$231,040,438	\$42,905,000	\$18,422,354	\$292,367,792
Issue Average Ann. D/S	\$7,701,348	\$1,430,167	\$18,422,354	\$9,745,593
Issue Max. Annual D/S	\$7,725,000	\$1,435,750	\$18,422,354	\$26,816,292
Prior Reserve Req.	\$110,819,563	\$48,500,349	-	-
New Reserve Req.	\$0	\$37,100,145	-	-
Req. Reduction (or Incr.)	\$110,819,563	\$11,400,204	-	-
Available Cash	\$14,350,467	\$6,292,854	-	-
Cash Release (Addition)	\$14,350,467	\$6,292,854	-	\$20,643,321
Par Amount Refunded	-	-	\$17,985,000	\$17,985,000
Maturity Refunded	-	-	2023	2023
NPV Savings (\$)	-	-	\$377,422	\$377,422
NPV Savings (%)	-	-	2.10%	2.10%

Proposed Water Supply System Issuance

Summary Statistics	New Money Senior Lien	New Money Second Lien	Aggregate
Dated Date	8/1/2022	8/1/2022	8/1/2022
Par Amount	\$152,495,000	\$21,110,000	\$173,605,000
Project Fund	\$176,035,000	\$23,965,000	\$200,000,000
Arbitrage Yield	3.10%	3.10%	3.10%
True Interest Cost	3.82%	3.88%	3.83%
Average Life	19.0	19.0	19.0
PV of 1 Basis Point	\$130,472	\$17,963	\$148,435
Issue Total Debt Service	\$297,122,604	\$41,126,542	\$338,249,146
Issue Average Ann. D/S	\$9,904,087	\$1,370,885	\$11,274,972
Issue Max. Annual D/S	\$9,934,000	\$1,377,250	\$11,310,250
Prior Reserve Req.	\$101,583,914	\$47,732,579	-
New Reserve Req.	\$0	\$44,797,364	-
Req. Reduction (or Incr.)	\$101,583,914	\$2,935,215	-
Available Cash	\$1,575,413	\$2,934,922	-
Cash Release (Addition)	\$1,575,413	\$2,934,922	\$4,510,335

Assumptions: Moody's/S&P/Fitch senior lien ratings of Aa3/AA-/A+ and second lien ratings of A2/A+/A; market rates as of 4/6/22; 7/1 principal payments; 10-year call on 7/1/2032; \$6.25 per bond all-in COI & UWD; Available cash figures sourced from PFM's 2022 Municipal Market Outlook and GLWA Borrowing Considerations presentation, 2/25/22

Sewage System D/S Coverage Patterns

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior	Sr + 2nd	Senior	Sr + 2nd
7/1/23	2.22x	1.77x	2.12x	1.70x
7/1/24	2.38x	1.77x	2.26x	1.69x
7/1/25	2.41x	1.79x	2.29x	1.71x
7/1/26	2.45x	1.79x	2.32x	1.71x
7/1/27	2.50x	1.80x	2.37x	1.72x
7/1/28	2.50x	1.82x	2.38x	1.74x
7/1/29	2.44x	1.87x	2.33x	1.79x
7/1/30	2.67x	1.90x	2.54x	1.82x
7/1/31	2.74x	1.95x	2.60x	1.87x
7/1/32	2.57x	2.00x	2.45x	1.92x

Water System D/S Coverage Patterns

Date	Pre-Issue Coverage		Post-Issue Coverage	
	Senior	Sr + 2nd	Senior	Sr + 2nd
7/1/23	1.91x	1.39x	1.78x	1.32x
7/1/24	2.04x	1.48x	1.89x	1.40x
7/1/25	2.02x	1.47x	1.87x	1.38x
7/1/26	2.11x	1.54x	1.96x	1.45x
7/1/27	2.19x	1.60x	2.03x	1.50x
7/1/28	2.28x	1.66x	2.12x	1.56x
7/1/29	2.37x	1.72x	2.20x	1.62x
7/1/30	2.46x	1.76x	2.28x	1.66x
7/1/31	2.55x	1.83x	2.37x	1.72x
7/1/32	2.66x	1.91x	2.47x	1.79x

Pre-issue D/S and coverage utilizes existing debt service from 2020 transactions' official statements. These projections only include the 2022 GLWA issuance. The 2025-2032 projections are based off of the 2023 Cost of Service Study and represent only the wholesale system.

Refunding Considerations – Taxable Advance & Cash Optimization Refunding Monitor

With a 50 basis point adjustment in the market, refundings become much more meaningful. Cash Optimization is worth consideration.

