

**BOOK-ENTRY ONLY**

**Insured Bond Rating:** S&P Global Ratings- "AA" (Stable)  
**Insured By:** Build America Mutual Assurance Company  
**Underlying Bond Rating:** S&P Global Ratings- "AA-" (Negative Outlook)  
 (See "Bond Insurance" and "Ratings" herein)

*In the opinion of Bond Counsel, under existing law and assuming continuing compliance by the Authority with certain covenants intended to assure continuing compliance with the Internal Revenue Code of 1986, as amended (the "Code"), and all applicable regulations thereunder, interest on the Bonds (including any original issue discount properly allocable to the owner of Bonds) is excluded from gross income for Federal income tax purposes and is not a specific preference item for purposes of the federal alternative minimum tax. For the purpose of rendering such opinion, Bond Counsel has assumed compliance by the Authority with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the issuance of the Bonds in order that the interest thereon be, and continue to be, excludable from gross income for federal income tax purposes. Furthermore, in the opinion of Bond Counsel, under existing law, the Bonds are exempt from Pennsylvania personal property taxes and the interest on the Bonds are exempt from Pennsylvania personal income tax and corporate net income tax. For a discussion of other federal tax consequences arising with respect to the Bonds. (See "TAX EXEMPTION AND OTHER TAX MATTERS" herein.)*

**\$26,205,000**

**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**(Allegheny County, Pennsylvania)**  
**Water Revenue Bonds, Series of 2020**

**Dated:** Date of Delivery: August 20, 2020**Interest Payable:** March 15 and September 15**Due:** September 15 (of the years as shown on the inside cover)**First Interest Payment Date:** September 15, 2020

The Water Revenue Bonds, Series of 2020 (the "Bonds" or the "Water Revenue Bonds"), will be issued in the aggregate principal amount of \$26,205,000. The Bonds will mature on September 15, 2021 through September 15, 2039, and will pay interest semi-annually, from their Dated Date, on March 15 and September 15 of each year, commencing on September 15, 2020 at the rates shown on the inside cover.

When issued, the Bonds will be registered in the name of Cede & Co., as registered owner and nominee for The Depository Trust Company ("DTC"), New York, New York. So long as Cede & Co. is the registered owner, reference herein to the registered owner of Bonds shall mean Cede & Co., and not the Beneficial Owners (as defined herein). DTC will act as securities depository of the Bonds, and purchases of beneficial ownership interests in the Bonds will be made in book-entry form only, in denominations of \$5,000 or integral multiples thereof. Beneficial Owners will not receive certificates representing their interest in the Bonds. See "Book-Entry Only System" herein. Principal of, and redemption price, if any, on the Bonds will be paid by The Bank of New York Mellon Trust Company N.A., Pittsburgh, Pennsylvania, as Sinking Fund Depository and Trustee (the "Trustee"). So long as Cede & Co. is the registered owner, the Trustee will pay principal of and interest on the Bonds to DTC, which will remit such principal and interest to its Participants (as defined herein), which will in turn remit such principal and interest to the Beneficial Owners of the Bonds, as more fully described herein. See "THE BONDS - Book-Entry Only System" herein.

**SECURITY:** The Bonds are payable from the Receipts and Revenues of the Authority derived from the operation by the Authority of its Water System, after payment of the Water System's Operating Expenses, and from any other moneys available therefor, as provided in the Trust Indenture dated as of July 15, 1982, as supplemented, between the Authority and the Trustee (the "Original Indenture"), as amended and supplemented by various supplemental indentures entered into in connection with the issuance of the prior series of bonds and by the Eighth Supplemental Trust Indenture to be entered into in connection with issuance of the Bonds and to be dated as of August 20, 2020 (the "Eighth Supplemental Indenture"), (collectively, the "Indenture"), See Appendix C - "SUMMARY OF THE INDENTURE."

**THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE AUTHORITY, ANY POLITICAL SUBDIVISION SERVED BY THE AUTHORITY, THE COUNTY OF ALLEGHENY, THE COMMONWEALTH OF PENNSYLVANIA, OR ANY AGENCY OR POLITICAL SUBDIVISION THEREOF IS PLEDGED TO PAY THE PRINCIPAL OF AND INTEREST ON THE BONDS. THE AUTHORITY HAS NO TAXING POWER.**

**REDEMPTION:** The Bonds are subject to optional and mandatory sinking fund redemption prior to maturity. "THE BONDS - Redemption Provisions."

**AUTHORIZATION FOR ISSUANCE:** The Bonds are being issued in accordance with the Pennsylvania Municipality Authorities Act of 2001, as amended (53 Pa. C.S.A. §5601 et seq) (the "Act"), and pursuant to the Indenture and a Resolution duly adopted by the Authority on April 28, 2020 (the "Resolution").

The scheduled payment of principal of and interest on the Bonds when due will be guaranteed under a municipal bond insurance policy to be issued concurrently with the delivery of the Bonds by Build America Mutual Assurance Company.



**MATURITY SCHEDULE**  
 (See Schedule herein)

The Bonds are offered, subject to prior sale, withdrawal or modification, when, as and if issued by the Authority and received by the Underwriter and subject to the approving legal opinion of Dickie, McCamey & Chilcote, P.C., Pittsburgh, Pennsylvania, Bond Counsel. Said opinion will be furnished upon delivery of the Bonds. Certain legal matters will be passed upon by Bruce E. Dice & Associates, P.C., Pittsburgh, Pennsylvania, Solicitor for the Authority. The Bonds are expected to be delivered on or about August 20, 2020.

**\$26,205,000**  
**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**(Allegheny County, Pennsylvania)**  
**Water Revenue Bonds, Series of 2020**

**Dated:** (Date of Delivery) August 20, 2020

**Due:** September 15 (as shown below)

<u>Year</u>	<u>Amount</u>	<u>Coupon</u>	<u>Yield</u>	<u>Price</u>	<u>CUSIPs*</u>
9/15/2021	\$ 25,000	4.000%	0.400%	103.837%	968546LV1
9/15/2022	25,000	4.000%	0.450%	107.303%	968546LW9
9/15/2023	1,110,000	4.000%	0.450%	110.809%	968546LX7
9/15/2024	1,155,000	4.000%	0.550%	113.864%	968546LY5
9/15/2025	1,205,000	4.000%	0.690%	116.461%	968546LZ2
9/15/2026	1,250,000	4.000%	0.840%	118.660%	968546MA6
9/15/2027	1,300,000	4.000%	0.990%	120.501%	968546MB4
9/15/2028	1,355,000	4.000%	1.100%	122.333%	968546MC2
9/15/2029	1,410,000	4.000%	1.220%	123.798%	968546MD0
9/15/2030	1,465,000	4.000%	1.340%	124.977%	968546ME8
9/15/2031	1,525,000	4.000%	1.490%	123.388% C	968546MF5
9/15/2032	1,585,000	4.000%	1.610%	122.133% C	968546MG3
9/15/2033	1,645,000	4.000%	1.700%	121.202% C	968546MH1
9/15/2034	1,710,000	4.000%	1.790%	120.279% C	968546MJ7
9/15/2035	1,780,000	4.000%	1.830%	119.871% C	968546MK4

**\$7,660,000 3.000% Term Bonds due September 15, 2039 Priced at 106.166%<sup>C</sup> to Yield 2.310% CUSIP\*968546ML2**

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<sup>C</sup> Priced to first optional call date September 15, 2030.

IN CONNECTION WITH THIS OFFERING, PIPER SANDLER & CO. (THE “UNDERWRITER”), MAY OVER-ALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

NO DEALER, BROKER, SALESMAN OR OTHER PERSON HAS BEEN AUTHORIZED BY THE AUTHORITY OR THE UNDERWRITER TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS, OTHER THAN THOSE CONTAINED WITHIN THIS OFFICIAL STATEMENT, AND, IF GIVEN OR MADE, SUCH OTHER INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY ANY OF THE FOREGOING. THIS OFFICIAL STATEMENT DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY, NOR SHALL THERE BE ANY SALE OF THE BONDS BY ANY PERSON IN ANY STATE IN WHICH IT IS UNLAWFUL FOR SUCH PERSON TO MAKE SUCH OFFER, SOLICITATION OR SALE. THIS OFFICIAL STATEMENT HAS BEEN APPROVED BY THE AUTHORITY AND, WHILE THE INFORMATION SET FORTH IN THIS OFFICIAL STATEMENT HAS BEEN FURNISHED BY THE AUTHORITY AND OTHER SOURCES WHICH ARE BELIEVED TO BE RELIABLE, SUCH INFORMATION IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS, AND IS NOT TO BE CONSTRUED AS A REPRESENTATION BY THE UNDERWRITER OR, AS TO INFORMATION OBTAINED FROM OTHER SOURCES, BY THE AUTHORITY. THE INFORMATION AND EXPRESSIONS OF OPINION HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE, AND NEITHER THE DELIVERY OF THIS OFFICIAL STATEMENT NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE AUTHORITY SINCE THE DATE HEREOF.

The Underwriter has provided the following sentence for inclusion in this Official Statement: The Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

Build America Mutual Assurance Company (“BAM”) makes no representation regarding the Bonds or the advisability of investing in the Bonds. In addition, BAM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding BAM, supplied by BAM and presented under the heading “BOND INSURANCE” and in “APPENDIX G – SPECIMEN MUNICIPAL BOND INSURANCE POLICY”.

The Authority has deemed this Official Statement to be final for the purposes of Rule 15c2-12(b)(1) of the Securities and Exchange Commission.

**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**(Allegheny County, Pennsylvania)**  
**Water Revenue Bonds, Series of 2020**

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The Table of Contents does not list all of the subjects in this Official Statement and in all instances reference should be made to the complete Official Statement to determine the subjects set forth herein.

**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**2200 Robinson Boulevard**  
**Pittsburgh, Pennsylvania 15221**  
**(412) 243-6200**

**MEMBERS OF THE BOARD**

Dennis Simon.....Chairman  
John Vento.....Vice Chairman  
Vivian M. Broz.....Secretary  
George Fuller.....Treasurer  
Phillip Scolieri.....Assistant Secretary  
David Gilliland.....Assistant Treasurer  
William J. Coles, Jr.....Member  
Tracey Crombie-Collins.....Member  
Theodore Czekaj.....Member  
Brenda Joyce-May.....Member  
Kathleen Rawlins.....Member  
John Vahosky.....Member

**MANAGER**

Nick Bianchi

**COUNSEL TO AUTHORITY**

Bruce E. Dice & Associates, P.C.  
Pittsburgh, Pennsylvania

**CONSULTING ENGINEER**

Mackin Engineering Co.  
Pittsburgh, Pennsylvania

**BOND COUNSEL**

Dickie, McCamey & Chilcote, P.C.  
Pittsburgh, Pennsylvania

**TRUSTEE**

The Bank of New York Mellon Trust Company, N.A.  
Pittsburgh, Pennsylvania

**DISSEMINATION AGENT**

Digital Assurance Certification (DAC)  
Orlando, Florida

**MANAGING UNDERWRITER**

Piper Sandler & Co.  
Pittsburgh, Pennsylvania

**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**Allegheny County, Pennsylvania**

**SUMMARY STATEMENT**

This Summary Statement is qualified in its entirety and subject in all respects to more complete information contained in this Official Statement. No person is authorized to detach this Summary Statement or otherwise use it without the entire Official Statement.

<b>Issuer</b> .....	The Wilkinsburg-Penn Joint Water Authority, Allegheny County, Pennsylvania.
<b>Bonds</b> .....	\$26,205,000 aggregate principal amount of The Wilkinsburg-Penn Joint Water Authority, Water Revenue Bonds, Series of 2020 (the "Bonds" or the "Water Revenue Bonds").
<b>Redemption Provisions</b> .....	The Bonds maturing after September 15, 2030 are subject to redemption prior to maturity, in whole or in part, at the option of the Authority in any order of maturity, on September 15, 2030, or on any date thereafter at 100% of the principal amount thereof plus interest accrued to the date fixed for redemption. The Bonds are subject to mandatory sinking fund redemption. See "THE BONDS – Redemption Provisions".
<b>Form</b> .....	Book-Entry Only Bonds.
<b>Application of Proceeds</b> .....	The proceeds of the Bonds will be used to provide funds: (1) for various capital projects to upgrade the Authority's Water System, and (2) to pay all costs and expenses incident to the issuance of the Bonds. See "SOURCES AND USES OF FUNDS".
<b>Security</b> .....	The Bonds are payable from the receipts and revenues of the Authority derived from the operation by the Authority of its Water System, after payment of the Water System's Operating Expenses, and from any other moneys available therefor, as provided in the Trust Indenture dated as of July 15, 1982, as supplemented, between the Authority and the Trustee (the "Original Indenture"), as amended and supplemented by various supplemental indentures entered into in connection with the issuance of the prior series of bonds and by the Eighth Supplemental Trust Indenture to be entered into in connection with this issue and to be dated as of August 20, 2020, (the "Eighth Supplemental Indenture"), (collectively, the "Indenture"), See Appendix C - "SUMMARY OF THE INDENTURE."
	<b>THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE AUTHORITY, ANY POLITICAL SUBDIVISION SERVED BY THE AUTHORITY, THE COUNTY OF ALLEGHENY, THE COMMONWEALTH OF PENNSYLVANIA, OR ANY AGENCY OR POLITICAL SUBDIVISION THEREOF IS PLEDGED TO PAY THE PRINCIPAL OF AND INTEREST ON THE BONDS. THE AUTHORITY HAS NO TAXING POWER.</b>
<b>Investment Considerations</b> .....	For certain Investment Considerations relating to the decision to purchase the Bonds, see "INVESTMENT CONSIDERATIONS".
<b>Insurance</b> .....	The Bonds carry a commitment from Build America Mutual Assurance Company ("BAM") under which an insurance policy will be issued at the time of delivery of the Bonds, which policy assures the payment of the principal and interest to the registered owners of the Bonds. (See "BOND INSURANCE" herein.)
<b>Ratings</b> .....	The Bonds are expected to receive an insured bond rating of "AA" (Stable) from S&P Global Ratings, New York, New York, ("S&P"), with the understanding that the above described bond insurance policy will be issued at the time of settlement of the Bonds. The Bonds are expected to receive an underlying rating from S&P of "AA-" (Negative Outlook) based on the Authority's financial condition. (See "RATINGS" herein.)
<b>Continuing Disclosure Undertaking</b> .....	The Authority has agreed to provide, or cause to be provided, in a timely manner, certain information in accordance with the requirements of Rule 15c2-12, as promulgated under the Securities Exchange Act of 1934, as amended and interpreted (the "Rule"). See "CONTINUING DISCLOSURE UNDERTAKING" herein.

**\$26,205,000**  
**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**(Allegheny County, Pennsylvania)**  
**Water Revenue Bonds, Series of 2020**

**INTRODUCTION**

The purpose of this Official Statement, including the cover page and Appendices, is to furnish information relating to The Wilkesburg-Penn Joint Water Authority (the "Authority") and its Water System (as more fully described herein under "THE WATER SYSTEM"), in connection with the offer and the sale of \$26,205,000 aggregate principal amount of the Authority's Water Revenue Bonds, Series of 2020 (the "Bonds") being offered for sale.

The Bonds are being issued by the Authority pursuant to the Constitution and laws of the Commonwealth of Pennsylvania, including the Municipality Authorities Act of 53 Pa. C.S.A. § 5601, (the "Act") and the Bond Resolution adopted by the Authority on April 28, 2020, (the "Bond Resolution"), and are secured by the Trust Indenture dated as of July 15, 1982, as amended and supplemented by various supplemental indentures entered into in connection with the issuance of the prior series of Bonds and by the Eighth Supplemental Trust Indenture to be entered into in connection with this issue and to be dated as of August 20, 2020, (the "Eighth Supplemental Indenture"), (collectively, the "Indenture"), between the Authority and The Bank of New York Mellon Trust Company, N.A., Pittsburgh, Pennsylvania, as Trustee (the "Trustee").

Brief descriptions of the Authority, the Bonds and the Water System are included in this Official Statement. Financial information with respect to the Authority is included in Appendix B hereto. The Authority's Consulting Engineer's Report prepared by Mackin Engineering Co. (the "Consulting Engineer"), in connection with the issuance of the Bonds, is included in Appendix A hereto (the "Consulting Engineer's Report"). It includes descriptions of the Authority's projected revenues and expenses and related matters. A Summary of the Indenture is included in Appendix C hereto.

The form of Bond Counsel opinion is included in Appendix E hereto.

It is essential that all Appendices be read as well as this Official Statement for an understanding of the Authority and the Bonds. The descriptions of documents contained herein are qualified in their entirety by reference to such documents, and such documents, as well as all information contained herein, are qualified in their entirety by laws and principles of equity and bankruptcy and other laws and principles relating to or affecting the enforcement of creditors' rights generally. Copies of all such documents may be obtained from the Authority.

Capitalized terms used in this Official Statement and not otherwise defined herein have the respective meanings ascribed to such terms in the Indenture. See Appendix C "SUMMARY OF THE INDENTURE" herein.

**THE AUTHORITY**

**Introduction**

The Authority, a body corporate and politic organized and existing under the laws of the Commonwealth of Pennsylvania (the "Commonwealth"), was incorporated on October 4, 1945 under the Act. The Authority is governed by a Board of twelve (12) members, three (3) of whom are appointed by the Borough Council of the Borough of Wilkesburg, two (2) by the Municipal Council of the Municipality of Penn Hills, and one (1) each by the Borough Councils of the Boroughs of Churchill, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Swissvale and Turtle Creek. The Authority was created to construct and operate a water distribution system to better serve the residents of the aforementioned municipalities (the "Water System"). In December 2001 the Authority Articles of Incorporation were amended to add sewage projects as an eligible project or projects of the Authority.

The Authority is managed by a Board of twelve (12) members and a full-time Manager. The following table sets forth the names and offices for the current members of the Authority Board:

<u>Members of the Authority</u>	<u>Title</u>
Dennis Simon .....	Chairman
John Vento .....	Vice Chairman
Vivian M. Broz .....	Secretary
George Fuller .....	Treasurer
Phillip Scolieri .....	Assistant Secretary
David Gilliland .....	Assistant Treasurer
William J. Coles, Jr. ....	Member
Tracey Crombie-Collins .....	Member
Theodore Czekaj .....	Member
Brenda Joyce-May .....	Member
Kathleen Rawlins .....	Member
John Vahosky .....	Member

Mr. Nick Bianchi serves as Manager of the Authority. Bruce E. Dice & Associates, P.C., Pittsburgh, Pennsylvania, is Solicitor for the Authority. The Consulting Engineer for the Authority is Mackin Engineering Co. (the "Consulting Engineer"), Pittsburgh, Pennsylvania.

**Prior Obligations**

The Authority issued its \$13,120,000 aggregate principal amount of Water Revenue Bonds, Series of 1982, and \$1,030,000, principal amount of Special Obligation Bonds, Series of 1982-A (collectively referred to as the "1982 Bonds") on July 15, 1982. The 1982 Bonds were issued in part for the purpose of refunding all then outstanding Water Revenue Bonds of the Authority. A portion of the proceeds additionally provided funds for the renovation of the existing Water Treatment Plant. The Authority issued its \$15,805,000 aggregate principal amount of Water Revenue Bonds, Refunding Series of 1983 (the "1983 Bonds") on September 27, 1983. The 1983 Bonds were issued for the purpose of refunding the 1982 Bonds. The Authority issued its \$19,360,000 aggregate principal amount of Water Revenue Bonds, Series of 1986 (the "1986 Bonds") on August 15, 1986. The 1986 Bonds were issued, in part, for the purpose of refunding the 1983 Bonds. Additionally, proceeds were used to renovate existing water properties of the Authority. The Authority issued its \$16,391,768.05 aggregate principal amount of Water Revenue Bonds, Series of 1992 (the "1992 Bonds") on June 15, 1992. The 1992 Bonds were issued to fund various capital improvements to the Authority's Water System. The Authority issued its \$34,165,000 aggregate principal amount of Water Revenue Refunding Bonds, Series A of 1993 and Series B of 1993 (collectively referred to as the "1993 Bonds") on September 23, 1993 to refund all then outstanding Water Revenue Bonds of the Authority. The Authority issued its \$30,650,000 aggregate principal amount of Water Revenue Refunding Bonds, Series A of 2002 and Water Revenue Bonds, Refunding Series B of 2002 (collectively referred to as the "2002 Bonds") on October 15, 2002, to pay the costs of capital projects and to currently refund all of the outstanding Water Revenue Refunding Bonds, Series A of 1993. The Authority issued its \$9,410,000 aggregate principal amount of Water Revenue Bonds, Refunding Series of 2011 (collectively referred to as the "2011 Bonds") on July 15, 2011, to advance refund all of the outstanding Water Revenue Refunding Bonds, Series A of 2002. The Authority issued its \$5,675,000 aggregate principal amount of Water Revenue Bonds, Series of 2017 (collectively referred to as the "2017 Bonds") on April 26, 2017, to currently refund all of the outstanding Water Revenue Bonds, Refunding Series of 2011 and various capital project to upgrade the Water System. The Authority is subject to contractual and other liabilities, as described in Appendix A - "CONSULTING ENGINEER'S REPORT" and Appendix B "AUDITED FINANCIAL STATEMENTS- Fiscal Year End December 31, 2018 and 2017".

**PURPOSE OF THE ISSUE**

The proceeds of the Bonds will be used to provide funds: (1) for various capital projects to upgrade the Authority's Water System, and (2) to pay all costs and expenses incident to the issuance of the Bonds.



**SOURCES AND USES OF FUNDS**

**Sources and Uses of Funds**

It is estimated that monies will be provided, and applied, substantially in accordance with the following table

<b>Sources:</b>	
Principal Amount of Bonds .....	\$26,205,000.00
Plus: Original Issue Premium .....	<u>4,214,127.40</u>
 Total Sources .....	 <u>\$30,419,127.40</u>
 <b>Uses:</b>	
Project Fund Deposit (2020 Project Fund) .....	\$30,000,000.0
Costs of Issuance (1) .....	414,142.78
Additional Proceeds .....	<u>4,984.62</u>
 Total Uses .....	 <u>\$30,419,127.40</u>

(1) Includes underwriter’s discount, legal fees, rating agency, bond insurance and surety, document printing, trustee fees, CUSIP, registration and advertising fees and expenses.

**THE CAPITAL PROJECTS**

The Authority is undertaking the following capital projects including but not limited to funding various Water System upgrades.

The proposed Water System improvements include modifications to the existing water distribution system, Nadine Pump Station and Tyler Road water treatment plant. Improvements planned include but are not limited to the following items:

- a. Replace certain transmission mains within the Authority water distribution system.
- b. Upgrade to main pumps at Nadine Pump Station.
- c. Review and possible replacement of metering at the Tyler Road water treatment plant.
- d. Other upgrade and replacement projects as deemed necessary by the Authority.

The Authority has a five year plan for future upgrades that is adjusted on a yearly basis based on necessity for continuous operation of the Water System.

**THE WATER SYSTEM**

**General**

The Water System is described in the Consulting Engineer’s Report included in Appendix A hereto and the Tables and Figures referred to in such report. The following information is qualified by reference to the Consulting Engineer’s Report.

**Description**

In 1946, the Authority purchased the water system of the Pennsylvania Water Company, which had been established in 1887. Since that time, the Authority has increased its total number of consumers from 27,316 to a present level of approximately 38,700 consumers. Water for redistribution through two local water authorities (Braddock Water Authority and the Municipal Authority of Westmoreland County) is also furnished, thereby adding approximately 2,500 customers served indirectly by the Authority.

Service for the direct customers of the Authority and the local water authorities is maintained through a complex network of storage facilities and pipelines. Water from the Allegheny River is channeled to the pipelines and storage facilities from the Nadine Pumping Station to the Tyler Road Filter Plant and then to a network of pipelines and storage facilities. The Nadine Pumping Station pumped a daily average of approximately 17.9 million gallons of water in 2016. Water pumped from the Nadine Station to the Filter Plant, located on Tyler Road in Penn Hills and approximately one mile from the station and 600 feet above the Allegheny River, is purified through a number of modern and complex processes. All water released from the Filter Plant meets the chemical and bacteriological standards set by the Pennsylvania Department of Health and the United States Public Health Service.

Seven (7) reservoirs and nine (9) water tanks provide the Authority with a total storage capacity of 53.9 million gallons of water. The Universal Standpipe and Reservoir #6 were removed from service in 2019. This was necessary due to reduced demand and water quality concerns. The water in the seven reservoirs is stored by natural gravity. The supply retained in water tanks is maintained by pressure supplied by booster stations, and the water is conducted by approximately 431 miles of pipeline.

The Authority’s Robinson Boulevard headquarters was completed in early 1971. The one-level building provides 12,000 square feet of space for clerical operations and various records. A convenient drive-in window is provided for customers who wish to pay their bills in person.

**Service Area**

The Authority’s Water System serves an area east of the City of Pittsburgh, extending from the Allegheny River on the north to the Monongahela River on the south. Wholesale or retail service is provided to the Boroughs of Braddock (part), Braddock Hills, Chalfant, Churchill, East McKeesport, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Pitcairn, Rankin, Swissvale, Trafford, Turtle Creek, Wilkinsburg and Wilmerding, the Townships of North Versailles (part) and Wilkins, and the Municipalities of Monroeville (part) Penn Hills (part), North Huntingdon and a small portion of the City of Pittsburgh.

Additionally, the Authority provides bulk water sales to the Braddock Water Authority and the Municipal Authority of Westmoreland County. In early 2016, bulk water sales to the Monroeville Municipal Authority and the Plum Borough Authority ceased. Maximum daily pumpage and average daily customer usage of the Authority were adversely affected by these contract terminations. The net effect to the Authority is a loss of approximately \$625,000 per year in revenue. The Authority responded to this situation by reducing expenses related to the reduced amount of water needing to be treated. The cost of chemicals used to treat the water and electricity charges for pumping the water throughout the distribution system have been reduced. Further adjustments to operations are being reviewed to find additional cost reduction opportunities.

The two authorities maintain emergency connection capabilities with the Authority, which if needed would generate small volumes of water sales.

The table below sets forth in comparative form certain data relating to the operations of the Water System as of December 31, 2014 through 2019:

**Growth Trends of the Authority**

Operating Revenues.....	2014 .....	\$24,198,290	
	2015 .....	24,386,685	
	2016 .....	22,929,445	
	2017 .....	21,898,937	
	2018 .....	21,912,190	
	2019 .....	21,622,562	(Unaudited)
Authority Customers.....	2014 .....	39,522	
	2015 .....	39,270	
	2016 .....	39,224	
	2017 .....	39,052	
	2018 .....	38,903	
	2019 .....	38,728	

Pipeline Mileage .....	2014 .....	430.6
	2015 .....	430.6
	2016 .....	430.6
	2017 .....	430.6
	2018 .....	432.4
	2019 .....	432.5

**(2014 Figures)**

Storage Capacity .....	65,097,000 gallons
Average Pumping .....	22,444,167 gallons
Maximum Daily Pumpage .....	28,775,000 gallons
Average Daily Customer Usage .....	12,866,612 gallons

**(2015 Figures)**

Storage Capacity .....	65,097,000 gallons
Average Pumping .....	22,662,750 gallons
Maximum Daily Pumpage .....	31,985,000 gallons
Average Daily Customer Usage .....	12,327,020 gallons

**(2016 Figures)**

Storage Capacity .....	65,097,000 gallons
Average Pumping .....	17,994,083gallons
Maximum Daily Pumpage .....	26,104,000 gallons
Average Daily Customer Usage .....	7,946,274 gallons *

**(2017 Figures)**

Storage Capacity .....	65,097,000 gallons
Average Pumping .....	16,528,000 gallons
Maximum Daily Pumpage .....	22,248,000 gallons
Average Daily Customer Usage .....	6,112,132 gallons

**(2018 Figures)**

Storage Capacity .....	65,097,000 gallons
Average Pumping .....	17,680,167 gallons
Maximum Daily Pumpage .....	24,549,000 gallons
Average Daily Customer Usage .....	6,149,909 gallons

**(2019 Figures)**

Storage Capacity .....	53,897,000 gallons
Average Pumping .....	16,764,730 gallons
Maximum Daily Pumpage .....	24,262,000 gallons
Average Daily Customer Usage .....	5,963,489 gallons

*\*The Average Daily Customer Usage shows a decrease in gallons from 2015 to 2016 figures. This decrease is due to the termination of bulk water sales to Monroeville Municipal Authority and Plum Borough Municipal Authority.*

**Treatment**

The filtration plant is located on Tyler Road in the Municipality of Penn Hills, Allegheny County, Pennsylvania, one mile from the Nadine Pumping Station and 600 feet above the Allegheny River, the supply source. Modern methods of water purification are practiced at the filter plan, including flash mixing, coagulation, sedimentation, mechanical filtration, sterilization, taste and odor removal, iron and manganese removal, fluoridation and corrosion control. Fifteen to twenty-five million gallons of water are treated daily and delivered by gravity to storage reservoirs for domestic use, industrial use, and public and private fire protection. The Authority operates both chemical and bacteriological laboratories, using Environmental Protection Agency approved equipment and testing procedures to control water quality.

The state-of-the-art purifying water is a process of chemical and bacteriological control, with the laboratory serving as the control center. The raw water is first sterilized with chlorine as it moves from the pumping station to the purification plant. Water coming into the filter plant flows to a rapid-mix chamber where alum, lime, potassium permanganate, activated silica, hydrofluorosilicic acid and activated carbon are added.

A gelatinous precipitate, "floc," is formed as a result of alum treatment at controlled pH and mechanical mixing by the flocculating paddles. The alum floc picks up suspended particles of clay and silt and in so doing accumulates sufficient weight to carry it to the bottom of large settling basins. Clarified water moves across the settling basins and flows to the filter beds.

Twenty-two filters are located in the filter plant building. They are constructed of graded gravel, sand and anthrafil coal. Each filter has a normal rating of 1.25 MGD at a standard rate of 2.0 gallons per square foot per minute. Water from the settling basins passes through the filters to a well under the building and finally to the storage reservoir. Filtration removes the traces of suspended matter. Filters are cleaned once every 48 to 96 hours by flowing clean, filtered water up through the beds and washing out accumulated suspended matter.

Iron, normally present in the raw water, is oxidized with chlorine and removed with the coagulation, settling and filtering process. Manganese, also present in the raw water, is oxidized with potassium permanganate and removed as in the case of iron. Lime or caustic soda is used to neutralize acid in the raw water or acid formed as a result of other chemical reaction during the treatment process. The coagulant aid presently in use is activated silica. One-half of the sodium silicate is activated with chlorine; the other half is activated with sulfur dioxide. Activated carbon is used to remove undesirable tastes and odors of the type described as woody, musty, earthy, moldy, fishy, etc. Chlorine dioxide is used to oxidize medicinal types of flavors to tasteless products.

The corrosiveness of the water to metal pipes and containers is reduced by adjusting the alkalinity with soda ash. Hydrofluorosilicic acid is introduced to the water for the reduction of dental disease. The fluoride (F) content is maintained within the range of 1.00 to 1.20 ppm. Water distributed to the consumer meets all organic, inorganic, microbiological, turbidity, total trihalomethanes and radiological parameters as mandated by the Environmental Protection Agency. Reports are submitted monthly to the Allegheny County Health Department and Region III of the U. S. Environmental Protection Agency.

**Permits and Licenses**

The Authority and its operations are subject to extensive regulation by governmental authorities. The Authority has obtained and expects to maintain permits and licenses from various governmental bodies in order to continue its operations including upgrades and expansions.

**Rate Information  
Schedule of Rates**

**Meter Rates  
Regular Monthly Accounts  
(2020)**

Minimum rate for service to single building, including 400 cubic feet of water, for one (1) month..... \$25.216

If service is rendered and payment made for a fractional part of one (1) month, the consumer will be entitled to the proportional amount of 400 cubic feet of water which would be allowed for payment of the full minimum charge.

Rate for water used in excess of 400 cubic feet in a one (1)-month period, per 100 cubic feet..... \$6.303

**Meter Rates  
High Consumption Monthly Accounts  
(2020)**

Upon application, consumers of 10,000 cubic feet of water, or more, per month may secure the following rates, which require monthly settlement not later than the tenth day of the month following the month in which service was rendered.

Minimum rate, including 10,000 cubic feet of water per month ..... \$657.24  
 For the next 10,000 cubic feet of water per 100 cubic feet per month..... \$4.930  
 For the next 28,000 cubic feet of water, per 100 cubic feet per month..... \$4.261  
 For the next 52,000 cubic feet of water, per 100 cubic feet per month..... \$3.636  
 For all over 100,000 cubic feet of water, per 100 cubic feet per month ..... \$3.266

**Water for Resale, Requiring Repumping<sup>(a)</sup>  
(2020)**

Minimum rate, including 10,000 cubic feet of water per month.....	\$668.430
For the next 10,000 cubic feet of water per 100 cubic feet per month.....	\$5.187
For the next 28,000 cubic feet of water, per 100 cubic feet per month.....	\$4.577
For the next 52,000 cubic feet of water, per 100 cubic feet per month.....	\$4.074
For all over 100,000 cubic feet of water, per 100 cubic feet per month .....	\$3.709

<sup>(a)</sup>Bulk customers with contracts may not be subject to some of the current rate schedules in effect at the time of the issuance of the bonds.

