

City of Bethlehem

Refinancing Discussion

April 5, 2022

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Bethlehem Authority
Topics for Discussion
April 2022

Market Update

- 1) Long-term interest rates remain volatile as the market digests news about record levels of inflation, geopolitical events abroad, and the Federal Reserve's reaction to mitigate their impacts.
- 2) At its March 16th meeting, the Federal Reserve increased its short-term Federal Funds Target Rate for the first time since it dropped it to 0.00% at an emergency meeting at the beginning of the Pandemic. The current Fed Funds Target Range is now currently 0.25% to 0.50%.
- 3) Market participants expect the Federal Reserve to hike the Federal Funds Target Rate several times over the next few meetings to help mitigate the impacts of inflation, with some Wall Street analysts expecting up to six rate hikes in 2022.
- 4) While the Federal Reserve's action impacts the short end of the yield curve, the long end of the yield curve still remains historically low, creating a "flat yield curve" where there is not much difference between short term yields (0-5 years) and long term yields (10-30 years).

2022 Financing Plan

Refunding Candidate	Series of 2014
Financing Type	Guaranteed Water Revenue Bonds
Amount Outstanding	\$28,170,000
Average Rate	3.613%
Call Date	November 15, 2022
Final Maturity	November 15, 2032

- 5) The Authority's 2014 Bonds will be currently callable in August 2022, and the City and Authority are currently working through a refinancing plan with PFM and PRAG.
 - a. The savings will be realized over the life of the loan to help structure the annual debt service to accommodate future new money borrowings.
 - b. The final maturity of the new refunding bonds will not extend past the current final maturity of the 2014 Bonds.
 - c. During this refinancing, the Maintenance Reserve Fund (under the Indenture) and Debt Service Reserve Fund (for this Series only) are expected to be eliminated. Proceeds currently in each fund will be utilized as a source of proceeds to reduce the borrowing amount or available for water projects.
- 6) In addition to the 2014 refunding, the Authority will also be issuing approximately \$10 million of new money proceeds to fund various capital projects.
 - a. Currently structured as a 15-year wrap around the existing debt service structure. If the City and Authority would prefer, the financing team could structure the wrap to extend over 20-years.
- 7) City will adopt a Parameters Guarantee Ordinance for the Series of 2022 Bonds.

Bethlehem Authority
Topics for Discussion (cont.)
April 2022

Estimated Timeline

<i>March 10, 2022</i>	Authority to Select Underwriter(s)
<i>Week of March 14th, 2022</i>	Kick off Call with Working Group
<i>Week of March 28th, 2022 (or later)</i>	Distribute Draft Documents for Review
<i>April 5th, 2022</i>	First Reading of City Ordinance
<i>Week of April 11th, 2022 (or later)</i>	Publish Debt Act Notice for Ordinance
<i>April 14th, 2022</i>	Adopt Authority Resolution
<i>Week of April 18th, 2022 (or later)</i>	Enactment of City Ordinance Publish Post Enactment Notice
<i>Week of May 16, 2022 (or later)</i>	Pricing of the Bonds
<i>August 17, 2022 (or later)</i>	Settlement of the Bonds
<i>November 15, 2022</i>	Call Date of the 2014 Bonds