Credit	Series	Maturity	Par Amount (\$000s)	Prior Coupon	Next Call	Current Market				Current Market - 50bps			Cash Optimization Ref.	
						NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	Breakeven to T/E Current Ref	NPV Savings (\$000)	% NPV Savings	Escrow Efficiency	% NPV Savings	Escrow Efficiency
Water Sr	2014D-1	07/01/35	20,020	5.000%	07/01/24	302	1.5%	30.9%	1.67%	1,358	6.8%	73.4%	12.0%	92.4%
Water Sr	2014D-1	07/01/37	24,170	5.000%	07/01/24	137	0.6%	13.4%	1.68%	1,537	6.4%	70.0%	11.9%	91.9%
Water Sr	2014D-2	07/01/25	29,525	5.000%	07/01/24	(19)	-0.1%	--	1.66%	406	1.4%	86.7%	2.2%	115.1%
Water Sr	2014D-2	07/01/26	50,370	5.000%	07/01/24	469	0.9%	38.3%	1.53%	1,431	2.8%	83.7%	4.3%	102.7%
Water Sr	2014D-2	07/01/27	34,340	5.000%	07/01/24	579	1.7%	48.6%	1.49%	1,391	4.1%	82.8%	6.2%	100.0%
Water Sr	2014D-2	07/01/28	22,690	5.000%	07/01/24	559	2.5%	55.8%	1.44%	1,196	5.3%	83.9%	8.1%	98.8%
Water Sr	2014D-4	07/01/29	47,265	5.000%	07/01/24	1,409	3.0%	58.3%	1.45%	2,938	6.2%	83.8%	9.5%	97.1%
Water Sr	2014D-4	07/01/30	54,305	5.000%	07/01/24	1,713	3.2%	57.2%	1.51%	3,686	6.8%	82.7%	10.9%	96.3%
Water Sr	2014D-4	07/01/31	28,515	5.000%	07/01/24	930	3.3%	56.2%	1.50%	2,075	7.3%	81.9%	12.2%	95.8%
Water Sr	2014D-4	07/01/32	18,950	5.000%	07/01/24	605	3.2%	53.9%	1.53%	1,434	7.6%	80.8%	12.3%	95.3%
Water Sr	2014D-4	07/01/33	7,765	5.000%	07/01/24	194	2.5%	45.3%	1.63%	558	7.2%	77.5%	12.8%	94.2%
Water Sr	2014D-4	07/01/34	52,560	5.000%	07/01/24	1,090	2.1%	39.4%	1.67%	3,713	7.1%	75.7%	12.3%	93.2%
Water 2nd	2014D-6	07/01/25	2,870	5.000%	07/01/24	(10)	-0.4%	--	--	31	1.1%	73.0%	1.9%	105.2%
Water 2nd	2014D-6	07/01/26	1,895	5.000%	07/01/24	10	0.6%	24.7%	1.62%	47	2.5%	76.7%	3.0%	85.1%
Water 2nd	2014D-6	07/01/27	1,930	5.000%	07/01/24	24	1.2%	38.3%	1.55%	69	3.6%	77.6%	5.8%	96.7%
Water 2nd	2014D-6	07/01/28	445	5.000%	07/01/24	9	1.9%	47.2%	1.26%	21	4.7%	79.7%	7.5%	96.3%
Water 2nd	2014D-6	07/01/29	500	5.000%	07/01/24	12	2.3%	50.3%	1.49%	28	5.6%	80.0%	8.8%	94.9%
Water 2nd	2014D-6	07/01/30	405	5.000%	07/01/24	10	2.4%	49.0%	1.55%	24	6.0%	79.0%	10.1%	94.3%
Water 2nd	2014D-6	07/01/31	420	5.000%	07/01/24	10	2.5%	47.6%	1.54%	27	6.5%	78.2%	11.3%	94.0%
Water 2nd	2014D-6	07/01/32	440	5.000%	07/01/24	10	2.3%	44.5%	1.56%	29	6.7%	77.1%	12.3%	93.6%
Water 2nd	2014D-6	07/01/33	455	5.000%	07/01/24	7	1.6%	33.2%	1.66%	28	6.2%	73.3%	11.8%	92.4%
Water 2nd	2014D-6	07/01/34	1,215	5.000%	07/01/24	13	1.1%	24.7%	1.69%	73	6.0%	71.1%	11.4%	91.3%
Water 2nd	2014D-6	07/01/36	33,115	5.000%	07/01/24	(82)	-0.2%	--	--	1,726	5.2%	64.9%	11.0%	90.2%
Sewage Sr	2014C-3	07/01/25	47,045	5.000%	07/01/24	(31)	-0.1%	--	--	647	1.4%	86.7%	2.2%	115.1%
Sewage Sr	2014C-3	07/01/26	40,375	5.000%	07/01/24	376	0.9%	38.3%	1.54%	1,147	2.8%	83.7%	4.3%	102.7%
Sewage Sr	2014C-3	07/01/27	45,895	5.000%	07/01/24	774	1.7%	48.6%	1.49%	1,859	4.1%	82.8%	6.2%	100.0%
Sewage Sr	2014C-3	07/01/28	24,075	5.000%	07/01/24	593	2.5%	55.8%	1.44%	1,270	5.3%	83.9%	8.1%	98.8%
Sewage Sr	2014C-3	07/01/29	15,770	5.000%	07/01/24	470	3.0%	58.3%	1.46%	980	6.2%	83.8%	9.5%	97.1%
Sewage Sr	2014C-3	07/01/30	25,285	5.000%	07/01/24	797	3.2%	57.2%	1.52%	1,716	6.8%	82.7%	10.9%	96.3%
Sewage Sr	2014C-3	07/01/31	31,945	5.000%	07/01/24	1,042	3.3%	56.2%	1.51%	2,325	7.3%	81.9%	12.2%	95.8%
Sewage Sr	2014C-3	07/01/32	50,515	5.000%	07/01/24	1,612	3.2%	53.9%	1.53%	3,822	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-3	07/01/33	22,665	5.000%	07/01/24	566	2.5%	45.3%	1.63%	1,628	7.2%	77.5%	12.8%	94.2%
Sewage Sr	2014C-6	07/01/32	9,100	5.000%	07/01/24	290	3.2%	53.9%	1.53%	689	7.6%	80.8%	13.3%	95.3%
Sewage Sr	2014C-6	07/01/33	79,800	5.000%	07/01/24	1,992	2.5%	45.3%	1.63%	5,731	7.2%	77.5%	12.8%	94.2%
Sewage 2nd	2014C-7	07/01/25	5,025	5.000%	07/01/24	(18)	-0.4%	--	--	55	1.1%	73.0%	1.9%	105.2%
Sewage 2nd	2014C-7	07/01/26	4,945	5.000%	07/01/24	27	0.6%	24.7%	1.62%	121	2.5%	76.7%	3.0%	85.1%
Sewage 2nd	2014C-7	07/01/27	5,260	5.000%	07/01/24	64	1.2%	38.3%	1.55%	188	3.6%	77.6%	5.8%	96.7%
Sewage 2nd	2014C-7	07/01/28	5,480	5.000%	07/01/24	105	1.9%	47.2%	1.26%	258	4.7%	79.7%	7.5%	96.3%
Sewage 2nd	2014C-7	07/01/29	5,460	5.000%	07/01/24	128	2.3%	50.3%	1.49%	304	5.6%	80.0%	8.8%	94.9%
Sewage 2nd	2014C-7	07/01/30	275	5.000%	07/01/24	7	2.4%	49.0%	1.55%	17	6.0%	79.0%	10.1%	94.3%
Sewage 2nd	2014C-7	07/01/31	280	5.000%	07/01/24	7	2.5%	47.6%	1.54%	18	6.5%	78.2%	11.3%	94.0%
Sewage 2nd	2014C-7	07/01/32	14,450	5.000%	07/01/24	338	2.3%	44.5%	1.56%	964	6.7%	77.1%	12.3%	93.6%
Sewage 2nd	2014C-7	07/01/34	1,595	5.000%	07/01/24	18	1.1%	24.7%	1.69%	96	6.0%	71.1%	11.4%	91.3%
Sewage 2nd	2014C-7	07/01/35	910	5.000%	07/01/24	4	0.5%	12.2%	1.70%	52	5.7%	68.4%	11.0%	90.3%
Sewage 2nd	2014C-7	07/01/36	385	5.000%	07/01/24	(1)	-0.2%	--	--	20	5.2%	64.9%	11.0%	90.2%

Subject to 10-year par call; Key Assumptions: A1 / AA- / A+ rating by Moody's, S&P, and Fitch for senior lien and A2 / A+ / A ratings for second lien ; pricing is indicative as of 4/6/2022 and subject to market conditions at time of pricing; principal payments of 7/1; dated/delivery date of 8/1/2022; estimated all-in cost of issuance of \$6.25/bond; SLGS funded escrow for demonstrative purposes (if SLGS are not available at the time of pricing, alternate securities would be used); Green light indicates 3% or greater NPV savings or 50% escrow efficiency, yellow light indicates 2% to 3% NPV savings or 40% to 50% escrow efficiency, and red light indicates under 2% NPV savings or under 40% escrow efficiency; no effect on reserve fund; Savings (or Escrow Efficiency calculated as NPV Savings / (NPV Savings + Negative Arbitrage)

Tendering Bonds for Refunding Savings & Sewer Series 2006D Bonds (Question E.ix. – Page 14)

Exploring a Tender for Bonds – Wells Fargo has a recent/relevant case study in Anaheim Public Utilities

Series	Maturity (7/1)	Par (\$)	Coupon	Taxable Advance Refunding (Escrow)		Tax-Exempt Bond Tender				Tender Advantage		Combined Transaction (assumes 25% tendered)					
				PV Savings \$	PV Savings %	Tender Price	B/E Tender	PV Savings \$	PV Savings %	PV Savings \$	PV Savings %	Tendered Par \$	TX Ref'd Par \$	PV Savings \$	PV Savings %		
2014C-3	7/1/2025	47,045,000	5.00%	(41,084)	-0.09%	106.286	107.682	102,088	0.22%	143,172	0.30%	11,760,000	35,285,000	-5,295	-0.01%		
2014C-3	7/1/2026	40,375,000	5.00%	366,755	0.91%	106.286	109.190	905,878	2.24%	539,124	1.34%	10,095,000	30,280,000	501,552	1.24%		
2014C-3	7/1/2027	45,895,000	5.00%	764,086	1.66%	106.286	110.623	1,900,139	4.14%	1,136,052	2.48%	11,475,000	34,420,000	1,048,130	2.28%		
2014C-3	7/1/2028	24,075,000	5.00%	588,050	2.44%	106.286	111.918	1,419,220	5.89%	831,170	3.45%	6,020,000	18,055,000	795,886	3.31%		
2014C-3	7/1/2029	15,770,000	5.00%	466,856	2.96%	106.286	112.857	1,129,850	7.16%	662,994	4.20%	3,945,000	11,825,000	632,710	4.01%		
2014C-3	7/1/2030	25,285,000	5.00%	792,176	3.13%	106.286	113.905	2,119,835	8.38%	1,327,659	5.25%	6,320,000	18,965,000	1,124,025	4.45%		
2014C-3	7/1/2031	31,945,000	5.00%	1,035,617	3.24%	106.282	113.416	3,033,989	9.50%	1,998,372	6.26%	7,985,000	23,960,000	1,535,132	4.81%		
2014C-3	7/1/2032	50,515,000	5.00%	1,602,112	3.17%	106.282	114.585	5,272,562	10.44%	3,670,450	7.27%	12,630,000	37,885,000	2,519,815	4.99%		
2014C-3	7/1/2033	22,665,000	5.00%	561,230	2.48%	106.282	115.851	2,225,584	9.82%	1,664,354	7.34%	5,665,000	17,000,000	977,227	4.31%		
2014C-6	7/1/2032	9,100,000	5.00%	288,612	3.17%	106.283	115.682	949,779	10.44%	661,168	7.27%	2,275,000	6,825,000	453,903	4.99%		
2014C-6	7/1/2033	79,800,000	5.00%	1,976,005	2.48%	106.283	115.708	7,835,556	9.82%	5,859,551	7.34%	19,950,000	59,850,000	3,440,893	4.31%		
Totals		\$392,470,000		8,400,415	2.14%			26,894,481	6.85%			18,494,065	4.71%	98,120,000	294,350,000	13,023,979	3.32%