**Water for Resale, Whole Sale Customers  
(2020)**

Minimum rate, including 10,000 cubic feet of water per month.....	\$578.589
For the next 10,000 cubic feet of water per 100 cubic feet per month.....	\$4.344
For the next 28,000 cubic feet of water, per 100 cubic feet per month.....	\$3.750
For the next 52,000 cubic feet of water, per 100 cubic feet per month.....	\$3.198
For all over 100,000 cubic feet of water, per 100 cubic feet per month .....	\$2.876

**Municipal Sewer Flushing  
Street Washing, Etc., and Private Uses  
(2020)**

Rate for water used from the hydrant for sewer flushing or street washing, with permission of the Authority, metered ..... \$4.274  
per 100 cubic feet, plus cost to the Authority for rendering service. Minimum charge of \$20.00 per day.

Rate for water used from fire hydrant for private use, with permission of Authority, metered (Deposit)\$250.00  
per 100 cubic feet plus cost to the Authority for rendering service. Charge of \$20.00 per day.

Rate for water used from fire hydrant, without permission, unmetered.....\$6.303  
per cubic 100 feet for estimated quantity used plus cost to the Authority. Minimum charge \$60.00.

**Private Fire Service Rate Per Annum  
Payable Quarterly Based on Size of Connection  
(2020)**

¾" - 2" .....	\$73.05
3" .....	\$91.32
4" .....	\$120.02
6" .....	\$300.04
8" .....	\$495.72
10" .....	\$717.49
12" .....	\$1,095.81

**Service Connection Fees (Rule 11)  
(2020)**

¾" line, normal installation .....	\$1,495.00
1" line, normal installation .....	\$1,495.00
Larger than 1", actual cost with minimum of .....	\$1,495.00
1" Combination domestic and fire service.....	\$1,995.00

Abnormal installation, actual cost with above minimums. Fire line meters and detector checks will be furnished by the Authority at the expense of the applicant.

**Miscellaneous Charges  
(2020)**

Charge for testing private meters brought to the shop, 5/8", 3/4", 1" and 2" each .....	“ACTUAL COST”
Charge for special reading of meter by request of consumer and subsequent billing .....	\$20.00
Charge for inspection of service or supply line (Rule 12) .....	\$40.00
Charge for additional inspection trips (Rule 12).....	\$20.00
Charge for unauthorized cleaning of service line (Rule 14) .....	\$65.00
Plus all cost necessary to control and monitor any contamination to Authority water system.	
Charge for removing, resetting and resealing meters, where seal wire has been tampered with, or broken, or the meter removed from the service line (Rule 18) .....	\$100.00
Charge for testing meter at consumer’s request (Rule 21):	
5/8", 3/4", 1" meters, each .....	\$45.00
1-1/2" and 2" meters, each.....	\$90.00
All other sizes at actual cost to the Authority.	
Charge for turning water off or on due to non-payment of bills, violation of rules including back flow noncompliance, or terms of the application card, per trip (Rule 27)	
During regular business hours.....	\$20.00
After regular business hours .....	\$45.00
Charge for turning off or turning on water temporarily due to seasonal nature of business, vacation, home inspections etc. per trip (Rule 27)	
During regular business hours.....	\$20.00
After regular business hours .....	\$45.00
Charge for emergency service calls, during other than regular business hours, per trip. This charge is in addition to any and all other applicable charges (Rule 27).....	\$25.00
Charge for every service call after failing to keep two (2) scheduled service calls (Rule 27) .....	\$25.00
Charge for unauthorized operation of street valve, curb stop, etc. (Rule 28).....	\$100.00
Charge to Replace/Repair meter wiring or receptacle (Rule 18) .....	\$30.00
Charge to Replace MIU (Rule 18) .....	\$100.00
Charge to Replace meter register (Rule 18).....	\$80.00
Charge to Repair damaged meter (Rule 18)	
5/8" .....	\$49.00
3/4" .....	\$60.00
1" .....	\$80.00
Charge to replace meter lost, stolen, or damaged beyond repair (Rule 18) .....	Actual Inventory Cost
Charge for checks returned (NSF), checks returned on closed bank accounts, and any other checks returned unpaid from the bank .....	\$30.00
Charge for a No Lien Letter.....	\$25.00
Filing of Water Lien (Rule 38) .....	\$78.00
Credit Card Convenience Fee .....	\$ 1.75
Pay by Phone Fee via e-checks or credit cards .....	\$ 2.15

**Delinquency Fees  
(2020)**

Charge for first delinquent reminder.....	\$6.00
Charge for final delinquent notice .....	\$6.00
Charge for sending delinquent certified letter.....	\$8.00
Charge for posting delinquent property .....	\$15.00
Charge for entering into each payment agreement.....	\$5.00

**Ten Largest Customers as of December 31, 2019**

The following is a listing of the Authority's ten (10) largest customers and their typical monthly charges.

<u>Customer</u>	<u>Description</u>	<u>Period Ending 12/31/19 Average Monthly Consumption in Cubic Feet</u>	<u>Percent of Total Annual Revenue</u>
Braddock Water Authority	Water Authority	1,093,750	1.432%
U.S. Steel Co.	Industry	558,754	1.013%
Electric Heights Housing Assoc.	Public Housing	402,350	0.869%
Allegheny County Housing Auth.	Public Housing	221,984	0.640%
Turner Dairy	Industry	233,082	0.434%
Westinghouse Air Brake Co.	Industry	214,792	0.404%
Longue Vue Club	Golf Course	180,288	0.344%
North Braddock Heights Housing	Public Housing	167,900	0.326%
Edgewood Country Club	Golf Course	151,583	0.277%
Lifecare Hospital	Hospital	129,656	0.249%

## HISTORICAL REVENUES AND EXPENSES

Information contained in this table, other than the surplus income and coverage ratio, is taken for the years 2015 through 2019 from annual audited financial statements of the Authority.

**Twelve Months Ended December 31,**

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>(Unaudited)</u> <u>2019</u>
<u>Operating Revenues (1)</u>					
Metered Sales	\$22,361,994	\$20,919,399	\$19,761,828	\$19,708,457	\$19,394,771
Unmetered Sales	510,020	511,533	514,382	516,977	518,582
Other Operating Revenue	1,514,671	1,498,513	1,622,726	1,686,756	1,709,209
Total Operating Revenues	<u>\$24,386,685</u>	<u>\$22,929,445</u>	<u>\$21,898,937</u>	<u>\$21,912,190</u>	<u>\$21,622,562</u>
<u>Operating Expenses</u>					
Purification System	\$5,017,356	\$4,766,730	\$4,676,176	\$6,825,286	\$6,619,800
Pumping System	2,358,590	2,288,459	2,298,217	-	-
Distribution System	4,584,666	4,560,491	4,182,171	5,416,503	5,425,881
Metering Department	2,925,474	2,735,651	2,721,831	3,221,608	2,470,998
General and Administrative	5,468,505	5,182,208	5,682,692	4,586,827	4,883,241
Total Operating Expenses	<u>\$20,354,591</u>	<u>\$19,533,540</u>	<u>\$19,561,087</u>	<u>\$20,050,224</u>	<u>\$19,399,920</u>
Non-Operating Revenues (2)	\$1,453,705	\$1,510,748	\$1,532,02	\$1,864,789	\$3,023,067
Income Before Debt Service and Depreciation	\$ 5,485,799	\$ 4,906,653	\$ 3,869,852	\$3,726,755	\$5,245,710
Debt Service Principal and Interest	\$ 1,087,088	\$ 1,086,588	\$ 1,091,030	\$1,081,550	\$1,085,150
Surplus Income (3)	\$ 4,398,711	\$ 3,820,066	\$ 2,778,822	\$2,645,205	\$4,160,560
Coverage Ratio (4)	5.05	4.52	3.55	3.45	4.83

(1) Includes penalties imposed, charges for service connections, water main installation charges, and miscellaneous income.

(2) Includes interest income from various sources. overhead and equipment usage charges to property, plant and equipment, rent and gain/loss on retirement of fixed assets.

(3) Surplus Income represents net income after provision for debt service principal and interest but exclusive of depreciation; this amount is available for capital expenditures and bond redemption.

(4) Computed from income before debt service and depreciation divided by debt service; coverage ratio as computed for Indenture purposes also may include other available funds such as surplus revenues from prior years with required minimum coverage ratio 1.10.



## THE BONDS

### Description

The Bonds are designated the Water Revenue Bonds, Series of 2020, (the “Bonds”). The Bonds will be issued in fully registered form, without coupons, in \$5,000 denominations or integral multiples thereof. The Bonds will bear interest from August 20, 2020 payable semi-annually commencing September 15, 2020, and on each March 15 and September 15 thereafter until maturity or earlier redemption of such Bonds.

### Payment of Principal and Interest

The person in whose name any Bond is registered (the “Registered Owner”) at the close of business on any Record Date (as defined below) with respect to any Interest Payment Date will be entitled to receive the interest payable on such Interest Payment Date notwithstanding the cancellation of such Bond upon any transfer or exchange thereof subsequent to such Record Date and prior to such Interest Payment Date. The term “Record Date” with respect to any Interest Payment Date means the last day of the month immediately preceding such Interest Payment Date.

The Bonds may be transferred or exchanged only on the bond register (the “Bond Register”) of the Authority maintained at the designated corporate trust office of the Trustee. No transfer or exchange of any Bond will be valid unless made at such office and registered on the Bond Register.

Every Bond presented or surrendered for registration of transfer or exchange must be duly endorsed, or be accompanied by a written instrument of transfer in form and with guaranty of signature satisfactory to the Trustee, duly executed by the Registered Owner thereof or his duly authorized agent or legal representative. No service charge shall be made for any transfer or exchange of any Bonds, but the Authority may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any transfer or exchange of Bonds. Authority shall not be required to register the transfer or exchange of any Bond called for redemption.

Principal of and premium, if any, are payable in legal tender at the designated corporate trust office of the Trustee, provided that interest will be paid by check mailed to the Registered Owner on the appropriate Record Date.

The Bonds are special limited obligations of the Authority; the principal of, redemption premium, if any, and the interest on the Bonds are payable from the Receipts and Revenues of the Authority derived from its Water System, as said phrase is defined in the applicable Indenture, together with certain other monies and funds available for such purpose, to the extent and in the manner provided in the applicable Indenture.

The Bonds are being issued pursuant to the laws of the Commonwealth of Pennsylvania, particularly the Act. There is no specific statutory or constitutional limitation upon the amount of bonds which may be issued by Pennsylvania municipal authorities governed by the Act. The Bonds are specifically authorized by the applicable Indenture. As a condition to authentication of the Bonds by the Trustee, the Authority is required to deliver to the Trustee a certified copy of the applicable Indenture and various certificates and opinions are specified by the applicable Indenture. See “APPENDIX C – SUMMARY OF THE INDENTURE” hereto.

### Book-Entry-Only System

**The information in this section has been obtained from materials provided by DTC for such purpose. The Authority (herein referred to as the “Issuer”) and the Underwriter do not guaranty the accuracy or completeness of such information and such information is not to be construed as a representation of the Authority or the Underwriter.**

The Depository Trust Company (“DTC”), New York, New York, will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or in such other name as may be requested by an authorized representative of DTC. One fully-registered certificate for the Bonds of each maturity will be issued in a principal amount equal to the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal

Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (the “Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (the “Indirect Participants”). DTC has S&P Global rating of “AA+.” The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com) and [www.dtc.org](http://www.dtc.org).

Purchases of the Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC’s records. The ownership interest of each actual purchaser of each Bond (the “Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owners entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of the Beneficial Owners. **Beneficial Owners will not receive certificates representing their ownership interests in the Bonds except in the event that use of the book-entry system for the Bonds is discontinued.**

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Trustee and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds (or all Bonds of a particular maturity) are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such issue (or maturity) to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC’s Procedures. Under its usual procedures, DTC mails on Omnibus Proxy to the Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

So long as the Bonds are held by DTC under a book-entry system, payments of the principal of and interest on the Bonds and, if applicable, any premium payable upon redemption thereof, will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from the Issuer or the Paying Agent on the payable date in accordance with their respective holdings shown on DTC’s records. Payments by Participants to Beneficial Owners will be

governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such Participants and not of DTC, the Trustee or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of the principal of and interest on Bonds and, if applicable, any premium payable upon redemption thereof to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Issuer or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue its services as a securities depository for the Bonds at any time by giving reasonable notice to the Issuer or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Bonds are required to be printed and delivered.

The Issuer may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered.

**None of the Issuer, the Underwriter or the Trustee can give any assurances that DTC or the Participants will distribute payments of the principal or redemption price of and interest on the Bonds paid to DTC or its nominee, as the registered owner of the Bonds, or any redemption or other notices, to the Beneficial Owners or that they will do so on a timely basis or that DTC will serve and act in the manner described in this Official Statement.**

### **Discontinuance of Book-Entry-Only System**

DTC may determine to discontinue providing its services with respect to the Bonds at any time by giving notice to the Trustee and discharging its responsibilities with respect thereto under applicable law. Under such circumstances, Bond certificates are required to be printed and delivered as described below and in the Resolution. A Beneficial Owner, upon registration of certificates held in the Beneficial Owner’s name, will become the Bondholder.

The Authority may determine to discontinue the system of book-entry transfer through DTC (or a successor securities depository). In such event, Bond certificates will be printed and delivered as described below and in the respective Resolution.

Unless otherwise noted, the information contained in this section has been extracted from a report from DTC entitled “Book Entry-Only Municipals”. No representation is made by the Authority or the Underwriter as to the completeness or the accuracy of such information or as to the absence of material adverse changes in such information subsequent to the date hereof.

In the event that the Book-Entry-Only System is discontinued and the Beneficial Owners become registered owners of the Bonds, the following provisions applicable to registered owners would apply: (i) Bonds may be exchanged for an equal aggregate principal amount of Bonds in other authorized denominations, upon surrender thereof at the designated corporate trust office of the Trustee; (ii) the transfer of any Bonds may be registered on the books maintained by the Trustee for such purpose only upon the surrender thereof to the Trustee together with a duly executed assignment in form satisfactory to the Authority and the Trustee; and (iii) for every exchange or registration of transfer of Bonds, the Trustee may impose a charge sufficient to reimburse it for any tax, fee or governmental charge required to be paid with respect to such exchange or registration of transfer of the Bonds.

The Authority and the Trustee shall not be required: (a) to issue or transfer or exchange any Bond during a period beginning at the close of business on the Record Date next preceding any Interest Payment Date and ending at the close of business on the Interest Payment Date; or (b) to issue or transfer or exchange any Bond then considered for redemption during the period beginning at the close of business on the fifteenth (15th) day next preceding any date of selection of such Bonds to be redeemed and ending at the close of business on the day on which the notice of redemption is mailed; or (c) to transfer or exchange any portion of any Bond selected for redemption until after the redemption date.

### **Delivery of Certificates; Registered Owners**

Bond certificates in fully registered form will be delivered to, and registered in the name of DTC or its nominee, Cede & Co., and in the event that the book-entry-only system for the Bonds is discontinued, the DTC Participants or such other persons as such DTC Participants may specify (which may be the DTC Participants or Beneficial Owners), in authorized denominations of \$5,000 or integral multiples thereof. The ownership of the Bonds so delivered (and any Bonds thereafter delivered upon a transfer or exchange described below) shall be registered in registration books to be kept by the Trustee as Registrar and the Authority and the Trustee shall be entitled to treat the registered owners of such Bonds, as their

names appear in such registration books as of the appropriate dates, as the owners thereof for all purposes described herein and in the respective Indenture.

### **Denominations**

The Bonds will be issued in denominations of \$5,000 principal amount or any integral multiple thereof within a maturity.

### **Mutilated, Destroyed, Lost or Stolen Bonds**

If any Bond is mutilated, lost, stolen or destroyed, the Authority may execute and the Trustee may authenticate a new Bond of like tenor, denomination and maturity, subject to the receipt by the Trustee of reasonable indemnity and payment by the Bondholder of the costs of providing a substitute Bond.

### **Redemption Provisions**

*Optional Redemption.* In the manner and upon the terms and conditions provided in the Resolution, the Bonds with a stated maturity after September 15, 2030 are subject to redemption prior to maturity at the option of the Authority, in whole or in part from time to time, on September 15, 2030 or on any date thereafter, in any order of maturity as selected by the Authority, in each case, upon payment of a redemption price of 100% of the principal amount of the Bonds to be redeemed, together with accrued interest to the date fixed for redemption. If less than an entire maturity of Bonds are to be redeemed on a particular date, the Bonds to be redeemed shall be selected by lot by the Trustee.

*Mandatory Redemption.* In the manner and upon the terms and conditions provided in the Resolution, the Bonds maturing on September 15, 2039 are subject to mandatory redemption in part within a maturity by lot at a redemption price of 100% of the principal amount of the Bonds to be redeemed, together with accrued interest to the date fixed for redemption on September 15 in the years and in the principal amounts as follows:

<u>Redemption Date</u>	<u>Principal Amount to be Redeemed</u>
2036	\$1,850,000
2037	1,910,000
2038	1,965,000
2039*	1,935,000

\*Maturity

### **Notice of Redemption**

Whenever the Authority shall determine to redeem all or part of the Bonds and whenever the Trustee shall be required to redeem part of the Bonds out of any sinking fund, notice of such redemption, identifying the Bond or portions thereof to be redeemed, will be deposited by the Trustee in first class mail (postage prepaid and addressed) at least thirty (30) days and no more than sixty (60) days prior to the redemption date, to the registered owners of the Bonds to be redeemed in whole or in part at their addresses as shown on the registration books maintained by the Trustee. Failure to mail any such notice or any defect therein or the mailing thereof as it may affect any Bond will not affect the validity of the redemption of any other Bond. No further interest will accrue on any Bonds or portions thereof so called for redemption after the redemption date if payment of the redemption price thereof has been duly provided for and notice of redemption has been duly mailed, and the owners of such Bonds or portions thereof so called for redemption will have no rights with respect thereto, except to receive payment of the redemption price thereof and unpaid interest accrued thereon to the date fixed for redemption.

### **Manner of Redemption**

If less than all Bonds of a maturity are to be redeemed, the particular Bonds of such maturity to be redeemed shall be selected by lot by the Trustee in such manner as the Trustee shall determine. In the case of a Bond of a denomination greater than \$5,000, the Trustee shall treat such Bond as representing such number of separate Bonds each of a denomination of \$5,000 as is obtained by dividing the actual principal amount of such Bond by \$5,000. In the case of partial redemption of a Bond, payment of the redemption price shall be made only upon surrender of such Bond in exchange for Bonds of authorized denominations and in aggregate principal amount equal to the unredeemed portion of the principal amount thereof.

## SECURITY FOR THE BONDS

### General

The Bonds are limited obligations of the Authority; the principal of, redemption price, if any, and the interest on each of the Bonds are payable from the Receipts and Revenues derived by the Authority from the operation of the Water System, as defined in the Indenture, together with certain other monies and funds available for such purpose, to the extent and in the manner provided therein.

The Bonds will be issued under and secured by the Indenture. The Indenture provides for the duties and responsibilities of the Authority with respect to the expenditures of the proceeds of the Bonds, the maintenance and operation of the Water System, the conservation and application of all funds, the security for moneys on deposit, reserves, the redemption of the Bonds, the payment of the principal of, redemption premium, if any and the interest on the Bonds, and the issuance of water revenue bonds in addition to the Water Revenue Bonds (“Additional Bonds”) under the limitations therein set forth.

**THE BONDS ARE LIMITED OBLIGATIONS OF THE AUTHORITY AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE COUNTY OF ALLEGHENY, THE COMMONWEALTH OF PENNSYLVANIA, THE UNITED STATES OF AMERICA OR ANY AGENCY OR POLITICAL SUBDIVISION THEREOF IS PLEDGED TO PAY THE PRINCIPAL OF AND INTEREST ON THE BONDS. THE AUTHORITY HAS NO TAXING POWER.**

### Rate Covenant

The Authority has covenanted in the Indenture that it will maintain, charge and collect throughout its Service Area so long as any Bonds remain outstanding and funds for their payment have not been provided, water service rates, rentals and other charges, which (after making due and reasonable allowances for prompt payment discounts, if any, contingencies and a margin of error in the estimates), together with all other anticipated receipts and revenues of the Authority, including interest and other non-operating income, will be sufficient in each fiscal year to (i) pay the current operating expenses of the Authority; (ii) provide additional amounts of not less than 110% of the Debt Service Requirements for all Outstanding Bonds in each fiscal year; and (iii) provide any amounts required to replenish the Debt Service Reserve Fund, as described herein (the “Rate Covenant”).

If at any time the revenues collected shall not be sufficient to enable the Authority to comply with the Rate Covenant, it will promptly revise its rates, rentals and other charges so that the Authority will be in compliance with the Rate Covenant and any deficiencies in transfers of funds required to be made pursuant to the Indenture will be remedied before the end of the next ensuing fiscal year. A further description is contained in Appendix C - “SUMMARY OF THE INDENTURE” herein.

### Debt Service Reserve Fund

A Debt Service Reserve Fund, into which an amount equal to the lesser of (i) maximum annual debt service on the Bonds, (ii) an amount equal to 10% of the par amount of the Bonds, or (iii) 125% of the average annual debt service requirements of the Bonds, will be deposited, will be established pursuant to the Bonds Indenture and will be held by the Trustee for the equal and ratable benefit of all Registered Holders of the Bonds and will be irrevocably pledged to the payment of the principal of and the interest on the Bonds to the extent that the amounts in the Debt Service Fund and the Revenue Fund are insufficient for such purposes. The Debt Service Reserve Fund shall be funded with a Debt Service Reserve Surety Bond Policy issued by Build America Mutual Assurance Company, together with cash presently held in the Debt Service Reserve Fund.

### Additional Covenants

The Indenture contains a number of additional covenants and agreements of the Authority, including agreements to maintain the Water System in good repair, working order and condition; not to sell or dispose of the Water System or any part thereof except in accordance with the Indenture; to pay all taxes and assessments levied or assessed on the Water System; to cause an audit of the Water System to be made; to adopt an annual budget; and to insure the Water System against physical loss or damage. See Appendix C - “SUMMARY OF THE INDENTURE” herein.

## **Defaults and Remedies**

The remedies available to Registered Owners upon any failure to pay principal or interest when due include those prescribed in the Act, and as contained in the Indenture. If such failure should continue for 30 days, any Registered Owner will (subject to certain priorities) have the right to bring suit for the amount due him in the Court of Common Pleas for Allegheny County, Pennsylvania. If the Authority defaults in the payment of principal or interest and such default continues for 30 days, or if the Authority fails to comply with any provision of the Bonds or of the Indenture, the owners of 25% in aggregate principal amount of the Bonds may appoint a trustee to represent the Registered Owners. Such trustee may, and upon written requires of the owners of 25% in aggregate principal amount of the Bonds and being furnished with satisfactory indemnity must, take one or more of the following actions, which will preclude similar action by individual Registered Owners: (i) bring suit to enforce all rights of the Registered Owners, (ii) bring suit on the Bonds, (iii) by suit in equity require the Authority to account as if it were the trustee of an express trust for the Registered Owners, and (iv) by suit in equity, enjoin any acts or things which may be unlawful or in violation of the rights of the Registered Owners.

Enforcement of a claim for payment of principal of or interest on the Bonds may be subject to the provisions of the federal bankruptcy laws and to the provisions of other statutory and case laws enacted by the Congress or the General Assembly of the Commonwealth of Pennsylvania or developed by competent courts having jurisdiction extending the time for payment or imposing other constraints upon enforcement insofar as such laws may be constitutionally applied.

A summary of certain provisions of the Indenture are included in Appendix C herein.

## **THE INDENTURE**

Appendix C to this Official Statement contains a Summary of the Indenture. This summary does not purport to be complete and reference is made to the entire text of the Indenture. A copy of the Indenture is available from the Trustee.

## **RATINGS**

S&P Global Ratings (“S&P”) is expected to assign an insured bond rating of “AA” (Stable) to the Bonds with the understanding that, upon delivery of the Bonds, a Municipal Bond Insurance Policy guaranteeing when due the scheduled payment of the principal of and the interest on the Bonds will be issued concurrently with the delivery of the Bonds by Build America Mutual Assurance Company. S&P Global Ratings has assigned an underlying rating of “AA-” (Negative Outlook) to the Bonds. Such rating reflects only the view of such organization furnishing such rating. Any desired explanation of the significance of such ratings should be obtained from the rating agency furnishing the same, at the following address: S&P Global Ratings, 55 Water Street, New York, New York 10041. There is no assurance that this credit rating will be maintained for any given period of time, or that it may not be lowered or withdrawn entirely by the rating agency if, in its judgment, circumstances so warrant. Any such downward change in or withdrawal of such credit rating may have an adverse effect on the market price of the Bonds.

## **BOND INSURANCE**

### **BOND INSURANCE POLICY**

Concurrently with the issuance of the Bonds, Build America Mutual Assurance Company (“BAM”) will issue its Municipal Bond Insurance Policy for the Bonds (the “Policy”). The Policy guarantees the scheduled payment of principal of and interest on the Bonds when due as set forth in the form of the Policy included as an appendix to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

### **BUILD AMERICA MUTUAL ASSURANCE COMPANY**

BAM is a New York domiciled mutual insurance corporation and is licensed to conduct financial guaranty insurance business in all fifty states of the United States and the District of Columbia. BAM provides credit enhancement products solely to issuers in the U.S. public finance markets. BAM will only insure obligations of states, political subdivisions, integral parts of states or political subdivisions or entities otherwise eligible for the exclusion of income

under section 115 of the U.S. Internal Revenue Code of 1986, as amended. No member of BAM is liable for the obligations of BAM.

The address of the principal executive offices of BAM is: 200 Liberty Street, 27<sup>th</sup> Floor, New York, New York 10281, its telephone number is: 212-235-2500, and its website is located at: [www.buildamerica.com](http://www.buildamerica.com).

BAM is licensed and subject to regulation as a financial guaranty insurance corporation under the laws of the State of New York and in particular Articles 41 and 69 of the New York Insurance Law.

BAM's financial strength is rated "AA/Stable" by S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"). An explanation of the significance of the rating and current reports may be obtained from S&P at [www.standardandpoors.com](http://www.standardandpoors.com). The rating of BAM should be evaluated independently. The rating reflects the S&P's current assessment of the creditworthiness of BAM and its ability to pay claims on its policies of insurance. The above rating is not a recommendation to buy, sell or hold the Bonds, and such rating is subject to revision or withdrawal at any time by S&P, including withdrawal initiated at the request of BAM in its sole discretion. Any downward revision or withdrawal of the above rating may have an adverse effect on the market price of the Bonds. BAM only guarantees scheduled principal and scheduled interest payments payable by the issuer of the Bonds on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the Policy), and BAM does not guarantee the market price or liquidity of the Bonds, nor does it guarantee that the rating on the Bonds will not be revised or withdrawn.

#### *Capitalization of BAM*

BAM's total admitted assets, total liabilities, and total capital and surplus, as of March 31, 2020 and as prepared in accordance with statutory accounting practices prescribed or permitted by the New York State Department of Financial Services were \$459.6 million, \$126.1million and \$333.5 million, respectively.

BAM is party to a first loss reinsurance treaty that provides first loss protection up to a maximum of 15% of the par amount outstanding for each policy issued by BAM, subject to certain limitations and restrictions.

BAM's most recent Statutory Annual Statement, which has been filed with the New York State Insurance Department and posted on BAM's website at [www.buildamerica.com](http://www.buildamerica.com), is incorporated herein by reference and may be obtained, without charge, upon request to BAM at its address provided above (Attention: Finance Department). Future financial statements will similarly be made available when published.

BAM makes no representation regarding the Bonds or the advisability of investing in the Bonds. In addition, BAM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding BAM, supplied by BAM and presented under the heading "BOND INSURANCE".

#### **BAM GreenStar Bonds**

The Bonds have been designated BAM GreenStar Bonds because BAM has determined that the use of bond proceeds by the Issuer as described in this Official Statement and in any additional information obtained by BAM aligns with one of the Green Bond Principals (GBPs) developed by the International Capital Markets Association (ICMA). The GBPs were developed by the ICMA with the goal of establishing universally accepted guidelines for the issuance of green bonds, and one of the key requirements addresses the use of proceeds. BAM has been identified by the ICMA as an observer organization that is active in the field of green and/or social or sustainability finance and is Climate Bond Initiative approved verifier. The Credit Profile prepared by BAM for the Bonds will identify which of the following GBP categories applies to the Bonds:

- renewable energy
- energy efficiency and control
- environmentally sustainable management of living natural resources and land use
- terrestrial and aquatic biodiversity
- clean transportation
- climate change adaptation

- sustainable water and wastewater management
- green buildings.

Each of the GBPs correlates to one of the following UN Sustainable Development Goals which will also be included in the Credit Profile for the Bonds:

- clean water and sanitation
- affordable and clean energy
- sustainable cities and communities
- industry innovation and infrastructure
- responsible consumption and production
- climate action
- life below water
- life on land

For projects under construction, the bond obligor has agreed to furnish annual information to BAM on the status of the project until completion, which will be reflected in the BAM Credit Profile for the Bonds.

The BAM GreenStar designation is based upon information obtained by BAM, which information BAM believes to be reliable, at the time of the issuance of the Bonds. BAM does not charge a fee in connection with the designation, does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. The designation is provided on an “AS IS” basis. BAM makes no representation or warranty, express or implied, including, but not limited to, the accuracy, results, timeliness, completeness, merchantability or fitness for any particular purpose with respect to the designation. A complete description of BAM GreenStar, and its limitations and terms of use, are available on BAM’s website <https://buildamerica.com/greenstar> and <https://buildamerica.com/terms-of-use> and incorporated herein by reference. The BAM GreenStar designation is determined solely by BAM; it has not been reviewed or approved by the issuer of or the underwriter for the and underwriter assume no responsibility for such designation.

*Additional Information Available from BAM*

**Credit Insights Videos.** For certain BAM-insured issues, BAM produces and posts a brief Credit Insights video that provides a discussion of the obligor and some of the key factors BAM’s analysts and credit committee considered when approving the credit for insurance. The Credit Insights videos are easily accessible on BAM’s website at [buildamerica.com/creditsights/](http://buildamerica.com/creditsights/). (The preceding website address is provided for convenience of reference only. Information available at such address is not incorporated herein by reference.)

**Credit Profiles.** Prior to the pricing of bonds that BAM has been selected to insure, BAM may prepare a pre-sale Credit Profile for those bonds. These pre-sale Credit Profiles provide information about the sector designation (e.g. general obligation, sales tax); a preliminary summary of financial information and key ratios; and demographic and economic data relevant to the obligor, if available. Subsequent to closing, for any offering that includes bonds insured by BAM, any pre-sale Credit Profile will be updated and superseded by a final Credit Profile to include information about the gross par insured by CUSIP, maturity and coupon. BAM pre-sale and final Credit Profiles are easily accessible on BAM’s website at [buildamerica.com/obligor/](http://buildamerica.com/obligor/). BAM will produce a Credit Profile for all bonds insured by BAM, whether or not a pre-sale Credit Profile has been prepared for such bonds. (The preceding website address is provided for convenience of reference only. Information available at such address is not incorporated herein by reference.)

**Disclaimers.** The Credit Profiles and the Credit Insights videos and the information contained therein are not recommendations to purchase, hold or sell securities or to make any investment decisions. Credit-related and other analyses and statements in the Credit Profiles and the Credit Insights videos are statements of opinion as of the date expressed, and BAM assumes no responsibility to update the content of such material. The Credit Profiles and Credit Insight videos are prepared by BAM; they have not been reviewed or approved by the issuer of or the underwriter for the Bonds, and the issuer and underwriter assume no responsibility for their content.

BAM receives compensation (an insurance premium) for the insurance that it is providing with respect to the Bonds. Neither BAM nor any affiliate of BAM has purchased, or committed to purchase, any of the Bonds, whether at the initial offering or otherwise.



## NO LITIGATION CERTIFICATE

Prior to settlement of the Bonds, the Authority and its Solicitor will certify that there are no pending legal proceedings seeking to or restraining or enjoining the issuance, sale, execution or delivery of the Bonds or questioning or affecting the validity thereof, or any proceedings of the Authority taken with respect to the issuance or sale thereof, the pledge or application of any moneys or security provided for the payment of the Bonds, or the existence or powers of the Authority.

### LEGAL MATTERS

#### Legal Opinions

The issuance and delivery of the Bonds are subject to the approving legal opinion of Dickie, McCamey & Chilcote, P.C., Pittsburgh, Pennsylvania, Bond Counsel to the Authority and by Bruce E. Dice & Associates, P.C., Pittsburgh, Pennsylvania, Solicitor to the Authority.

Bond Counsel's opinions are based on existing law, which is subject to change. Such opinions are further based on factual representations made to Bond Counsel as of the date thereof. Bond Counsel assumes no duty to update or supplement its opinions to reflect any facts or circumstances that may thereafter come to Bond Counsel's attention or to reflect any changes in law that may thereafter occur or become effective. Moreover, Bond Counsel's opinions are not a guarantee of a particular result and are not binding on the IRS or the courts; rather, such opinions represent Bond Counsel's professional judgement based on its review of existing law and in reliance on the representations and covenants that it deems relevant to such opinions.

#### Authorized Investments

Under the Probate, Estates and Fiduciaries Code, the Bonds are authorized investments for fiduciaries and personal representatives (as defined in that Code) in the Commonwealth of Pennsylvania.

#### Future Financing

The Authority is contemplating possible financing, applying for Pennvest funding, in the near future.

#### Negotiability

The Bonds are investment securities under Article 8 of the Pennsylvania Uniform Commercial Code and are negotiable instruments to the extent provided therein.