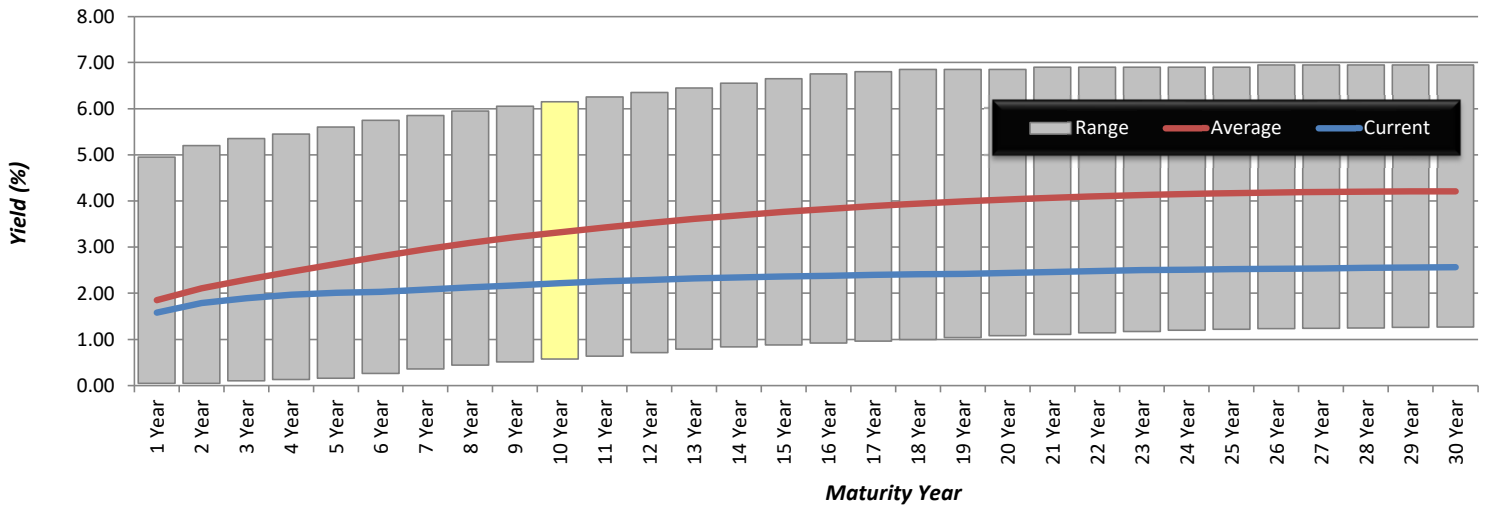
Financing Team

<i>Issuer</i>	Bethlehem Authority
<i>Guarantor</i>	City of Bethlehem
<i>Special Counsel to the City</i>	King, Spry, Herman, Freund & Faul, LLC
<i>Authority Bond Counsel</i>	Eckert Seamans Cherin & Mellott, LLC
<i>Authority Solicitor</i>	Broughal & Devito, L.L.P.
<i>Financial Advisor to the City</i>	PFM Financial Advisors LLC
<i>Financial Advisor to the Authority</i>	Public Resources Advisory Group, Inc.
<i>Trustee</i>	The Bank of New York Mellon
<i>Senior Managing Underwriter</i>	Janney Montgomery Scott
<i>Co-Managing Underwriter</i>	Raymond James