A

PV Benefit of Tender (B minus A) = \$4,623,564
 assumes 25% tendered

B

2006D Current Situation – With the LIBOR cessation in June 2023, we recommend the Authority prepare a plan to refinance its Series 2006D Bonds, but know that legislation later this year may provide an acceptable replacement rate

- Upon LIBOR cessation there will not be a sufficient number of banks to quote the required rates to set 3-Month LIBOR for the Interest Rate Adjustment Date
- Unless there is a legislative solution, the 3-Month LIBOR rate will be set at the one in effect on the prior Interest Determination Date. In short, if legislation with fallback language isn't adopted, the interest rate going forward will be fixed at the last 3-Month LIBOR rate plus 60 basis points
- **Strategies to address the Series 2006D Bonds should legislative solutions not materialize**
 - Public Market Floating Rate Notes (“FRNs”)
 - Public Market “Fix-Out”
 - Results in NPV dissavings of (4.99%) assuming the 1.9928% interest rate assumed in the Series 2020AB Official Statement and creates debt service in near term years well in excess of current
 - Wells Fargo Bank, N.A. Direct Pay Letter of Credit or Direct Purchase Alternatives^{1,2}
 - **A sample market range for a bank DP for a 2-year term would be 80% of SOFR plus a spread of 23-25 bps or 80% of SOFR plus a spread of 28-33 bps for a 3-year term**, subject to credit and internal approvals and negotiation of terms³

(1) Direct purchase is a Wells Fargo Bank, N.A. product. Product is subject to future market conditions, final documentation, and credit approval.
 (2) Wells Fargo Municipal Capital Strategies, LLC (a wholly owned subsidiary of WFBNA) may serve as Purchaser of the bonds.
 (3) Indicative as of 4/6/2022 and subject to change

Disclosures (continued)

Informational Purposes Only; Important Information Regarding These Materials

The Materials are provided for general information about the transactions described herein. The Materials do not constitute an offer to sell or a solicitation of an offer to buy, or a recommendation or commitment for any transaction involving the securities or financial products named or described herein, and are not intended as investment advice or as a confirmation of any transaction. Assumptions stated herein may or may not be valid. Externally sourced information contained in the Materials has been obtained or derived from sources we reasonably believe to be reliable, but CIB makes no representation or warranty, express or implied, with respect thereto, and does not represent or guarantee that such information is accurate or complete. Such information is subject to change without notice and CIB accepts no responsibility to update or keep it current. CIB does not assume or accept any liability for any loss which may result from reliance thereon. CIB and/or one or more of its affiliates may provide advice or may from time to time have proprietary positions in, or trade as principal in, any securities or other financial products that may be mentioned in the Materials, or in derivatives related thereto.

Historical data, past trends and past performance do not reflect or guarantee future results. Examples in the Materials are hypothetical only and are not a prediction of future results.

Updating the Materials

We reserve the right to amend, supplement or replace the Materials at any time, and your use of the Materials constitutes your agreement to update the Materials with any such amendments, supplements or replacements we furnish you.

Confidentiality

The information in the Materials is confidential and may not be disclosed by you to anyone without our written consent, other than to your advisors, and judicial or other governmental authorities or regulators having jurisdiction over you (including, without limitation, federal, state or local tax authorities). Notwithstanding anything to the contrary contained in the Materials, all persons may disclose to any and all persons, without limitations of any kind, the U.S. federal, state or local tax treatment or tax structure of any transaction, any fact that may be relevant to understanding the U.S. federal, state or local tax treatment or tax structure of any transaction, and all materials of any kind (including opinions or other tax analyses) relating to such U.S. federal, state or local tax treatment or tax structure, other than the name of the parties or any other person named herein, or information that would permit identification of the parties or such other persons, and any pricing terms or nonpublic business or financial information that is unrelated to the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer and is not relevant to understanding the U.S. federal, state or local tax treatment or tax structure of the transaction to the taxpayer.

Limitation of Liability

In no event shall Wells Fargo be liable to you or any third party for any direct or indirect, special, incidental, or consequential damages, losses, liabilities, costs or expenses arising directly or indirectly out of or in connection with the Materials.

Wells Fargo does not provide tax advice. Any tax statement herein regarding U.S. federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purpose of avoiding any penalties. Any such statement herein was written to support the marketing or promotion of a transaction or matter to which the statement relates. Each taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

If you have any questions or concerns about the disclosures presented herein, you should make those questions or concerns known immediately to Wells Fargo.

2Q22



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

Vendor Certifications Regarding Debarment, Equal Opportunity, Non-Collusion and Agreement to Contract Terms and Conditions

I, the undersigned, am a representative of Wells Fargo Bank, NA Municipal Finance Group, (“Vendor”), and affirm that I am authorized to make the following certifications on behalf of Vendor, its owners, and principals. Vendor acknowledges that the below certifications are material to this solicitation and any contract or purchase order (collectively, “Contract”) resulting therefrom and will be relied on by the Great Lakes Water Authority (“GLWA”) in awarding the Contract. Vendor acknowledges that any fraud, misrepresentation, or falsification in these certifications is and shall be treated as fraudulent concealment from GLWA of the true facts relating to the submission of Vendor’s offer and subject Vendor to certain penalties, including loss of the Contract or debarment, as further stated herein.

Part I. Debarment Certification

A. Debarment Pursuant to Federal Law.

Vendor certifies, to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in transactions under federal non-procurement programs by any federal department or agency;
2. Have not, within the three-year period preceding Vendor’s offer on this solicitation, had one or more public transactions (federal, state, or local) terminated for cause or default; and
3. Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) and have not, within the three-year period preceding Vendor’s offer on this solicitation, been convicted of or had a civil judgment rendered against it:
 - a. For the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction (federal, state, or local) or a procurement contract under such a public transaction;
 - b. For the violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, the allocation of customers between competitors, or bid rigging; or
 - c. For the commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property.

Please refer to our attached litigation statement regarding #3 above.

Vendor understands that a false statement on this Debarment Certification may be grounds for the rejection of Vendor’s offer under this solicitation or the termination of an award thereunder. In addition, under 18 U.S.C. §1001, a false statement may result in a fine or imprisonment for up to five years, or both.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

B. Debarment Pursuant to GLWA Procurement Policy.

Vendor certifies that:

1. It has read and understands the GLWA Procurement Policy (“Policy”) located at glwater.org/vendors, and in particular, Section 13 – Vendor Suspension/Debarment.
2. No federal, state, or local government entity has found Vendor (as defined in footnote 2 of the Policy) in violation of Section 13.1(a) through (p) in the past three (3) years.