### INVESTMENT CONSIDERATIONS

*This Official Statement contains summaries of pertinent portions of the Resolution and the Bonds. Such summaries and references are qualified in their entirety by reference to the full text of such documents. The following discussion of some of the risk factors associated with the Bonds is not, and is not intended to be, exhaustive, and such risks are not necessarily presented in the order of their magnitude.*

*This Official Statement does not describe all of the risks of an investment in the Bonds and the Underwriter disclaims any responsibility to advise prospective investors of such risks as they exist at the date of this Official Statement or as they change from time to time. Prospective investors should consult their own legal and tax advisors as to the risks associated with an investment in the Bonds and the suitability of investing in the Bonds in light of their particular circumstances. Prospective investors should be able to bear the risks relating to an investment in the Bonds and should carefully consider, among other factors, the matters described below:*

#### Economic and Other Factors Affecting the Financial Condition of the Authority

Future economic and other factors may adversely affect the Authority's revenues and expenses and, consequently, the Authority's ability to meet its operating expenses. Among the factors that could have such adverse effects are: decreases in service fee collections; increases in unemployment in the Authority Service Area and Commonwealth; the Authority's ability to gain concessions from its unionized workers and the consequent impact on wage scales and operating costs of the

Authority; the Authority's ability to access capital markets; adverse changes to Commonwealth budgets and appropriations affecting crucial revenue streams from the Commonwealth to the Authority; changes in demographic trends; the Authority's ability to provide governmental service as and when obligated to residents; and closure or disinvestment of key industries located in the Authority. The Authority cannot assess or predict the ultimate effect of these factors on its operations or financial results of its operations or on its ability to make debt service payments on the Bonds.

### **Coronavirus Effect on Investments and Financial Condition of the Borrower**

Investment in the Bonds involves certain risks, among them, the outbreak of COVID-19, a new strain of coronavirus that can result in severe respiratory disease. The worldwide spread of COVID-19 is considered a Public Health Emergency of International Concern by the World Health Organization. The spread of COVID-19 has led to quarantine and other "social distancing" measures in affected areas, including the Commonwealth of Pennsylvania, undertaken by governmental agencies, businesses, schools and other entities. These measures have included actions taken by Governor Wolf to declare a state of emergency in the Commonwealth and to limit non-essential travel, promote telecommuting, limit public gatherings, close non-essential businesses, and issue stay-at-home orders across the State. All Pennsylvania schools were physically closed for the duration of the 2019-2020 school year. Such stay-at-home orders have been lifted in all Pennsylvania counties, including Allegheny County, and public school districts have been developing plans for the opening of schools at the start of the 2020-21 year, either remotely, in person, or a combination.

Financial markets have reacted with significant volatility as a result of the outbreak of COVID-19. The spread of the virus is expected to adversely impact local, state and national economies, which impact, while currently unknown, could adversely affect retail sales and other economic activity in the Commonwealth of Pennsylvania.

The Authority is unable to predict (i) the extent or duration of the COVID-19 pandemic, (ii) the extent or duration of existing and future quarantines, travel restrictions, business closures and other measures related to the COVID-19 pandemic, and (iii) whether and to what extent the COVID-19 pandemic may disrupt the local and global economy, manufacturing or supply chain or whether any such disruption may materially adversely affect the amount of revenues received or the operations of the Authority. Given the evolving nature of the spread of the disease and the response of governments, business and individuals to COVID-19, the Authority is unable to accurately predict the magnitude of the impact of COVID-19 on the Authority, revenues received, and the financial condition of the Authority.

On March 27, 2020, Congress passed, and President Trump signed into law, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), an economic stimulus package in response to the disruption of businesses, financial markets, and employment due to the Coronavirus. The CARES Act expands unemployment insurance benefits, implements certain aid to small businesses, provides tax credits or rebates for individual taxpayers, increases certain charitable contributions, waives certain early withdrawal penalties on retirement account distributions for taxpayers with coronavirus related challenges, excludes from taxable income certain employer payments of student loans, provides for a variety of business tax stimuli including, but not limited to, an extension for carry-backs of certain net operating losses, the elimination of certain net operating loss caps, and the adjustment of tax credit carry-forwards, adds various health provisions to address the coronavirus crisis, provides a \$150 billion Coronavirus Relief Fund for state and city government expenditures incurred due to the coronavirus public health emergency as allocated by population proportions with a minimum of \$1.25 billion for each state, and provides \$454 billion in emergency lending provisions to businesses, states, and cities throughout the United States to be overseen by a Congressional Oversight Commission and a Special Inspector General.

Additional information with respect to events surrounding the outbreak of COVID-19 and responses thereto can be found on Commonwealth websites, including but not limited to the Governor's office (<http://www.pa.gov/>), the Pennsylvania Department of Health (<http://www.health.pa.gov/>). The Authority has incorporated by reference the information on such websites and the Authority does not assume any responsibility for the accuracy of the information on such websites.

### **Uncertainty of Authority Revenues**

The ability of the Authority to generate sufficient revenue to meet its operating expenses, working capital needs and its obligations on the Bonds and other indebtedness is subject to many factors including the availability of current revenues of the Authority to make required payments in full, when due, prior to the imposition of additional rates on the Authority customers. There can be no assurances or representations that the Authority will realize revenue in sufficient amounts or that the Authority will be able to generate sufficient revenue through its rates making and other revenue generating powers to pay debt service on the Bonds and other payments necessary to meet the obligations of the Authority.

The two authorities maintain emergency connection capabilities with the Authority, which if needed would generate small volumes of water sales.

### **Operating History**

The Authority has never defaulted on the payment of principal of or interest on any outstanding general obligation debt.

### **Remedies Under Court Issued Writ of Mandamus**

If the Authority fails or neglects to budget, appropriate, and pay debt service on the Bonds when due, a holder or trustee may petition the Court of Common Pleas of the County of Allegheny, upon a finding of such failure or neglect, to direct by order of mandamus the treasurer of the Authority to pay into the sinking funds established for all outstanding bonds of the Authority, including the Bonds, the first tax moneys or other available revenues or moneys thereafter received by the treasurer for the payment of debt service due on outstanding bonds. Such order could mandate that the Authority pay such debt service prior to all other Authority expenses, including Authority employee wages and benefits. Courts may be allowed certain discretion in deciding whether to grant a writ of mandamus, and the judges who enter such orders are usually elected to the bench by local voters. Additionally, municipal officials presented with a writ could resign rather than carry out the mandamus order, in which case it is uncertain the extent to which bondholders would be able to cause other Authority officials to pay amounts then due and owing.

### **Enforcement of Remedies; Public Health and Safety**

Enforcement of a claim for payment of principal of and or interest on the Bonds may be subject to applicability of general principles of equity as well as provisions of federal bankruptcy laws (as described below) and to the provisions of other statutory laws enacted by the United States Congress or the General Assembly of the Commonwealth or case law developed by competent courts having jurisdiction extending the time for payment or imposing other constraints upon enforcement insofar as such laws may be constitutionally applied.

Authority officials are generally charged with the duty of providing for the health, safety and general welfare of their residents. Confronted with a choice between providing basic human services to its residents or funding other obligations like debt service on the Bonds, bondholders should consider carefully the risk that such officials might choose to provide basic services to its residents from its limited funds available before it pays its other obligations.

### **Limitation on the Remedies Under Bankruptcy**

The rights and remedies of bondholders with respect to the Authority's obligations are subject to the provisions of Chapter 9 of the Bankruptcy Code. Chapter 9 permits, under prescribed circumstances (but only after an authorization by the applicable state legislature or by a governmental office or organization empowered by state law to give such authorization), a political subdivision of a state to file a petition for relief in a bankruptcy court of the United States if it is insolvent or unable to meet its debts as they mature, and it desires to effect a plan to adjust its debt. Such plan may, subject to approval by creditors (in accordance with voting thresholds set forth in the Bankruptcy Code) and the court, include provisions modifying or altering the rights of creditors.

If the Authority were to commence a case under the Bankruptcy Code, there could be adverse effects on the holders of the Bonds, including (a) delay in payments due on the Bonds and in the enforcement of bondholder remedies, (b) subordination of bondholder claims to claims arising after the commencement of the case, including claims of the providers of goods and services, and claims arising in connection with administration of the case, and (c) imposition without bondholder consent of a plan of adjustment affecting the amount, interest rate, or amortization of the Bonds.

In addition, the filing of a bankruptcy petition would act as an automatic stay of any enforcement actions by or on behalf of the bondholders, including any action seeking a writ of mandamus, and would relieve the debtor, during the pendency of the proceeding, from the obligation to make debt service payments on the Bonds. **In bankruptcy, holders of the Bonds would be considered to be unsecured creditors of the Authority, and holders of the Bonds should not expect to receive any payment of debt service prior to confirmation of a plan of adjustment or dismissal of the case.** Moreover, holders of the Bonds, as unsecured creditors, generally will not be entitled to a claim for interest accruing during the pendency of the proceeding.

The Bankruptcy Code contains provisions intended to ensure that in any plan of adjustment, each class of creditors is treated equitably in relation to each other and to the financial capabilities of the Authority. The plan may, however, under circumstances set forth in the Bankruptcy Code, alter a creditor's rights as set forth above, even if the creditor has voted against the plan. Like all aspects of the bankruptcy process, however, the ultimate result in any particular case will be affected significantly by the specific facts and circumstances of the case. All legal opinions with respect to the enforcement of the Resolution will be expressly subject to a qualification that such instrument may be limited by bankruptcy, reorganization, insolvency, moratorium or other similar laws affecting creditors' rights generally and by applicable principles of equity if equitable remedies are sought.

#### **No Assurance of Secondary Market for the Bonds**

There can be no guarantee that there will be a secondary market for the Bonds or, if a secondary market exists, that the Bonds can be sold for any particular price. Accordingly, purchasers of the Bonds should be prepared to have their funds committed until the Bonds mature. It is not the present practice of the Underwriter to make a secondary market in the bond issues for which it serves as Underwriter. Prices of issues for which a market is being made will depend upon then prevailing circumstances. Such prices could be substantially different than the original purchase price. Because of general market conditions, lack of current information, or because of adverse history or economic prospects connected with a particular issue, secondary marketing practices in connection with a particular issue may be adversely affected.

#### **Risk of Audit by Internal Revenue Service**

The Internal Revenue Service has an ongoing program of auditing tax-exempt obligations to determine whether, in the view of the Internal Revenue Service, interest on such tax-exempt obligations is includible in the gross income of the owners thereof for federal income tax purposes. Certain types of transactions are being targeted for audit, including certain refundings.

No assurances can be given as to whether or not the Internal Revenue Service will commence an audit of the Bonds. If an audit is commenced, under current procedures the Internal Revenue Service is likely to treat the Authority as the taxpayer and the bondholders may have no right to participate in such procedure. Neither the Underwriter nor Bond Counsel is obligated to defend the tax-exempt status of the Bonds on behalf of the Bond Holders. Neither the Authority nor Bond Counsel is responsible to pay or reimburse the cost of any Bond Holders with respect to any audit or litigation relating to the Bonds.

### **TAX EXEMPTION AND OTHER TAX MATTERS**

#### **Pennsylvania Tax Exemption**

In the opinion of Bond Counsel, under existing law, the Bonds are exempt from personal property taxes in Pennsylvania and the interest on the Bonds is exempt from Pennsylvania personal income tax and corporate net income tax.

#### **Federal Tax Exemption**

As of the date of closing, Bond Counsel will issue an opinion to the effect that under existing law, the interest on the Bonds (including any original issue discount properly allocable to the owner of a Bond) is excluded from gross income for federal income tax purposes. Furthermore, interest on the Bonds is not a specific preference item for purposes of the federal alternative minimum tax. The Internal Revenue Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied subsequent to the issuance of the Bonds in order for interest on the Bonds to be and remain excludable from gross income for purposes of federal income taxation. Examples include: the requirement that the Authority rebate certain excess earnings on proceeds and amounts treated as proceeds of the Bonds to the United States Treasury; restrictions on investment of such proceeds and other amounts; and restrictions on the ownership and use of the facilities financed with Bond proceeds and other amounts; and restrictions on the ownership and use of the facilities financed with proceeds of the Bonds. The foregoing is not intended to be an exhaustive listing of the post-issuance tax compliance requirements of the Internal Revenue Code, but is illustrative of the requirements that must be satisfied by the Authority subsequent to issuance of the Bonds to maintain the exclusion of interest on the Bonds from gross income for federal income taxation purposes. Failure to comply with such requirements could cause the interest on the Bonds to be included in gross income retroactive to the date of issuance of the Bonds. The opinion of Bond Counsel delivered on the date of issuance of the Bonds is conditioned on compliance by the Authority with such requirements, and Bond Counsel has not been retained to monitor compliance with requirements such as described above subsequent to the issuance of the Bonds.

## **Original Issue Premium**

The Bonds which mature on September 15, 2021 through and including September 15, 2035 and September 15, 2039 (the "Premium Bonds") were sold at an original issue premium. The amount equal to the excess of the purchase price of a Premium Bond over its stated redemption price at maturity constitutes the premium on such Premium Bond. Under the Code, the premium on the Premium Bonds is an adjustment to basis and may be amortized. No deduction is allowable on account of such premium. The method of amortization may be the method regularly employed by the taxpayer if such method is reasonable, or, in all other cases must be the method prescribed by applicable Treasury Regulations, which provide that the amortizable bond premium is an amount which bears the same ratio to the bond premium on the Premium Bond as number of months in the taxable year during which the bond was held by the taxpayer bears to the number of months from the beginning of the taxable year (or, if the bond was acquired in the taxable year, from the date of acquisition) to the date of maturity. The basis of the Premium Bond is reduced by the amount of the amortizable bond premium. Purchasers of a Premium Bond, whether at the time of initial issuance or subsequent thereto, should consult with their own tax advisors with respect to the determination and treatment of the premium for federal income tax purposes and with respect to state and local tax consequences of owning Premium Bonds.

## **Other Tax Matters**

Except as expressly stated above, Bond Counsel will express no opinion regarding any other state or federal income tax consequences of acquiring, carrying, owning or disposing of the Bonds. Owners of the Bonds should consult their tax advisors regarding the applicability of any collateral tax consequences of owning the Bonds, which may include original issue discount, original issue premium, purchase at a market discount or premium, taxation upon sale, redemption or other disposition and various withholding requirements and which may apply to certain taxpayers, including, without limitation, financial institutions, property and casualty insurance companies, individual recipients of Social Security or Railroad Retirement benefits, certain S corporations with "excess net passive income," foreign corporations subject to the branch profits tax and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry the Bonds.

From time to time, there are legislative proposals in Congress which, if enacted, could alter or amend the federal tax matters referred to above or adversely affect the market value of the Bonds. The likelihood of such legislation being enacted or whether the currently proposed terms will be altered or removed during the legislative process cannot be reliably predicted. Prospective purchasers of the Bonds should consult their own tax advisors regarding the potential consequences of the proposed change to the treatment of interest on the Bonds.

## **Information Reporting**

Prospective purchasers should be aware that interest paid on tax-exempt obligations will be subject to information reporting in a manner similar to interest paid on taxable obligations. This reporting requirement does not in and of itself affect or alter the excludability of such interest from gross income for federal tax purposes or any other federal tax consequence of purchasing, holding or selling tax-exempt obligations. The Trustee on behalf of the Authority will report annually (or more frequently if required) to owners of record and to the Internal Revenue Service in respect of interest paid on the Bonds.

## **Interest Expense Deductions for Financial Institutions**

Under Section 265 of the Code, financial institutions are denied any deduction for interest expenses that are allocable, by a formula, to tax-exempt obligations acquired after August 7, 1986. An exception, which permits a deduction for 80% of such interest expenses, is provided in respect of certain tax-exempt obligations issued by a qualified issuer that specifically designates such obligations as "qualified tax-exempt obligations" under Section 265 of the Code.

The Bonds are not "qualified tax-exempt obligations" for the purposes and effect contemplated by Section 265 of the Code.

Financial institutions intending to purchase Bonds should consult their own tax advisors to determine the effect of the interest expense deduction on their federal tax liability.

## **Backup Withholding**

Payments of interest on the Bonds may under certain circumstances, be subject to “backup withholding” at a rate equal to the fourth lowest rate of tax applicable under Section 1(c) of the Code, the rates applicable to unmarried individuals, for payments made up until December 31, 2010 and at the rate of 31% thereafter. This withholding generally applies if the owner (i) fails to furnish the Trustee such owner’s social security number or other taxpayer identification number (“TIN”), (ii) furnishes to the Trustee an incorrect TIN, (iii) fails to properly report interest, dividends or other “reportable payments” as defined in the Code, or (iv) under certain circumstances, fails to provide the Trustee or such owner’s securities broker with a certified statement, signed under penalties of perjury, that the TIN is correct and that such owner is not subject to backup withholding. Prospective purchasers of the Bonds should consult their own tax advisors as to their qualification for exemption for backup withholding and the procedures for obtaining the exemption.”

THE FOREGOING IS NOT INTENDED AS AN EXHAUSTIVE LIST OF THE PROVISIONS OF FEDERAL TAX LAW WHICH MAY HAVE AN EFFECT ON INDIVIDUALS AND CORPORATIONS HOLDING THE BONDS OR RECEIVING INTEREST THEREON. PROSPECTIVE PURCHASERS SHOULD CONSULT WITH THEIR TAX ADVISORS REGARDING THE EFFECT OF HOLDING THE BONDS OR RECEIVING INTEREST THEREON ON THEIR AFFAIRS, INCLUDING, BUT NOT LIMITED TO, THE EFFECT OF STATE AND LOCAL TAX LAWS.

## **CONTINUING DISCLOSURE UNDERTAKING**

In accordance with Rule 15c2-12 (the “Rule”) under the Securities Exchange Act of 1934, as amended, the Authority has covenanted in the Resolution and in a Continuing Disclosure Certificate for the benefit of the holders and beneficial owners of the Bonds, to provide to the Municipal Securities Rulemaking Board (“MSRB”) through its Electronic Municipal Market Access system (“EMMA”) for municipal securities or through any other electronic format or system prescribed by the MSRB for the purposes of Section (b)(5) of the Rule on an annual basis, its general purpose financial statements presented in conformity with generally accepted accounting principles (the “Report”), together with updates of the tabular information appearing in Appendix A under the titles “Summary”, “Duties and Responsibilities of the Consulting Engineer”, “General”, “Operation and Maintenance”, “Insurance”, “Budget” and “Rate Calculation” hereto (to the extent not included in the Report), commencing with the Report tabular information for the fiscal year ending December 31, 2019. The Report and tabular information must be provided by September 30<sup>th</sup> of the following year. If the Report does not include independently audited financial statements, the Authority must also provide independently audited financial statements when and if available. The Authority has also covenanted in the Resolution to provide to MSRB through EMMA:

(i) to the Municipal Securities Rule Making Board’s (“MSRB”) through its Electronic Municipal Market Access system (“EMMA”) in accordance with the Rule, certain annual financial information and operating data generally consistent with the information contained in audited financial statements and notes and for the Authority respectively, and the Consulting Engineers Annual Report for the Authority. The information shall be provided on or before September 30, 2020 and September 30<sup>th</sup> of each year thereafter, as long as the Bonds remain outstanding or are not defeased, for the fiscal year ending on the preceding December 31;

(ii) The Authority also will covenant to provide to the MSRB through EMMA notice of the following events with respect to the Bonds no later than ten (10) business days after the occurrence:

1. Principal and interest payment delinquencies
2. Non-payment related defaults, if material
3. Unscheduled draws on debt service reserves reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Substitution of credit or liquidity providers, or their failure to perform
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds
7. Modifications to rights of holders of the Bonds, if material
8. Bond/Note calls and tender offers

9. Defeasances
10. Release, substitution or sale of property securing repayment of the Bonds, if material
11. Rating changes
12. Bankruptcy, insolvency, receivership or similar event of the Obligated Person (or any other entity that is an obligated person within the meaning of the Rule with respect to the Bonds)
13. The consummation of a merger, consolidation, or acquisition involving the Obligated Person (or any other entity that is an obligated person within the meaning of the Rule with respect to the Bonds) or the sale of all or substantially all of the assets of the Obligated Person or any such obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material
14. The appointment of a successor or additional trustee or the change of name of a trustee, if material.
15. Incurrence of a Financial Obligation of the obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the obligated person, any of which affect security holders, if material; and
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the obligated person, any of which reflect financial difficulties.

The Authority intends the words used in the immediately preceding paragraphs (15) and (16) and the definition of Financial Obligation below to have the same meanings as when they are used in the Rule, as evidenced by SEC Release No. 34-83885, dated August 20, 2018.

Financial Obligation means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of a debt obligation or any such derivative instrument; provided that “financial obligation” shall not include municipal securities as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule

The SEC requires the listing of (1) through (16), above, although some of the events may not be applicable to the Bonds. The Authority also covenants to file notice with the MSRB of any failure to file the Annual Financial Information on or before the date specified above.

The Continuing Disclosure Certificate will provide Bondholders with certain enforcement rights in the event of a failure by the Obligated Person to comply with their terms; however, a default under the Continuing Disclosure Certificate does not constitute a default under the Resolution or under the Indenture. The Continuing Disclosure Certificate may be revised from time to time as permitted or required by applicable law, without the consent of the Bondholders, and may be terminated upon the economic defeasance of all outstanding Bonds, or other arrangement, whereby the Obligated Person is released from any further obligation with respect to the Bonds. Covenants in the Resolution and the Continuing Disclosure Certificate may also be terminated, without the consent of the Bondholders, at such time as continuing disclosure is no longer required by applicable law. The Obligated Person will promptly notify the MSRB via EMMA of any revision or termination of the disclosure covenants. The sole remedy for a breach by the Obligated Person of its covenants to provide financial statements, tabular information and notices of material events is an action to compel performance of such covenants. Under no circumstances may monetary damage be assessed or recovered, nor will any such breach constitute a default under the Bonds.

The Authority will file at a single designation to the Electronic Municipal Market Access (EMMA) system located at [www.emma.msrb.org](http://www.emma.msrb.org). Filings with EMMA shall be in electronic format as pdf files.

The Authority has previously entered into continuing disclosure agreements to provide continuing disclosure for several outstanding bond issues. Please refer to the chart below, which lists the dates of the EMMA submissions.

<u>Fiscal Year Ended</u>	<u>Financial and Operating Data Filing Deadline</u>	<u>Annual Audited Financial Statements Filing Date</u>	<u>Annual Operating and Financial Filing Date</u>
December 31, 2014	September 30, 2015	May 15, 2015	May 15, 2015
December 31, 2015	September 30, 2016	July 14, 2016	July 15, 2016
December 31, 2016	September 30, 2017	July 26, 2017	January 25, 2017
December 31, 2017	September 30, 2018	August 16, 2018	August 16, 2018
December 31, 2018	September 30, 2019	September 12, 2019	September 23, 2019

The Authority acknowledges its responsibilities with regard to continuing disclosure obligations. Questions relating to the Authority’s Continuing Disclosure Obligations can be addressed to the Authority Manager.

The Authority has engaged Digital Assurance Certification, LLC (“DAC”) as its Dissemination Agent for the purpose of complying with Rule 15c2-12.

#### **Disclosure Dissemination Agent**

The Authority has entered into a Disclosure Dissemination Agent Agreement (“Disclosure Dissemination Agreement”) with Digital Assurance Certification, LLC (“DAC”) as its Disclosure Dissemination Agent for the purpose of ensuring ongoing compliance with its continuing disclosure filing requirements. DAC provides its clients with automated filing of rating events, templates consolidating all outstanding filing requirements that accompany reminder notices of annual or interim mandatory filings, review of all template filings by professional accountants, as well as a time and date stamp record of each filing along with the unique ID from EMMA accompanying the copy of the actual document filed. DAC also offers its clients a series of training webinars each year qualified for 15-20 NASBA certified CPE credits, as well as model secondary market compliance policies and procedures. The form of Disclosure Dissemination Agreement is attached as Appendix F.

### **MISCELLANEOUS**

#### **The Trustee**

The obligations and duties of the Trustee are described in the Indenture, and the Trustee has undertaken only those obligations and duties which are expressly set out in the Indenture. The Trustee has not independently passed upon the validity of the Bonds, the security therefor, the adequacy of the provisions for payment thereof or the tax-exempt status of the Bonds. The Indenture expressly provides that the Trustee is not responsible for any loss or damage resulting from any action or inaction taken in good faith in reliance upon an opinion of counsel.

Under the terms of the Indenture, the Trustee is liable only for those damages caused by its gross negligence or willful misconduct. Under the terms of the Indenture, the Trustee is not required to take notice or be deemed to have notice of any default under the Indenture, except failure by the Authority to cause to be made any of the payments required to be made for payment of principal of the Bonds, when due at maturity or earlier redemption, or interest on the Bonds, or failure by the Authority to file with the Trustee any document required by the Indenture or unless the Trustee has been specifically notified in writing of such default by the Authority or the owners of at least 25% in aggregate principal amount of the Outstanding Bonds affected by such default. All notices or other instruments required by the Indenture to be delivered to the Trustee must be delivered at the principal corporate trust office of the Trustee. In the absence of any such notice, the Trustee may conclusively assume no Event of Default (as defined in the Indenture) exists, except as expressly stated in the Indenture. The summary of the Trustee’s rights, duties, obligations and immunities contained herein is not intended to be a complete summary and reference is made to the Indenture for a complete statement of the Trustee’s rights, duties, obligations and immunities.



## **Underwriting**

The Bonds are being purchased by the Underwriter, Piper Sandler & Co., Pittsburgh, Pennsylvania, at an aggregate purchase price of \$30,183,282.40 (face amount of Bonds of \$26,205,000.00 plus net original issue premium of \$4,214,127.40 and an Underwriter's discount of \$235,845.00). The purchase contract for the Bonds provides that the Underwriter will purchase all of the Bonds, if any are purchased, and that the obligation to make such purchase is subject to the terms and conditions set forth in such purchase contract. The initial public offering prices set forth on the inside cover page hereof may be changed by the Underwriter at any time without prior notice, and the Underwriter may offer and sell the Bonds to certain dealers and others at prices lower than the offering prices set forth on the inside cover page hereof.

The Underwriter has entered into distribution agreements with other broker-dealers that have not been designated by the Authority as Underwriter for the distribution of the Bonds, at the original issue prices. Such agreements generally provide that the Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

The Underwriter has read and participated in the preparation of certain portions of this Official Statement and has supervised the compilation and editing thereof. The Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

## **Other**

All of the summaries of the provisions of the Indenture, the Resolution, the Ordinance, the Act, and the Bonds contained in this Official Statement, and all other summaries and references to other materials not purporting to be quoted in full, are only brief outlines of certain provisions of such documents, and do not constitute complete statements. Copies of the Resolution is available for inspection at the offices of the Authority upon request.

All information, estimates and assumptions herein have been obtained from officials of the Authority, other governmental bodies, trade and statistical services, and other sources which are believed to be reliable; but no representations whatsoever are made that such estimates or assumptions are correct or will be realized. So far as any statements herein involve matters of opinion, whether or not expressly so stated, they are intended as such and not representations of fact.

Use of the words "shall," "will," "must," or other words of similar import or meaning in summaries of documents or law in this Official Statement to describe future events or continuing obligations is not intended as a representation that such events will occur or such obligations will be fulfilled, but only that the document or law requires or contemplates such event to occur or such obligation to be fulfilled.

The Authority has authorized the distribution of this Official Statement.

## **THE WILKINSBURG-PENN JOINT WATER AUTHORITY**

By: /s/ Dennis Simon  
Chairman

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**APPENDIX A**

**CONSULTING ENGINEER'S 2019 ANNUAL REPORT  
AND FISCAL 2020 BUDGET**

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Wilkesburg-Penn Joint Water Authority

Allegheny County, Pennsylvania

Consulting Engineer's  
2019 Annual Report and  
Fiscal 2020 Budget

January 2020



Mackin Engineering Company

Pittsburgh, PA

Harrisburg, PA

Wilkinsburg-Penn Joint Water Authority  
Allegheny County, Pennsylvania

**Consulting Engineer's 2019 Annual Report  
And Fiscal 2020 Budget**

January 2020

Prepared by: John R. Balewski P.E.

Project No. 5274-003



CONSULTING ENGINEER'S 2019 ANNUAL REPORT  
AND FISCAL 2020 BUDGET  
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Appendix A

Fiscal Year 2020 Capital Budget

Appendix B

Fiscal Year 2020 Operating Budget

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## CONSULTING ENGINEER'S 2019 ANNUAL REPORT AND FISCAL 2020 BUDGET

### SUMMARY

This annual report prepared for the Wilkinsburg-Penn Joint Water Authority (Authority), in accordance with the requirements of Section 5.06 of the Trust Indenture, presents a review of the water system operations for the 2019 fiscal year. This report identifies needed maintenance, capital addition items, and a proposed budget for the 2020 fiscal year.

The conclusions and recommendations of this report are as follows:

1. The water system of the Authority has been properly maintained and operated during the past year.
2. During 2019, several maintenance and capital improvement projects were worked on or completed for the water system including the following:
  - a. Continued development of a water system hydraulic model utilizing Geographic information System mapping of the water system.
  - b. Completed replacement of water lines on Highland Avenue in Wilkins Township, North Avenue in Chalfant Borough, Watt/Tanglewood Drive in Forest Hills, South Braddock Avenue and Washington Avenue in Swissvale, Airbrake Avenue in Wilmerding, Highland Avenue in Chalfant, and Bessemer Avenue in East Pittsburgh.
  - c. Began the replacement of water lines on Franklin Avenue in Wilkinsburg and Pennsylvania/Hill Avenues in Pitcairn.
  - d. Continued with Meter Interface Unit (MIU) maintenance.
  - e. Completed the sandblasting and painting of Tanks 2A and 2B in Braddock Hills.
  - f. Completed the rebuild of filters at the Water Treatment Plant.
  - g. Replaced the boiler at the filter plant.
  - h. Re-paved the asphalt driveways and parking lots at the Water Treatment Plant.
3. During the 2020 fiscal year, the following capital improvement projects are recommended:



- a. Replace water lines on 3<sup>rd</sup> and 4<sup>th</sup> Avenues in Rankin, Cascade Street in Forest Hills, Corey Street in Braddock, Garden Terrace/Rural Court in Churchill, Mansion Place in Swissvale, Franklin Avenue in Wilkinsburg, Airbrake Avenue in Wilmerding, and Duffield Street in Penn Hills.
  - b. Sandblast, re-coat and install total trihalomethane control for the Lougeay Road tank.
  - c. Install total trihalomethane controls for Tanks 2A and 2B in Braddock Hills.
  - d. Upgrade Supervisory Control and Data Acquisition (SCADA) system.
  - e. Continue with MIU maintenance.
  - f. Install in-line meter on 48" water main in new vault at Water Treatment Plant.
  - g. Replace 16" and 20" cone valves at Nadine Pump Station.
  - h. Install new alum storage tanks at the Filter Plant.
  - i. Replace the material storage building at the Ramsey Warehouse.
  - j. Pursue the completion of an interconnect with the Municipal Authority of Westmoreland County.
  - k. Review transmission mains and complete design of transmission main upgrades and develop funding options for complete upgrades.
  - l. Develop a list and complete design of water distribution system upgrade projects that will address fire service issues with the system and develop funding options for completing projects.
  - m. Review lost water report and begin to implement recommendations from report.
4. A recommended budget for Fiscal Year 2020 is presented reflecting anticipated operating, maintenance, and debt service costs for the coming year. The Fiscal Year 2020 budget total revenues of \$24,838,200 represent an increase of approximately 3.5 percent when compared to the Fiscal Year 2019 budget total revenues of \$23,997,200.

5. The 2019 rate structure was insufficient based on the 2020 budget requirements. To address the budget issues, the Authority Board increased rates in November 2019 to be effective January 1, 2020. The following rates were increased:
  - Residential Rates increased by 5%
  - Braddock Water Authority rates increased by 5%
  - High Consumption Accounts, Wholesale and Repumping rates increased by 10%
6. The Authority's insurance coverage during 2019 was determined to be adequate based on the types of coverage general carried by municipal authorities of similar size in the region. The Authority should continue to update the value of assets as needed and retain the services of an independent professional appraiser to determine the insurable values of Authority properties.

CONSULTING ENGINEER'S 2019 ANNUAL REPORT  
AND FISCAL 2020 BUDGET

**DUTIES AND RESPONSIBILITIES OF THE CONSULTING ENGINEER**

Article V, Section 5.06 of the Trust Indenture imposes certain duties and responsibilities on the Consulting Engineer. This report is prepared to address the duties and responsibilities imposed by the Trust Indenture, which include the following:

1. Advice and recommendations as to the proper maintenance, repair, and operation of the Water System during the next fiscal year, an estimate of the amounts of money that should be expended for current expenses, and estimate of the gross revenues of the Water System for the next fiscal year.
2. A recommended budget for the next fiscal year reflecting the advice and recommendations made under Item Number 1 above.
3. Advice and recommendations as to capital additions that should be made during the coming fiscal year and estimates of the amounts of money necessary for such purposes and the percentage of the gross revenues of the Water System to be transferred to the Capital Additional Fund during the next fiscal year to accomplish said purposes.
4. Advice and recommendations as to the insurance to be carried by the Authority under the provisions of Section 5.05 of Article V of the Trust Indenture.
5. Recommendations as to necessary or advisable revisions of rates and charges.
6. Findings as to whether the properties of the Water System have been maintained in good repair and sound operating condition, and estimates of the amount, if any, required to place such properties in such condition and details of such expenditures and the approximate time required therefore.