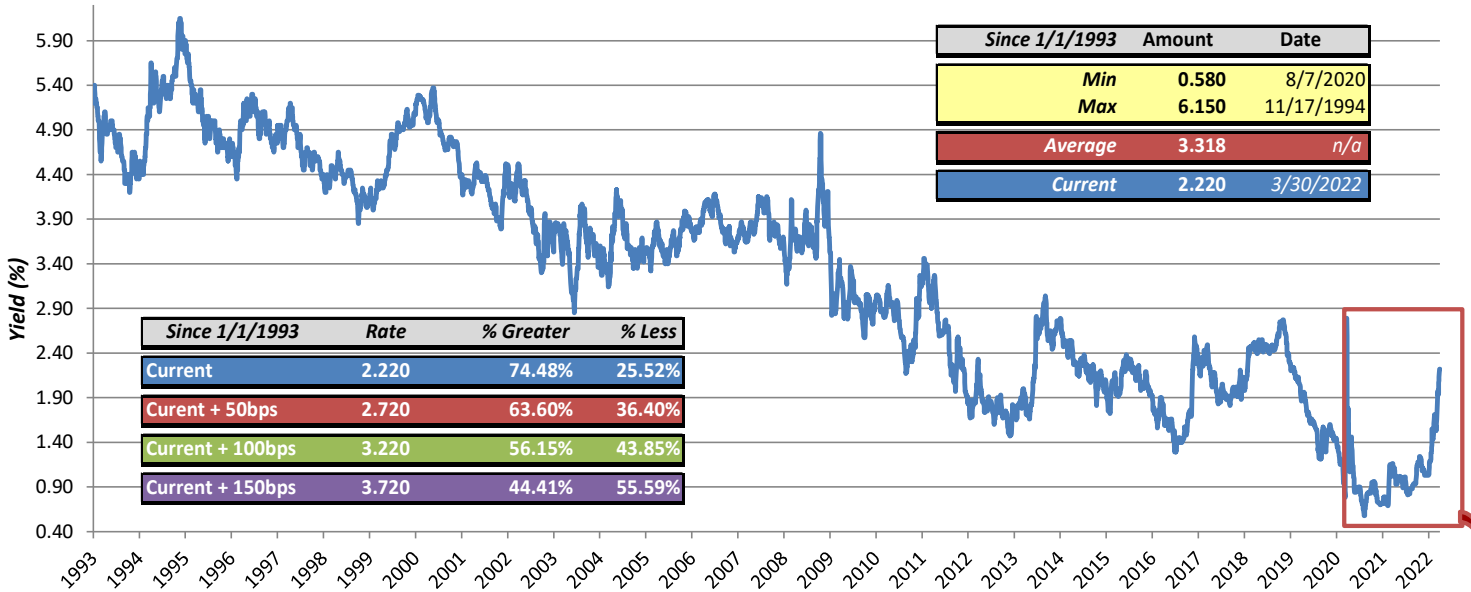
MUNICIPAL MARKET UPDATE

March 30, 2022

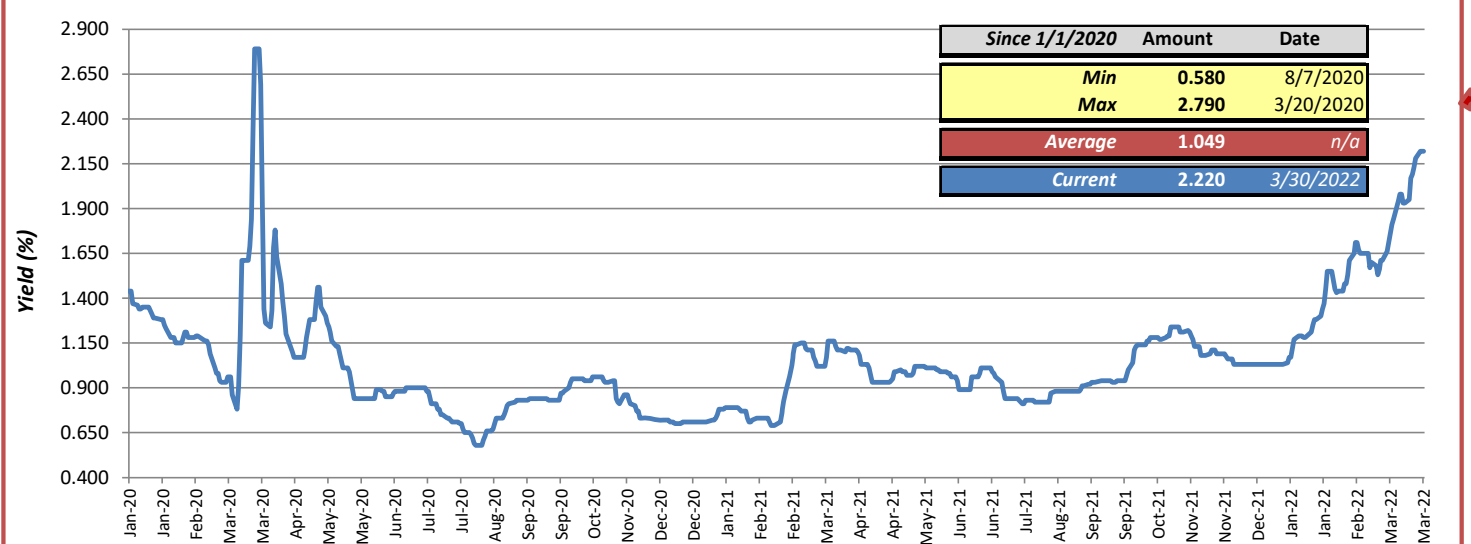
HISTORICAL MMD CURVE ILLUSTRATION - SINCE JANUARY 1, 1993



SPOT ANALYSIS - 10 YEAR MMD - SINCE JANUARY 1, 1993



SPOT ANALYSIS - 10 YEAR MMD - SINCE JANUARY 1, 2020



CITY OF BETHLEHEM
SUMMARY OF OUTSTANDING INDEBTEDNESS

Debt Service Requirements

1 Fiscal Year Ending	GENERAL OBLIGATION															TOTAL
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	G.O. Notes Series of 2007	G.O. Bonds Series B of 2013 (Taxable)	G.O. Notes Series A of 2014	G.O. Bonds Series A of 2015	G.O. Bonds Series B of 2015	G.O. Bonds Series A of 2017	G.O. Bonds Series B of 2017	G.O. Bonds Series C of 2017	G.O. Bonds Series E of 2017	G.O. Note Series of 2018	G.O. Bonds Series of 2019	G.O. Bonds Series A of 2019	G.O. Bonds Series AA of 2019	G.O. Bonds Series of 2020	Total Debt Service	
12/31/2022	428,018	882,232	349,900	176,131	375,550	506,740	478,339	370,321	2,580,200	125,475	440,846	4,707,085	834,219	603,150	12,858,206	
12/31/2023		883,527	647,588	175,300	377,675	506,740	475,939	371,721	2,570,200	123,025	441,396	4,412,522	834,419	601,150	12,421,201	
12/31/2024		882,128	107,625	964,469	374,125	506,359	478,139	372,721	2,325,700	125,575	441,646	4,409,802	838,619	603,025	12,429,932	