Please refer to our attached litigation statement regarding #2 above.

Vendor is unable to certify to all the above statements. Attached is Vendor’s explanation.

Part II. Equal Opportunity Certification

1. Vendor makes this Equal Opportunity Certification (“EOC”) with GLWA, effective upon the execution of a Contract between Vendor and GLWA resulting from this solicitation, obligating Vendor and all sub-contractors on the Contract to not discriminate against any employee or applicant for employment, training, education, or apprenticeship connected directly or indirectly with the performance of the Contract, with respect to their hire, promotion, job assignment, tenure, terms, conditions or privileges of employment because of race, color, religious beliefs, public benefit status, national origin, age, marital status, disability, sex, sexual orientation, or gender identity or expression.
2. Vendor shall ensure that all potential sub-contractors on the Contract are reported to GLWA and that each such sub-contractor has executed its own EOC prior to working on the Contract.
3. Furthermore, Vendor understands that this EOC is valid for the duration of the Contract and that a breach of this EOC shall be deemed a material breach of the Contract.

Part III. Non-Collusion Certification

Vendor certifies that:

1. The prices in and amount of this offer have been arrived at independently and without consultation, communication, or agreement with any other vendor or potential vendor.
2. Neither the prices nor the amount of this offer, and neither the approximate prices nor the approximate amount of this offer, have been disclosed to any other firm or person that is a vendor or potential vendor to this solicitation, and the same shall not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from offering on this solicitation, or to submit a cost higher than this offer, or to submit any intentionally high or noncompetitive offer or other form of complementary offer.
4. The offer of Vendor is made in good faith and fair dealing and not pursuant to any agreement or discussion with, or inducement from, any firm or person.



Project/Contract Documents

Project/Contract No.:
2200290

Document Title:
Vendor Certifications

Project/Contract Title:
Bond Underwriting Services

5. Vendor, its affiliates, subsidiaries, principals, officers, directors, partners, members, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable in any jurisdiction for any act prohibited by state or federal law involving conspiracy or collusion with respect to public contracting, except as follows:

Accordingly, Vendor, by its authorized signature below, acknowledges its agreement with the foregoing certifications.

Wells Fargo Bank, NA Municipal Finance Group

(Vendor):

Print Name: Kevin Hoecker

Title: Managing Director

Dated: 4/13/2022

Signature: 

WFBNA Litigation Statement 4

Wells Fargo Bank N.A. ("WFBNA") is a subsidiary of Wells Fargo & Company ("WFC"), a corporation organized under the laws of Delaware.

As with any large diversified financial institution in the highly regulated banking and securities field, Wells Fargo receives inquiries and subpoenas from regulators and law enforcement from time to time, some of which may be confidential in nature, and is subject to civil litigation. Wells Fargo responds regularly to inquiries and investigations by governmental entities and has in the past entered into settlements of some of those investigations, including those listed below. None have resulted in any material restrictions on Wells Fargo's ability to operate its businesses as related to the services and products addressed in our responses to this RFP.

Wells Fargo Bank, NA Municipal Finance Group ("WFBNA MFG"), the party responding to this RFP, is a separately identifiable department of WFBNA and is registered with the Securities and Exchange Commission ("SEC") as a municipal securities dealer, authorized to provide underwriting and investment banking services in connection with municipal securities.

Below is a summary of (i) certain resolved regulatory matters related to WFBNA MFG and WFBNA that are related to municipal securities and (ii) certain matters relating to actions involving municipal entities.

During the fourth quarter of 2011, WFBNA entered into a settlement with various regulators regarding municipal derivatives contracts. Please see the Legal Actions section of WFC's 2011 Annual Report for additional information regarding the municipal derivatives bid practices settlement with the Office of the Comptroller of the Currency ("OCC"), SEC, the U.S. Internal Revenue Service, U.S. Department of Justice and a group of state Attorneys General. See press release dated December 8, 2011 at <https://www.sec.gov/litigation/litreleases/2011/lr22183.htm>.

WFBNA has paid municipal fines in connection with a small number of houses for alleged violations of local housing ordinances, some of which are characterized as misdemeanors.

During the third quarter of 2016, WFBNA entered into settlements with the City of Los Angeles, the Consumer Financial Protection Bureau and the Office of the Comptroller of the Currency regarding certain sales practices. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-issues-statement-agreements-related-sales>. (the "2016 Settlement").

Following the announcement of the 2016 Settlement discussed above, certain state and local governmental bodies and municipal entities have temporarily suspended or removed WFBNA MFG as underwriter from certain of such issuers' municipal underwritings.

On February 2, 2016, WFBNA MFG entered into an agreement with the SEC resulting from a self-report submitted to the SEC by WFBNA MFG pursuant to the SEC's Municipalities Continuing Disclosure Cooperation Initiative ("MCDC") (see <https://www.sec.gov/litigation/admin/2016/33-10028.pdf>).

On December 26, 2018, WFC was served with a Complaint for a qui tam action pending in San Francisco County, California, which was subsequently amended to add WFBNA as a defendant. State of California,

WFBNA Litigation Statement 4

ex rel., Edelweiss Fund, LLC v. JP Morgan Chase & Co., et al., Case No. CGC-14-540777. The California qui tam action alleges Wells Fargo and other remarketing agents conspired to inflate the interest rates on certain tax-exempt bonds issued by public entities called variable rate demand obligations issued by the State of California or its political subdivisions. In July 2019, the San Francisco Superior Court dismissed the claims against a group of defendants, including WFC, due to untimely service, and the Court of Appeals upheld that dismissal in December 2020. On June 1, 2021, the Court dismissed the Relator's, Edelweiss Fund, LLC, seventh amended complaint without leave to amend. On July 27, 2021, Relator appealed the Court's June 1, 2021 Order. On or about July 26, 2019, another qui tam action was unsealed in Mercer County, New Jersey. State of New Jersey, ex rel., Edelweiss Fund, LLC v. JP Morgan Chase & Co., et al., Docket No. L. 885-15. The New Jersey qui tam action names Wells Fargo & Co. and several other financial institutions as defendants. The allegations in the New Jersey qui tam action are substantially similar to the California qui tam action. On February 20, 2019, the City of Philadelphia filed a putative class action against WFBNA and related entities, along with six other banks and their related entities. The City of Philadelphia v. Bank of America Corporation, et al., No. 1:19-cv-01608, U.S.D.C., S.D.N.Y. The plaintiff alleges that the defendants conspired to inflate the interest rates on certain tax-exempt bonds issued by public entities called variable rate demand obligations from February 1, 2008 to June 30, 2016. On March 25, 2019, the City of Baltimore filed a similar putative class action complaint against WFBNA and related entities, along with nine other banks and related entities. Mayor and City Council of Baltimore v. Bank of America Corporation, et al., No. 1:19-cv-02667, U.S.D.C., S.D.N.Y. The City of Baltimore's allegations are substantially similar to the allegations in the City of Philadelphia case. The Philadelphia and Baltimore cases were consolidated and an amended consolidated complaint was filed on May 31, 2019, naming WFBNA and related entities, along with seven other banks and related entities. On June 2, 2021, a substantially similar class action complaint was filed in the Southern District of New York on behalf of a putative class of California issuers of variable rate demand obligations against the same defendants. (Board of Directors of the San Diego Association of Governments v. Bank of America Corporation, et al., No. 1:21-cv-4893, U.S.D.C., S.D.N.Y.) The complaint includes the same defendants and class period as the Philadelphia and Baltimore consolidated complaint, and largely tracks the allegations asserted in that complaint. In August 2021, the San Diego Association of Governments action was consolidated with the Philadelphia and Baltimore action through an amended consolidated class action complaint. In August 2021, the San Diego Association of Governments action was consolidated with the Philadelphia and Baltimore action through an amended consolidated class action complaint.