## GENERAL

The Wilkesburg-Penn Joint Water Authority (Authority) water system consists primarily of the distribution lines, transmission mains, pumping stations, reservoirs, tanks and treatment facilities required to provide potable water to the Authority service area. The service area includes all or portions of the Municipality of Penn Hills, the Borough of Wilkesburg, East Pittsburgh, Edgewood, Churchill, Chalfant, Swissvale, Forest Hills, Braddock Hills, North Braddock, Turtle Creek, East McKeesport, Pitcairn, North Versailles, North Huntington, Rankin, Trafford, and Wilmerding, the Township of Wilkins, and the City of Pittsburgh. Additionally, the Authority provides bulk water sales to the Braddock Water Authority and the Municipal Authority of Westmoreland County.

## OPERATION AND MAINTENANCE

The Executive Director is responsible for the day-to-day operation and administration of the Authority under the direction of the Authority Board. All of the Authority's Water System facilities have been operated and maintained in a manner consistent with insuring the maximum cost-effective useful life of the System. Finished water quality consistently meets or exceeds all standards established by the Safe Drinking Water Act. All required reports are submitted in a timely manner to the Pennsylvania Department of Environmental Protection and the Allegheny County Health Department.

The Authority has continued to operate and maintain the system while addressing their capital projects. Portions of the system are past their expected life expectancy and will continue to need careful and selective capital projects management.

During 2019, the Authority completed a number of capital projects aimed at maintaining or increasing the water system's ability to maintain a safe water supply over its distribution system. A listing of projects initiated or completed during 2019 follows:

- Continued development of water system hydraulic model utilizing Geographic Information System mapping of the water system.
- Completed replacement of water lines on Highland Avenue in Wilkins Township, North Avenue in Chalfant Borough, Watt/Tanglewood in Forest Hills, South Braddock Avenue and Washington Avenue in Swissvale, Airbrake Avenue in Wilmerding, Highland Avenue in Chalfant, and Bessemer Avenue in East Pittsburgh.
- Started the replacement of water lines on Franklin Avenue in Wilkesburg and Pennsylvania and Hill Avenues in Pitcairn
- Completed replacement of boiler system at the Water Treatment Plant.

- Continued with Meter Interface Unit (MIU) maintenance.
- Completed the sandblasting and re-coating of the Tanks 2A and 2B in Braddock Hills.
- Completed the re-build of filters at Water Treatment Plant.
- Completed the re-paving of all entrance ways
- Initiated water loss study.

During 2020, the Authority should continue implementation of the capital program. Projects that should be initiated in 2020 include the following:

- Replace water lines on 3<sup>rd</sup> and 4<sup>th</sup> Avenues in Rankin, Mansion Place in Swissvale, Corey Street in Braddock, Duffield Street in Penn Hills, Franklin Avenue in Wilkinsburg, Cascade Street in Forest Hills, and Garden Terrace/Rural Court in Churchill.
- Sandblast, re-coat and install total trihalomethane control for the Lougeay Road tank.
- Install total trihalomethane controls for Tanks 2A and 2B in Braddock Hills.
- Upgrade Supervisory Control and Data Acquisition (SCADA) system.
- Continue with MIU maintenance.
- Install in-line meter on 48" water main in new vault at Water Treatment Plant.
- Replace 16" and 20" cone valves at Nadine Pump Station.
- Install new alum storage tanks at the Filter Plant.
- Replace the material storage building at the Ramsey Warehouse.
- Pursue the completion of an interconnect with the Municipal Authority of Westmoreland County.
- Review transmission mains and complete design of transmission main upgrades and develop funding options for complete upgrades.
- Develop a list and complete design of water distribution system upgrade projects that will address fire service issues with the system and develop funding options for completing projects.
- Review lost water report and begin to implement recommendations from report.
- Develop list and complete design of water distribution system upgrade projects that will address fire service issues with the system and develop funding options for completing projects.

A summary of the 2020 Capital Budget is included in Appendix A.

## INSURANCE

As required under Section 5.05 of the Trust Indenture, the Authority's Water System properties must be insured against loss or damage by fire or other hazards. The Authority also maintains public liability and worker's compensation insurance to protect against claims arising within those categories. A schedule of the Authority's insurance coverage is shown in Table 1.

**Table 1**

**Schedule of Insurance Coverage**

Policy No.	Carrier	Coverage/Deductible	Expires	Premium
S2026442	Selective Ins.	Auto: \$1,000,000/\$500/\$1,000. Deductible	3/15/20	\$51,075.00
S2026442	Selective Ins.	\$2,000,000 General Aggregate Limit/Deductible \$5,000 Property & Bodily Injury	3/15/20	\$107,015.00
S2026442	Selective Ins.	Commercial Package:\$76,759,369 Blanket/\$2,500 Deductible	3/15/20	\$89,299.00
S2026442	Selective Ins.	Boiler and Machine: \$76,759,369 Blanket	3/15/20	Included
S2026442	Selective Ins.	Crime: \$420,000 Limit/\$250 to \$2,500 Deductible	3/15/20	\$802.00
S2026442	Selective Ins.	C&M Equipment: \$234,595 + Misc. Equip. @ \$150,000 maximum/\$3,000 any one time) Limit/Deductible \$1,000 - \$2,500	3/15/20	\$12,933.00
S2026442	Selective Ins.	Commercial Umbrella: \$1,000,000	3/15/20	\$18,635.00
MRM-377-1819	MRM Municipal Risk Management WC Pooled Trust	Workers' Compensation: Limits \$500,000 Each Accident/Employee)	9/1/20	\$318,290.00
FL-1717625535	National Flood Ins. Program	Flood Limits - Bldg \$500,000; Contents \$198,200	3/5/20	\$8,631.00
PO10000515A	United States Liability Ins.	Public Officials Liability Ins. Limit - \$1,000,000/Deductible \$5,000	12/1/20	\$13,515.00
8211-6297	Chubb Federal Ins. Co	Fiduciary Liability Insurance Pension Plan Limit - \$1,000,000/Deductible \$10,000	4/1/20	\$4,651.00
		Total Premiums		\$624,846.00

In order to assure current replacement values, the Authority has retained the services of an independent professional appraiser to determine the sound insurable values of Authority properties. The appraisal should continue to be updated annually.

**BUDGET – FISCAL YEAR 2020**

The fiscal year 2020, twelve-month period ending December 31, 2019, annual budget is attached as Appendix B to this report. Total operating revenues for 2020 are estimated at \$24,838,200, an increase of 3.5 percent from fiscal year 2019 operating revenues. Total operating expenses for 2020 are estimated at \$21,773,970, an increase of approximately 12.8 percent from fiscal year 2019 operating expenses of \$19,302,200. For fiscal year 2020, Debt Service is estimated at \$1,086,800. A Debt Service cover of 10% is also required and is included as \$108,680. The total Debt Service for 2020 including coverage is \$1,195,480. The net balance available for capital projects from the 2020 budget is \$1,868,750.

## **RATE CALCULATION**

The 2019 rate structure was insufficient based on the 2020 budget requirements. To address the budget issues, the Authority Board increased rates in November 2019 to be effective January 1, 2020. The following rates were increased:

- Residential Rates increased by 5%
- Braddock Water Authority rates increased by 5%
- High Consumption Accounts, Wholesale and Repumping rates increased by 10%

While the total 2020 Capital Budget is more than the capital funds available within the 2020 budget, the shortfall will be covered with accumulated funds from prior years.

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APPENDIX A  
FISCAL YEAR 2020 CAPITAL BUDGET



**WILKINSBURG -PENN JOINT WATER AUTHORITY  
SCHEDULE OF 2020 CAPITAL PROJECTS**

<u>Nadine</u>	<u>Capital Budget Amounts</u>
Replace 24" Flowmeter	\$ 18,000
Chlorine Structure	\$ 25,000
Rebuild #1 3rd Stage	\$ 50,000
Cone Valve Rebuild or Replace - 5 valves	\$ 250,000
<b>Total Nadine Pump Station Projects</b>	<b>\$ 343,000</b>
<u>Filter Plant</u>	
Variable Frequency Drive #5 Reservoir	\$ 4,500
System Flowmeters	\$ 6,000
Sludge Valve Actuators	\$ 6,500
Turbidity Meter - 2 replacements per year	\$ 8,000
Washwater Valves	\$ 8,000
Lab Equipment Replacement	\$ 9,100
Transfer Switch Replacement	\$ 15,000
Emergency Power to Dome	\$ 15,000
Security - Fencing, Cameras, Monitoring, etc.	\$ 25,000
Meter for Water Measurement - 48"	\$ 300,000
THM Control system for Tanks	\$ 420,000
New Alum Tanks & Building	\$ 350,000
Tank and Reservoir Maintenance	\$ 1,300,000
<b>Total Filter Plant Tank Projects</b>	<b>\$ 2,467,100</b>
<u>Metering (Service)</u>	<u>Amounts</u>
Replace Garage Doors Under Lumber Room	\$ 12,000
Replace Entry Doors at Garage	\$ 20,000
Reading Equipment	\$ 30,000
Other Consumer Meters Register Heads	\$ 30,000
Forklift Replacement	\$ 40,000
Meter Chamber Change Out Large Meters	\$ 43,500
Slag Cover Replacement	\$ 60,000
MIU Replacements - 3,000	\$ 235,500
Water Meter Replacements - 3,000 per year	\$ 327,000
<b>Total Metering (Service) Projects</b>	<b>\$ 798,000</b>

**WILKINSBURG - PENN JOINT WATER AUTHORITY  
SCHEDULE OF 2020 CAPITAL PROJECTS**

	<u>Capital Budget Amounts</u>
<u>Distribution</u>	
Yearly Distribution Main Replacement	\$ 285,000
Yearly Service Line Replacement	\$ 255,000
Yearly Fire Hydrant Replacement	\$ 750,000
 <u>Distribution Line Replacements</u>	
<u>Municipality</u>	
Airbrake Avenue	\$ 250,000
Mansion Place	\$ 275,000
Corey - First to Fourth	\$ 280,000
Duffield Streets - Phase 1	\$ 350,000
Franklin Ave. - Princeton to Ardmore	\$ 375,000
Third St. - Hawkins to Ridge	\$ 375,000
Fourth Street	\$ 375,000
Cascade Street - Edwood Road to Bevington	\$ 525,000
Garden Terrace/Rural Court	\$ 825,000
 <u>Distribution Equipment</u>	
Epiroc Hammer for Mini Excavator	\$ 6,800
Electric Hand Valve Turning Machine	\$ 9,000
Distribution Tool Replacements	\$ 20,000
<b>Total Distribution Projects and Equipment</b>	<b>\$ 4,955,800</b>
 <u>Office</u>	
Small Office Equipment	\$ 10,000
Structures Repair/Replace	\$ 10,000
Laser Printing of A/P & Payroll Checks	\$ 12,500
Drive through Window Upgrades	\$ 15,000
Air Handlers	\$ 120,000
<b>Total Office Projects</b>	<b>\$ 167,500</b>
 <u>Engineering</u>	
GIS Presentation Monitor	\$ 3,000
<b>Total Capital Expenditure Projects for 2020</b>	<b>\$ 8,734,400</b>



APPENDIX B  
FISCAL YEAR 2020 OPERATING BUDGET

**SECTION III**

**COMPARISON OF OPERATING REVENUES - BUDGET 2019 VS. BUDGET 2020**

<b><u>OPERATING REVENUES</u></b>	<b><u>BUDGET 2019</u></b>	<b><u>BUDGET 2020</u></b>
Domestic/Commercial/Industrial	\$ 19,235,000	\$ 19,694,000
Wholesale:		
Braddock Water Authority	\$ 320,000	\$ 336,000
Westmoreland Water Authority	\$ 14,000	\$ 15,000
Public	\$ 235,000	\$ 235,000
Other Miscellaneous	\$ 10,000	\$ 10,000
Public Fire Protection	\$ 240,000	\$ 240,000
Private Fire Protection	\$ 275,000	\$ 275,000
Miscellaneous Revenues (No lien letters, turn-on charges, etc.)	\$ 419,500	\$ 419,500
Sewage Billing Charge Revenue	\$ 1,250,000	\$ 1,250,000
Miscellaneous Jobbing	\$ 50,000	\$ 50,000
Interest Income	\$ 75,200	\$ 75,200
Rental Income	\$ 34,000	\$ 34,000
Capital Contributions	\$ 647,000	\$ 1,012,000
Other Non-Operating Income (Grants, Penalty Interest, etc.)	<u>\$ 1,192,500</u>	<u>\$ 1,192,500</u>
<b>TOTAL REVENUES</b>	<b><u>\$ 23,997,200</u></b>	<b><u>\$ 24,838,200</u></b>

**SECTION IV**

**COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020**

<b><u>OPERATING EXPENSES</u></b>	<b><u>BUDGET</u></b>	<b><u>BUDGET</u></b>
	<b><u>2019</u></b>	<b><u>2020</u></b>
<b><u>METERING DEPARTMENT</u></b>		
<b><u>Metering:</u></b>		
Labor (Including Overtime)	\$ 632,000	\$ 677,800
Insurance	159,800	179,400
Pension	90,200	84,400
Taxes	37,500	44,700
Safety Shoes	1,600	1,600
Meals	500	400
Supplies (Operating)	43,000	38,000
Gasoline, Diesel, Oil	9,000	9,000
Uniforms	9,000	9,000
Tools	5,000	8,000
Meter Repairs	45,000	30,000
Vehicle Maintenance	35,000	36,000
Sub-Total Metering	\$ 1,067,600	\$ 1,118,300
<b><u>Inspection:</u></b>		
Labor Regular	\$ 697,000	\$ 661,500
Labor Overtime	50,000	50,000
Insurance	303,200	305,300
Pension	81,500	79,900
Taxes	58,100	62,200
Safety Shoes	1,600	1,600
Meals	1,200	600
Supplies (Operating)	5,000	5,000
Tools	6,000	10,000
Gasoline/Oil	30,000	45,000
Materials	48,000	40,000
Sub-Total Inspection	\$ 1,281,600	\$ 1,261,100

SECTION IV

COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2020</u>
<b><u>METERING DEPARTMENT (Continued)</u></b>		
<b><u>Garage:</u></b>		
Labor (Including Overtime)	\$ 183,000	\$ 195,000
Insurance	47,900	52,500
Pension	36,700	33,500
Taxes	13,100	15,300
Safety Shoes	400	720
Meals	200	-
Supplies	25,000	20,000
Telephone	4,000	3,500
Electric	10,000	7,500
Heat	12,000	8,200
Trash Disposal and Window Cleaning	1,500	1,400
Tools	3,500	5,000
Garage Maintenance	15,000	15,000
Sub-Total Garage:	<u>\$ 352,300</u>	<u>\$ 357,620</u>
<b>TOTAL METERING DEPARTMENT:</b>	<u><b>\$ 2,701,500</b></u>	<u><b>\$ 2,737,020</b></u>

**SECTION IV**

**COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020**

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2020</u>
<b><u>FILTRATION DEPARTMENT</u></b>		
<b><u>Operations:</u></b>		
Labor (Including Overtime)	\$ 1,225,000	\$ 1,255,000
Insurance	412,000	442,500
Pension	136,400	126,500
Taxes	89,900	100,600
Safety Shoes and Uniforms	2,300	2,000
Meals	500	500
Dues and Subscriptions	300	-
Operating Supplies	18,000	85,000
Laboratory Supplies	36,500	38,000
Electric (Filter Plant and Reservoirs 2 & 4)	124,700	125,100
Heat (Filter Plant and Reservoirs 2 & 4)	67,600	67,600
Power Electric (Pump Stations, etc.)	1,451,600	1,462,900
Heat (Pump Stations, etc.)	23,800	22,200
Telephone	16,000	19,000
Trash Disposal	4,400	4,750
Gasoline, Diesel, Oil	13,000	19,000
Licensing and Testing	14,000	14,000
Uniforms	10,300	12,000
Chemicals	1,290,400	1,388,000
Office Equipment - Services	175,000	-
Compliance Mandates	34,300	23,000
General Expenses	-	50,000
Sewage/Sludge to ALCOSAN	440,000	440,000
Sub-Total Operations	\$ 5,586,000	\$ 5,697,650
<b><u>Filtration Plant Maintenance:</u></b>		
Labor Regular (Including Overtime)	\$ 770,000	\$ 888,000
Contra Account	(15,000)	(15,000)
Insurance	276,200	323,900
Pension	105,600	128,100
Taxes	58,900	72,600
Safety Shoes	1,600	1,500
Meals	500	500
Contra Services	(5,000)	(5,000)
Operating Supplies	66,000	80,000
Materials	200,000	225,000
Contra Account	(35,000)	(50,000)
Landscaping	14,000	24,000
Vehicle Maintenance	1,500	6,000
Tank and Reservoir Inspection	12,500	10,000
Contracted Services	25,000	100,000
Sub-Total Filter Plant Maintenance	\$ 1,476,800	\$ 1,789,600
<b>TOTAL FILTRATION DEPARTMENT</b>	<b>\$ 7,062,800</b>	<b>\$ 7,487,250</b>

SECTION IV

COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2020</u>
<b><u>DISTRIBUTION DEPARTMENT</u></b>		
<b><u>Operations:</u></b>		
Labor (Including Overtime)	\$ 2,126,500	\$ 2,836,000
Contra Labor	(275,000)	(375,000)
Insurance	696,600	885,200
Pension	301,700	304,100
Taxes	164,000	217,300
Safety Shoes	4,000	4,000
Meals	25,000	25,000
Contra Account	(175,000)	(175,000)
Operating Supplies	62,000	62,000
Gasoline, Diesel, Oil	65,000	65,000
Uniforms	7,600	7,600
Power Tool Maintenance	12,000	12,000
Tools	55,000	55,000
Telephone	5,500	5,500
Electric	8,000	8,000
Heat	12,000	12,000
Trash	1,200	1,200
Materials	700,000	1,000,000
Paving	1,000,000	2,000,000
Permits	85,000	150,000
Miscellaneous Repair Costs	35,000	25,000
Contra Materials	(250,000)	(500,000)
Contra Paving	(225,000)	(500,000)
Contra Permits	(25,000)	(50,000)
Miscellaneous Repairs	(10,000)	(10,000)
Vehicle Maintenance	70,000	90,000
Contracted Services	45,000	45,000
Miscellaneous Expenses	3,000	5,000
Contra Account	(50,000)	(60,000)
<b>TOTAL DISTRIBUTION DEPARTMENT:</b>	<b>\$ 4,474,100</b>	<b>\$ 6,144,900</b>



SECTION IV

COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2019</u>
<b><u>ADMINISTRATIVE DEPARTMENT</u></b>		
<b><u>Office Operations:</u></b>		
Labor (Including Overtime)	\$ 460,900	\$ 460,900
Car Allowance	6,000	6,000
Insurance	126,000	158,000
Pension	155,500	138,500
Taxes	35,300	38,400
Dues and Subscriptions	15,000	15,000
Training and Development	45,000	45,000
Supplies	75,000	75,000
Board Expenses	30,000	30,000
Postage	300,000	15,000
Outsourcing Bills and Notices	48,000	338,000
Telephone	50,000	50,000
Electric	25,000	25,000
Heat	7,500	7,500
Trash	2,400	2,400
Janitor Supplies and Services	21,000	20,000
Operating Software	15,200	15,200
Rapid Response	18,400	22,000
Purchased Office Services	12,000	12,000
Small Office Machines	13,100	13,100
Forms/Office and Meter Reading	12,000	12,000
Reproductions	3,000	1,000
Security	25,000	30,000
Office Equipment Services	113,000	135,000
Uncollectable Accounts	50,000	30,000
General Law Expenses	40,000	55,000
Comprehensive Business Insurance	265,000	275,000
Public Official Liability Insurance	40,000	40,000
Maintenance Office/Garage	-	25,000
Inventory Adjustment	21,000	25,000
Snow Removal	16,000	10,000
Advertisements	3,500	5,000
Vehicle Expenses	5,000	5,000
Miscellaneous	80,000	90,000
Sub-Total Office Operations	\$ 2,134,800	\$ 2,225,000

**SECTION IV**

**COMPARISON OF OPERATING EXPENSES - BUDGET 2019 VS. BUDGET 2020**

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2019</u>
<b><u>ADMINISTRATIVE DEPARTMENT (Continued)</u></b>		
<b><u>Customer Service</u></b>		
Labor	\$ 1,186,800	\$ 1,186,800
Insurance	497,000	520,600
Pension	222,700	208,100
Taxes	94,000	99,500
Meals	100	-
Supplies	11,400	15,000
Bank Charges	37,000	50,000
Deposit Slip Print Fee	500	500
Sub-Total Customer Service:	2,049,500	2,080,500
<b><u>Engineering:</u></b>		
Labor	205,300	215,300
Insurance	30,400	39,500
Pension	62,200	55,400
Taxes	15,800	18,100
Safety Shoes	400	400
Supplies	50,000	50,000
GIS Program Costs	12,000	25,000
Consulting Engineer	500,000	700,000
Engineering Contra Account	(450,000)	(550,000)
Sub-Total Engineering:	426,100	553,700
<b><u>Fiscal:</u></b>		
Labor	249,400	287,900
Insurance	72,500	77,900
Pension	42,300	39,300
Taxes	19,200	60,500
Safety Shoes		
Dues and Subscriptions	1,500	1,500
Supplies	1,500	1,500
Audit Expenses	40,000	50,000
Sub-Total Fiscal	\$ 426,400	\$ 518,600
<b>TOTAL ADMINISTRATIVE DEPARTMENTS:</b>	<b>\$ 5,036,800</b>	<b>\$ 5,377,800</b>
<b><u>NON-DEPARTMENTAL EXPENSES</u></b>		
Water Purchased for Resale	27,000	27,000
Small Material Sales	-	-
<b>TOTAL NON-DEPARTMENTAL EXPENSES:</b>	<b>27,000</b>	<b>27,000</b>

SECTION V

SUMMARY OF REVENUES AND EXPENSES

	<u>BUDGET</u> <u>2019</u>	<u>BUDGET</u> <u>2020</u>
REVENUES	\$ 23,997,200	\$ 24,838,200
OPERATING EXPENSES		
METERING DEPARTMENT	2,701,500	2,737,020
FILTRATION DEPARTMENT	7,062,800	7,487,250
DISTRIBUTION DEPARTMENT	4,474,100	6,144,900
ADMINISTRATIVE DEPARTMENT	5,036,800	5,377,800
NON-DEPARTMENTAL EXPENSES	27,000	27,000
TOTAL OPEARTING EXPENSES:	<u>19,302,200</u>	<u>21,773,970</u>
(Without Depreciation)		
NET OPERATING REVENUES (Before Debt Service)	4,695,000	3,064,230
DEBT SERVICE	<u>1,085,150</u>	<u>1,086,800</u>
	3,609,850	1,977,430
DEBT SERVICE COVER (10%)	<u>108,515</u>	<u>108,680</u>
NET BALANCE AVAILABLE FOR CAPITAL PROECTS	\$ 3,501,335	\$ 1,868,750

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**APPENDIX B**  
**AUDITED FINANCIAL STATEMENTS**  
**YEARS ENDED DECEMBER 31, 2018 AND 2017**

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**Wilkinsburg-Penn  
Joint Water Authority**

Financial Statements  
and Required Supplementary,  
Supplementary, and Other Information

Years Ended December 31, 2018 and 2017  
with Independent Auditor's Reports

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# WILKINSBURG-PENN JOINT WATER AUTHORITY

YEARS ENDED DECEMBER 31, 2018 AND 2017

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# WILKINSBURG-PENN JOINT WATER AUTHORITY

YEARS ENDED DECEMBER 31, 2018 AND 2017

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## Independent Auditor's Report

**Board of Directors  
Wilkes-Barre  
Joint Water Authority**

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Wilkes-Barre Joint Water Authority (Authority), as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, as listed in the table of contents.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2018 and 2017, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### *Other Matter*

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the pension information, and the post-employment benefits other than pension benefits information presented as the required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Information*

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The accompanying supplementary information and the pension related schedules as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

The pension related schedules as listed in the table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide assurance on them.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated September 5, 2019 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

*Maker Duessel*

Pittsburgh, Pennsylvania  
September 5, 2019

**Wilkinsburg-Penn Joint Water Authority**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**December 31, 2018**

---

As management of the Wilkinsburg-Penn Joint Water Authority (Authority), we offer readers of the Authority's financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ended December 31, 2018. We encourage readers to consider the information presented here in conjunction with the Authority's financial statements, which begin on page 1.

**Financial Highlights**

- The Authority's net position, as presented, was \$96,942,778 at December 31, 2018, a decrease of \$1,286,729 from December 31, 2017.
  
- The Authority had operating revenues of \$21,912,195, operating expenses of \$22,384,529, non-operating revenues of \$1,404,402, non-operating expenses of \$30,002, and interest expense of \$112,435 for the year ended December 31, 2018.
  
- Other condensed financial information is included in the following tables:

Condensed Statements of Net Position  
Table 1

	Fiscal Year 2018	Fiscal Year 2017	Dollar Change
<b>Assets and Deferred Outflow of Resources</b>			
<b>Assets:</b>			
Current assets	\$ 29,075,312	\$ 31,889,864	\$ (2,814,552)
Capital assets and other long-term assets	81,426,688	80,396,984	1,029,704
<b>Total Assets</b>	<b>110,502,000</b>	<b>112,286,848</b>	<b>(1,784,848)</b>
<b>Deferred Outflows of Resources:</b>			
Deferred outflow related to pension plan	4,509,865	3,042,888	1,466,977
<b>Total Assets and Deferred Outflows of Resources</b>	<b>\$ 115,011,865</b>	<b>\$ 115,329,736</b>	<b>\$ (317,871)</b>
 <b>Liabilities, Deferred Inflows of Resources, and Net Position</b>			
<b>Liabilities:</b>			
Current liabilities	\$ 5,462,194	\$ 5,087,798	\$ 374,396
Noncurrent liabilities	11,598,314	10,692,004	906,310
<b>Total Liabilities</b>	<b>17,060,508</b>	<b>15,779,802</b>	<b>1,280,706</b>
<b>Deferred Inflows of Resources:</b>			
Deferred inflow related to pension plan	1,008,579	1,320,427	(311,848)
<b>Net Position:</b>			
Net investment in capital assets	74,465,896	71,868,756	2,597,140
Restricted net position	2,770,488	4,243,112	(1,472,624)
Unrestricted net position	19,706,394	22,117,639	(2,411,245)
<b>Total Net Position</b>	<b>96,942,778</b>	<b>98,229,507</b>	<b>(1,286,729)</b>
<b>Total Liabilities, Deferred Inflows of Resources, and Net Position</b>	<b>\$ 115,011,865</b>	<b>\$ 115,329,736</b>	<b>\$ (317,871)</b>

Condensed Statements of Net Position  
Table 2

	Fiscal Year 2017	Fiscal Year 2016	Dollar Change
<b>Assets and Deferred Outflow of Resources</b>			
<b>Assets:</b>			
Current assets	\$ 31,889,864	\$ 28,349,656	\$ 3,540,208
Capital assets and other long-term assets	80,396,984	82,332,072	(1,935,088)
<b>Total Assets</b>	<b>112,286,848</b>	<b>110,681,728</b>	<b>1,605,120</b>
<b>Deferred Outflows of Resources:</b>			
Deferred outflow related to pension plan	3,042,888	1,597,932	1,444,956
<b>Total Assets and Deferred Outflows of Resources</b>	<b>\$ 115,329,736</b>	<b>\$ 112,279,660</b>	<b>\$ 3,050,076</b>
<b>Liabilities, Deferred Inflows of Resources, and Net Position</b>			
<b>Liabilities:</b>			
Current liabilities	\$ 5,087,798	\$ 4,788,798	\$ 299,000
Noncurrent liabilities	10,692,004	10,434,763	257,241
<b>Total Liabilities</b>	<b>15,779,802</b>	<b>15,223,561</b>	<b>556,241</b>
<b>Deferred Inflows of Resources:</b>			
Deferred inflow related to pension plan	1,320,427	20,333	1,300,094
<b>Net Position:</b>			
Net investment in capital assets	71,868,756	69,132,982	2,735,774
Restricted net position	4,243,112	8,207,748	(3,964,636)
Unrestricted net position	22,117,639	19,695,036	2,422,603
<b>Total Net Position</b>	<b>98,229,507</b>	<b>97,035,766</b>	<b>1,193,741</b>
<b>Total Liabilities, Deferred Inflows of Resources, and Net Position</b>	<b>\$ 115,329,736</b>	<b>\$ 112,279,660</b>	<b>\$ 3,050,076</b>

Condensed Statements of Revenues, Expenses, and Changes in Net Position

Table 3

	Fiscal Year 2018	Fiscal Year 2017	Dollar Change
Operating revenues	\$ 21,912,195	\$ 21,898,937	\$ 13,258
Nonoperating revenues	1,404,402	1,451,115	(46,713)
<b>Total revenues</b>	<u>23,316,597</u>	<u>23,350,052</u>	<u>(33,455)</u>
Operating expenses (operations)	22,384,529	21,905,694	478,835
Nonoperating expenses	30,002	124,244	(94,242)
Interest expense	112,435	207,262	(94,827)
<b>Total expenses</b>	<u>22,526,966</u>	<u>22,237,200</u>	<u>289,766</u>
<b>Net Income Before     Capital Contributions</b>	789,631	1,112,852	(323,221)
Capital contributions	460,388	80,889	379,499
<b>Net Income</b>	<u>1,250,019</u>	<u>1,193,741</u>	<u>56,278</u>
Net position, beginning of year, as restated	95,692,759	97,035,766	(1,343,007)
Net position, end of year	<u>\$ 96,942,778</u>	<u>\$ 98,229,507</u>	<u>\$ (1,286,729)</u>



Condensed Statements of Revenues, Expenses, and Changes in Net Position

Table 4

	Fiscal Year 2017	Fiscal Year 2016	Dollar Change
Operating revenues	\$ 21,898,937	\$ 22,929,443	\$ (1,030,506)
Nonoperating revenues	1,451,115	1,489,590	(38,475)
Total revenues	23,350,052	24,419,033	(1,068,981)
Operating expenses (operations)	21,905,694	21,750,289	155,405
Nonoperating expenses	124,244	21,242	103,002
Interest expense	207,262	206,186	1,076
Total expenses	22,237,200	21,977,717	259,483
<b>Net Income Before Capital Contributions</b>	1,112,852	2,441,316	(1,328,464)
Capital contributions	80,889	21,158	59,731
<b>Net Income</b>	1,193,741	2,462,474	(1,268,733)
Net position, beginning of year	97,035,766	94,573,292	2,462,474
Net position, end of year	\$ 98,229,507	\$ 97,035,766	\$ 1,193,741

**Overview of the Financial Statements**

This Management's Discussion and Analysis is intended to serve as an introduction to the Authority's basic financial statements. Since the Authority is engaged only in business-type activities, its basic financial statements are comprised of only two components: 1) enterprise fund financial statements and 2) notes to financial statements. This report also contains other supplementary information in addition to the basic financial statements.

**Enterprise fund financial statements.** The enterprise fund financial statements are designed to provide readers with a broad overview of the Authority's finances, in a manner similar to private-sector businesses.

The statements of net position present information on the Authority's assets and liabilities, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

The statements of revenues, expenses, and changes in net position present information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the cash flows. Thus, revenues and expenses are reported in these statements for some items that will only result in cash flows in future fiscal periods (e.g., earned but unused vacation leave).

The statements of cash flows present information on the Authority's flow of cash during the most recent fiscal year. The flow of cash is broken down into four component activities: operating, noncapital financing, capital financing, and investing. These statements also provide a reconciliation of operating income to cash flows from operating activities.

### **Financial Analysis**

As noted earlier, net position may serve over time as a useful indicator of a government's financial position. In the case of the Authority, assets exceeded liabilities by \$96,942,778 at the close of the 2018 fiscal year. Assets exceeded liabilities by \$98,229,507 at the close of the 2017 fiscal year.

By far the largest portion of the Authority's assets (71% in 2018 and 69% in 2017) reflects capital assets (e.g., buildings, machinery, and equipment). Net fixed assets, including work in progress, had a book value of \$78,656,200 and \$77,020,474 as of December 31, 2018 and 2017, respectively. The Authority uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. The unrestricted net position of the Authority is available for future use to provide services.

The net position of the Authority decreased by \$1,286,729 and increased by \$1,193,741 during 2018 and 2017, respectively. Most of the decrease in 2018 can be attributed to a restatement to beginning net position to record the Authority's other postemployment benefit liability with the adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, "*Accounting and Financial Reporting for Postemployment Benefits Other Than Pension.*"

Operating revenues increased by \$13,258 and decreased by \$1,030,506 in 2018 and 2017, respectively. Operating revenues decreased in the prior year due to the Authority no longer providing water to the communities of Monroeville and Plum after the first quarter of 2016.

Operating expenses increased by \$478,835 (2%) in 2018. Operating expenses increased by \$155,405 (1%) in 2017. The Authority continues to utilize every effort possible to keep cost increases to a minimum.

### **Capital Asset and Debt Administration**

#### ***CAPITAL ASSETS***

As of December 31, 2018, the Authority's capital assets amounted to \$78,656,200 (net of accumulated depreciation). These assets include buildings, improvements, equipment, computer software, infrastructure, and construction in progress of \$424,358.

The Authority has begun the task of upgrading the large transmission mains. For the foreseeable future, the Authority does not plan to issue bonds to fund these projects. The Authority plans to only spend on capital what it can generate from current revenues.

### ***LONG-TERM DEBT***

As of December 31, 2018, the Authority had bonds outstanding of \$3,885,000, of which \$910,000 is payable within one year. This debt financed capital asset acquisition and rehabilitation.