12/31/2025		881,377		1,073,844		510,059	474,739	373,321	2,708,200	127,950	439,946	4,412,494	835,119	603,650	12,440,699	
12/31/2026		879,001		1,328,775		508,459	475,939	368,521	2,461,700	125,150	438,146	4,410,782	827,719	601,000	12,425,192	
12/31/2027				1,334,813		507,271	476,039	371,646	3,334,838	127,350	440,556	4,413,977	833,619	601,225	12,441,333	
12/31/2028				711,563		1,545,371	474,939	368,846	1,153,125	124,375	442,569	5,307,116	834,119	601,250	11,563,272	
12/31/2029						2,192,121	478,539	370,896		126,400	438,900	5,865,869	833,394	600,450	10,906,569	
12/31/2030						2,056,361	476,294	372,371		123,250	439,650	5,751,669	827,350	604,400	10,651,345	
12/31/2031						2,052,455	478,638	368,465		125,100	439,200	5,753,221	840,138	603,100	10,660,316	
12/31/2032						1,600,375	475,198	369,185		126,775	442,500	5,237,022	837,250	601,600	9,689,904	
12/31/2033							476,223	369,435		123,275	440,350	3,968,942	389,025	604,850	6,372,099	
12/31/2034							475,870	368,740		124,775	442,900	3,967,079		196,950	5,576,314	
12/31/2035								372,700		126,100					498,800	
12/31/2036								370,556		127,250					497,806	
12/31/2037								373,050		123,225					496,275	
12/31/2038										124,200					124,200	
12/31/2039																
12/31/2040																
Totals	428,018	4,408,266	1,105,113	5,764,894	1,127,350	12,492,311	6,194,831	5,932,498	17,133,963	2,129,250	5,728,606	62,617,578	9,564,988	7,425,800	142,053,463	