WFBNA was named as a defendant in an antitrust case filed in the U.S. District Court for the Middle District of Louisiana on October 21, 2019, by the City of Baton Rouge/East Baton Rouge Parish, Consolidated Parish Employees Retirement System and Police Guaranty Fund. No. 3:19-cv-00725. The plaintiffs allege that WFBNA and 11 other defendants colluded to keep the bid-offer spreads artificially wide in secondary market trading for Government Sponsored Enterprise bonds, including those issued by Fannie Mae, Freddie Mac, and Federal Home Loan Banks. WFC and Wells Fargo Securities, LLC ("WFSLLC") and 23 other parties were named as defendants in a case filed in the U.S. District Court for the Eastern District of Louisiana on July 17, 2020, by the Louisiana Asset Management Pool ("LAMP"). No. 2:20-cv-1095. WFC and WFSLLC and 22 other parties were named as defendants in a case filed in the U.S. District Court for the Eastern District of Louisiana on September 21, 2020, by the City of New Orleans, the New Orleans

WFBNA Litigation Statement 4

Municipal Employees Retirement System and the New Orleans Aviation Board. No. 2:20-cv-2570. The allegations in the LAMP and City of New Orleans cases are substantially similar to the allegations in the City of Baton Rouge case. All three cases were settled and dismissed on June 9, 2021.

On October 7, 2020, WFBNA, JPMorgan Chase & Co., and Stifel, Nicolaus & Co., Inc. were sued in the U.S. District Court for the Eastern District of Michigan federal court on behalf of children who allegedly were harmed by polluted water in the City of Flint, Michigan, LeeAnne Walters et al. v. J.P. Morgan Chase & Co., Wells Fargo Bank, N.A., and Stifel Nicolaus, No. 5:20-cv-12726. The plaintiffs allege that the banks violated their Constitutional rights and Michigan law by underwriting a 2014 municipal bond offering for a Michigan-based water authority with alleged knowledge that the bond offering would result in the City of Flint, Michigan transitioning to an unsafe water source. On March 29, 2022, the Court dismissed the plaintiffs' lawsuit. The plaintiffs have until April 26, 2022 to move for reconsideration and April 28, 2022 to appeal the Court's ruling.

Please be further advised of the following:

On February 2, 2018, WFC entered into a consent order with the Board of Governors of the Federal Reserve System, relating to governance oversight and the company's compliance and operational risk management program. This consent order does not relate to new matters, but rather to prior issues including the 2016 sales practices matter. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-commits-satisfying-consent-order-federal>.

In April 2018, WFC entered into consent orders with the Consumer Financial Protection Bureau and the Office of the Comptroller of the Currency that address matters relating to WFC's compliance risk management program and issues regarding certain interest rate-lock extensions on home mortgages and collateral protection insurance placed on certain auto loans. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-enters-consent-orders-occ-and-cfpb>.

In August 2018, WFC announced that it entered into an agreement with the U.S. Department of Justice ("DOJ") to resolve a previously disclosed investigation by the DOJ regarding claims related to certain 2005–07 residential mortgage-backed securities activities. For additional information, see the press release at <https://newsroom.wf.com/press-release/consumer-lending/wells-fargo-reaches-agreement-doj-resolve-legacy-rmbs-claims>.

On December 4, 2018, WFC reached an agreement with the Attorney General of the State of Illinois, pursuant to which it agreed to pay \$17.25 million in remediation relating to certain prior RMBS activities.

On December 28, 2018, WFC entered into a settlement with all 50 state Attorneys General and the District of Columbia regarding previously disclosed retail sales practices, auto collateral protection insurance and guaranteed asset/auto protection, and mortgage interest rate lock matters. For additional information, see the press release at <https://newsroom.wf.com/press-release/community-banking-and-small-business/wells-fargo-reaches-agreement-state-attorneys>.

WFBNA Litigation Statement 4

The SEC filed a civil lawsuit in 2016 against Wells Fargo Securities, LLC (“WFSLLC”) and a Wells Fargo employee, among others, regarding a 2010 Rhode Island Economic Development Corporation bond offering document. WFSLLC settled the matter with the SEC on March 20, 2019. The Court dismissed all claims against the Wells Fargo employee on June 11, 2019. SEC v. Rhode Island Commerce Corporation (f/k/a Rhode Island Economic Development Corporation), et al., No. 1:16-cv-107-M-PAS (D.R.I.).

On February 21, 2020, WFC entered into settlement agreements with the U.S. Department of Justice and the U.S. Securities and Exchange Commission to resolve these agencies’ investigations into Community Bank sales practices and related disclosures. For additional information, see the press release at <https://newsroom.wf.com/press-release/corporate-and-financial/wells-fargo-reaches-settlements-resolve-outstanding-doj-and>.

WFC also reached an agreement with the Attorney General of the State of Maryland on June 15, 2020, pursuant to which it agreed to pay \$20 million in remediation to resolve claims relating to certain prior RMBS activities.

On January 5, 2021, the Office of the Comptroller of the Currency terminated a 2015 consent order related to WFC’s anti-money laundering compliance program. For additional information, please see the press release at newsroom.wf.com/English/news-releases/news-release-details/2021/Wells-Fargo-Announces-Termination-of-AML-Related-Consent-Order/default.aspx.

On September 9, 2021, WFC announced that the Office of the Comptroller of the Currency issued an enforcement action against WFBNA related to loss mitigation practices in the bank’s Home Lending business, as well as a civil monetary penalty related to those loss mitigation practices and insufficient progress in addressing requirements under the OCC’s April 2018 Compliance Risk Management and Customer Remediation consent order. For additional information, see the press release at Wells Fargo Newsroom - Wells Fargo Issues Statement on OCC Enforcement Action, Expiration of CFPB Consent Order ([wf.com](https://www.wellsfargo.com)).

On September 27, 2021, WFBNA reached an agreement with the United States District Court for the Southern District of New York pursuant to which WFBNA paid \$37.5 million to the United States and provided customer remediation in order to resolve an investigation related to certain activities in WFBNA’s foreign exchange business, including whether customers may have received pricing inconsistent with commitments made to those customers. Furthermore, no member of the proposed deal team identified in this RFP has a reportable item on his or her broker check report (available online through FINRA’s Broker Check), regarding investigations during his or her tenure with WFBNA MFG.

Many of the actions that Wells Fargo has taken in connection with these settlements are described at <https://www.wellsfargo.com/assets/pdf/commitment/progress-report.pdf>

To the extent any litigation or regulatory matters are required to be reported, they are disclosed in WFC’s SEC filings and are matters of public record.

WFBNA Litigation Statement 4

Copies of the (i) Legal Proceedings sections from Wells Fargo & Company recent public filings and (ii) Wells Fargo & Company's most recent periodic reports are available via the internet link below:

https://www.wellsfargo.com/invest_relations/filings

Wells Fargo & Company Annual Report Link:

https://www.wellsfargo.com/invest_relations/annual



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Business Inclusion and Diversity (B.I.D.) Program

In accordance with GLWA's Procurement Policy, amended on November 25, 2020, all vendors responding to solicitations budgeted at \$1 million or greater will be required to submit a Business Inclusion and Diversity Plan. Please note that this requirement is applicable to all vendors whether certified as small, disadvantaged, minority-owned, women-owned, or other.

The goal of the vendor's Diversity Plan is to demonstrate how they presented and maximized economic opportunities for qualified small, minority-owned, and economically disadvantaged business enterprises within the Great Lakes Water Authority's service territory area.

Under the awarded contract, the plan will become part of the executed contract and may be negotiated during contract finalization. Vendor performance and B.I.D. Program compliance monitoring will be assessed during the length and completion of the contract.