### ***POST-EMPLOYMENT BENEFITS OTHER THAN PENSION BENEFITS***

The Authority offers post-employment benefits other than pension benefits, and a liability is recorded on the financial statements for these benefits. The Authority, at this time, does not plan to fund the total amount of the liability but will instead continue to pay the premiums for the retirees as they come due. As of December 31, 2018, this liability was \$6,843,792.

### **Contacting the Authority's Financial Management**

The financial report is designed to provide a general overview of the Authority's finances for all those with an interest. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Director, Wilkesburg-Penn Joint Water Authority, 2200 Robinson Blvd., Pittsburgh, PA 15221.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## STATEMENTS OF NET POSITION

DECEMBER 31, 2018 AND 2017

	2018	2017
<b>Assets and Deferred Outflows of Resources</b>		
<b>Assets:</b>		
Current assets:		
Cash and cash equivalents	\$ 7,921,516	\$ 10,903,759
Investments and time deposits	17,165,790	17,086,088
Accounts receivable due from customers less allowance for losses in collection of \$128,500 in 2018 and 2017	1,354,000	1,527,606
Unbilled water service	27,089	26,939
Other notes and accounts receivable, net	1,190,089	1,280,829
Inventories of materials and supplies	1,348,269	1,001,531
Prepaid insurance	68,559	63,112
Total current assets	29,075,312	31,889,864
Noncurrent assets:		
Land	531,130	531,130
Construction in progress	424,358	3,807,525
Total nondepreciable fixed assets	955,488	4,338,655
Property, plant, and equipment	144,013,052	136,632,032
Less: accumulated depreciation	(66,312,340)	(63,950,213)
Net depreciable fixed assets	77,700,712	72,681,819
Total fixed assets	78,656,200	77,020,474
Restricted funds held by Trustee:		
Investments	2,770,488	2,729,257
Net pension asset	-	647,253
Total Assets	110,502,000	112,286,848
Deferred Outflows of Resources:		
Deferred outflows of resources for pension	4,509,865	3,042,888
Total Assets and Deferred Outflows of Resources	\$ 115,011,865	\$ 115,329,736

(Continued)

See accompanying notes to financial statements.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## STATEMENTS OF NET POSITION

DECEMBER 31, 2018 AND 2017  
(Continued)

	2018	2017
<b>Liabilities, Deferred Inflows of Resources, and Net Position</b>		
<b>Liabilities:</b>		
<b>Current liabilities:</b>		
Current maturities of Water Revenue Bonds payable	\$ 910,000	\$ 880,000
Accounts payable	624,749	82,596
Accrued interest payable	51,085	58,785
Accrued salaries, wages, and pension	272,395	315,196
Consumers' advances and deposits	331,901	384,234
Other current liabilities	3,272,064	3,366,987
Total current liabilities	5,462,194	5,087,798
<b>Noncurrent liabilities:</b>		
Long-term debt, Water Revenue Bonds payable		
Less: current maturities	2,975,000	3,885,000
Unamortized premium	305,304	386,718
Net pension liability	1,474,218	2,544,298
OPEB liability	6,843,792	3,875,988
Total noncurrent liabilities	11,598,314	10,692,004
Total Liabilities	17,060,508	15,779,802
<b>Deferred Inflows of Resources:</b>		
Deferred inflows of resources for pension	1,008,579	1,320,427
<b>Net Position:</b>		
Net investment in capital assets	74,465,896	71,868,756
Restricted for debt service	1,110,307	1,093,019
Restricted for capital projects	1,660,181	1,636,238
Restricted for pension	-	1,513,855
Unrestricted	19,706,394	22,117,639
Total Net Position	96,942,778	98,229,507
<b>Total Liabilities, Deferred Inflows of Resources, and Net Position</b>	<b>\$ 115,011,865</b>	<b>\$ 115,329,736</b>

(Concluded)

See accompanying notes to financial statements.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2018 AND 2017

	<u>2018</u>	<u>2017</u>
<b>Operating Revenues</b>	\$ 21,912,195	\$ 21,898,937
<b>Operating Expenses</b>	(22,384,529)	(21,905,694)
Operating income (loss)	(472,334)	(6,757)
<b>Non-operating Revenues (Expenses):</b>		
Non-operating revenues	1,404,402	1,451,115
Non-operating expenses	(30,002)	(124,244)
Interest charges on long-term debt	(112,435)	(207,262)
<b>Net Income Before Capital Contributions</b>	789,631	1,112,852
<b>Capital Contributions</b>	460,388	80,889
<b>Net Income</b>	1,250,019	1,193,741
<b>Net Position:</b>		
Beginning of year, as restated	95,692,759	97,035,766
End of year	<u>\$ 96,942,778</u>	<u>\$ 98,229,507</u>

See accompanying notes to financial statements.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
<b>Cash Flows From Operating Activities:</b>		
Cash received from users	\$ 44,765,169	\$ 43,349,361
Cash payments to employees for service	(15,125,828)	(12,020,523)
Cash payments to municipalities for sewage collections	(22,641,111)	(21,828,696)
Cash payments to suppliers for goods and services	(6,612,752)	(5,800,773)
Net cash provided by (used in) operating activities	385,478	3,699,369
<b>Cash Flows From Non-Capital Financing Activities:</b>		
Net jobbing work revenue	18,030	123,621
Rental income	67,511	30,638
Penalty income	1,102,893	1,119,944
Other non-capital revenues (expenses)	226,096	149,924
Net cash provided by (used in) non-capital financing activities	1,414,530	1,424,127
<b>Cash Flows From Investing Activities:</b>		
Proceeds from sales and maturities of investments	120,933	3,310,089
Purchase of investments	-	(3,000,000)
Interest earned on investments	41,285	20,675
Net cash provided by (used in) investing activities	162,218	330,764
<b>Cash Flows From Capital and Related Financing Activities:</b>		
Proceeds from new debt	-	5,675,000
Principal payments on debt	(880,000)	(6,745,000)
Payments for capital acquisitions	(3,952,034)	(4,069,409)
Interest paid	(112,435)	(197,091)
Net cash provided by (used in) capital and related financing activities	(4,944,469)	(5,336,500)
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	(2,982,243)	117,760
<b>Cash and Cash Equivalents:</b>		
Beginning of year	10,903,759	10,785,999
End of year	\$ 7,921,516	\$ 10,903,759
<b>Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used in) Operating Activities:</b>		
Operating income (loss)	\$ (472,334)	\$ (6,757)
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:		
Depreciation expense	2,364,301	2,361,150
Change in:		
Accounts receivable	173,606	(167,682)
Unbilled water service	(150)	(1,637)
Other notes and accounts receivable	90,740	(223,562)
Inventories	(346,738)	37,390
Net pension asset	647,253	551,794
Prepaid expenses	(5,447)	(7,539)
Deferred outflows of resources related to pension	(1,466,977)	(1,444,956)
Accounts payable	542,153	(120,199)
Accrued salaries and wages	(42,801)	76,359
Consumer advances received (refunded)	(52,333)	14,609
OPEB liability	431,056	481,397
Other accrued liabilities	(94,923)	348,503
Net pension liability	(1,070,080)	500,405
Deferred inflows of resources related to pension	(311,848)	1,300,094
Total adjustments	857,812	3,706,126
Net cash provided by (used in) operating activities	\$ 385,478	\$ 3,699,369
<b>Noncash Activities:</b>		
Capital contributions	\$ 460,388	\$ 80,889

See accompanying notes to financial statements.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### 1. Summary of Significant Accounting Policies

#### Organization

Wilkesburg-Penn Joint Water Authority (Authority) was created under the Municipality Authorities Act of 1945 (Act No. 164 approved on May 2, 1945) by the Borough of Wilkesburg and the Township of Penn (now known as the Municipality of Penn Hills). Other municipalities, which later became districts of the Authority, were the Boroughs of East Pittsburgh, Churchill, Edgewood, Forest Hills, North Braddock, Swissvale, and Turtle Creek.

The Authority also directly services the following areas: East McKeesport, Wilmerding, Pitcairn, Chalfant, Wilkins Township, Braddock Hills, Rankin, and Trafford along with portions of Braddock, North Versailles, Monroeville, North Huntingdon, and Pittsburgh.

Wholesale customers are those communities that buy their water from the Authority, but service their own users. Wholesale customers include Braddock as of December 31, 2018 and 2017.

#### Reporting Entity

Consistent with the Governmental Accounting Standards Board (GASB), the criteria used by the Authority to evaluate the possible inclusion of related entities within its reporting entity is financial accountability and the nature and significance of the relationship. Based upon the application of these criteria, management has identified no component units and only the accounts of the Authority are included in the financial statements. Additionally, the Authority does not meet the criteria to be included in any other governmental entity as a component unit.

#### Basis of Accounting

The Authority is considered to be an enterprise fund and, as such, is accounted for using the economic resources measurement focus and accrual basis of accounting. Accordingly, revenues are recognized when earned and expenses are recognized when incurred.

#### Statements of Cash Flows

The Authority considers all time deposits and highly liquid assets with maturities of three months or less when purchased to be cash equivalents.



# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Unbilled Water Services

Unbilled water services reflect services performed as of December 31, 2018 and 2017, but not billed until after January 1, 2019 and 2018.

### Other Notes and Accounts Receivable

Other notes and accounts receivable reflect sewage billed as of December 31, 2018 and 2017.

### Allowance for Losses in Collection

Allowance for losses in collection represent an estimate based on management's review of collections in prior years.

### Property, Plant, and Equipment

Property, plant, and equipment acquired since May 15, 1946, date of inception of the Authority, are carried at cost, including the Authority's labor and overhead. Depreciation is computed on the straight-line method with useful lives ranging from five to 85 years.

When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts. A gain or loss on the retirement of these assets is recognized in income for the period. The cost of maintenance and repairs is charged to income as incurred, significant renewals and betterments are capitalized. A reduction of assets is made for retirements resulting from renewals and betterments.

### Investments

Investments in money market funds are reported at fair market value. The Authority categorizes its fair value measurements within the fair value hierarchy established by accounting principles generally accepted in the United States of America. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Authority's investments consist of money markets which are valued using quoted market prices (Level 1 inputs). See Note 2 below for further discussion.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Inventories

Inventories are valued at average cost.

### Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Authority has one item that qualifies for reporting in this category:

In conjunction with pension accounting requirements, the effect of the change in assumptions and the difference between projected and actual earnings on pension plan investments are recorded as deferred outflows of resources related to pensions on the statement of net position. These amounts are determined based on actuarial valuations performed for the plan. Note 6 presents additional information about the pension plan.

In addition to liabilities, the statements of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has one item that qualifies for reporting in this category:

In conjunction with pension accounting requirements, the difference between expected and actual experience is recorded as a deferred inflow of resources related to pensions on the statement of net position. This amount is determined based on the actuarial valuations performed for the pension plan.

### Advances Under Line Extension Agreements

Advances from consumers for extension of services will revert to the Authority after the expiration of the related agreements (ten or twenty years) and will then be recognized as contributed capital. During the open years of the agreements, nominal amounts are generally refunded to the consumers for new taps.

### Income Taxes

The Authority is not subject to state or federal income taxes.

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# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures or expenses during the reporting period. Actual results could differ from those estimates.

### Net Position

Net Position is classified in three components. These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets net of accumulated depreciation reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- Restricted – This component of net position consists of constraints placed on net position use through external restrictions. As of December 31, 2018 and 2017, respectively, the Authority had \$2,770,488 and \$4,243,112 of restricted net position.
- Unrestricted – This component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

### Revenues

The Authority distinguishes operating revenues and expenses from nonoperating revenues and expenses. Operating revenues and expenses generally result from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges for the purification, pumping, distribution, and billing of water. Operating expenses for the Authority include the cost of services and administrative expenses. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Capital Contributions

Capital contributions represent amounts contributed for the construction and purchase of property, plant, and equipment.

### Adopted Pronouncement

The requirements of the following GASB Statement were adopted for the financial statements:

GASB Statement No. 75, "*Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*," improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. The provisions of this statement have been adopted and incorporated into these financial statements. As a result of this implementation, the Authority's net position as of January 1, 2018 was restated with a decrease of \$2,536,748 to record the Authority's other postemployment benefit liability.

### Pending Pronouncements

GASB has issued statements that will become effective in future years, including Statement Nos. 83 (Asset Retirement Obligations), 84 (Fiduciary Activities), 87 (Leases), 88 (Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements), 89 (Accounting for Interest Cost Incurred before the End of a Construction Period), 90 (Majority Equity Interests – an amendment of GASB Statements No. 14 and No. 61), and 91 (Conduit Debt Obligations). Management has not yet determined the impact of these statements on the financial statements.

### Subsequent Events

Subsequent events have been evaluated through the Independent Auditor's Report date, which is the date the financial statements were available to be issued.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### 2. Cash, Cash Equivalents, and Investments

The Authority maintains all cash deposits in qualified public depositories and invests in securities of the United States Government. The Authority considers all time deposits and highly liquid assets with maturities of three months or less to be cash equivalents. The Authority is required by Act 72 of the Commonwealth of Pennsylvania to maintain its deposits in accounts that are properly collateralized. Collateralization is permitted to be on a "pooled basis."

Custodial Credit Risk – Deposits: Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. The Authority does not have a formal deposit policy for custodial credit risk. As of December 31, 2018 and 2017, \$7,915,277 and \$10,896,950 of the Authority's bank balance of \$8,165,277 and \$11,146,950, respectively, were exposed to custodial credit risk. This portion of the deposit portfolio is collateralized in accordance with Act 72 of the Pennsylvania state legislature which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. As of December 31, 2018 and 2017, deposits have an aggregate carrying amount of \$7,921,516 and \$10,903,759, respectively, and are reported as cash in the statements of net position.

At December 31, 2018 and 2017, money market funds of \$17,165,790 and \$17,086,088, respectively, are included in current assets on the financial statements as investments and time deposits.

The Authority also reports restricted investments which consist of money market funds. As of December 31, 2018 and 2017, the balance of these restricted investments totaled \$2,770,488 and \$2,729,257, respectively.

Interest Rate Risk: The Authority does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. All of the Authority's investments have maturities of less than one year.

Credit Risk: Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the Authority. As of December 31, 2018 and 2017, all of the Authority's investments in money markets were rated AAA by Standard & Poor's.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### 3. Property, Plant, and Equipment

The details of property, plant, and equipment at December 31 are as follows:

	2018	2017
Land	\$ 531,130	\$ 531,130
Buildings, structures, and improvements	8,633,874	8,145,015
Water pumping stations	17,242,714	16,743,630
Reservoirs	16,881,752	16,215,976
Distribution system	90,032,565	85,228,537
General equipment	11,182,302	9,866,086
Construction work in progress	424,358	3,807,525
Construction not classified	39,845	432,788
	<u>144,968,540</u>	<u>140,970,687</u>
Less: accumulated depreciation	<u>(66,312,340)</u>	<u>(63,950,213)</u>
	<u>\$ 78,656,200</u>	<u>\$ 77,020,474</u>

Depreciation expense for the years 2018 and 2017 amounted to \$2,364,301 and \$2,361,150, respectively.

Construction work in progress consists of projects related to the upgrade of the large transmission mains and the radio reading devices.

### 4. Trust Funds

The Authority has established certain funds with a Trustee as required under the 1982 Trust Indenture, as amended by supplements to the Trust Indenture. Funds are principally invested in money market instruments.

As required by the Trust Indenture for Water Revenue Bonds, various monies are to be deposited periodically to the following funds for a specified purpose:

#### Debt Service Fund

To pay interest and principal semi-annually on bonds.

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# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Debt Service Reserve Fund

To pay principal and interest at maturity or redeem prior to maturity.

### Capital Additions Fund

To pay costs of acquiring and constructing capital additions.

### Surplus Fund

Repository for undesignated funds above projected capital needs.

All of the requirements of the Trust Indenture have been met as of December 31, 2018 and 2017.

The following amounts were held by the Trustee as of December 31:

	<u>2018</u>	<u>2017</u>
Debt Service Reserve Fund	\$ 1,110,307	\$ 1,093,019
Capital Additions Fund	<u>1,660,181</u>	<u>1,636,238</u>
	<u>\$ 2,770,488</u>	<u>\$ 2,729,257</u>

## 5. Long-Term Debt

Bonds were first issued pursuant to a Trust Indenture dated as of July 15, 1982, (the 1982 Indenture) as amended and supplemented by a First Supplemental Trust Indenture dated as of September 27, 1983, a Second Supplemental Trust Indenture dated as of August 15, 1986, a Third Supplemental Trust Indenture dated as of June 15, 1992, a Fourth Supplemental Trust Indenture dated as of September 15, 1993, a Fifth Supplemental Trust Indenture dated as of October 15, 2002, the Sixth Supplemental Trust Indenture dated as of July 15, 2011, and the Seventh Supplemental Trust Indenture dated as of April 26, 2017.

The proceeds of the sale of the Series 2011 Water Revenue Bonds were used to advance refund all of the Authority's outstanding Water Revenue Bonds, Series A of 2002. The proceeds of the sale of the Series 2002 Water Revenue Bonds were used to pay the costs of capital projects as part of the Authority's Capital Program. The 2011 Water Revenue Bonds were refunded in April 2017.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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The proceeds of the sale of the Series 2017 Water Revenue Bonds were used to refund all outstanding Series 2011 Water Revenue Bonds and for various capital projects to fund the Authority's water system upgrades. The aggregate difference in the debt service payments between the Series 2011 Water Revenue Bonds and the refunding debt, Series 2017 Water Revenue Bonds, is a decrease of approximately \$3,000. The refunding resulted in an economic gain of approximately \$125,000 which was realized at the time of issuance.

Water Revenue Refunding Bonds - Water Revenue Bonds, payable at December 31, 2018, are comprised of the following individual issues:

\$5,675,000 Water Revenue Bonds, Series of 2017, dated April 26, 2017, payable in annual principal installments commencing September 15, 2017, ranging from \$880,000 to \$1,035,000 through September 30, 2022. Average interest rate is 4%.	\$ 3,885,000
Less: Current portion	<u>(910,000)</u>
Long-term portion	<u>\$ 2,975,000</u>

The annual requirements to amortize all debt outstanding as of December 31, 2018 are as follows:

Year Ending December 31,	Principal	Interest	Total
2019	\$ 910,000	\$ 175,150	\$ 1,085,150
2020	955,000	129,650	1,084,650
2021	985,000	101,000	1,086,000
2022	<u>1,035,000</u>	<u>51,750</u>	<u>1,086,750</u>
	<u>\$ 3,885,000</u>	<u>\$ 457,550</u>	<u>\$ 4,342,550</u>



# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

The following is a summary of bond payable transactions of the Authority for the year ended December 31, 2018:

	<u>Balance at December 31, 2017</u>	<u>New Issuances</u>	<u>Principal Payments</u>	<u>Balance at December 31, 2018</u>	<u>Interest Payments</u>
Water Revenue Bonds, Series of 2017	\$ 4,765,000	\$ -	\$ (880,000)	\$ 3,885,000	\$ 201,550

The following is a summary of bond payable transactions of the Authority for the year ended December 31, 2017:

	<u>Balance at December 31, 2016</u>	<u>New Issuances</u>	<u>Principal Payments</u>	<u>Balance at December 31, 2017</u>	<u>Interest Payments</u>
Water Revenue Bonds, Series of 2011	\$ 5,835,000	\$ -	\$ (5,835,000)	\$ -	\$ 92,669
Series of 2017	-	5,675,000	(910,000)	4,765,000	88,362
Total	\$ 5,835,000	\$ 5,675,000	\$ (6,745,000)	\$ 4,765,000	\$ 181,031

The Authority is required to make periodic payments for debt service to the Trustee to fund interest and principal payments to the bondholders.

### Debt Covenants

The debt covenants for all revenue bonds contain rate covenant provisions requiring the Authority to charge rates for services that are sufficient to pay current expenses and to cover specified debt service amounts, and provide any amounts required to replenish the Debt Service Reserve Fund. For fiscal years 2018 and 2017, revenues generated plus operating cash were sufficient to pay current expenses and cover the specified debt service amounts. All required debt service payments were made timely during 2018 and 2017.

## 6. Pension Plans

### Plan Descriptions

The Authority sponsors defined benefit pension plans that cover management employees and utility workers union employees of the Authority. The plans provide retirement and death benefits to plan members and their beneficiaries. The Authority retains the right to

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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establish, amend, or terminate the benefit provisions of the plans. Plan provisions are established by municipal ordinance with the authority for municipal contributions required by Act 205 of the Commonwealth (Act).

At December 31, 2018, Plan membership consisted of the following:

	<u>Management</u>	<u>Utility Workers Union</u>
Active employees	28	67
Retirees and beneficiaries currently receiving benefits	28	50
Terminated employees entitled to benefits but not yet receiving them	<u>2</u>	<u>9</u>
Total	<u>58</u>	<u>126</u>

### Benefits Provided – Employees

Participants in the Plans are 100% vested after the completion of five years of service. The Plans provide the following benefits:

*Retirement Benefit* – For normal retirement, a participant is entitled to begin receiving retirement benefits at the age of 65 and completion of five years of service. The scheduled monthly retirement benefit for union employees is equal to 2.2727% of final monthly average salary multiplied by years of service (maximum of 22 years), plus 0.75% of final monthly average salary multiplied by years of service in excess of 22 years. The scheduled monthly retirement benefit for management employees is equal to 2.5% of final monthly average salary multiplied by years of service (maximum of 20 years), plus 0.75% of final monthly average salary multiplied by years of service in excess of 20 years. For early retirement for union and management employees, the accrued benefit at retirement is payable at normal retirement. The benefit may be elected immediately but will be reduced by 2% for each of the first five years and 5% for each of the next five years by which benefit commencement precedes normal retirement date.

*Death Benefit* - If a participant's death occurs after age 35 and vesting but before retirement, the spouse (if elected by the participant) will receive a benefit at the participant's earliest retirement date. The benefit is the survivor's portion of the participant's accrued benefit, adjusted for the joint and 50% survivor option and early retirement. If a participant's death occurs after age 55, a coverage charge is imposed for this benefit. The benefit may be waived, and no charge imposed, and the participant may elect 75% or 100% joint and

Net Pension Liability

*Measurement Date and Actuarial Assumptions* - The Authority's net pension liability (asset) was measured as of December 31, 2018, and the total pension liability used to calculate the net pension liability was determined by actuarial valuations as of January 1, 2017. Standard actuarial techniques were used to roll forward the total pension liability from the valuation date to the measurement date.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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*Actuarial Assumptions.* The total pension liability was determined by an actuarial valuation using the following actuarial assumptions, applied to all periods in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	7.25%, except for retirees prior to 1/1/2009 which is 4%
Projected salary increases	4.25%
Underlying inflation rate	2.75%

RP-2014 Healthy Mortality Table. Rates derived from the Long-Range Demographic Assumptions for the 2015 Social Security Administration's Trustee Report

*Changes in Actuarial Assumptions* – Effective for the January 1, 2017 valuation, interest rate for pre-2009 retirees only reduced from 4.25% to 4%, salary increase assumption lowered from 4.5% to 4.25%, the underlying inflation rate was reduced from 3% to 2.75%, and mortality tables were updated. No other significant changes were made to the actuarial assumptions used in the January 1, 2017 valuation since the previous actuarial valuation on January 1, 2015.

*Investment Policy* – The Plans' policies in regard to the allocation of invested assets is established and may be amended by the Board by a majority vote of its members. It is the policy of the Board to pursue an investment strategy that balances asset growth with risk tolerance achieving an average annual return of 7.25% over a 10-year period, maintain the liquidity to have the ability to pay all benefits and expense obligations when due in accordance with the Plan provision, diversify the assets to experience a positive total investment return preserving capital and purchasing power against economic inflation, and continue to grow assets at a rate above and beyond that of the actuarial assumption of 7.25% per year.

*Long-Term Expected Rate of Return* – The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation and investment expenses not funded through the MMO) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

The following was the asset allocation policy and best estimates of arithmetic real rates of return for each major asset class included in the Plans' target asset allocation as of December 31, 2018:

**Management Plan:**

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Equities	60%	5.0% - 7.0%
Fixed Income	34%	1.0% - 2.0%
Real Estate	5%	4.0% - 6.0%
Cash	1%	0.0% - 1.0%
	<u>100%</u>	

**Union Plan:**

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Equities	60%	5.0% - 7.0%
Fixed Income	34%	1.0% - 3.0%
Real Estate	5%	4.0% - 6.0%
Cash	1%	0.0% - 1.0%
	<u>100%</u>	

*Rate of Return* – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended December 31, 2018, the annual money-weighted rate of return on the Plan investments, net of investment expense is as follows:

	Management	Union
AXA Fund	1.33%	1.33%
Investment Fund	-4.45%	-2.98%

*Concentrations* – The Plans had no investment concentrations at December 31, 2018.

*Discount Rate* – The discount rate used to measure the total pension liability for both Plans was 7.25%, except for retirees prior to January 1, 2009, which is 4%. The projection of cash

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

flows used to determine the discount rate assumed that Plan member contributions will be made at the current contribution rate and that the Authority's contributions will be made based on the yearly MMO calculation. Based on those assumptions, the Plans' fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on pension Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

*Changes in Net Pension Liability (Asset)* - Changes in the Authority's net pension liability (asset) are as follows:

**Management Plan:**

	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at December 31, 2017	\$ 14,510,911	\$ 11,966,613	\$ 2,544,298
Changes for the year:			
Service cost	205,928	-	205,928
Interest	976,323	-	976,323
Changes of benefit terms	-	-	-
Differences between expected and actual experience	-	-	-
Changes of assumptions	-	-	-
Contributions - employer	-	3,785,878	(3,785,878)
Contributions - employee	-	-	-
Net investment income (loss)	-	(425,727)	425,727
Benefit payments, including refunds of employee contributions	(675,381)	(675,381)	-
Administrative expense	-	(52,564)	52,564
Other changes (transfer from Union Plan)	20,368	20,368	-
Balances at December 31, 2018	\$ 15,038,149	\$ 14,619,187	\$ 418,962

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

**Union Plan:**

	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at December 31, 2017	\$ 17,891,620	\$ 18,538,873	\$ (647,253)
Changes for the year:			
Service cost	343,495	-	343,495
Interest	1,197,245	-	1,197,245
Changes of benefit terms	-	-	-
Differences between expected and actual experience	-	-	-
Changes of assumptions	-	-	-
Contributions - employer	-	353,625	(353,625)
Contributions - employee	-	-	-
Net investment income (loss)	-	(435,944)	435,944
Benefit payments, including refunds of employee contributions	(948,554)	(948,554)	-
Administrative expense	-	(79,450)	79,450
Other changes (transfer to Management Plan)	(20,368)	(20,368)	-
Balances at December 31, 2018	<u>\$ 18,463,438</u>	<u>\$ 17,408,182</u>	<u>\$ 1,055,256</u>

*Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate* – The following presents the net pension liability (asset) of the Plans calculated using the discount rates described above, as well as what the Plan's net pension liabilities would be if they were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rates:

	1% Decrease (6.25%)*	Current Discount Rate (7.25%)*	1% Increase (8.25%)*
Management Pension Plan	\$ 2,065,025	\$ 418,962	\$ (997,219)
Union Pension Plan	\$ 3,133,957	\$ 1,055,256	\$ (698,268)

\*The rates for retirees prior to January 1, 2019 are 3.00%, 4.00%, and 5.00%, respectively.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

*Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions* – For the year ended December 31, 2018, the Authority recognized pension expense of \$1,937,831. At December 31, 2018, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

**Management Plan:**

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 66,248	\$ -
Changes of assumptions	578,752	-
Net difference between projected and actual earnings on pension plan investments	1,194,465	299,178
	\$ 1,839,465	\$ 299,178

**Union Plan:**

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 179,741
Changes of assumptions	1,021,396	-
Net difference between projected and actual earnings on pension plan investments	1,649,004	529,660
	\$ 2,670,400	\$ 709,401

The net amounts reported as deferred outflows of resources related to pension will be recognized in pension expense as follows:

Year Ending December 31:	Management Plan	Union Plan
2019	\$ 552,747	\$ 580,758
2020	394,145	377,092
2021	340,102	324,483
2022	253,293	485,416
2023	-	148,651
Thereafter	-	44,599
	\$ 1,540,287	\$ 1,960,999



# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### 7. Post-Employment Benefits Other Than Pension Benefits (OPEBs)

#### Plan Description and Benefits Provided

In addition to providing pension benefits under contractual obligations, the Authority provides certain health care and life insurance benefits for certain retired employees who are covered under employment contracts. The Authority does not have a formal plan document for the OPEB plan, but it operates as a single-employer defined benefit plan that is not accounted for as a trust fund. An irrevocable trust has not been established, the plan does not issue a separate report, and activity of the plan is reported in the Authority's financial statements.

The Authority will provide full-time employees who retire at age 62, 63, or 64 medical, and dental coverage for the retiree and spouse until the retiree attains age 65. Life insurance benefits are also available to those who retire after age 55 with at least 5 years of service. For management employees, the amount of life insurance depends on the employment class reached upon retirement, which ranges from \$7,250 to \$15,000. For Union employees, the life insurance amount is \$7,250.

As of the January 1, 2017 actuarial report for health benefits, there were 27 management active plan participants and 60 union active participants and one management retired participant and two union retired participants receiving benefits.

As of the January 1, 2017 actuarial report for life insurance benefits, there were 28 management active plan participants and 63 union active participants and 18 management retired participants and 37 union retired participants receiving benefits.

#### Contributions

The contribution requirements of OPEB Plan members and the Authority are established and may be amended by the Authority. The OPEB plan is not funded. The employer's contributions are financed on a pay-as-you-go basis. In 2018, the Authority paid \$207,524 in OPEB premiums, net of reimbursement.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### OPEB Liability

The total OPEB liability was determined by an actuarial valuation performed on January 1, 2017, and rolled forward to December 31, 2018, using the following actuarial assumptions, applied to all periods in the measurement:

- Actuarial cost method – entry, age normal cost
- Interest rate – 3.75% compounded annually
- Inflation – 2.75%
- Mortality – RP-2014 Combined Healthy Mortality Table, Blue Collar Adjustment is applied for Union members.
- Cost trends Dental – 3%
- Cost trends Medical – 2017 -20.6%, 2018 8.5%, 2019 7.5%, 2020 7%, 2021 6.5%, 2022 6%, 2023 5.5%, 2024, and later 5%.
- Disablement – None assumed
- Retirement – Age 62
- Participant Percentage – 100% of future eligible employees
- Coverage Level – 75% elect husband/wife coverage, 25% elect individual
- Spouse Age: Female spouse assumed to be 3 years younger than male spouse.

### Changes in the OPEB Liability

The changes in the total OPEB liability of the Authority for the year ended December 31, 2018 were as follows:

	<u>OPEB Liability</u>
Balance at December 31, 2017	\$ 6,412,736
Changes for the year:	
Service cost	387,429
Interest	251,151
Differences between expected & actual experience	-
Changes of assumptions	-
Benefits paid	<u>(207,524)</u>
Balances at December 31, 2018	<u>\$ 6,843,792</u>

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# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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### Sensitivity of the OPEB Liability to Changes in the Discount Rate

The following represents the OPEB liability calculated using the stated discount rate, as well as what the OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

<u>1% Decrease (2.75%)</u>	<u>Current Discount Rate (3.75%)</u>	<u>1% Increase (4.75%)</u>
<u>\$ 7,344,253</u>	<u>\$ 6,843,792</u>	<u>\$ 6,390,810</u>

### Sensitivity of the Net OPEB Liability to Changes in the Medical Trend Rate

The following presents the OPEB liability calculated using the stated medical trend assumption, as well as what the OPEB liability would be if it were calculated using the medical trend rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

<u>1% Decrease</u>	<u>Current</u>	<u>1% Increase</u>
<u>\$ 6,204,593</u>	<u>\$ 6,843,792</u>	<u>\$ 7,598,965</u>

### OPEB Expense and Deferred Inflows of Resources

For the year ended December 31, 2018, the Authority recognized OPEB expense of \$638,580.

At December 31, 2018, there were no deferred inflows or outflows related to the OPEB liability.

## **8. Deferred Compensation Plan**

The Authority offers its employees a deferred compensation plan (plan) created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits them to defer a portion of their salary until future years. Participation in the plan is optional. The funds are not available to employees until termination, retirement, death, or unforeseeable emergency. At December 31, 2018 and 2017, all amounts of compensation deferred under the plan were held in trust solely for the benefit of the participants. Investments are managed by the plan's trustee under investment options selected by the participant. Deferred compensation assets at December 31, 2018 and 2017 totaled

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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\$3,197,291 and \$3,474,630, respectively. Under the provisions of GASB Statement No. 32, "Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans," the plan is not required to be included in the Authority's financial statements.

### 9. Contingencies

The Authority is exposed to various types of risks in its normal course of operations. The Authority insures itself against such risks through the purchase of commercial insurance. There were no significant changes in insurance coverage from the prior fiscal year. There have been no settlements in excess of insurance coverage.

### 10. Related Parties

The Executive Director's and the Assistant Executive Director's sons are employed at the Authority. Also, two members of the Board of Directors are employed by Glenn Engineering. During 2018, the Authority paid \$196,780 to Glenn Engineering for engineering services. The Authority considers the contracts with Glenn Engineering to have been negotiated at "arm's length" and not indicative of a conflict of interest.