Principal ^[2]	425,000	3,865,000	1,060,000	5,050,000	1,075,000	9,900,000	4,975,000	4,515,000	15,130,000	1,585,000	4,770,000	51,790,000	8,300,000	6,475,000	118,915,000
Call Date:	Unknown	4/1/2023	10/1/2021	8/1/2023	8/1/2023	6/1/2025	6/1/2025	6/1/2025	12/1/2025	Anytime	5/1/2024	4/1/2029	4/1/2025	10/1/2025	
Purpose:	Unknown	Cur Ref 2001	Cur Ref 2005A, 2005B	New Money	Cur Ref 2010	Adv Ref 2011A, 2013A & Cur Ref 2010C Note	New Money	New Money	Adv Ref 2011A Gtd Lease	New Money	New Money	Adv Ref Portion of 2011B, 2014B, & 2014C	Cur Ref 2012 & 2013A	Cur Ref 2012 Pennvest	
Fund Allocations:	911 Fund & Water Fund	General Fund	General Fund	General Fund	General Fund & Sewer Fund	General Fund	General Fund	Sewer Fund	General Fund	Golf Fund	General Fund	General Fund	General Fund & Sewer Fund	Sewer Fund	

[1] Principal & Interest per the Operating & Capital Budgets Book

[2] Outstanding as of February 28, 2022

CITY OF BETHLEHEM
SUMMARY OF OUTSTANDING INDEBTEDNESS

Debt Service Requirements							
GUARANTEED DEBT							
1	CITY OF BETHLEHEM	BETHLEHEM AUTHORITY		BETHLEHEM PARKING AUTHORITY			TOTAL
Fiscal Year Ending	Bethlehem City Gtd. Sewer Note Series of 2014 (PENNVEST #71405)	Bethlehem Auth Water Rev Bonds Series of 1998 (CABs)	Bethlehem Auth Gtd. Water Revenue Series of 2014	Beth. Parking Auth Gtd. Parking Revenue Series A of 2015	Beth. Parking Auth Gtd. Parking Revenue Series A of 2016 (Taxable)	Beth. Parking Auth Gtd. Parking Revenue Series B of 2016	Total Debt Service
12/31/2022	625,464	7,205,000	1,245,550	61,991	454,615	376,531	9,969,151
12/31/2023	625,464	7,230,000	1,289,500		454,223	376,531	9,975,718
12/31/2024	625,464	7,250,000	1,272,100		457,944	376,531	9,982,039
12/31/2025	625,464	7,275,000	1,245,150		180,294	651,531	9,977,439
12/31/2026	625,464	7,300,000	1,218,900			831,031	9,975,395
12/31/2027	625,464	7,320,000	1,203,413			831,256	9,980,133
12/31/2028	625,464	6,050,000	2,473,413			830,681	9,979,558
12/31/2029	625,464		8,520,550			834,281	9,980,295
12/31/2030	625,464		8,518,750			831,906	9,976,120
12/31/2031	625,464		6,472,500			833,650	7,931,614
12/31/2032	625,464		5,934,500			833,050	7,393,014
12/31/2033	625,464					832,000	1,457,464
12/31/2034	625,464					830,500	1,455,964
12/31/2035	625,464					833,550	1,459,014
12/31/2036	364,854					831,000	1,195,854
12/31/2037						833,000	833,000
12/31/2038						834,400	834,400
12/31/2039						830,200	830,200
12/31/2040						830,550	830,550
12/31/2041						830,300	830,300
12/31/2042						834,450	834,450
12/31/2043						832,850	832,850
12/31/2044						830,650	830,650
12/31/2045						832,850	832,850
12/31/2046						834,300	834,300
12/31/2047							
12/31/2048							
12/31/2049							
12/31/2050							
Totals	9,121,349	49,630,000	39,394,325	61,991	1,547,076	19,257,581	119,012,322
Principal [2]:	7,968,316	12,047,015	28,170,000	60,000	1,455,000	13,140,000	62,840,331
Call Date:	Anytime	Non-Callable	11/15/2022	4/1/2021	Non-Callable	10/1/2024	
Purpose:	New Money		Cur Ref 2004, 2010, 1997A & New Money	Cur Ref 2009	Cur Ref 2013 Note & New Money	Cur Ref 2013 Note & New Money	
Fund Allocations:	Sewer Fund	Water Fund	Water Fund	Parking	Parking	Parking	