B.I.D. Program Submission Requirements

1.1. B.I.D. Diversity Plan (Pass/Fail Requirement)

1.1.1. Proposed Diversity Plan — Each vendor shall provide their method for maximizing opportunities for inclusion and diversity participation for this solicitation. Good faith efforts in reporting will include the firms contacted and why they declined as well as firms recommended for award and other pertinent information.

Please complete the form included at the end of this document and attach all supporting documentation.

1.1.2. Certification Review and Assessment — Vendors must submit a copy of any certifications that they currently hold. If a vendor has certified subcontractors, then submit the subcontractor's certifications as well.

The following certifications from a federal agency, the state of Michigan, or a Michigan local unit of government (including certifications upon which those entities might rely) will be accepted and must be submitted with the vendor's plan. This list is not exclusive, and vendors may include other types of diversity certifications.

DBE - Disadvantaged Business Enterprise	MBE - Minority Business Enterprise
WBE- Woman Business Enterprise	SBE - Small Business Enterprise

1.1.3. Small Business Directory Resources/Registrations —

U.S. SBA - https://web.sba.gov/pro-net/search/dsp_search-help.cfm

State of Michigan - <https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>

Michigan United Certification Program - www.michigan.gov/mucp

MDOT Certification Program - www.michigan.gov/mdotdbe



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title: Business Inclusion and Diversity Program	Document Owner/Department: Procurement Team
--	---

1.2. Economic Equity (Scored Categories) — To receive the economic equity credit, complete the B.I.D. questionnaire in Bonfire and submit with your solicitation response. A maximum of 3% points can be added to the vendor’s overall score based on the requirements below.

1.2.1. **Business Presence in the State of Michigan — 1%** — A business presence in the State of Michigan means that a business is eligible to be a Certified Michigan Based Business as defined by the state of Michigan law: a) files a Michigan single business tax return; b) has a Michigan income tax return statement showing income generated in, or attributed to, the state of Michigan or c) withheld Michigan income tax from compensation paid to the vendors/owners and remitted the tax to the Michigan Department of Treasury. (MCL 18.1268).

1.2.2. **Business Presence in a GLWA Service Territory Area — 1%** — GLWA is a regional utility that serves communities in as many as eight counties. A business presence in a GLWA Service Territory Area indicates that the vendor’s business is located in one of the following GLWA Service Territory Areas.

Community	County
City of Flint	Genesee
Village of Almont	Lapeer
Imlay Township	Lapeer
City of Imlay City	Lapeer
City of Lapeer	Lapeer
Mayfield Township	Lapeer
Bruce Township	Macomb
City of Center Line	Macomb
Chesterfield Township	Macomb
Clinton Township	Macomb
City of Eastpointe	Macomb
City of Fraser	Macomb
Harrison Township	Macomb
Lenox Township	Macomb
Macomb Township	Macomb
Village of New Haven	Macomb
Village of Romeo	Macomb
City of Roseville	Macomb
Shelby Township	Macomb
City of St Clair Shores	Macomb



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
City of Sterling Heights	Macomb
City of Utica	Macomb
City of Warren	Macomb
Washington Township	Macomb
Ash Township	Monroe
Berlin Township	Monroe
Village of South Rockwood	Monroe
Village of Carleton	Monroe
Village of Estral Beach	Monroe
Commerce Township	Oakland
City of Farmington	Oakland
City of Farmington Hills	Oakland
City of Ferndale	Oakland
City of Hazel Park	Oakland
City of Keego Harbor	Oakland
City of Madison Heights	Oakland
City of Novi	Oakland
City of Oak Park	Oakland
Royal Oak Township	Oakland
City of Sylvan Lake	Oakland
City of Troy	Oakland
City of Walled Lake	Oakland
West Bloomfield Township	Oakland
City of Wixom	Oakland
Village of Lake Orion	Oakland
City of Rochester Hills	Oakland
City of Auburn Hills	Oakland
Orion Township	Oakland
City of Pontiac	Oakland
City of Rochester	Oakland
City of Berkley	Oakland
Village of Beverly Hills	Oakland
Village of Bingham Farms	Oakland
City of Birmingham	Oakland



Procurement Form (DOC)

Effective Date: 1/2/2021	Document #: FSA_PRO_DOC_0014	Revision Date: 11/23/2021	Revision#: 1
------------------------------------	--	-------------------------------------	------------------------

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
Bloomfield Township	Oakland
City of Bloomfield Hills	Oakland
City of Clawson	Oakland
City of Huntington Woods	Oakland
City of Lathrup Village	Oakland
City of Pleasant Ridge	Oakland
City of Royal Oak	Oakland
City of Southfield	Oakland
Southfield Township	Oakland
City of Orchard Lake Village	Oakland
Burtchville Township	St. Clair
Greenwood Township	St. Clair
Augusta Township	Washtenaw
Pittsfield Township	Washtenaw
Superior Township	Washtenaw
York Township	Washtenaw
City of Ypsilanti	Washtenaw
Ypsilanti Township	Washtenaw
City of Allen Park	Wayne
City of Belleville	Wayne
Brownstown Township	Wayne
Canton Township	Wayne
City of Dearborn	Wayne
City of Dearborn Heights	Wayne
City of Detroit	Wayne
City of Ecorse	Wayne
City of Flat Rock	Wayne
City of Garden City	Wayne
City of Gibraltar	Wayne
Grosse Ile Township	Wayne
City of Grosse Pointe Park	Wayne
City of Grosse Pointe Shores	Wayne
City of Grosse Pointe Woods	Wayne
City of Hamtramck	Wayne



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Community	County
City of Harper Woods	Wayne
City of Highland Park	Wayne
Huron Township	Wayne
City of Inkster	Wayne
City of Lincoln Park	Wayne
City of Livonia	Wayne
City of Melvindale	Wayne
Northville Township	Wayne
City of Northville	Wayne
City of Plymouth	Wayne
Plymouth Township	Wayne
Redford Township	Wayne
City of River Rouge	Wayne
City of Riverview	Wayne
City of Rockwood	Wayne
City of Romulus	Wayne
City of Southgate	Wayne
Sumpter Township	Wayne
City of Taylor	Wayne
City of Trenton	Wayne
Van Buren Township	Wayne
City of Wayne	Wayne
City of Westland	Wayne
City of Woodhaven	Wayne



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

1.2.3. Business Presence in an Economically Disadvantaged GLWA Service Territory Area — 1% — A business presence in an Economically Disadvantaged Service Territory Area means the vendor is in a municipality designated as having one of the five lowest median household incomes in that respective county as defined by the U.S. Census Bureau every five years.

Community
Center Line
Roseville
Eastpointe
Lapeer
Imlay
Flint
Royal Oak Charter Township
Pontiac
Hazel Park
Keego Harbor
Oak Park
Hamtramck
River Rouge
Ecorse
Detroit
Ypsilanti
Ypsilanti Charter Township
Superior Charter Township



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

Please complete the following form and attach all supporting documentation.

A. Prime Vendor: Name and Contact Information (mandatory)

1. Vendor Name(s):

2. Vendor Mailing Address(es):

3. Contact Person(s) and Title(s):

4. Contact Email(s):

5. Contact Phone/Cell:

B. Prime Vendor: Diversity Certifications (if applicable)

Vendor Name	Certifying Organization	Certifying Public Agency (if applicable)	Date of Certification

C. Prime Vendor: Diversity and Inclusion Efforts Summary (mandatory)

Instructions: Provide a summary of diversity and inclusion efforts undertaken or strategies employed to maximize opportunities for small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

D. Prime Vendor: Targeted Outreach Efforts Summary (mandatory)

Instructions: Provide a summary of the targeted outreach efforts undertaken or strategies employed to encourage participation by small, minority-owned, and disadvantaged subcontractors on the specific GLWA solicitation to which you are responding.