**REQUIRED SUPPLEMENTARY  
INFORMATION - PENSION**

**WILKINSBURG-PENN JOINT WATER AUTHORITY**

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE AUTHORITY'S NET  
PENSION LIABILITY (ASSET) AND RELATED RATIOS

MANAGEMENT EMPLOYEES PLAN

	2018	2017	2016	2015
<b>Total Pension Liability:</b>				
Service cost	\$ 205,928	\$ 197,533	\$ 172,099	\$ 164,688
Interest	976,323	931,243	845,622	805,664
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	-	66,222	-	207,424
Changes of assumptions	-	949,355	-	129,489
Benefit payments, including refunds of member contributions	(675,381)	(542,937)	(569,367)	(563,408)
Other (Transfer of liability)	20,368	57,336	24,972	77,902
<b>Net Changes in Total Pension Liability</b>	<b>527,238</b>	<b>1,658,752</b>	<b>473,326</b>	<b>821,759</b>
<b>Total Pension Liability - Beginning</b>	<b>14,510,911</b>	<b>12,852,159</b>	<b>12,378,833</b>	<b>11,557,074</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 15,038,149</b>	<b>\$ 14,510,911</b>	<b>\$ 12,852,159</b>	<b>\$ 12,378,833</b>
<b>Plan Fiduciary Net Position:</b>				
Contributions - employer	\$ 3,785,878	\$ 489,740	\$ 488,501	\$ 460,145
Contributions - employee	-	-	-	-
Net investment income (loss)	(425,727)	1,199,535	522,348	107,340
Benefit payments, including refunds of employee contributions	(675,381)	(542,937)	(569,367)	(563,408)
Administrative expense	(52,564)	(45,327)	(44,112)	(48,363)
Other	20,368	57,336	24,972	77,902
<b>Net Change in Plan Fiduciary Net Position</b>	<b>2,652,574</b>	<b>1,158,347</b>	<b>422,342</b>	<b>33,616</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>11,966,613</b>	<b>10,808,266</b>	<b>10,385,924</b>	<b>10,352,308</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 14,619,187</b>	<b>\$ 11,966,613</b>	<b>\$ 10,808,266</b>	<b>\$ 10,385,924</b>
<b>Net Pension Liability (Asset) - Ending (a-b)</b>	<b>\$ 418,962</b>	<b>\$ 2,544,298</b>	<b>\$ 2,043,893</b>	<b>\$ 1,992,909</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>97.2%</b>	<b>82.5%</b>	<b>84.1%</b>	<b>83.9%</b>
<b>Covered Employee Payroll</b>	<b>\$ 2,780,443</b>	<b>\$ 2,733,096</b>	<b>\$ 2,526,112</b>	<b>\$ 2,382,153</b>
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>15.1%</b>	<b>93.1%</b>	<b>80.9%</b>	<b>83.7%</b>

See accompanying notes to required supplementary information - pension.

**WILKINSBURG-PENN JOINT WATER AUTHORITY**

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE AUTHORITY'S NET  
PENSION LIABILITY (ASSET) AND RELATED RATIOS

UNION EMPLOYEES PLAN

	2018	2017	2016	2015
<b>Total Pension Liability:</b>				
Service cost	\$ 343,495	\$ 329,492	\$ 298,789	\$ 296,668
Interest	1,197,245	1,152,399	1,087,371	1,046,596
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	-	(230,546)	-	(28,307)
Changes of assumptions	-	1,315,702	-	151,528
Benefit payments, including refunds of member contributions	(948,554)	(941,275)	(860,644)	(851,310)
Other (Transfer of liability)	(20,368)	(57,336)	(24,972)	(77,902)
<b>Net Changes in Total Pension Liability</b>	<b>571,818</b>	<b>1,568,436</b>	<b>500,544</b>	<b>537,273</b>
<b>Total Pension Liability - Beginning</b>	<b>17,891,620</b>	<b>16,323,184</b>	<b>15,822,640</b>	<b>15,285,367</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 18,463,438</b>	<b>\$ 17,891,620</b>	<b>\$ 16,323,184</b>	<b>\$ 15,822,640</b>
<b>Plan Fiduciary Net Position:</b>				
Contributions - employer	\$ 353,625	\$ 52,321	\$ 64,818	\$ 127,582
Contributions - employee	-	-	-	-
Net investment income (loss)	(435,944)	2,036,761	922,899	206,138
Benefit payments, including refunds of employee contributions	(948,554)	(941,275)	(860,644)	(851,310)
Administrative expense	(79,450)	(73,829)	(73,158)	(82,225)
Other	(20,368)	(57,336)	(24,972)	(77,902)
<b>Net Change in Plan Fiduciary Net Position</b>	<b>(1,130,691)</b>	<b>1,016,642</b>	<b>28,943</b>	<b>(677,717)</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>18,538,873</b>	<b>17,522,231</b>	<b>17,493,288</b>	<b>18,171,005</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 17,408,182</b>	<b>\$ 18,538,873</b>	<b>\$ 17,522,231</b>	<b>\$ 17,493,288</b>
<b>Net Pension Liability (Asset) - Ending (a-b)</b>	<b>\$ 1,055,256</b>	<b>\$ (647,253)</b>	<b>\$ (1,199,047)</b>	<b>\$ (1,670,648)</b>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<b>94.3%</b>	<b>103.6%</b>	<b>107.3%</b>	<b>110.6%</b>
<b>Covered Employee Payroll</b>	<b>\$ 5,147,323</b>	<b>\$ 4,844,340</b>	<b>\$ 4,519,735</b>	<b>\$ 4,415,195</b>
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>20.5%</b>	<b>-13.4%</b>	<b>-26.5%</b>	<b>-37.8%</b>

See accompanying notes to required supplementary information - pension.

**WILKINSBURG-PENN JOINT WATER AUTHORITY**

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF EMPLOYER PENSION CONTRIBUTIONS

**Management Employees Plan**

Year Ended December 31,	Annual Determined Contribution	Actual Contributions	Contribution Deficiency (Excess)	Covered-employee Payroll	Contribution as a Percentage of Covered-employee Payroll
2009	\$ 297,137	\$ 297,525	\$ (388)	\$ 2,138,402	13.9%
2010	306,070	306,070	-	2,138,402	14.3%
2011	413,986	413,986	-	2,195,916	18.9%
2012	385,693	385,693	-	2,195,916	17.6%
2013	390,925	390,925	-	2,274,721	17.2%
2014	476,243	476,243	-	2,274,721	20.9%
2015	460,145	460,145	-	2,382,153	19.3%
2016	488,501	488,501	-	2,526,112	19.3%
2017	489,740	489,740	-	2,733,096	17.9%
2018	785,878	3,785,878	(3,000,000)	2,780,443	136.2%

**Union Employees Plan**

Year Ended December 31,	Annual Required Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered-employee Payroll	Contribution as a Percentage of Covered-employee Payroll
2009	\$ 285,986	\$ 287,326	\$ (1,340)	\$ 3,680,743	7.8%
2010	246,727	246,727	-	3,680,743	6.7%
2011	350,055	350,055	-	3,964,381	8.8%
2012	100,722	100,722	-	3,964,381	2.5%
2013	120,434	120,434	-	4,243,234	2.8%
2014	118,669	118,669	-	4,243,234	2.8%
2015	127,582	127,582	-	4,415,195	2.9%
2016	64,818	64,818	-	4,519,735	1.4%
2017	52,321	52,321	-	4,844,340	1.1%
2018	353,625	353,625	-	5,147,323	6.9%

See accompanying notes to required supplementary information - pension.



# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION - PENSION

YEAR ENDED DECEMBER 31, 2018

### Actuarial Methods and Assumptions

Actuarially determined contribution rates are calculated based on the plan's most recent available Act 205 actuarial valuation report. The January 1, 2017 actuarial valuation report was utilized for the 2018 Minimum Municipal Obligation calculation. The following actuarial methods and assumptions were used to determine contribution rates.

	<u>Management</u>	<u>Union</u>										
Actuarial valuation date	1/1/2017	1/1/2017										
Actuarial cost method	Entry age normal	Entry age normal										
Amortization method	Level dollar closed	Level dollar open										
Remaining amortization period	7 years (aggregate)	17 years (aggregate)										
Asset valuation method	Fair value	Fair value										
Inflation	2.75%	2.75%										
Salary increases	4.25% including inflation	4.25% including inflation										
Investment rate of return	7.25% net of investment expenses not funded through the MMO, and including inflation, 4.0% for retirees prior to January 1, 2009	7.25% net of investment expenses not funded through the MMO, and including inflation, 4.0% for retirees prior to January 1, 2009										
Mortality	RP-2014 Healthy Mortality Table. Rates derived from the Long-Range Demographic Assumptions for the 2015 Social Security Administration's Trustee Report.	RP-2014 Healthy Mortality Table with 50% of the Blue Collar Adjustment. Rates derived from the Long-Range Demographic Assumptions for the 2015 Social Security Administration's Trustee Report.										
Retirement Age	Normal Retirement Age, or attained age if currently eligible to retire.	Rates of retirement as follows: <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><u>Age</u></th> <th style="text-align: left;"><u>Rate</u></th> </tr> </thead> <tbody> <tr> <td>55-61</td> <td>5%</td> </tr> <tr> <td>62</td> <td>20%</td> </tr> <tr> <td>63-64</td> <td>5%</td> </tr> <tr> <td>65+</td> <td>100%</td> </tr> </tbody> </table>	<u>Age</u>	<u>Rate</u>	55-61	5%	62	20%	63-64	5%	65+	100%
<u>Age</u>	<u>Rate</u>											
55-61	5%											
62	20%											
63-64	5%											
65+	100%											

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTES TO REQUIRED SUPPLEMENTARY INFORMATION - PENSION

YEAR ENDED DECEMBER 31, 2018

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### Benefit Changes

No benefit terms were modified.

### Changes in Actuarial Assumptions

No actuarial assumptions were modified.

### Rate of Return

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended December 31, 2018, the annual money-weighted rate of return on the Plan investments, net of investment expense, is as follows:

	<u>Management</u>	<u>Union</u>
AXA Fund	1.33%	1.33%
Investment Fund	-4.45%	-2.98%

For the year ended December 31, 2017, the annual money-weighted rate of return on the Plan investments, net of investment expense, is as follows:

	<u>Management</u>	<u>Union</u>
AXA Fund	0.91%	0.91%
Investment Fund	13.71%	13.74%

**REQUIRED SUPPLEMENTARY  
INFORMATION - OPEB**

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

YEARS ENDED DECEMBER 31,  
LAST TEN YEARS\*

	2018
<b>Total OPEB Liability:</b>	
Service cost	\$ 387,429
Benefit payments	(207,524)
Interest	251,151
Changes of benefit terms	-
Changes in assumptions or other inputs	-
Differences between expected and actual experience	-
	-
<b>Net Changes in Total OPEB Liability</b>	431,056
<b>Total OPEB Liability - Beginning</b>	6,412,736
<b>Total OPEB Liability - Ending (a)</b>	\$ 6,843,792
<b>Covered Payroll</b>	\$ 7,624,783
<b>Total OPEB Liability as a Percentage of Covered Payroll</b>	89.76%

\* Until a full 10-year trend is compiled, the required information for the OPEB Plan is presented for as many years as are available.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTE TO REQUIRED OPEB SUPPLEMENTARY INFORMATION

YEAR ENDED DECEMBER 31, 2018

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### 1. Factors and Trends Used in Actuarial Valuation

**Actuarial Data:**

Actuarial valuation date:	1/1/2017
Actuarial cost method:	Entry Age Normal
Amortization method:	Level Dollar

**Demographic Assumptions:**

Mortality:	RP-2014 Combined Mortality Table, with 50% of the Blue Collar Adjustment for Union members
Withdrawal:	Management: Table T-2, <i>Actuary's Pension Handbook</i> Union: Table T-3, <i>Actuary's Pension Handbook</i>
Disablement:	None assumed
Valuation Retirement Age:	Age 62
Participant Percentage:	100% of future eligible employees

**Economic Assumption:**

Inflation:	2.75%
Discount Rate:	3.75%

Annual Trend Rates for OPEB Costs:	Pre-65 Medical/Rx	Dental/Vision
2017	-20.60%	3.0%
2018	8.50%	3.0%
2019	7.50%	3.0%
2020	7.00%	3.0%
2021	6.50%	3.0%
2022	6.00%	3.0%
2023	5.50%	3.0%
2024 and later	5.00%	3.0%

## SUPPLEMENTARY INFORMATION

**WILKINSBURG-PENN JOINT WATER AUTHORITY**

## PROPERTY, PLANT, AND EQUIPMENT

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018		
	Property, Plant, CIP, and Equipment	Accumulated Depreciation	Net Property, Plant, and Equipment
Balance, January 1	\$ 140,970,687	\$ 63,950,213	\$ 77,020,474
Additions and adjustments, at cost	4,003,239	-	4,003,239
Provisions for depreciation	-	2,364,301	(2,364,301)
	144,973,926	66,314,514	78,659,412
Retirements and adjustments	(5,386)	(2,174)	(3,212)
Balance, December 31	<u>\$ 144,968,540</u>	<u>\$ 66,312,340</u>	<u>\$ 78,656,200</u>
	2017		
	Property, Plant, CIP, and Equipment	Accumulated Depreciation	Net Property, Plant, and Equipment
Balance, January 1	\$ 136,602,086	\$ 61,661,657	\$ 74,940,429
Additions and adjustments, at cost	4,493,548	-	4,493,548
Provisions for depreciation	-	2,361,150	(2,361,150)
	141,095,634	64,022,807	77,072,827
Retirements and adjustments	(124,947)	(72,594)	(52,353)
Balance, December 31	<u>\$ 140,970,687</u>	<u>\$ 63,950,213</u>	<u>\$ 77,020,474</u>

## WILKINSBURG-PENN JOINT WATER AUTHORITY

### OTHER CURRENT LIABILITIES

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017	Difference
Accumulated sick pay	\$ 813,843	\$ 931,121	\$ (117,278)
Sewage collections payable	2,402,346	2,403,327	(981)
Wage tax deductions - local	30,015	26,119	3,896
State tax deductions - Pennsylvania	1,899	2,124	(225)
Other liabilities	-	-	-
Other payroll deductions	23,961	4,296	19,665
	\$ 3,272,064	\$ 3,366,987	\$ (94,923)



## WILKINSBURG-PENN JOINT WATER AUTHORITY

### CAPITAL CONTRIBUTIONS

YEARS ENDED DECEMBER 31, 2018 AND 2017

Capital contributions represent amounts contributed for the construction and purchase of property, plant, and equipment. The additions in 2018 and 2017 represent contributions during the year. A summary of the transactions during the years follows:

	2018	2017	Difference
Contributions for distributions mains	\$ 447,380	\$ 31,435	\$ 415,945
Contributions for service lines	13,008	49,454	(36,446)
	\$ 460,388	\$ 80,889	\$ 379,499

## WILKINSBURG-PENN JOINT WATER AUTHORITY

### FIXED ASSET ACTIVITY

YEAR ENDED DECEMBER 31, 2018

	Beginning Balance	Additions	Retirements	Ending Balance
Land and land rights	\$ 531,130	\$ -	\$ -	\$ 531,130
Structures and improvement	8,145,015	488,859	-	8,633,874
River intakes	1,126,157	-	-	1,126,157
Supply mains	1,117,432	-	-	1,117,432
Pumping equipment	3,980,913	292,132	-	4,273,045
Water treatment equipment	10,519,128	206,952	-	10,726,080
Distribution reservoirs and standpipes	16,215,976	665,776	-	16,881,752
Transmission and distribution mains	54,224,923	4,460,796	94	58,685,625
Services	13,879,475	176,756	5,892	14,050,339
Meters and meter installations	11,771,613	18,155	-	11,789,768
Hydrants	5,352,526	423,239	268,932	5,506,833
Other plant and miscellaneous equipment	2,078,848	169,448	-	2,248,296
Office furniture and equipment	4,491,882	443,886	-	4,935,768
Transportation equipment	1,762,559	216,401	-	1,978,960
Stores equipment	32,193	-	-	32,193
Tool, shop, and garage equipment	841,468	70,300	-	911,768
Laboratory equipment	58,250	10,433	-	68,683
Power operating equipment	501,367	97,132	-	598,499
Communication equipment	99,519	308,616	-	408,135
Total expenditures	<u>\$ 136,730,374</u>	<u>\$ 8,048,881</u>	<u>\$ 274,918</u>	<u>144,504,337</u>
Construction work in progress				424,358
Construction not classified				<u>39,845</u>
				<u>\$ 144,968,540</u>

(Continued)

## WILKINSBURG-PENN JOINT WATER AUTHORITY

### FIXED ASSET ACTIVITY

YEAR ENDED DECEMBER 31, 2017

	Beginning Balance	Additions	Retirements	Ending Balance
Land and land rights	\$ 531,130	\$ -	\$ -	\$ 531,130
Structures and improvement	8,144,604	411	-	8,145,015
River intakes	1,126,157	-	-	1,126,157
Supply mains	1,117,751	-	319	1,117,432
Pumping equipment	3,980,913	-	-	3,980,913
Water treatment equipment	10,519,128	-	-	10,519,128
Distribution reservoirs and standpipes	16,171,365	44,611	-	16,215,976
Transmission and distribution mains	54,137,892	127,480	40,449	54,224,923
Services	13,752,045	148,618	21,188	13,879,475
Meters and meter installations	11,742,866	28,747	-	11,771,613
Hydrants	4,748,610	637,464	33,548	5,352,526
Other plant and miscellaneous equipment	2,041,034	37,814	-	2,078,848
Office furniture and equipment	4,491,882	-	-	4,491,882
Transportation equipment	1,510,317	274,737	22,495	1,762,559
Stores equipment	32,193	-	-	32,193
Tool, shop, and garage equipment	837,261	4,207	-	841,468
Laboratory equipment	65,197	-	6,947	58,250
Power operating equipment	409,412	91,955	-	501,367
Communication equipment	99,519	-	-	99,519
	<u>\$ 135,459,276</u>	<u>\$ 1,396,044</u>	<u>\$ 124,946</u>	<u>136,730,374</u>
Total expenditures				
Construction work in progress				3,807,525
Construction not classified				<u>432,788</u>
				<u>\$ 140,970,687</u>
				(Concluded)

**OTHER INFORMATION -  
PENSION RELATED SCHEDULES**

**WILKINSBURG-PENN JOINT WATER AUTHORITY****STATEMENT OF PLAN NET POSITION**

YEAR ENDED DECEMBER 31, 2018  
UNAUDITED

	Management Plan	Union Plan	2018 Total
<b>Assets</b>			
<hr/>			
Investments at fair value:			
Equity investments	\$ 6,882,438	\$ 8,862,455	\$ 15,744,893
Fixed income investments	5,153,854	6,199,167	11,353,021
Short-term investments	837,763	372,136	1,209,899
Dividend Experience Fund	1,724,764	1,994,792	3,719,556
	<hr/>	<hr/>	<hr/>
	14,598,819	17,428,550	32,027,369
Other assets:			
Receivables	20,368	-	20,368
	<hr/>	<hr/>	<hr/>
	20,368	-	20,368
Liabilities:			
Transfer owed to management plan	-	(20,368)	(20,368)
	<hr/>	<hr/>	<hr/>
	-	(20,368)	(20,368)
<b>Total</b>	<b><u>\$ 14,619,187</u></b>	<b><u>\$ 17,408,182</u></b>	<b><u>\$ 32,027,369</u></b>
<hr/>			
<b>Net Position</b>			
<hr/>			
Net position held in trust for pension benefits	<u>\$ 14,619,187</u>	<u>\$ 17,408,182</u>	<u>\$ 32,027,369</u>

See accompanying note to pension related schedules.

**WILKINSBURG-PENN JOINT WATER AUTHORITY**

STATEMENT OF CHANGES IN PLAN NET POSITION

YEAR ENDED DECEMBER 31, 2018  
UNAUDITED

	Management Plan	Union Plan	2018 Total
<b>Additions:</b>			
Contributions:			
Municipal contributions	\$ 3,785,878	\$ 353,625	\$ 4,139,503
Total contributions	<u>3,785,878</u>	<u>353,625</u>	<u>4,139,503</u>
Investment income:			
Interest and dividends	234,164	347,650	581,814
Net increase (decrease) in fair value of investments	<u>(659,891)</u>	<u>(783,594)</u>	<u>(1,443,485)</u>
Total investment income	<u>(425,727)</u>	<u>(435,944)</u>	<u>(861,671)</u>
Less: Investment expenses	<u>(47,416)</u>	<u>(74,164)</u>	<u>(121,580)</u>
Net Investment income	<u>(473,143)</u>	<u>(510,108)</u>	<u>(983,251)</u>
Transfer from union plan	<u>20,368</u>	<u>(20,368)</u>	<u>-</u>
Total additions	<u>3,333,103</u>	<u>(176,851)</u>	<u>3,156,252</u>
<b>Deductions:</b>			
Benefits	675,381	948,554	1,623,935
Administrative expense	<u>5,148</u>	<u>5,286</u>	<u>10,434</u>
Total deductions	<u>680,529</u>	<u>953,840</u>	<u>1,634,369</u>
<b>Change in Net Position</b>	<u>2,652,574</u>	<u>(1,130,691)</u>	<u>1,521,883</u>
<b>Net Position Held in Trust for Pension Benefits:</b>			
Beginning of year	<u>11,966,613</u>	<u>18,538,873</u>	<u>30,505,486</u>
End of year	<u>\$ 14,619,187</u>	<u>\$ 17,408,182</u>	<u>\$ 32,027,369</u>

See accompanying note to pension related schedules.

# WILKINSBURG-PENN JOINT WATER AUTHORITY

## NOTE TO PENSION RELATED SCHEDULES

YEAR ENDED DECEMBER 31, 2018

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### 1. Summary of Significant Accounting Policies

#### Basis of Accounting

The pension related schedules are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has to make a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with terms of each plan.

#### Method Used to Value Investments

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments. The fair value of real estate investments is based on independent appraisals. Investments that do not have an established market are reported at estimated fair value.

**Wilkinsburg Penn  
Joint Water Authority**

Independent Auditor's Report  
in Accordance with  
*Government Auditing Standards*

Year Ended December 31, 2018



**Independent Auditor’s Report on Internal Control over Financial Reporting and on  
Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

**Board of Directors  
Wilkes-Barre  
Joint Water Authority**

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Wilkes-Barre Joint Water Authority (Authority), as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the Authority’s basic financial statements, and have issued our report thereon dated September 5, 2019.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Authority’s internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for purpose of expressing an opinion on the effectiveness of the Authority’s internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority’s internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity’s financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control over that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Board of Directors  
Wilkesburg-Penn Joint Water Authority  
Independent Auditor's Report on Internal Control over Financial  
Reporting and on Compliance and Other Matters

### Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Maker Duessel*

Pittsburgh, Pennsylvania  
September 5, 2019

**APPENDIX C**  
**SUMMARY OF THE INDENTURE**

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## SUMMARY OF CERTAIN PROVISIONS OF THE TRUST INDENTURE

The 2020 Bonds are being issued under, and are subject to, the provisions of a Trust Indenture dated as of July 15, 1982, as supplemented by a First Supplemental Trust Indenture dated as of September 27, 1983, a Second Supplemental Trust Indenture dated as of August 15, 1986, a Third Supplemental Trust Indenture dated as of June 15, 1992, a Fourth Supplemental Trust Indenture dated as of September 15, 1993, a Fifth Supplemental Trust Indenture dated as of October 15, 2002, a Sixth Supplemental Trust Indenture dated as of July 15, 2011, a Seventh Supplemental Trust Indenture dated as of April 26, 2017, and an Eighth Supplemental Trust Indenture dated as of August 20, 2020, between the Authority and the Trustee, to which reference is made for complete details of the 2020 Bonds. The following statements are a summary of certain provisions of the Indenture. This summary does not purport to be complete and reference is made to the entire text of the Indenture.

### Certain Definitions

Wherever used in this Summary, the following terms have the meanings specified below unless the context clearly requires otherwise:

"Act": The Municipality Authorities Act, Act 22 of 2001, as amended, of the State.

"Additional Bonds": Bonds issued by the Authority under the Indenture, from time to time, for the purpose of financing the cost of acquiring or constructing Capital Additions or for the purpose of refunding Outstanding Bonds.

"Authority": The Wilkesburg-Penn Joint Water Authority, a body corporate and politic, authorized and existing under the Act.

"Bond" or "Bonds": All bonds outstanding from time to time under the Indenture.

"Bondholder" or "bondholder" or "Holder" or "holder" or "owner": The registered owner of any Bond.

"Code": The Internal Revenue Code of 1986, as amended.

"Consulting Engineer": Mackin Engineering Co., Pittsburgh, Pennsylvania or such other engineer or engineering firm as shall at the time be employed for the purpose of performing the functions and duties of the Consulting Engineer under the Indenture.

"Current Expenses": The Authority's reasonable, proper and necessary costs of operation and ordinary maintenance of the Water System and shall include, but without limiting the generality of the foregoing, administrative, engineering, legal, auditing and insurance expenses, reasonable fees and expenses of Authority Board members and officers, payments to pension or retirement funds, dues of any trade association, and taxes, but said term shall not include (i) payments on account of the principal of, or the interest on, or the premium (if any) payable upon the redemption of, the Bonds, (ii) charges for depreciation, (iii) the cost of repairs which has been paid out of moneys to the credit of the Surplus Fund, (iv) the cost of the construction or other acquisition of, or reserves for the construction or other acquisition of, Capital Additions, (v) loss from the sale or other disposition of, or from any decrease in the value of, capital assets and (vi) such miscellaneous deductions as are applicable to prior accounting periods.

"Debt Service Requirements": With respect to any period, the amounts required in said period to pay, or to be set aside for the payment of, the principal of or interest on the Bonds, or required for Debt Service and Sinking Fund deposits (excepting amounts set aside from the proceeds of Bonds for the payment of interest), and annual fees payable to any bank or bond insurer. For the purpose of ascertaining Debt Service Requirements, interest shall be computed to mandatory redemption dates to the extent that Bonds are required to be redeemed by mandatory redemption provisions, otherwise computed to stated maturity dates.

"Debt Service Reserve Surety Bond Policy": The Debt Service Reserve Surety Bond Policy provided to meet the 2020 Bonds Debt Service Reserve Requirement.

"Indenture": The Trust Indenture dated as of July 15, 1982, as supplemented by a First Supplemental Trust Indenture dated as of September 27, 1983, a Second Supplemental Trust Indenture dated as of August 15, 1986, a Third Supplemental Trust Indenture dated as of June 15, 1992, a Fourth Supplemental Trust Indenture dated as of September 15, 1993, a Fifth Supplemental Trust Indenture dated as of October 15, 2002, a Sixth Supplemental Trust Indenture dated as of July 15, 2011, a Seventh Supplemental Trust Indenture dated as of April 26, 2017, and a Eighth Supplemental Trust Indenture dated as of August 20, 2020 between the Authority and the Trustee.

"Officer's Certificate": A certificate executed by the Chairman or Vice-Chairman or Treasurer or other officer or employee of the Authority designated for such purpose in a resolution of the Authority.

"Outstanding": With reference to the Bonds as of any particular time, all Bonds executed, authenticated, issued and delivered under the Indenture, except:

- A. Bonds canceled at or prior to such time;
- B. Bonds for the payment of which funds shall have been deposited with the Trustee or shall have been set aside by the Trustee as provided in the Indenture for that purpose and which shall have matured by their express terms but which shall not have been surrendered for payment;
- C. Bonds in substitution for which other Bonds shall have been authenticated and delivered pursuant to the Indenture.

"Receipts and Revenues": All receipts and revenues of the Authority derived from the ownership or operation of the Water System, including moneys paid or payable by the users of the Water System for the use of water (including interest and penalties), connection fees, and all rights to receive any of the foregoing, whether in the form of accounts receivable, contract rights, chattel paper or general intangibles and any proceeds thereof; all income, interest and profits received from the investment of moneys held in any fund or account established under the Indenture; and all other receipts and revenues of the Authority constituting operating or non-operating income or revenue under generally accepted accounting principles.

"Registered Owner" or "Owner" or "Holder": in connection with a Bond, means the person in whose name the Bond is registered on the registration books maintained by the Trustee.

"State": The Commonwealth of Pennsylvania.

"Supplemental Indenture": An indenture supplemental to the Indenture executed in connection with the issuance of Additional Bonds or executed for the purpose of amendments or modifications.

"Surety Bond Provider": A surety bond may be held in satisfaction of the Debt Service Reserve Fund requirements in accordance with the provisions of the Indenture.

"Trustee": The Bank of New York Mellon Trust Company, N.A., a national banking association, organized and existing under and by virtue of the laws of the United States of America, and its successors and any corporation resulting from or surviving any consolidation or merger to which it or its successors may be a party, and any successor Trustee at the time serving as successor Trustee under the Indenture.

"Water System": The water supply, treatment, storage and distribution facilities of the Authority as the same may be from time to time constituted including, without limiting the generality of the foregoing, lands, easements, rights-of-way, water rights, intakes, supply reservoirs, treatment plants and equipment, distribution and storage facilities, process waste wells, buildings, machinery, electrical equipment, hydrants, couplings, switches, meters, gauges, supplies and equipment.

### **Additional Bonds**

The Authority may issue from time to time, and the Trustee shall authenticate, Additional Bonds (i) the purpose of financing the cost of acquiring or constructing Capital Additions; or (ii) for the purpose of refunding Outstanding Bonds (including a part of a series of Bonds).

Prior to the issuance of Additional Bonds, the Authority is required to deliver to the Trustee certain documents, including (a) an order executed by an authorized officer of the Authority directing the authentication of such Additional Bonds and the delivery thereof, (b) a certified copy of a resolution of the Authority authorizing the execution and requesting the authentication and delivery of such Additional Bonds and other appropriate action, (c) a Supplemental Indenture providing for the terms and provisions of the Additional Bonds, (d) opinions of counsel and (e) a certificate designating the representative of the purchasers.

In connection with the issuance of Additional Bonds, an amount must be deposited with the Trustee for the credit of the Debt Service Reserve Fund which, when added to the amount required to be deposited therein under the existing provisions of the Indenture, shall be at least equal to the maximum annual debt service requirements on all Outstanding Bonds immediately after the issuance of such Additional Bonds. If the Additional Bonds are for the purpose of financing the cost of acquiring or constructing Capital Additions, a Consulting Engineer's certificate must be provided to the Trustee to the effect that (a) the estimated average net revenues from the Capital Addition for a sixty (60) month period following completion of construction will be at least one hundred ten percent (110%) of the average annual debt service requirements on such Additional Bonds or (b) the net revenues of the Water System for such five (5) year period will be at least one hundred ten percent (110%) of the average annual debt service requirements on all Outstanding Bonds immediately after the issuance of such Additional Bonds.

If the Additional Bonds are issued for the purpose of refunding Outstanding Bonds, such Additional Bonds shall be issued subject to the restriction, among others, that the Average Annual Debt Service Requirements for such Additional Bonds shall not exceed the Average Annual Debt Service Requirements for the Bonds being refunded.

Notwithstanding satisfaction of other conditions to the issuance of Additional Bonds under the Indenture, no Additional Bonds may be issued if any Event of Default (as defined in the Indenture) shall have occurred and is continuing.

The proceeds of the Additional Bonds issued for the purpose of acquiring, constructing or completing the Capital Additions shall, after paying the costs and expenses of the financing and making any other payments and setting aside any reserves authorized by the Authority, be deposited with the Trustee in the Capital Additions Fund under the Indenture or a special Capital Additions Fund created under a Supplemental Indenture.

All Additional Bonds issued from time to time under the Indenture shall be on a parity with the Bonds and with all other Additional Bonds issued thereunder.

### **Rate Covenant**

The Authority has covenanted in the Indenture that it will maintain, charge and collect throughout its Service Area so long as any Bonds remain outstanding and funds for their payment have not been provided, water service rates, rentals and other charges, which (after making due and reasonable allowances for prompt payment discounts, if any, contingencies and a margin of error in the estimates), together with all other anticipated receipts and revenues of the Authority, including interest and other non-operating income, will be sufficient in each fiscal year to (i) pay the current operating expenses of the Authority; (ii) provide additional amounts of not less than one hundred ten percent (110%) of the Debt Service Requirements for all Outstanding Bonds in each fiscal year; and (iii) provide any amounts required to replenish the Debt Service Reserve Fund, as described herein (the "Rate Covenant").

If, for any reason, the Authority or the Trustee, as assignee of the Authority, does not receive water rates and charges for the use of the Water System at the times and in the amounts necessary to meet the Rate Covenant and all other obligations of the Authority under the Indenture, the Authority has covenanted that, to the full extent that it may lawfully do so, it will impose, charge and collect water rates and charges for the use of the Water System, directly or indirectly, so that the Receipts and Revenues of the Authority will be sufficient to meet its Rate Covenant before the end of the ensuing fiscal year but before adopting such revised rates and charges, all computations and estimates upon which such revisions are based shall be approved by the Consulting Engineer.

### **Revenue Fund**

All receipts and revenues and, except as otherwise expressly provided in the Indenture, all sums received by the Authority from any other source for paying any other part of the cost of operating, maintaining and repairing the Water System shall be deposited in a Revenue Fund to be established with a bank or trust company which shall qualify as an authorized depository under the terms of the Indenture, the Authority will payout of the Revenue Fund all its Current Expenses as they become due and, after paying such Current Expenses, the Authority shall withdraw moneys from the Revenue Fund for the purpose of making the deposits referred to in the Indenture.

### **Debt Service Fund**

After the Authority shall have paid its current expenses, moneys in the Revenue Fund not required for operating purposes, and such other moneys as provided in the Indenture, shall be deposited with the Trustee for credit to the Debt Service Fund, which moneys shall be applied to meet the current interest and principal requirements with respect to the Authority's Bonds. No payments are required to be made to the Debt Service Fund on the dates on which payments are required to be made to the sinking funds under the Indenture.