[2] For these purposes, assumes full amortization starting May 2014. Assumes interest rate of 1.510% for first 5 years followed by interest rate of 3.018% for remaining years

[3] Outstanding as of February 28, 2022

BETHLEHEM AUTHORITY*Summary of 2022 Issuance - 2014 Bonds Refunding & New Money*

		1	2
		Series A of 2022	Series B of 2022
Est. Pricing		June 30, 2022	June 30, 2022
Est. Settlement		August 17, 2022	August 17, 2022
Purpose		2014 Bonds Refunding	New Money
Structure		Level Savings	Wrap
Bond Proceeds		\$29,050,000	\$10,000,000
Construction Fund Deposit		-	\$9,833,988
Estimated Net Savings		\$4,407,532	-
As a % of Principal		15.65%	-
Est. Average Rate		2.298%	2.766%

3	4	5	6	7	8
Fiscal Year Ending	Existing Water Debt Service	Estimated Debt Service Savings ^{[1][2]}	Sub-Total New Water Debt Service	Estimated New Money Debt Service ^[1]	Total New Estimated Water Debt Service
12/31/2022	8,450,550	384,757	8,065,793	71,317	8,137,109
12/31/2023	8,519,500	244,200	8,275,300	296,750	8,572,050
12/31/2024	8,522,100	226,800	8,295,300	296,600	8,591,900
12/31/2025	8,520,150	199,850	8,320,300	296,450	8,616,750
12/31/2026	8,518,900	173,600	8,345,300	296,300	8,641,600
12/31/2027	8,523,413	158,113	8,365,300	296,150	8,661,450
12/31/2028	8,523,413	763,113	7,760,300	296,000	8,056,300
12/31/2029	8,520,550	968,500	7,552,050	295,850	7,847,900
12/31/2030	8,518,750	1,218,700	7,300,050	295,700	7,595,750
12/31/2031	6,472,500	68,200	6,404,300	1,195,550	7,599,850
12/31/2032	5,934,500	1,700	5,932,800	1,623,400	7,556,200
12/31/2033				1,622,600	1,622,600
12/31/2034				1,620,600	1,620,600
12/31/2035				1,622,400	1,622,400
12/31/2036				1,617,850	1,617,850
12/31/2037				1,617,100	1,617,100
12/31/2038					
12/31/2039					
12/31/2040					
TOTAL	89,024,325	4,407,532	84,616,793	13,360,617	97,977,409
	<i>Present Value</i>	<i>3,874,946</i>		<i>9,963,128</i>	

^[1] Rates based on interpolated November MMD as of February 18, 2022, plus spreads provided RFP results submitted February 18, 2022.

^[2] Estimated savings does not include the potential release of any monies from the debt service reserve fund or the maintenance reserve fund.

^[3] Does not include the estimated release of the \$2 million reserve fund once 75% bond holder consent is achieved.

^[4] 2014 Bonds call date is November 15, 2022.

BETHLEHEM AUTHORITY
Summary of Water Fund New Money Options

	1	2	3	4	5
	Series A of 2022	Series B of 2022	2026	2029	TOTAL
Est. Pricing	June 30, 2022	June 30, 2022	May 2026	May 2029	-
Est. Settlement	August 17, 2022	August 17, 2022	June 2026	June 2029	-
Purpose	2014 Bonds Refunding	New Money	New Money	New Money	-
Structure	Level Savings	Wrap	Wrap	Wrap	-
Term	11 Years	15 Years	20 Years	20 Years	
Bond Proceeds	\$29,050,000	\$10,000,000	\$12,980,000	\$14,615,000	\$66,645,000
Construction Fund Deposit	-	\$9,832,137	\$12,737,495	\$14,349,930	\$36,919,563
Estimated Net Savings	\$4,407,532	-	-	-	\$4,407,532
As a % of Principal	15.65%	-	-	-	-
Est. Average Rate	2.298%	2.925%	3.106%	3.334%	-