E. Prime Vendor: Targeted Outreach Communications Log (mandatory)

Subcontractor Name	Certifying Organization	Date of Outreach	Subcontractor Response (bid, no bid, and why)



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

F. Prime Vendor: Resources Utilized (*mandatory*)

Instructions: Please note the resources used to identify small, minority-owned, and disadvantaged subcontractors (e.g., Federal or Michigan-based databases, certification programs, websites, listservs, or advertisements).

G. Prime Vendor: Additional Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe or summarize below any additional diversity and inclusion efforts undertaken (as related to the specific GLWA solicitation to which you are responding) that are not addressed in the above fields.

H. Prime Vendor: Internal Diversity and Inclusion Efforts Summary (*optional*)

Instructions: Please describe below any inclusion and diversity efforts, programs, initiatives, professional associations, or awards that your organization has undertaken, belonged to, or won.



Procurement Form (DOC)

Effective Date:
1/2/2021

Document #:
FSA_PRO_DOC_0014

Revision Date:
11/23/2021

Revision#:
1

Document Title:
Business Inclusion and Diversity Program

Document Owner/Department:
Procurement Team

I. Proposed Subcontractor(s) Information (mandatory)

Subcontracted Goods and/or Services	Subcontractor Name	Certifying Organization

J. Supporting Documentation (mandatory)

Instructions: Provide a short description of any supporting or supplemental documentation included with this form.

Document No.	Description
1.	
2.	
3.	
4.	
5.	
6.	

Investing in Michigan

Helping local communities grow

Wells Fargo is committed to local Michigan communities

Nearly **\$2.7 million** donated to state nonprofits, schools, and community organizations in 2020, as well as **\$750,000** from its Open for Business Fund

Nearly **600** employees

More than **\$3.27 million** in Small Business Administration loans in fiscal year 2019

\$152.6 million for nearly **2,080** small business loans in 2019

\$2.6 billion in more than **12,390** home mortgage loans in 2019, including low- and moderate-income families and individuals



Critical repairs in Vassar lead a 74-year-old veteran home again

Habitat for Humanity of Lapeer-Tuscola rushed to finish a home for a homeless veteran in Vassar, and 16 Wells Fargo volunteers stepped in to help make sure that happened before the snow piled up.

Marjorie, a 74-year-old Vietnam veteran, had been homeless for more than five years. She inherited her parents' home after they passed away, but had issues keeping up with the maintenance.

When the roof started falling in, Marjorie moved into a 1960s trailer on the property with an extension cord as her only source of electricity. She would go back into the home to use the bathroom and washing machine, but had to be careful because it was so cold, there was ice on the floor. She then saw a newspaper story about Habitat's Critical Repair program and called about her roof.

"The icing on the cake of this experience was the caliber of folks who work for Wells Fargo," said Carolyn Nestor, executive director of Habitat Lapeer-Tuscola. "They came at every opportunity. They came early, stayed late, worked hard physically in ice, snow, rain and vicious cold of the Michigan winter — and no one complained." ■



Detroit Rock City gets remodeled, thanks to 10,000 volunteers

When the Detroit-based nonprofit Life Remodeled deployed its army of volunteers for its annual neighborhood cleanup marathon, organizers wanted to do more than they had done in years past.

During the six-day project, volunteers went beyond blight removal and beautified 316 city blocks, boarded up 396 houses, cleared 102 alleyways, and planted more than 700 trees, shrubs, and perennials.

Senior Private Banker Nicole Moten volunteered for the project alongside 10,000 volunteers representing 100 companies. "This is the second year Wells Fargo has participated in this project," said Moten. "Both times it felt so good to be part of such a huge initiative in Detroit."

The ambitious project also had a ripple effect. Neighboring homeowners saw the volunteers working and started weeding and repairing tattered fences, making everything look better. ■



Supporting disaster relief efforts in Houghton County

Michigan flooding impacted more than 600 homes, washed out roads and bridges in three counties, and created as many as 60 sinkholes. To aid in the relief and recovery efforts, Wells Fargo donated \$75,000 to the Portage Health Foundation's Flood with Love initiative in Houghton County.

The Flood with Love project helped get flood victims back into clean, safe living environments. It provided financial assistance for homeowners, minimizing their cleanup costs, and helped them work with vetted, licensed contractors to ensure their homes were repaired safely. The initiative also provided emotional support for flood victims by partnering with Dial Help, an organization that promotes physical, emotional, and social well-being with problem assistance, crisis intervention, referrals, education, and training.

"It is because of partnerships like this with Wells Fargo that we are able to work together to get the community back on its feet," said Chelsea Goodreau, marketing and communications coordinator for Portage Health Foundation. "One hundred percent of the funds received will be passed through to the flood relief efforts." ■



\$500,000 boost for diverse small business owners

Wells Fargo provided a boost to diverse small businesses with \$7.9 million in grants from its Diverse Community Capital program, which offers capital and technical assistance to minority-owned small businesses through Community Development Financial Institutions (CDFIs).

Northern Initiatives in Marquette, Mich., used their \$500,000 to increase the number of diverse borrowers who have access to small business training and to improve its online bilingual business education portal called Initiate. These services focused on the Grand Rapids area and Western Michigan.

"Access to capital is one of the leading barriers minority entrepreneurs face when looking to start a business," comments Dennis West, President of Northern Initiatives. "This significant investment is vital to our ability to position diverse small businesses owners to successfully launch and grow."

With a portion of the funding from Wells Fargo, Northern Initiatives will make Initiate more accessible to its Spanishspeaking customers in addition to offering it as a resource to other CDFIs, micro lenders and other supporters of small business growth and development.

Wells Fargo has been a strong supporter of Northern Initiative's work surrounding business education, one-on-one business assistance, financial capability programming and access to fair capital. Wells Fargo has invested a little more than \$850,000 in Northern Initiatives' strong community programming since 2012. ■

Our history in Michigan

Wells Fargo's history in Michigan began in 1864 with the company's predecessor, the First National Bank of Marquette.

In 1909, Wells Fargo opened offices in Calumet, Copper City, Escanaba, Houghton, Iron Mountain, Menominee, and more than 30 other Michigan locations along the tracks of the Chicago, Milwaukee and St. Paul railways.

By 1912, Wells Fargo had opened additional offices in Ann Arbor, Detroit, and several other locations.



Learn more: stories.wf.com

wellsfargo.com/impact

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Quantity Required	Numeric	
					\$\$ Per Bond	Total Cost
Success: All values provided	Bid	#0-1	Management Fee	1	\$ 0.00	\$ 0.00
Success: All values provided	Bid	#0-2	Risk Fee \$\$ Per Bond (if applicable)	1	\$ 0.00	\$ 0.00
Success: All values provided	Bid	#0-3	Other Fee \$\$ Per Bond (if applicable)	1	\$ 0.00	\$ 0.00

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Numeric	Text	Numeric	Total Cost
				Quantity anticipated	Expense Description	Unit Price	
Success: All values provided	Bid	#0-1	Expense	350000	CUSIP Fee (assumes 89 CUSIPs)	\$ 0.0111	\$ 3,887.00
Success: All values provided	Bid	#0-2	Expense	350000	DTC Fee	\$ 0.0023	\$ 800.00
Success: All values provided	Bid	#0-3	Expense	350000	IPREO Fee	\$ 0.0821	\$ 28,735.00
Not Bidding	No Bid	#0-4	Expense				-
Not Bidding	No Bid	#0-5	Expense				-
Not Bidding	No Bid	#0-6	Expense				-
Not Bidding	No Bid	#0-7	Expense				-
Not Bidding	No Bid	#0-8	Expense				-
Not Bidding	No Bid	#0-9	Expense				-
Not Bidding	No Bid	#0-10	Expense				-