### **Sinking Fund**

Subject to the payment of its Current Expenses and making of the required deposits to the Debt Service Fund, the Authority will be required to make withdrawals from available moneys in the Revenue Fund and deposit with the Trustee, for credit to the Series of 2020 Sinking Fund, the amounts required by, on the dates set forth in the Indenture.

The Sinking Fund will be maintained with the Trustee and the moneys so deposited will be required to be applied to the retirement of the 2020 Bonds.

### **Debt Service Reserve Fund**

The Debt Service Reserve Fund has been established for the purpose of providing a reserve to meet any deficiencies in respect of the payment of principal and interest on the Authority's Bonds. Subject to the making of the deposits to the Debt Service Fund and the Sinking Fund, the Authority is required to withdraw moneys from the Revenue Fund and deposit with the Trustee, for credit to the Debt Service Reserve Fund, specified amounts so that an amount equal to the maximum annual debt service requirements on all Bonds outstanding under the Indenture shall be maintained therein. In the event any transfer therefrom (including any transfer to any sinking fund for a particular series of Bonds) would result in a deficiency in the Debt Service Reserve Fund, the Authority is required, out of available moneys in the Revenue Fund, to make up such deficiency. The Debt Service Reserve Requirement may be met in part or wholly by a Debt Service Reserve Surety Bond Policy, together with cash presently held in the Debt Service Reserve Fund.

### **Capital Additions Fund**

A Capital Additions Fund is established under the Indenture. The moneys in the Capital Additions Fund are held by the Trustee in trust, and are to be applied to the payment of the costs of any Capital Additions and any other purposes in accordance with, and subject to the limitations of, the Indenture. Pending such application, the Capital Additions Fund will be subject to a lien and charge in favor of the owners of the Bonds issued and Outstanding under the Indenture and for the further security of such owners until paid out as provided in the Indenture.



Separate Capital Additions Funds, or separate accounts within the Capital Additions Fund or other Capital Additions Funds established under a Supplemental Indenture, will be maintained by the Trustee upon request of the Authority whenever, in the opinion of the Authority, it is appropriate to have a separate accounting in respect of the costs of any Capital Additions or any designated portion of a particular Capital Addition.

Payments will be made from the Capital Additions Fund by the Trustee for costs of any project upon the order of the Authority and receipt of the requisition and certificates of the Consulting Engineer or the Authority solicitor, when applicable, in accordance with the Indenture.

### **Surplus Fund**

The Authority will be required to withdraw semi-annually from the available moneys in the Revenue Fund all excess money therein and deposit said moneys with the Trustee, for credit to the Surplus Fund; provided, however, that all required transfers to the above-mentioned Funds shall have been made. The Surplus Fund may be used to (i) retire Bonds, (ii) make Capital Additions to the Water System, (iii) remedy any deficiencies in any of the other Funds established under the Indenture and (iv) to meet obligations of the Authority arising out of its ownership of the Water System not otherwise provided for.

### **Covenants**

#### *Payment of Bonds*

The Authority has covenanted that it will promptly pay, but only out of its Receipts and Revenues and any other available moneys as provided in the Indenture, the principal of and interest on every Bond issued and to be issued thereunder and secured thereby at the place and on the dates and in the manner specified therein and in the Bonds according to the true intent and meaning thereof.

#### *Operation of Water System*

The Authority has covenanted that it will at all times:

- (a) maintain the Water System and every part thereof in good repair, working order and condition;
- (b) continuously operate or provide for the operation of the same; and
- (c) from time to time make all necessary and proper repairs, renewals and replacements so that the aggregate efficiency and capacity of the Water System shall at no time be unreasonably impaired or reduced.

#### *No Impairment of Bondholders' Rights*

The Authority has covenanted that so long as any of the Bonds secured by the Indenture are Outstanding, none of its Receipts and Revenues shall be used for any purpose other than as provided in the Indenture, and that no contract or contracts shall be entered into or any action taken by which the rights of the Trustee or of the Bondholders must be impaired or diminished.

#### *Employment of Consulting Engineer*

The Authority has covenanted that it will, so long as any Bonds shall remain Outstanding, employ a Consulting Engineer to, among other duties, prepare an annual report which shall include, among other things, a budget, advice on Capital Additions and a report on the general condition of the Water System.

### Annual Budgets

The Authority has covenanted that it will adopt, in accordance with the advice and recommendations of the Consulting Engineer, by resolution and file with the Trustee for each Fiscal Year ending December 31, or such other annual accounting period as the Authority may select, an annual budget setting forth the estimated Current Expenses of the Authority, the Debt Service Requirements, other expenses, estimated sources of income other than Receipts and Revenues and the estimated Receipts and Revenues to be collected under water rates then to be in force. Any budget may be amended or supplemented at any time with the approval of the Consulting Engineer.

### Defaults and Remedies

Each of the following events is an "event of default" under the Indenture:

(a) payment of the principal of any Bond shall not be made when payable, either at maturity, by declaration, by proceedings for redemption or otherwise; or

(b) payment of any installment of interest shall not be made when payable and such default shall continue for a period of thirty (30) days; or

(c) payment of any sinking fund installment shall not be made when payable and such default shall continue for a period of thirty (30) days; or

(d) an order shall be entered appointing a receiver or receivers of the Water System or of the revenues thereof with the consent or acquiescence of the Authority, or, if such order or decree, having been entered without the acquiescence or consent of the Authority, shall not be vacated or discharged or stayed on appeal within sixty (60) days after entry; or

(e) the Authority shall fail or refuse to comply with any provisions of the Act or shall for any reason be rendered incapable of fulfilling its obligations under the Indenture or the Act; or

(f) the Authority shall default in the observance of any other covenants, conditions or agreements of the Authority under the Indenture and such default shall continue for a period of thirty (30) days after written notice of such default from the Trustee, which may give such notice in its discretion, and shall give such notice at the written request of the Holders of twenty-five percent (25%) in principal amount of the Bonds then Outstanding.

Upon the happening and continuance of any event of default, the Holders of not less than twenty-five percent (25%) in aggregate principal amount of the Bonds shall be entitled to exercise any or all of the remedies granted to them by the Act.

### The Trustee

The Trustee may execute any of the trusts or powers and perform the duties required by it, by or through attorneys, agents, receivers, or employers, and shall be entitled to advice of counsel concerning all matters of trust hereof and its duty hereunder, and the Trustee shall not be answerable for the default or misconduct of any such attorney, agent, or employees selected by it with reasonable care. The Trustee shall not be answerable for the exercise of any discretion or power under the Indenture or under any Supplemental Indenture, nor for anything whatever in connection with the trust, except for its own gross negligence or bad faith.

### **Amendments and Modifications**

In addition to any Supplemental Indenture otherwise authorized by the Indenture, the Authority and the Trustee may, from time to time and at any time, enter into such indentures or agreements supplemental to the Indenture as shall not be inconsistent with the terms and provisions of the Indenture and which shall not adversely affect the rights of the Holders of the Bonds Outstanding thereunder (which Supplemental Indentures or agreements shall thereafter form a part of the Indenture) for the following purposes:

- (a) to cure any ambiguity, formal defect or omission in the Indenture or Supplemental Indenture;
- (b) to grant or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders or the Trustee;
- (c) to add to the covenants and agreements of the Authority in the Indenture contained, other covenants and agreements thereafter to be observed, or to surrender any right or power therein reserved to or conferred upon the Authority;
- (d) to modify any of the provisions of the Indenture or to relieve the Authority of any of the obligations, conditions or restrictions contained in the Indenture; provided, that such modification or relief shall not, by the express terms of the particular Supplemental Indenture, become effective until all Bonds outstanding on the date of the execution and delivery of such Supplemental Indenture shall no longer be Outstanding;
- (e) to make such provision in regard to matters or questions arising under the Indenture as may be necessary or desirable and not inconsistent with the Indenture; or
- (f) to close the Indenture against, or to restrict, in addition to the limitations and restrictions therein contained, the issue of Additional Bonds thereunder, by imposing additional conditions and restrictions to be thereafter observed, whether applicable in respect of all Bonds issued and to be issued thereunder or in respect of one or more series thereof, or otherwise.

With the consent of the Holders of not less than sixty-six and two-thirds percent (66-2/3%) in aggregate principal amount of the Bonds then Outstanding, the Authority and the Trustee may from time to time and at any time enter into a Supplemental Indenture for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of the Indenture or of any Supplemental Indenture or of modifying in any manner the rights of the Holders of the Bonds and coupons; provided, however, that no such Supplemental Indenture shall (i) extend the fixed maturity date of any Bond, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Holder of each Bond so affected, or (ii) permit the creation by the Authority of any lien prior to or on a parity with the lien of the Indenture upon any part of the Receipts and Revenues of the Water System, or (iii) reduce the aforesaid percentage of Bonds, the Holders of which are required to consent to any such Supplemental Indenture, without the consent of the Holders of all Bonds then Outstanding. A modification or an amendment of the provisions with respect to the Debt Service Fund, Debt Service Reserve Fund, Sinking Fund or any sinking, purchase, redemption or analogous fund is not to be deemed a change in the terms of payment.

Upon the execution of any Supplemental Indenture pursuant to the provisions of the Indenture, the Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under the Indenture of the Trustee, the Authority and the Holders of Bonds and coupons shall thereafter be determined, exercised and enforced thereunder subject in all respects to such modifications and amendments, and all the terms and conditions of any such Supplemental Indenture shall be and be deemed to be part of the terms and conditions of the Indenture for any and all purposes.

### **Discharge of Indenture**

If the Authority, its successors or assigns, shall pay or cause to be paid unto the Holders of all Bonds and coupons outstanding under the Indenture the principal and interest to become due thereon and the premium thereon, if any, at the times and in the manner stipulated therein, then the Indenture and the estate and rights thereby granted shall cease, determine and be void, and thereupon the Trustee shall, upon the request of the Authority, release, cancel and discharge the lien of the Indenture, and execute and deliver to the Authority such instruments as shall be requisite to satisfy the lien thereof, and reconvey to the Authority the estate and title thereby conveyed, and assign and deliver to the Authority any property at the time subject to the lien of the Indenture which may then be in the possession of the Trustee; but the Trustee shall take any such action only upon the receipt of a certificate signed by the Chairman or Vice Chairman and Secretary or Assistant Secretary of the Authority and an opinion of counsel, each stating in substance that, in the opinion of the respective signers, all conditions precedent provided for in the Indenture relating to such release, cancellation and discharge have been complied with. Bonds and coupons for the payment or redemption of which funds in the full amount required therefor shall have been deposited with the Trustee, in accordance with the terms and conditions of the Indenture, whether upon or prior to the maturity or the redemption date of such Bonds, shall be deemed to be paid within the meaning of the Indenture provisions regarding discharge; provided, however, that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been duly given or provision satisfactory to the Trustee shall have been made therefor.

**APPENDIX D**

**FEASIBILITY STUDY**

**Report on Financing Capital Additions**

**June 2020**

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## **Wilkesburg-Penn Joint Water Authority**

*Allegheny County, Pennsylvania*

### ***Report on Financing Capital Additions***

June 2020

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**APPENDIX A**

**POPULATION PROJECTIONS**

**WILKINSBURG PENN JOINT WATER AUTHORITY**  
*Report on Financing Capital Additions*

**INTRODUCTION**

The Wilkinsburg-Penn Joint Water Authority (Authority) authorized proceeding with an engineering study and preparation of this Report for the primary purpose of serving as the basis for obtaining funding for the construction of capital additions to the existing water system. This Report covers the issuance of Water Revenue Bonds in the principal amount of \$30,000,000 and is for the guidance of the Authority Board Members, potential investors, and others.

The Authority owns and operates a water treatment plant, located on Tyler Road in the Municipality of Penn Hills. A water intake pump station is located at the end of Nadine Road in the Municipality of Penn Hills. The water intake is located on the Allegheny River approximately 9 miles from its confluence with the Ohio River and Monongahela River. The existing water treatment plant has a maximum capacity of 40 million gallons per day (mgd). The capacity of the water plant is expected to meet system demands for the next 15 years. Upgrades and rehabilitation projects will be required to maintain the plant capacity.

Since the Water Treatment Plant (WTP) has sufficient capacity for the next 15 years, the majority of the required capital additions for the Authority are located within the distribution system. The Authority is currently under a Consent Order and Agreement to address water loss issues within the system. Water loss has been reported at greater than 50% for the past few years. Much of the Authority's water transmission and distribution system is over 75 years of age resulting in breaks and leakage. The Authority has developed a multi-point plan for reducing water loss within the system. This plan includes new metering at the WTP, in-system metering, meter replacement, transmission main replacement, hydrant and valve replacements, and distribution line replacements.

The total project cost to construct the improvements to reduce water loss and address other system improvements is \$30,000,000, as discussed in the following sections of this report.

## AUTHORITY – ADMINISTRATIVE

The following indicates the members of the Authority Board and the community they serve and indicates other persons and firms associated with the Authority:

### *Members of the Board*

<u>Name of Board Member</u>	<u>Represents</u>
Dennis Simon, President	Borough of East Pittsburgh
John Vento, Vice President	Municipality of Penn Hills
George Fuller, Treasurer	Borough of Edgewood
Vivian Broz, Secretary	Borough of Forest Hills
Philip Scolieri	Municipality of Penn Hills
David Gilliland	Borough of Wilkinsburg
Brenda Joyce-May	Borough of Wilkinsburg
Kathleen Rawlins	Borough of Wilkinsburg
William Coles, Jr.	Borough of Churchill
John Vahosky	Borough of North Braddock
Tracey Crombie-Collins	Borough of Swissvale
Theodore Czekaj	Borough of Turtle Creek

### *Other Personnel*

Nick Bianchi	Executive Director
Anthony Sorce	Assistant Executive Director
Bruce E. Dice & Associates	Solicitor
Doug Komandt	Finance Director
Erica Bowe	Human Resources
Mark Lerch	Director of Supply
Mackin Engineering	Consulting Engineers
Dickie, McCamey & Chilcote	Bond Counsel
The Bank of New York Mellon	Trustee

## GENERAL

The Authority was created in 1945 for the purpose of providing public water service to approximately 27,316 customers through the purchase of the water system of the Pennsylvania Water Company. The Authority continued to expand through new customers in the original communities and the purchase of other systems. Today, the Authority provides direct service to approximately 38,700 customers in 22 municipalities. In addition, water is sold to other water systems through master meters on a bulk water basis. Overall, the Authority provides potable water to nearly 100,000 people in Allegheny and Westmoreland Counties, Pennsylvania. The Authority is governed by a Board of twelve (12) members, three (3) of whom are appointed by the Borough Council of the Borough of Wilkinsburg, two (2) by the Municipal Council of the Municipality of Penn Hills, and one (1) each by the Borough Councils of Churchill, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Swissvale and Turtle Creek.

## HISTORY

The Authority was formed in September of 1945 at a meeting of officials of the Borough of Wilkesburg and Penn Township. At that time, a deed of trust executed by the Borough, the Township and the Authority placed ultimate ownership of facilities in the municipalities that have domestic customers. The Authority was incorporated on October 4, 1945, under the Pennsylvania Municipality Authorities Act of 1945, as amended. In 1946, the Pennsylvania Public Utility Commission approved purchase of the Pennsylvania Water Company (which was established in 1887 and had approximately 27,316 consumers) by the eight-month-old Authority. Since that time, the number of customers has increased to its current total of approximately 38,755, which includes the purchase of East McKeesport Water (1993) with approximately 1,144 customers and Rankin Water (1996) with approximately 658 customers.

Service for its direct customers and wholesale customers is maintained through a complex network of storage facilities and pipelines. Water from the Allegheny River is channeled to the pipelines and storage facilities from the Nadine Pump Station where water is pumped approximately 1 mile to the Filtration Plant which is approximately 600 feet above the Allegheny River and then out to the network of pipes and storage facilities throughout the water system.

All water released from the Filter Plant meets the chemical and bacteriological standards set by the Pennsylvania Department of Health and the United States Public Health Service.

## WATER SERVICE AREA

The present service area is comprised of a wide strip of Allegheny County extending from Allegheny River near the boundary of the City of Pittsburg to the Monongahela River at its border with the City of Pittsburgh. The service area splits Penn Hills and is bounded by Plum Borough, the Municipality of Monroeville, and the Westmoreland Water Authority service area. The Authority provides direct service to Braddock Hills, Chalfant, Churchill, East McKeesport, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Pitcairn, Rankin, Swissvale, Trafford, Turtle Creek, Wilkesburg, Wilkins Township, and Wilmerding. The Authority also serves parts of Braddock, Monroeville, Penn Hills, North Huntingdon, North Versailles, and Pittsburgh (13<sup>th</sup> Ward). The Authority provides bulk water sales to the Braddock Water Authority.

The Authority's existing water filtration plant is located on Tyler Road in the Municipality of Penn Hills. A raw water intake pump station is located at the end of Nadine Road at its intersection with Allegheny River Boulevard in the Municipality of Penn Hills. The water intake is located on the Allegheny River approximately 9 miles from its confluence with the Ohio River and Monongahela River. Water transmission lines extend from the water treatment plant in a southerly and easterly direction to provide water to the distribution system.

The water distribution system is divided into numerous low and high service areas and 17 storage tanks and reservoirs are provided. The system is primarily gravity fed from the Reservoir No. 1 at the water treatment plant, Reservoir No. 2A and 2B in Braddock Hills, #4 Reservoir in Monroeville, and Reservoir No. 7 behind the Authority office.

The Authority maintains 10 emergency connections. These connections are with the Oakmont Water Authority, Plum Water Authority, Monroeville Water Authority, and the Municipal Authority of Westmoreland County.

## **WATER TREATMENT PLANT**

The Allegheny River is the Authority's source of raw water for the water treatment plant. Following withdrawal of the raw water from the Allegheny River, the water is oxidized with sodium permanganate and chlorine as it moves from the pumping station to the purification plant. Water coming into the filter plant flows to a rapid-mix chamber where alum, lime, potassium permanganate, activated silica, hydrofluorosilicic acid and activated carbon are added. A floc is formed as a result of alum and silica treatment at controlled pH and mechanical mixing by the flocculating paddles. The alum floc picks up suspended particles of clay and silt and in so doing accumulates sufficient weight to carry it to the bottom of large settling basins. Clarified water moves across the settling basins and flows to the filter beds. Twenty-two filters are located in the filter plant building. They are constructed of graded gravel, sand and anthracite coal. Each filter has a normal rating of 1.25 mgd at a standard rate of 2.0 gallons per square foot per minute. Water from the settling basins passes through the filters to a clear well under the building and finally to the storage reservoir. Filtration removes the traces of suspended matter. Filters are cleaned once every 48 to 96 hours by back flowing clean, treated water up through the beds and washing out accumulated suspended matter.

Iron and manganese, normally present in the raw water, are oxidized with sodium permanganate and chlorine then removed with the coagulation, settling and filter process. Lime is used to neutralize acid in the raw water or acid formed as a result of other chemical reaction during the treatment process. The coagulant aid presently in use is activated silica. The sodium silicate is active with chlorine. Activated carbon is used to remove undesirable tastes and odors of the type described as woody, musty, earthy, moldy, fishy, etc.

The corrosiveness of the water to metal pipes and containers is reduced by adjusting the alkalinity with soda ash. Hydrofluorosilicic acid is introduced to the water for the reduction of dental disease. The fluoride content is maintained within the range of 0.65 to 0.85 ppm. Water distributed to the consumer meets all organic, inorganic, microbiological, turbidity, total trihalomethanes, and radiological parameters as mandated by the Environmental Protection Agency.

## DISTRIBUTION SYSTEM

The size of pipe in the distribution system of the Authority ranges in diameter from 4 inch to 48 inches. An approximate summary of the pipe in the system as of April 30, 2020 follows:

Pipe Diameter (Inches)	Pipe Length (Feet)	Pipe Diameter (Inches)	Pipe Diameter (Inches)
4	145,853	20	40,117
6	692,790	24	32,091
8	969,354	30	36,856
10	51,292	36	29,704
12	181,753	42	3,943
16	92,606	48	7,063
<b>TOTAL (feet)</b>	<b>2,283,422</b>	<b>TOTAL (miles)</b>	<b>432.47</b>

## WATER STORAGE FACILITIES

A tabulation of the existing water storage facilities of the Authority is as follows:

Name	Type of Structure	Location	Capacity (Gallons)	Full Elevation
Reservoir No. 1	Concrete	Penn Hills	11,200,000	1,311.00
Reservoir No. 2A	Elevated Steel	North Braddock	6,000,000	1,229.50
Reservoir No. 2B	Elevated Steel	North Braddock	6,000,000	1,229.50
Reservoir No. 4	Concrete	Monroeville	6,000,000	1,076.00
Reservoir No. 5	Concrete	Churchill	10,000,000	1,288.00
Reservoir No. 7	Elevated Steel	Wilkinsburg	4,600,000	1,307.00
Reservoir No. 8	Concrete	Churchill	4,969,000	1,288.00
Filter Plant Tank	Elevated Steel	Penn Hills	300,000	1,367.00
Long Vue Tank	Elevated Steel	Penn Hills	300,000	1,362.00
Universal Tank	Elevated Steel	Penn Hills	300,000	1,355.00
Scenery Road Tank	Steel Tank	Wilkinsburg	252,000	1,413.75
Mission Crest Tank	Steel Tank	Penn Hills	500,000	1,360.00
Lougeay Road Tank	Steel Tank	Penn Hills	2,000,000	1,355.00
Pitcairn Standpipe	Steel Tank	Pitcairn	340,000	1,201.00
Trafford Tank	Steel Tank	Trafford	636,000	1,280.25
Brinton Manor Tank	Steel Tank	North Braddock	300,000	1,310.00
East McKeesport Tank	Steel Tank	East McKeesport	200,000	1321.43
			<b>53,897,000</b>	

**WATER PUMPING STATIONS**

A tabulation of the existing water pumping stations of the Authority is as follows:

<u>Name</u>	<u>Location</u>
Pitcairn Pump Station	Pitcairn Borough
Wilmerding Pump Station	Wilmerding Borough
Penn Avenue Pump Station	Wilkinsburg Borough
#5 Reservoir Pump Station	Churchill Borough
Trafford Pump Station	Trafford Borough
Frankstown Pump Station	Municipality of Penn Hills
Braddock Hills Pump Station	Braddock Hills Borough
Universal Pump Station	Municipality of Penn Hills
Beulah Pump Station	Municipality of Penn Hills

**CUSTOMERS**

The following summary indicates the consumers of record served by the Authority by classification as of December 31, 2019.

*Classification*

	Residential	Commercial	Municipal	Industrial	Resale	Total
2014	37,708	1,644	123	20	3	39,498
2015	37,509	1,647	123	19	3	39,301
2016	37,480	1,641	126	18	3	39,268
2017	37,359	1,621	118	18	2	39,118
2018	37,252	1,610	114	17	2	38,995
2019	37,153	1,604	115	17	1	38,890

Fire Protection

Private Fire Protection	273
<u>Public Fire Protection</u>	<u>2,404</u>
Total Fire Protection	2,677
<b>TOTAL (2019)</b>	<b>41,567</b>

The following summary indicates the customers served by the Authority, by municipality, as of October 2019.

<u>Municipality</u>	<u>Total Metered Accounts</u>
Braddock Borough	64
Braddock Hills Borough	660
Chalfant Borough	369
Churchill Borough	1,483
East McKeesport Borough	914
East Pittsburgh Borough	598
Edgewood Borough	1,290
Forest Hills Borough	2,970
Municipality of Monroeville	482
North Braddock Borough	1,555
North Huntington Borough	34
North Versailles Borough	192
Municipality of Penn Hills	10,392
Pitcairn Borough	1,115
City of Pittsburgh	1,566
Rankin Borough	499
Swissvale Borough	3,461
Trafford Borough	1,373
Turtle Creek Borough	1,652
Wilkins Township	2,550
Wilkesburg Borough	4,914
Wilmerding Borough	660
<b>Total Customers</b>	<b>38,793</b>
<u>Resale Customers</u>	<u>Metered Accounts</u>
<u>Braddock Water Authority</u>	<u>1</u>
Total Resale Accounts	1
<u>Total Metered Accounts</u>	<u>38,794</u>

## RESALE CUSTOMERS

The Authority supplies bulk water to a number of resale customers. A listing of the resale customers and the terms of the Water Service Agreements are summarized as follows:

Resale Customer	Date of Agreement	Terms of Agreement	Expiration Date
Braddock Water Authority	November 22, 1994	30 Years	November 22, 2024

*Note: Agreement includes two additional automatic 5-year renewals if termination notice is not provided*



## POPULATION PROJECTIONS

A review of the existing and projected populations was conducted in order to help determine the future needs of the Authority. Population projections for the municipalities served by the Authority were obtained from the Southwestern Pennsylvania Commission. Population projections for the Authority's service area were determined by utilizing the current number of residential service connections, along with the average household size by municipality as provided in the 2010 Census. The table in Appendix A summarizes the existing and projected populations within the existing service territory:

The foregoing analysis shows that the population of the existing service territory will increase by 62,615 persons, or about 12.7%, from 2015 through 2045. If municipalities where less than half the population are served by the Authority are removed (Pittsburgh, Monroeville, North Huntington, and North Versailles, the population increase is reduced to 2,228 persons, or about 2%.

The foregoing analysis does not consider commercial, municipal, or industrial accounts, or future service territories.

## WATER USAGE

The following table summarizes the Annual Average Daily Flow, the Peak Daily Flow and the Peak Day to Average Ratio for the years 2014 through 2019.

Year	Annual Average Daily Flow MGD	Peak Daily Flow MGD	Peak Day to Average Ratio
2014	22,444,167	28,775,000	1.28
2015	22,662,750	31,985,000	1.41
2016	17,994,083	26,104,000	1.45
2017	16,528,000	22,248,000	1.35
2018	17,680,167	24,549,000	1.39
2019	16,764,730	24,262,000	1.45
Average	19,012,316	26,320,500	1.38

The Average Daily Customer Usage shows a decrease in gallons from 2015 to 2016. The decrease is due to the termination of bulk water sales to Monroeville Municipal Authority and Plum Borough Municipal Authority. Although consumption and bulk water sales declined in 2016, a change to monthly billing resulted in increased revenue from fees and charges which replaced a significant portion of the revenue lost from bulk sales.

During this six-year period, the Authority pumped an average of 19.012 MGD of treated water. The peak daily water produced ranged from a low 22.248 MGD to a high of 31.985 MGD with an average for the six-year period of 26.32 MGD. The Peak Day to Average Day Ratio varied from 1.28 to 1.45, with an average of 1.38 over the six-year period.

Based on the population projects presented in an earlier section, the number of customers serviced by the Authority is expected to increase by only 2% by the Year 2045. Based on current capacity of the water treatment plant, the treatment plant is expected to have sufficient capacity through 2045.

## CAPITAL IMPROVEMENTS

The Authority has determined that the following capital improvement projects are needed and should be undertaken as funds are available. These capital additions can be classified into projects at the existing water treatment plant, Nadine Pump Station, water reservoirs and storage tanks, administrative, transmission main replacements, and water main replacements. The projects are described in the following sections:

### ***Water Treatment Plant***

#### Lining of Sedimentation Basins

Annual inspections of the sedimentation basins at the water treatment plant have identified cracks and other issues with the concrete. The basins in need of rehabilitation are over 60 years old and have never been rehabilitated. The project includes taking each basin out individually, removing all loose and deteriorated concrete, filling cracks, and installing a coating system over all concrete surfaces. The estimated cost is \$1,000,000.

#### Repair Filter Walls

All the filters for the plant are constructed of concrete. The upper ten feet of the filters on the eastern side of the plant have been exposed to weathering for the past 60 years. The concrete is spalling, cracking, and flaking. Rehabilitation of the exposed wall is necessary for the continued use of the filters. The project includes surface preparation to remove loose and deteriorated concrete followed by placement of a concrete coating. The estimated cost is \$300,000.

#### Window Replacement

The windows within the operations building are original to the building's construction. The windows are not energy efficient and in poor condition. The estimated cost to replace the windows is \$325,000.

#### New Alum Building

Currently, the Authority has two alum storage tanks in the basement of the operations building. They were recently informed that the alum tank no longer met code and had to be relocated. The Authority signed a Consent Order and Agreement to relocate the alum storage to new above ground tanks. The estimated cost of the new alum storage tank building is \$275,000.

### ***Water Storage Tanks***

#### Sandblasting and Painting of Lougeay Road Tank

The Lougeay Road Tank is a 2-million-gallon elevated storage tank. The tank was last painted in the mid-1990s and was inspected in late 2019. The exterior of the entire tank and the interior of the water storage portion of the tank was deemed in need of rehabilitation. Additionally, several safety issues were

identified during the inspection. The estimated cost to sandblast/paint and correct safety deficiencies is estimated at \$1,100,000.

#### Trihalomethane Removal System for Lougeay Road Tank

Due to its location in the system, the Lougeay Road Tank has experienced higher than expected trihalomethane readings during the quarterly sampling. The tank is needed to provide required fire flows in the system and cannot be eliminated. The Authority has had success with installing trihalomethane removal systems in several other tanks with higher values. The system will include a mixer, a floating spray nozzle, and a blower to reduce trihalomethane concentrations in the finished water. The estimated cost to install a trihalomethane removal system in the Lougeay Road tank is estimated at \$350,000.

#### Trihalomethane Removal Systems for Braddock Hills Tanks 2A/2B

Braddock Hills Storage Tanks 2A/2B are each six-million-gallon storage tanks. The tanks are necessary for proper operation of the system but have water age issues which result in higher trihalomethane results. The trihalomethane removal systems for each tank will include a mixer, two floating spray nozzles, and two blowers. The estimated cost to install the trihalomethane removal system is estimated at \$400,000.

#### Replace East McKeesport Tank

The East McKeesport storage tank is a 220,000 gallon above ground storage tank construct in the early 1990s prior to the Authority taking over the East McKeesport system. The tank is a bolted steel tank that has several leaks and numerous structural issues. Rehabilitation of the tank is not deemed feasible. The cost to install a new 220,000-gallon tank at the site is estimated at \$500,000.

#### ***Nadine Pump Station***

##### Cone Valve Replacement

The cone valves at the Nadine Pump Station are critical to the proper operation of the pump station. Due to the high elevation difference between the Allegheny River and the Water Treatment Plant, the valves must operate properly for water to be pumped to the plant. The cone valves have been scheduled for replacement for several years due to age and operational issues and to ensure proper system operation. The estimate cost to replace the cone valves is \$500,000.

##### Generator

The Nadine Pump Station has successfully operated without a generator since it became operational. The pump station electrical power is provided from two different sources within the electrical grid. However, with new regulations and concerns regarding system operation, the installation of a generator to guarantee power during natural disasters and power grid failures has been deemed critical. The estimated cost of a generator for the Nadine Pump Station is \$3,000,000.

### New Variable Frequency Drive

The Nadine Pump Station has a number of different sized pumps to provide system redundancy and operational flexibility. With the reduction in water demand in the Authority service area over the last twenty years, the largest pump at the Nadine Pump Station is too large under most system operational conditions. It is the intention of the Authority to install a variable frequency drive on the largest pump to allow the Authority to operate the pump efficiently and effectively. The cost of the variable frequency drive is estimated at \$1,500,000.

### ***Administrative***

#### Office Building Windows

The Authority office was constructed in approximately 1969 and has served the Authority effectively for 50 years. Based on a review of the windows and energy efficiency standards, the Authority has decided to replace all windows in the building. With the new boiler and air handlers the Authority has replaced over the past few years, the administrative office is becoming more energy efficient. The cost to replace the windows is estimated at \$200,000.

#### Meter Replacement

The Authority last underwent a major meter replacement program in the 1990s. One of the recommendations of the water loss study completed by the Authority was to begin a major meter replacement program. The Authority intends on beginning the program by replacing large meters within its system. The Authority estimates the cost of meter replacement at \$5,000,000.

### ***Transmission Main Replacement***

#### Mt. Carmel Road 36" Main

The Mt. Carmel Road 36" water main begins at the Water Treatment Plant and extends 4,000 ft to the intersection of Mt. Carmel Road and Verona Road. This transmission main has had several large leaks and breaks occur along the main over the last 10 to 20 years and is a priority for replacement or rehabilitation. The estimated cost of the project is \$2,000,000.

#### Lower Rodi Road Transmission Line Replacement

The Lower Rodi Road transmission line is a 20" main that extends from Rodi Road approximately 2 miles. The transmission line is under high pressures and has had numerous leaks and breaks completed over the past several years. The estimated cost to replace or rehabilitate the Lower Rodi Road transmission main is \$4,000,000.

#### Trafford Transmission Line Replacement

The Trafford Transmission line is a 16" main that extends from Trafford to Turtle Creek. The main is approximately 10,000 linear feet in length. As with other older water transmission mains in the Authority system, the Trafford Transmission main has had several leaks and large breaks over the past

several years. To ensure proper system operation, the Authority proposes the replacement. The estimated cost of the replacement project is \$4,000,000.

### *Distribution System*

#### Blackridge Area Replacement

The Blackridge Area of Penn Hills and Wilkinsburg includes more than 20,000 linear feet of water line. The Authority has experienced numerous breaks and leaks in the service area over the last several years. Although the replacement of all lines in the area would cost more than \$4,000,000, the Authority proposes the replacement of the 5,000 linear feet of pipe in the area to eliminate the areas with the most breaks and leaks. The estimated cost for the project is \$1,000,000.