6	7	8	9	10	11	12	13
Fiscal Year Ending	Existing Water Debt Service	Estimated Debt Service Savings ^{[1][2]}	Sub-Total New Water Debt Service	Estimated New Money Debt Service ^[1]	Estimated New Money Debt Service ^[3]	Estimated New Money Debt Service ^[3]	Total New Estimated Water Debt Service
12/31/2022	8,450,550	384,757	8,065,793	71,317			8,137,109
12/31/2023	8,519,500	244,200	8,275,300	296,750			8,572,050
12/31/2024	8,522,100	226,800	8,295,300	296,600			8,591,900
12/31/2025	8,520,150	199,850	8,320,300	296,450			8,616,750
12/31/2026	8,518,900	173,600	8,345,300	296,300	178,897		8,820,497
12/31/2027	8,523,413	158,113	8,365,300	296,150	397,700		9,059,150
12/31/2028	8,523,413	763,113	7,760,300	296,000	397,550		8,453,850
12/31/2029	8,520,550	968,500	7,552,050	295,850	397,400	206,093	8,451,393
12/31/2030	8,518,750	1,218,700	7,300,050	295,700	397,250	457,400	8,450,400
12/31/2031	6,472,500	68,200	6,404,300	1,195,550	397,100	457,250	8,454,200
12/31/2032	5,934,500	1,700	5,932,800	1,623,400	441,950	457,100	8,455,250
12/31/2033				1,622,600	1,150,450	1,146,950	3,920,000
12/31/2034				1,620,600	1,152,650	1,146,100	3,919,350
12/31/2035				1,622,400	1,154,100	1,144,650	3,921,150
12/31/2036				1,617,850	1,154,800	1,142,600	3,915,250
12/31/2037				1,617,100	1,154,750	1,144,950	3,916,800
12/31/2038					1,153,950	1,146,550	2,300,500
12/31/2039					1,152,400	1,142,400	2,294,800
12/31/2040					1,150,100	1,142,650	2,292,750
12/31/2041					1,152,050	1,142,150	2,294,200
12/31/2042					1,153,100	1,145,900	2,299,000
12/31/2043					1,153,250	1,143,750	2,297,000
12/31/2044					1,147,500	1,145,850	2,293,350
12/31/2045					1,151,000	1,142,050	2,293,050
12/31/2046					1,148,450	1,142,500	2,290,950
12/31/2047						1,142,050	1,142,050
12/31/2048						1,145,700	1,145,700
12/31/2049						1,143,300	1,143,300
12/31/2050							
TOTAL	89,024,325 Present Value	4,407,532 3,874,946	84,616,793	13,360,617 9,963,128	18,736,397 12,931,990	21,027,943 14,560,370	137,741,749

^[1] Rates based on interpolated November MMD as of February 18, 2022, plus spreads provided RFP results submitted February 18, 2022.

^[2] Estimated savings does not include the potential release of any monies from the debt service reserve fund or the maintenance reserve fund.

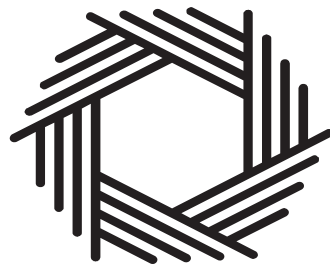
^[3] Rates based on current market conditions as of February 2022. Municipal bond market is fluid, actual rates/net savings to be locked-in at time of pricing.

^[3] Does not include the estimated release of the \$2 million reserve fund once 75% bond holder consent is achieved.