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-1	Uninsured \$ per Bond	1	Per Bond	\$ 2.25	\$ 2.25
Success: All values provided	Bid	#0-2	Uninsured \$ per Bond	2	Per Bond	\$ 2.25	\$ 4.50
Success: All values provided	Bid	#0-3	Uninsured \$ per Bond	3	Per Bond	\$ 2.25	\$ 6.75
Success: All values provided	Bid	#0-4	Uninsured \$ per Bond	4	Per Bond	\$ 2.25	\$ 9.00
Success: All values provided	Bid	#0-5	Uninsured \$ per Bond	5	Per Bond	\$ 2.25	\$ 11.25
Success: All values provided	Bid	#0-6	Uninsured \$ per Bond	6	Per Bond	\$ 2.25	\$ 13.50
Success: All values provided	Bid	#0-7	Uninsured \$ per Bond	7	Per Bond	\$ 2.25	\$ 15.75
Success: All values provided	Bid	#0-8	Uninsured \$ per Bond	8	Per Bond	\$ 2.25	\$ 18.00
Success: All values provided	Bid	#0-9	Uninsured \$ per Bond	9	Per Bond	\$ 2.25	\$ 20.25
Success: All values provided	Bid	#0-10	Uninsured \$ per Bond	10	Per Bond	\$ 2.25	\$ 22.50
Success: All values provided	Bid	#0-11	Uninsured \$ per Bond	11	Per Bond	\$ 2.25	\$ 24.75
Success: All values provided	Bid	#0-12	Uninsured \$ per Bond	12	Per Bond	\$ 2.25	\$ 27.00
Success: All values provided	Bid	#0-13	Uninsured \$ per Bond	13	Per Bond	\$ 2.25	\$ 29.25
Success: All values provided	Bid	#0-14	Uninsured \$ per Bond	14	Per Bond	\$ 2.25	\$ 31.50
Success: All values provided	Bid	#0-15	Uninsured \$ per Bond	15	Per Bond	\$ 2.25	\$ 33.75

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-16	Uninsured \$ per Bond	16	Per Bond	\$ 2.25	\$ 36.00
Success: All values provided	Bid	#0-17	Uninsured \$ per Bond	17	Per Bond	\$ 2.25	\$ 38.25
Success: All values provided	Bid	#0-18	Uninsured \$ per Bond	18	Per Bond	\$ 2.25	\$ 40.50
Success: All values provided	Bid	#0-19	Uninsured \$ per Bond	19	Per Bond	\$ 2.25	\$ 42.75
Success: All values provided	Bid	#0-20	Uninsured \$ per Bond	20	Per Bond	\$ 2.25	\$ 45.00
Success: All values provided	Bid	#0-21	Uninsured \$ per Bond	21	Per Bond	\$ 2.25	\$ 47.25
Success: All values provided	Bid	#0-22	Uninsured \$ per Bond	22	Per Bond	\$ 2.25	\$ 49.50
Success: All values provided	Bid	#0-23	Uninsured \$ per Bond	23	Per Bond	\$ 2.25	\$ 51.75
Success: All values provided	Bid	#0-24	Uninsured \$ per Bond	24	Per Bond	\$ 2.25	\$ 54.00
Success: All values provided	Bid	#0-25	Uninsured \$ per Bond	25	Per Bond	\$ 2.25	\$ 56.25
Success: All values provided	Bid	#0-26	Uninsured \$ per Bond	26	Per Bond	\$ 2.25	\$ 58.50
Success: All values provided	Bid	#0-27	Uninsured \$ per Bond	27	Per Bond	\$ 2.25	\$ 60.75
Success: All values provided	Bid	#0-28	Uninsured \$ per Bond	28	Per Bond	\$ 2.25	\$ 63.00
Success: All values provided	Bid	#0-29	Uninsured \$ per Bond	29	Per Bond	\$ 2.25	\$ 65.25
Success: All values provided	Bid	#0-30	Uninsured \$ per Bond	30	Per Bond	\$ 2.25	\$ 67.50

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-31	Insured \$ per Bond	1	Per Bond	\$ 2.25	\$ 2.25
Success: All values provided	Bid	#0-32	Insured \$ per Bond	2	Per Bond	\$ 2.25	\$ 4.50
Success: All values provided	Bid	#0-33	Insured \$ per Bond	3	Per Bond	\$ 2.25	\$ 6.75
Success: All values provided	Bid	#0-34	Insured \$ per Bond	4	Per Bond	\$ 2.25	\$ 9.00
Success: All values provided	Bid	#0-35	Insured \$ per Bond	5	Per Bond	\$ 2.25	\$ 11.25
Success: All values provided	Bid	#0-36	Insured \$ per Bond	6	Per Bond	\$ 2.25	\$ 13.50
Success: All values provided	Bid	#0-37	Insured \$ per Bond	7	Per Bond	\$ 2.25	\$ 15.75
Success: All values provided	Bid	#0-38	Insured \$ per Bond	8	Per Bond	\$ 2.25	\$ 18.00
Success: All values provided	Bid	#0-39	Insured \$ per Bond	9	Per Bond	\$ 2.25	\$ 20.25
Success: All values provided	Bid	#0-40	Insured \$ per Bond	10	Per Bond	\$ 2.25	\$ 22.50
Success: All values provided	Bid	#0-41	Insured \$ per Bond	11	Per Bond	\$ 2.25	\$ 24.75
Success: All values provided	Bid	#0-42	Insured \$ per Bond	12	Per Bond	\$ 2.25	\$ 27.00
Success: All values provided	Bid	#0-43	Insured \$ per Bond	13	Per Bond	\$ 2.25	\$ 29.25
Success: All values provided	Bid	#0-44	Insured \$ per Bond	14	Per Bond	\$ 2.25	\$ 31.50
Success: All values provided	Bid	#0-45	Insured \$ per Bond	15	Per Bond	\$ 2.25	\$ 33.75
Success: All values provided	Bid	#0-46	Insured \$ per Bond	16	Per Bond	\$ 2.25	\$ 36.00
Success: All values provided	Bid	#0-47	Insured \$ per Bond	17	Per Bond	\$ 2.25	\$ 38.25
Success: All values provided	Bid	#0-48	Insured \$ per Bond	18	Per Bond	\$ 2.25	\$ 40.50
Success: All values provided	Bid	#0-49	Insured \$ per Bond	19	Per Bond	\$ 2.25	\$ 42.75

Primary Responses

Success: All data is valid!

Status	Bid/No Bid Decision	#	Item	Years to Maturity	Unit of Measure	Numeric	Total Cost
						Unit Price	
Success: All values provided	Bid	#0-50	Insured \$ per Bond	20	Per Bond	\$ 2.25	\$ 45.00
Success: All values provided	Bid	#0-51	Insured \$ per Bond	21	Per Bond	\$ 2.25	\$ 47.25
Success: All values provided	Bid	#0-52	Insured \$ per Bond	22	Per Bond	\$ 2.25	\$ 49.50
Success: All values provided	Bid	#0-53	Insured \$ per Bond	23	Per Bond	\$ 2.25	\$ 51.75
Success: All values provided	Bid	#0-54	Insured \$ per Bond	24	Per Bond	\$ 2.25	\$ 54.00
Success: All values provided	Bid	#0-55	Insured \$ per Bond	25	Per Bond	\$ 2.25	\$ 56.25
Success: All values provided	Bid	#0-56	Insured \$ per Bond	26	Per Bond	\$ 2.25	\$ 58.50
Success: All values provided	Bid	#0-57	Insured \$ per Bond	27	Per Bond	\$ 2.25	\$ 60.75
Success: All values provided	Bid	#0-58	Insured \$ per Bond	28	Per Bond	\$ 2.25	\$ 63.00
Success: All values provided	Bid	#0-59	Insured \$ per Bond	29	Per Bond	\$ 2.25	\$ 65.25
Success: All values provided	Bid	#0-60	Insured \$ per Bond	30	Per Bond	\$ 2.25	\$ 67.50