#### McMaster Water Line Replacement

The McMaster project includes the replacement of approximately 1,500 linear feet of water line in the McMaster area. The Authority has experienced water leaks and breaks in this area and has prioritized this area for replacement. The estimated cost for the project is \$250,000.

#### Larimer Avenue Water Line Replacement

The Larimer Avenue water line has had numerous water line breaks and leaks. The 1,500 linear feet of replacement is expected to eliminate breaks in the area. The estimated cost of the project is \$250,000.

#### Wall Avenue Water Line Replacement

The Wall Avenue water line has experienced numerous breaks over the last twenty years. The water line is located along a creek and repair work can be complicated and expensive. The Authority proposes the replacement of 5,000 linear feet of water line. The estimated cost of the project is \$450,000.

#### Braddock Avenue Water Line Replacement

The Braddock Avenue water line located in East Pittsburgh has experienced several large breaks during the last few years. Additionally, due to its location, providing water to all customers becomes difficult when the water line is out of service. The water line was not replaced when the roadway in the area was improved resulting in the water line being 12 to 15 feet deep buried in slag. These issues also make locating the break and exposing the pipe difficult and expensive. The estimated cost of the project is \$300,000.

#### Hawkins Avenue Water Line Replacement

The Hawkins Avenue water line is located in North Braddock. The Authority has experienced numerous water line breaks over the past several years. The Authority intends on replacing 2,000 linear feet of water line on Hawkins Avenue to eliminate future breaks. The estimated cost of the project is \$200,000.

#### Middle Avenue Water Line Replacement

The Middle Avenue water line is located in Wilmerding. The water line has experienced numerous breaks in the last few years. The Authority proposes the replacement of 2,500 linear feet of pipe on Middle Avenue. The estimated cost of the project is \$300,000.

#### Third Street Water Line Replacement

The Third Avenue water line is located in Rankin Borough. The 10" water line proposed will eliminate an existing 6" and 10" water line in the street. The project is being undertaken to address numerous service line issues at the main due to the use of plastic pipe. The project will include approximately 2,000 linear feet of pipe. The estimated cost of the project is \$200,000.

#### Duffield Area Water Line Replacement

The Duffield Area is located in the Municipality of Penn Hills. The pipe in this area has experienced numerous breaks due to higher than typical pressures. The project includes the replacement of 4,000 linear feet of water line. The estimated cost of the project is \$500,000.

#### Garden Terrace/Rural Court Water Line Replacement

The Garden Terrace/Rural Court Water line is located in the Borough of Churchill. The project proposes the replacement of 4,000 linear feet of water line due to its age and the number of breaks in recent years. The estimated cost of the project is \$500,000.

#### Fourth Avenue Water Line Replacement

The Fourth Avenue Water line replacement project is located in the Borough of Rankin. The project proposes the replacement of 2,000 linear feet of pipe. The water line is a plastic water line that has had numerous saddle taps corrode resulting in numerous breaks and leaks. The estimated cost of the project is \$200,000.

#### Clugston Avenue Water Line Replacement

The Clugston Avenue Water line is located in Wilkins Township and the Borough of Turtle Creek. The project proposes the replacement of 2,500 linear feet of water line due to numerous breaks and other issues in the area. The estimated cost of the project is \$250,000.

#### Large Valve Replacement

The Authority has an inventory of all valves within the water system. Many of the large valves (10" and greater) are original to the system and a high percentage of the large valves are inoperable. In many instances, replacement of these valves requires closing numerous system valves to isolate the replacement valve or hot tapping of the large pipe. The Authority intends on spending approximately \$1,000,000 performing valve replacements.

*Capital Improvement Projects*

<b>Water Treatment Plant</b>	<b>Estimated Cost</b>
Installation of liners in sedimentation basins	\$1,000,000
Repair filter walls	\$300,000
Replace all windows in filter building	\$325,000
New Alum Storage Building	\$275,000
<b>Total - Water Treatment Plant</b>	<b>\$1,900,000</b>

<b>Water Storage Tanks</b>	<b>Estimated Cost</b>
Lougeay Road Tank Sandblasting and Painting	\$1,100,000
TTHM Removal System for Lougeay Road Tank	\$350,000
TTHM Removal System for Braddock Hills Tanks 2A/2B	\$450,000
Replace 200,000-gallon storage tank at East McKeesport	\$500,000
<b>Total - Water Storage Tanks</b>	<b>\$2,400,000</b>

<b>Nadine Pump Station</b>	<b>Estimated Cost</b>
Replace Three Cone Valves	\$500,000
Generator	\$3,000,000
New Variable Frequency Drives	\$1,500,000
<b>Total - Nadine Pump Station</b>	<b>\$5,000,000</b>

<b>Distribution Lines</b>	<b>Estimated Cost</b>
Blackridge Area Replacements	\$1,000,000
McMaster Water Line Replacement	\$250,000
Larimer Avenue Water Line Replacement	\$250,000
Wall Avenue Water Line Replacement	\$450,000
Braddock Avenue Water Line Replacement	\$300,000
Hawkins Avenue Water Line Replacement	\$200,000
Middle Avenue Water Line Replacement	\$300,000
Third Street Water Line Replacement	\$200,000
Duffield Street Water Line Replacement	\$500,000
Garden Terrace/Rural Court Water Line Replacement	\$500,000
Fourth Avenue Water Line Replacement	\$200,000
Clugston Avenue Water Line Replacement	\$350,000
Large Valve Replacements	\$1,000,000
<b>Total - Distribution Line Replacement</b>	<b>\$5,500,000</b>

<b>Administrative</b>	<b>Estimated Cost</b>
Replace Building Windows	\$200,000
Meter Replacement Program	\$5,000,000
<b>Total - Administrative Offices</b>	<b>\$5,200,000</b>

Transmission Lines	Estimated Cost
30" Mt. Carmel Transmission Main Replacement	\$2,000,000
20" Lower Rodi Road Transmission Main Replacement	\$4,000,000
16" Trafford Transmission Main Replacement	\$4,000,000
<b>Total - Transmission Mains</b>	<b>\$10,000,000</b>

## REVENUES AND EXPENSES

### *General*

The feasibility of any issuance of Authority revenue bonds is determined by the ability of the utility system to meet the annual expenses and annual debt service requirements from revenues which are obtained from services rendered. In this instance, this means that revenues obtained from water sales and sewer collection revenues must be sufficient to pay all costs of operating the water system and meet the debt service costs including the debt service coverage.

The Trust Indenture of the Authority requires that net operating income must be sufficient in each fiscal year to (i) pay the current operating expense of the Authority, (ii) provide additional amounts of not less than 110% of the Debt Service Requirements for all Outstanding Bonds in each fiscal year, and (iii) provide any amounts required to replenish the Debt Service Reserve Fund. If at any time the revenues collected shall not be sufficient to enable the Authority to comply with the Rate Covenant, the Authority will be required to promptly revise its rates, rentals, and other charges so that the Authority will be in compliance with the Rate Covenant and any deficiencies in transfers of funds required to be made pursuant to the Indenture will be remedied before the end of the next ensuing fiscal year.

### OPERATING REVENUES

In order to generate sufficient funds to meet the Series of 2020 Bonds rate covenant, the Authority will need to increase the rates that it charges for water service. For the purposes of this Report, increases in Total Revenues will be required in the amounts of 7.5% in 2021, 2024, 2027, 2031, and 2034, and 5% in 2038. These increases are based on the proposed debt service for the 2020 issuance, operating expenses increasing at an average rate of 2% per year and Other Operating Revenues increasing at 2% per year. These rate increases are strictly based on numerous assumptions related to various increases and will need to be evaluated each year by the Authority during the budget process.

### ISSUANCE OF BONDS

### *General*

As indicated earlier, proceeds from the series of bonds discussed herein will be issued under the terms of an Indenture which will be supplemental to the Authority's existing Trust Indenture. The purpose of this issue is to obtain sufficient funds in the amount of \$30,000,000 for capital additions.



Total Debt Service Requirements

The following tabulation sets forth the debt service requirements for both the existing Series of 2017 Bond debt service and the proposed Series of 2020 Bond Debt Service:

Period Ending	2017 Debt Service	2020 Debt Service	Proposed Aggregate Debt Service
12/31/2020	\$1,084,650	\$255,650	\$1,340,300
12/31/2021	\$1,086,000	\$1,022,600	\$2,108,600
12/31/2022	\$1,086,750	\$1,022,600	\$2,109,350
12/31/2023		\$2,107,600	\$2,107,600
12/31/2024		\$2,104,200	\$2,104,200
12/31/2025		\$2,104,200	\$2,104,200
12/31/2026		\$2,107,400	\$2,107,400
12/31/2027		\$2,103,600	\$2,103,600
12/31/2028		\$2,103,000	\$2,103,000
12/31/2029		\$2,105,400	\$2,105,400
12/31/2030		\$2,105,600	\$2,105,600
12/31/2031		\$2,103,600	\$2,103,600
12/31/2032		\$2,104,400	\$2,104,400
12/31/2033		\$2,107,800	\$2,107,800
12/31/2034		\$2,103,600	\$2,103,600
12/31/2035		\$2,107,000	\$2,107,000
12/31/2036		\$2,107,600	\$2,107,600
12/31/2037		\$2,105,400	\$2,105,400
12/31/2038		\$2,105,400	\$2,105,400
12/31/2039		\$2,012,400	\$2,021,400
<b>TOTALS</b>	<b>\$3,257,400</b>	<b>\$37,999,050</b>	<b>\$41,256,450</b>

### Summary of Financial Operations

Data set forth earlier in this Report has established the annual debt service requirements, following issuance of the 2020 Series of bonds, in the principal amount of \$30,000,000. Based on the data presented, the following summary tabulates the expected financial operations of the Authority for the next several years:

	Budget 2020	Budget 2021	Budget 2022	Budget 2023	Budget 2024
Total Operating Revenue	\$22,474,500	\$24,013,981	\$24,036,856	\$24,066,368	\$25,757,136
Total Operating Expenses	\$21,773,970	\$22,209,449	\$22,653,638	\$23,106,711	\$23,568,845
Non-Operating Revenue	\$2,363,700	\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000
Net Revenues	\$3,064,230	\$3,154,532	\$2,733,218	\$2,309,657	\$3,538,291
Debt Service	\$1,340,300	\$2,108,600	\$2,109,350	\$2,107,600	\$2,104,200
Surplus	\$1,723,930	\$1,045,932	\$623,868	\$202,057	\$1,434,091
Coverage	2.29	1.50	1.30	1.10	1.68

*Notes:*

1. 2021 Budget Revenues are based upon a 7.5% increase in revenues.
2. 2024 Budget Revenues are based upon a 7.5% increase in revenues.

## CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are set forth based on the data presented in the body of this Report:

1. The Authority, since the time of its incorporation in 1945, has become one of the largest public water supply agencies in the Western Pennsylvania area. As such, the Authority's public water supply system serves a major area of Allegheny County and parts of Westmoreland County. Improvements to this extensive system must be undertaken as needed to adequately serve areas wherein new growth is occurring.
2. The need to address water loss issues has been documented by Authority management for several years. Following years of research, analyses and preparation, the Authority has decided to pursue projects aimed at reducing water loss.
3. Rate increases necessary to generate additional revenues will be necessary to meet the debt service rate covenant during the term of the new bond issue. The budgeted revenues, with the appropriate increases, will be sufficient for the next five years to provide satisfactory coverage of the debt service.
4. Issuance of bonds in the nominal amount of \$30,000,000 for the purpose of capital additions is feasible. Proceeding with this program is in the best interests of the Authority.

We commend the Authority Board and Management for their long-term thinking in recognizing that future adequate water service is a vital need. Further, we thank the Authority Management that this study will be adequate for the needs of all persons associated with the project.

Respectfully submitted,

**MACKIN ENGINEERING COMPANY**



John R. Balewski, P.E.



**APPENDIX A  
POPULATION PROJECTIONS**

WILKINSBURG PENN JOINT WATER AUTHORITY  
POPULATION PROJECTIONS FOR COMMUNITIES SERVED BY AUTHORITY

Municipality	Population Served 2015	Projected Population Served 2020	Projected Population Served 2025	Projected Population Served 2030	Projected Population Served 2035	Projected Population Served 2040	Projected Population Served 2045	Change 2015 to 2045
Braddock Borough	1,746	1,609	1,575	1,579	1,592	1,604	1,634	(112)
Braddock Hills Borough	1,728	1,662	1,630	1,617	1,607	1,594	1,599	(129)
Chalfant Borough	897	895	905	912	910	909	905	8
Churchill Borough	3,009	2,895	2,872	2,895	2,926	2,965	3,039	30
East McKeesport Borough	2,140	2,082	2,072	2,088	2,111	2,153	2,202	62
East Pittsburgh Borough	1,827	1,752	1,731	1,741	1,761	1,778	1,805	(22)
Edgewood Borough	3,093	3,036	3,050	3,104	3,188	3,276	3,322	229
Forest Hills Borough	6,491	6,409	6,411	6,473	6,527	6,444	6,334	(157)
Municipality of Monroeville	28,346	28,175	28,437	29,012	29,613	30,146	30,793	2,447
North Braddock Borough	4,829	4,529	4,386	4,332	4,298	4,262	4,243	(586)
North Huntingdon Borough *	30,758	30,884	31,600	32,969	34,509	35,846	36,892	6,134
North Versailles Borough *	10,205	9,950	9,946	10,079	10,241	20,475	10,755	550
Municipality of Penn Hills *	42,239	41,089	40,791	10,999	41,364	42,067	42,883	644
Pitcairn Borough	3,270	3,167	3,144	3,161	3,190	3,242	3,310	40
City of Pittsburgh *	305,928	304,900	311,659	321,969	333,067	344,473	357,154	51,226
Rankin Borough	2,190	2,142	2,270	2,673	2,720	2,781	2,861	671
Swissvale Borough	8,932	8,708	8,663	8,725	8,850	9,007	9,202	270
Trafford Borough	3,335	3,703	3,973	4,215	4,432	4,544	4,617	1,282
Turtle Creek Borough	5,324	5,137	5,085	5,115	5,162	5,200	5,265	(59)
Wilkins Township	6,336	6,168	6,170	6,266	6,375	6,521	6,724	388
Wilkinsburg Borough	15,866	15,216	15,038	15,087	15,172	15,309	15,603	(263)
Wilmerding Borough	1,766	1,675	1,645	1,650	1,663	1,678	1,698	(68)
<b>OVERALL TOTAL</b>	<b>492,270</b>	<b>487,803</b>	<b>495,078</b>	<b>478,691</b>	<b>523,313</b>	<b>548,314</b>	<b>554,885</b>	<b>62,615</b>
<b>TOTAL FOR COMMUNITIES</b>								
<b>WITH OVER 50% SERVED</b>	<b>115,018</b>	<b>111,874</b>	<b>111,411</b>	<b>82,632</b>	<b>113,848</b>	<b>115,334</b>	<b>117,246</b>	<b>2,228</b>

\* - Indicates that only a portion of municipality is served by Authority

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**APPENDIX E**

**FORM OF OPINION OF BOND COUNSEL**

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August 20, 2020

\$26,205,000  
The Wilkesburg-Penn Joint Water Authority  
(Allegheny County, Pennsylvania)  
Water Revenue Bonds, Series of 2020

To the Purchasers of the Above-Captioned Bonds:

We have acted as Bond Counsel in connection with the issuance by The Wilkesburg-Penn Joint Water Authority (the "Authority") of its Water Revenue Bonds, Series of 2020 (the "Bonds") in the aggregate principal amount of \$26,205,000 under the provisions of the Municipality Authorities Act, Act 22 of 2001, as amended (the "Act"), in accordance with a resolution of the Authority adopted on April 28, 2020 (the "Bond Resolution"), and a certain Eighth Supplemental Trust Indenture dated as of August 20, 2020 (the "Eighth Supplemental Trust Indenture"), between the Authority and The Bank of New York Mellon Trust Company, N.A., Pittsburgh, Pennsylvania, as Trustee (the "Trustee"), amending and supplementing a certain Trust Indenture between the Authority and Mellon Bank, N.A., as the prior trustee, dated July 15, 1982 (as previously amended and supplemented and as amended and supplemented by the Eighth Supplemental Trust Indenture, collectively the "Indenture").

The Bonds are being issued to (i) pay the costs of various capital projects of the Authority and (ii) pay the costs of issuing the Bonds.

The Bonds are equally and ratably secured, together with bonds outstanding under the Indenture and with any additional bonds which the Authority may hereafter issue under the Indenture, by the assignment and pledge to the Trustee of the Receipts and Revenues (as defined in the Indenture) derived by the Authority from and in connection with the Water System (as defined in the Indenture) (subject to the claims of bonds of any series hereafter issued under the Indenture to any special sinking fund account or other fund which may be provided therefor, as set forth in the Indenture).

In our capacity as Bond Counsel, we have examined such documents, records, opinions, proceedings, statutes and decisions as we have deemed necessary to enable us to express our opinions set forth below, including original counterparts or certified copies of the Eighth Supplemental Trust Indenture, the Indenture, the Bond Resolution, and a Tax Certificate (the "Tax Certificate") of the Authority setting forth the Authority's reasonable expectations as of the date of issuance of the Bonds that the proceeds of the Bonds will not be used in a manner that would cause such obligations to be "arbitrage bonds" within the meaning of Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended (the "Code"), and the regulations promulgated thereunder.

In rendering the opinions set forth below, we have relied upon the genuineness, authenticity, truthfulness and completeness of all documents, records and other instruments examined by us. Except as set forth in paragraphs 5 and 6 below, our opinions are given only with respect to the laws of the Commonwealth of Pennsylvania as enacted and construed on the date hereof.

Based upon and subject to the foregoing, we are of the opinion that:

1. The Authority has been incorporated and is validly existing under the Act and has corporate power and authority to execute and deliver the Eighth Supplemental Trust Indenture and to issue and deliver the Bonds and has duly adopted the Bond Resolution authorizing the execution and delivery of the Bonds;

2. The Eighth Supplemental Trust Indenture has been executed and delivered by the Authority and constitutes a valid and binding limited obligation of the Authority enforceable against it in accordance with its terms (subject as to enforceability of remedies to any applicable bankruptcy, insolvency, moratorium and other laws and equitable principles affecting enforcement of creditors' rights generally);

3. The Bonds have been duly authorized, executed, issued and delivered by the Authority and constitute valid and binding limited obligations of the Authority enforceable in accordance with their terms (subject as to enforceability of remedies to any applicable bankruptcy, insolvency, moratorium and other laws and equitable principles affecting enforcement of creditors' rights generally) and are entitled to the benefits and security of the Indenture;

4. Under the laws of the Commonwealth of Pennsylvania, as presently enacted and construed, the Bonds are exempt from personal property taxes in Pennsylvania and the interest thereon is exempt from Pennsylvania corporate net income tax and from Pennsylvania state and local personal income tax. We express no opinion regarding the treatment of accruals of original issue discount on the Bonds with respect to Pennsylvania corporate net income tax, Pennsylvania state and local personal income tax and Pennsylvania personal property taxes;

5. Under existing law, regulations, rulings and judicial decisions, the interest on the Bonds paid to the registered owners thereof or their registered assigns (including any original issue discount properly allocable to the owner thereof), is excluded from gross income for federal income tax purposes. Furthermore, interest on the Bonds is not treated as a specific item of tax preference within the meaning of Section 57 of the Code for purposes of the federal alternative minimum tax imposed by Section 55 of the Code. For the purpose of rendering the opinion set forth in this paragraph, we have assumed compliance by the Authority with requirements of the Code that must be met subsequent to the issuance of the Bonds in order that interest thereon be and remain excluded from gross income for federal income tax purposes. Failure to comply with such requirements could cause the interest on the Bonds to be included in gross income retroactive to the date of issuance of the Bonds. The Authority has covenanted to comply with such requirements. We express no opinion regarding other federal tax consequences arising with respect to the Bonds other than as set forth in paragraph 6 below; and

6. The Bonds are not arbitrage bonds within the meaning of Section 148 of the Code, assuming compliance by the Authority with the covenants of the Authority noted above.

The scope of our engagement has not extended beyond the examinations and rendering of the opinions expressed herein; such opinions are based on existing law and regulations, and no opinion is expressed as of any subsequent date or with respect to any pending legislation.

It is to be understood that the rights of the owners of the Bonds and the enforceability of the Bonds and the Bond Resolution may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights heretofore or hereafter enacted to the extent constitutionally applicable and their enforcement may be subject to the exercise of judicial discretion in appropriate cases.

Very truly yours,

DICKIE, MCCAMEY & CHILCOTE, P.C.

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**APPENDIX F**

**FORM OF CONTINUING DISCLOSURE CERTIFICATE**

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**\$26,205,000**  
**THE WILKINSBURG-PENN JOINT WATER AUTHORITY**  
**(Allegheny County, Pennsylvania)**  
**Dated August 20, 2020 - Final Maturity September 15, 2039**  
**WATER REVENUE BONDS, SERIES OF 2020**

**CONTINUING DISCLOSURE CERTIFICATE**

THIS CONTINUING DISCLOSURE CERTIFICATE (the "Certificate") is executed and delivered the 20th day of August, 2020 by The Wilkesburg-Penn Joint Water Authority (the "Issuer") in connection with the issuance of the \$26,205,000 aggregate principal amount of Water Revenue Bonds, Series of 2020 (the "Bonds"). The Bonds are being issued pursuant to a resolution adopted on April 28, 2020 (the "Authorizing Legislation") which provides for the issuance of the Bonds. The Bonds are being delivered to Piper Sandler & Co. (the "Purchaser"), on July 22, 2020. The Issuer certifies, covenants and agrees as follows:

Section 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the Issuer for the benefit of the Holders (defined herein) of the Bonds in order to assist the Participating Underwriters (defined herein) in complying with the Rule (defined herein). This Disclosure Certificate, together with the Authorizing Legislation, constitutes the written agreement or contract for the benefit of the Holders of the Bonds that is required by the Rule (defined herein).

Section 2. Definitions. In addition to the defined terms set forth in the Authorizing Legislation, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"Annual Report" means any annual report provided by the Issuer pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

"Audited Financial Statements" means the Issuer's annual financial statements, prepared in accordance with generally accepted accounting principles ("GAAP") for Governmental Units as Prescribed by the Governmental Accounting Standards Board ("GASB").

"EMMA" means the Electronic Municipal Market Access system operated by the MSRB and the primary portal for complying with the continuing disclosure requirements of the Rule.

"Financial Obligation" means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of a debt obligation or any such derivative instrument; provided that "financial obligation" shall not include municipal securities as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

"Final Official Statement" means the final Official Statement, dated July 22, 2020, which constitutes the final official statement delivered in connection with the Bonds, which is available from the MSRB.

"Fiscal Year" means the fiscal year of the Issuer.

"Holder" means shall mean any holder of the Bonds and any Beneficial Owner thereof.

"Listed Event" means any of the events listed in Section 5(a) of this Disclosure Certificate.

"MSRB" means the Municipal Securities Rulemaking Board located at 1900 Duke Street, Suite 600, Alexandria, Virginia 22314.

“Participating Underwriters” means the Purchaser and any of the original underwriter(s) of the Bonds (including the Purchaser) required to comply with the Rule in connection with the offering of the Bonds.

“Repository” means EMMA.

“Rule” means SEC Rule 15c2-12(b)(5), 17 CFR §240.15c2-12, promulgated by the SEC under the Securities Exchange Act of 1934, as the same may be amended from time to time, and including written interpretations thereof by the SEC.

“SEC” means the Securities and Exchange Commission.

Section 3. Provision of Annual Report.

- (a) The Issuer shall provide to the Repository, as soon as available, but not later than September 30 after the end of the Issuer’s fiscal year, commencing no later than September 30, 2020 for the report for the Fiscal Year ending December 31, 2019 and continuing with each fiscal year thereafter, an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Certificate.
- (b) If the Issuer is unable or fails to provide to the Repository an Annual Report by the date required in subsection (a), the Issuer shall send a notice of that fact to the Repository.
- (c) The Issuer shall determine each year prior to the date for providing the Annual Report the name and address of the Repository.

Section 4. Content of Annual Reports. The Issuer’s Annual Report shall contain or incorporate by reference the following sections of the Final Official Statement:

- (a) An update of the operating data described in the Final Official Statement in Appendix A under the titles “Summary”, “Duties and Responsibilities of the Consulting Engineer”, “General”, “Operation and Maintenance”, “Insurance”, “Budget” and “Rate Calculation”.
- (b) The Audited Financial Statements

Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues of the Issuer or related public entities, which have been submitted to the Repository or the SEC. If the document incorporated by reference is a final official statement, it must also be available from the MSRB. The Issuer shall clearly identify each such other document so incorporated by reference.

Section 5. Reporting of Listed Events

- (a) This Section 5 shall govern the giving of notice of the occurrence of any of the following events (“Listed Events”) with respect to the Bonds:
  - (i) principal and interest payment delinquencies;
  - (ii) non-payment related defaults, if material;
  - (iii) unscheduled draws on debt service reserves reflecting financial difficulties;
  - (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
  - (v) substitution of credit or liquidity providers, or their failure to perform;



- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability or Notices of Proposed Issue (IRS Form 5701-TEB) or other similar events affecting the tax-exempt status of the security;
- (vii) modifications to the rights of security holders, if material;
- (viii) bond calls, except for mandatory scheduled redemptions not otherwise contingent upon the occurrence of an event;
- (ix) tender offers and defeasances;
- (x) release, substitution or sale of property securing repayment of the securities, if material;
- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership or similar event, such as determination of distressed status, affecting the Township;
- (xiii) the consummation of a merger, consolidation, or acquisition of the Municipality or the sale of all or substantially all of the assets of the Municipality other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
- (xiv) the appointment of a successor or additional trustee or the change of name of a trustee, if material;
- (xv) incurrence of a Financial Obligation of the Municipality, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Municipality, any of which affect security holders, if material; and
- (xvi) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Municipality, any of which reflect financial difficulties.

(b) If the Authority has determined that the occurrence of a Listed Event should be filed, the Authority shall promptly notify the Trustee in writing and report the event pursuant to subsection (c).

(c) If the Authority determines to report the occurrence of Listed Events pursuant to subsection (b) above, then the Authority shall file a notice of such occurrence with EMMA. Notwithstanding the foregoing: notice of Listed Events described in subsections (a)(viii) and (ix) need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to holders of affected Bonds pursuant to the Ordinance.

(d) The Authority intends the words used in the immediately preceding paragraphs (xv) and (xvi) and the definition of Financial Obligation in this Disclosure Certificate to have the same meanings as when they are used in the Rule, as evidenced by SEC Release No. 34-83885, dated August 20, 2018.

Section 6. EMMA. The SEC has designated EMMA as a nationally recognized municipal securities information repository and the exclusive portal for complying with the continuing disclosure requirements of the Rule. Until the EMMA system is amended or altered by the MSRB and the SEC, the Issuer shall make all filings required under this Disclosure Certificate solely with EMMA.

Section 7. Termination of Reporting Obligation. The Issuer's obligations under this Certificate shall terminate when all of the Bonds are or are deemed to be no longer outstanding by reason of redemption or legal defeasance or at maturity.

Section 8. Agent. The Issuer may, from time to time, appoint or engage a dissemination agent to assist it in carrying out its obligations under the Authorizing Legislation and this Disclosure Certificate, and may discharge any such agent, with or without appointing a successor dissemination agent.

Section 9. Amendment; Waiver. Notwithstanding any other provision of the Authorizing Legislation or this Disclosure Certificate, the Issuer may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, if such amendment or waiver is supported by an opinion of nationally recognized bond counsel to the effect that such amendment or waiver would not, in and of itself, cause a violation of the Rule. The provisions of the Authorizing Legislation constituting the undertaking and this Disclosure Certificate, or any provision hereof, shall be null and void in the event that the Issuer delivers to the Repository an opinion of nationally recognized bond counsel to the effect that those portions of the Rule which require the Authorizing Legislation and this Disclosure Certificate are invalid, have been repealed retroactively or otherwise do not apply to the Bonds. The provisions of the Authorizing Legislation and this Disclosure Certificate may be amended without the consent of the Holders of the Bonds, but only upon the delivery by the Issuer to the Repository of the proposed amendment and an opinion of nationally recognized bond counsel to the effect that such amendment, and giving effect thereto, will not adversely affect the compliance of the Authorizing Legislation and this Disclosure Certificate and by the Issuer with the Rule.

Section 10. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the Issuer from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Certificate. If the Issuer chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the Issuer shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 11. Default. In the event of a failure of the Issuer or the Disclosure Agent to comply with any provision of this Certificate any Bondholder may take such action as may be necessary and appropriate, including seeking an action in mandamus or specific performance to cause the Issuer or the Disclosure Agent to comply with its obligations under this Certificate. A default under this Certificate shall not constitute a default on the Bonds and the sole remedy available in any proceeding to enforce this Certificate shall be an action to compel specific performance.

Section 12. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the Issuer, the Purchaser, and Holders from time to time of the Bonds, and shall create no rights in any other person or entity.

Section 13. Immunities of Individuals. No recourse shall be had for any claim based hereon against any member, officer or employee, past, present or future, of the Issuer or the officers of the Issuer, or of any successor body, as such.

Section 14. Additional Disclosure Obligations. The Issuer acknowledges and understands that other state and federal laws, including but not limited to the Securities Act of 1933, the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder, may apply to the Issuer, and that under some circumstances compliance with this Agreement, without additional disclosures or other action, may not fully discharge all duties and obligations of the Issuer under such laws.

Section 15. Notices. Any notices or communications to or with the Authority may be given as follows:

The Wilkesburg-Penn Joint Water Authority  
2200 Robinson Blvd.  
Pittsburgh, PA 15221  
Att: Finance Director  
Telephone: (412) 243-6200

IN WITNESS WHEREOF, the Authority caused its duly authorized officer to execute this Certificate as of this 20th day of August, 2020.

**THE WILKESBURG-PENN JOINT WATER AUTHORITY**

By: \_\_\_\_\_  
Chairman

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**APPENDIX G**

**SPECIMEN MUNICIPAL BOND INSURANCE POLICY**

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## MUNICIPAL BOND INSURANCE POLICY

ISSUER: [NAME OF ISSUER]

Policy No: \_\_\_\_\_

MEMBER: [NAME OF MEMBER]

BONDS: \$ \_\_\_\_\_ in aggregate principal  
amount of [NAME OF TRANSACTION]  
[and maturing on]

Effective Date: \_\_\_\_\_

Risk Premium: \$ \_\_\_\_\_

Member Surplus Contribution: \$ \_\_\_\_\_

Total Insurance Payment: \$ \_\_\_\_\_

BUILD AMERICA MUTUAL ASSURANCE COMPANY ("BAM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") for the Bonds named above (as set forth in the documentation providing for the issuance and securing of the Bonds), for the benefit of the Owners or, at the election of BAM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the first Business Day following the Business Day on which BAM shall have received Notice of Nonpayment, BAM will disburse (but without duplication in the case of duplicate claims for the same Nonpayment) to or for the benefit of each Owner of the Bonds, the face amount of principal of and interest on the Bonds that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by BAM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of such principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in BAM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by BAM is incomplete, it shall be deemed not to have been received by BAM for purposes of the preceding sentence, and BAM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, any of whom may submit an amended Notice of Nonpayment. Upon disbursement under this Policy in respect of a Bond and to the extent of such payment, BAM shall become the owner of such Bond, any appurtenant coupon to such Bond and right to receipt of payment of principal of or interest on such Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under such Bond. Payment by BAM either to the Trustee or Paying Agent for the benefit of the Owners, or directly to the Owners, on account of any Nonpayment shall discharge the obligation of BAM under this Policy with respect to said Nonpayment.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent (as defined herein) are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity (unless BAM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration) and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment made to an Owner by or on behalf of the Issuer of principal or interest that is Due for Payment, which payment has been recovered from such Owner pursuant to the United States Bankruptcy Code in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means delivery to BAM of a notice of claim and certificate, by certified mail, email or teletype as set forth on the attached Schedule or other acceptable electronic delivery, in a form satisfactory to BAM, from and signed by an Owner, the Trustee or the Paying Agent, which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount, (d) payment instructions and (e) the date such claimed amount becomes or became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer, the Member or any other person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

BAM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee, the Paying Agent, the Member and the Issuer specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee, the Paying Agent, the Member or the Issuer (a) copies of all notices required to be delivered to BAM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to BAM and shall not be deemed received until received by both and (b) all payments required to be made by BAM under this Policy may be made directly by BAM or by the Insurer's Fiscal Agent on behalf of BAM. The Insurer's Fiscal Agent is the agent of BAM only, and the Insurer's Fiscal Agent shall in no event be liable to the Trustee, Paying Agent or any Owner for any act of the Insurer's Fiscal Agent or any failure of BAM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, BAM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to BAM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy. This Policy may not be canceled or revoked.

This Policy sets forth in full the undertaking of BAM and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW. THIS POLICY IS ISSUED WITHOUT CONTINGENT MUTUAL LIABILITY FOR ASSESSMENT.

In witness whereof, BUILD AMERICA MUTUAL ASSURANCE COMPANY has caused this Policy to be executed on its behalf by its Authorized Officer.

BUILD AMERICA MUTUAL ASSURANCE COMPANY

By: \_\_\_\_\_  
Authorized Officer

SPECIMEN



**Notices (Unless Otherwise Specified by BAM)**

Email:

[claims@buildamerica.com](mailto:claims@buildamerica.com)

Address:

200 Liberty Street, 27th floor

New York, New York 10281

Telecopy:

212-962-1524 (attention: Claims)

SPECIMEN