^[4] 2014 Bonds call date is November 15, 2022.

^[5] For illustrative purposes only, 2026 and 2029 financings are shown as 20-year terms. Actual term of financings to be determined at time of pricing.

Maximum Parameters Schedule



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BETHLEHEM AUTHORITY Series of 2022 (New Money and Refunding)						
MAXIMUM PARAMETERS SCHEDULE						

	1	2	3	5	6	7
	<u>Date</u>	<u>Max Principal</u>	<u>Max Rate</u>	<u>Interest</u>	<u>Semi-Annual Debt Service</u>	<u>Fiscal Year Debt Service</u>
	11/15/2022	100,000	5.500	672,222.22	772,222.22	772,222.22
	5/15/2023			1,372,250.00	1,372,250.00	
	11/15/2023	100,000	5.500	1,372,250.00	1,472,250.00	2,844,500.00
	5/15/2024			1,369,500.00	1,369,500.00	
	11/15/2024	100,000	5.500	1,369,500.00	1,469,500.00	2,839,000.00
	5/15/2025			1,366,750.00	1,366,750.00	
	11/15/2025	100,000	5.500	1,366,750.00	1,466,750.00	2,833,500.00
	5/15/2026			1,364,000.00	1,364,000.00	
	11/15/2026	100,000	5.500	1,364,000.00	1,464,000.00	2,828,000.00
	5/15/2027			1,361,250.00	1,361,250.00	
	11/15/2027	100,000	5.500	1,361,250.00	1,461,250.00	2,822,500.00
	5/15/2028			1,358,500.00	1,358,500.00	
	11/15/2028	1,760,000	5.500	1,358,500.00	3,118,500.00	4,477,000.00
	5/15/2029			1,310,100.00	1,310,100.00	
	11/15/2029	8,000,000	5.500	1,310,100.00	9,310,100.00	10,620,200.00
	5/15/2030			1,090,100.00	1,090,100.00	
	11/15/2030	8,100,000	5.500	1,090,100.00	9,190,100.00	10,280,200.00
	5/15/2031			867,350.00	867,350.00	
	11/15/2031	7,785,000	5.500	867,350.00	8,652,350.00	9,519,700.00
	5/15/2032			653,262.50	653,262.50	
	11/15/2032	8,000,000	5.500	653,262.50	8,653,262.50	9,306,525.00
	5/15/2033			433,262.50	433,262.50	
	11/15/2033	1,850,000	5.500	433,262.50	2,283,262.50	2,716,525.00
	5/15/2034			382,387.50	382,387.50	
	11/15/2034	1,900,000	5.500	382,387.50	2,282,387.50	2,664,775.00
	5/15/2035			330,137.50	330,137.50	
	11/15/2035	1,950,000	5.500	330,137.50	2,280,137.50	2,610,275.00
	5/15/2036			276,512.50	276,512.50	
	11/15/2036	2,000,000	5.500	276,512.50	2,276,512.50	2,553,025.00
	5/15/2037			221,512.50	221,512.50	
	11/15/2037	2,055,000	5.500	221,512.50	2,276,512.50	2,498,025.00
	5/15/2038			165,000.00	165,000.00	
	11/15/2038	1,170,000	5.500	165,000.00	1,335,000.00	1,500,000.00
	5/15/2039			132,825.00	132,825.00	
	11/15/2039	1,185,000	5.500	132,825.00	1,317,825.00	1,450,650.00
	5/15/2040			100,237.50	100,237.50	
	11/15/2040	1,210,000	5.500	100,237.50	1,310,237.50	1,410,475.00
	5/15/2041			66,962.50	66,962.50	
	11/15/2041	1,215,000	5.500	66,962.50	1,281,962.50	1,348,925.00
	5/15/2042			33,550.00	33,550.00	
	11/15/2042	1,220,000	5.500	33,550.00	1,253,550.00	1,287,100.00
	TOTALS	50,000,000		29,183,122.22	79,183,122.22	79,183,122.22



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