TOWAMENCIN TOWNSHIP
WASTEWATER SYSTEM ASSETS

FAIR MARKET VALUE APPRAISAL

AT

JUNE 30, 2022

Dated: November 2022

Prepared by:

GANNETT FLEMING

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November 2, 2022

Via email to Eric.Mooney@nexteraenergy.com

Mr. Eric C. Mooney
Executive Director
NextEra Water, LLC
700 Universe Blvd.
Juno Beach, FL, 33408

Dear Mr. Mooney:

Fair Market Value Appraisal

In accordance with your request, we have prepared a fair market value appraisal of the Towamencin Township's wastewater system assets ("Wastewater System") as of June 30, 2022.

Fair market value is defined as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts." (The International Glossary of Business Valuation Standards)

Based on our analysis, as described in the attached appraisal report, the estimate of the fair market value of the Wastewater System, as of June 30, 2022, is $110,619,000 (rounded).

Our appraisal was developed consistent with the Uniform Standards of Professional Appraisal Practices. Our fair market value appraisal of the Wastewater System was based on the Cost, Market, and Income Approaches to valuation. We used seven methods under the Cost, Market, and Income Approaches to valuation: Original Cost Method, Replacement Cost Method, Capitalization of Earnings Method, Market Multiple Discounted Cash Flow Method, Capitalization Discounted Cash Flow Method, Market Multiples Method, and the Selected Transactions Method.

The attached narrative appraisal presents our findings and conclusions regarding the fair market value of the Wastewater System's assets of June 30, 2022. The report describes the valuation methodologies employed and the Exhibits that present the valuation results.

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The results of the analyses and calculations completed for each applicable approach are detailed throughout the report and the Exhibits and are summarized as follows:

Valuation Approach	Indicated Value
Cost Approach	$125,257,168
Income Approach	112,582,948
Market Approach	94,020,721

We thank NextEra Water Pennsylvania, LLC for this opportunity to provide valuation services in connection with the fair market value appraisal of the Wastewater System's assets.

Respectfully Submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

HAROLD WALKER, III
Manager, Financial Studies

HW:mle

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INTRODUCTION

Introduction and Summary. The following narrative report presents our findings and conclusions regarding the fair market value of the Wastewater system assets of the Towamencin Township as of June 30, 2022. The report describes the valuation methodologies employed and the Exhibits that present the valuation results. Based upon the analyses, we believe the fair market value of the Towamencin Township's wastewater system assets is $110.6 million ($110,619,000 rounded). This conclusion is based upon the values suggested by the Cost, Income, and Market approaches. During our analysis we found indications of value that ranged from $94.0 million to $125.3 million. However, most of the appropriate indicated values approximated $110.6 million.

Description of the Assignment. Gannett Fleming Valuation and Rate Consultants, LLC was retained by NextEra Water Pennsylvania, LLC ("NextEra") to estimate the fair market value of the Towamencin Township's wastewater system assets ("Wastewater System") as of June 30, 2022.

Standard and Premise of Value. The fair market value appraisal of the Wastewater System complies with the Uniform Standards of Professional Appraisal Practices, employing the cost, market, and income approaches. Fair market value is defined as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."[1]

1 The International Glossary of Business Valuation Standards

As stated, the standard of value for this engagement is fair market value. The premise of value is the going concern. The going concern premise of business value assumes that the business will continue running normally using all its assets to produce income and will continue operating beyond the valuation date.

We valued the Wastewater System's assets as a group under the premise that the assets collectively comprise an ongoing operating business enterprise. Additionally, in accordance with 66 Pa. C.S. Section 1329, the original source of funding for any part of the Wastewater System's assets was not relevant to the determination of the value of said assets.

Subject Interest. The consideration in this transaction is a 100% interest in the Towamencin Township's wastewater operations, which means that the buyer would be able to control the Wastewater System's operations going forward.[2] This subject interest is marketable but is not a liquid interest. The binding agreement governing this transaction is the asset purchase agreement.

Intended Use of the Valuation. The intended use of the valuation is to comply with 66 Pa. C.S. Section 1329, Valuation of Acquired Water and Wastewater Systems and conduct a fair market value appraisal of the Wastewater System in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market, and income approaches. Although our appraisal is intended to estimate fair market value, we assume no responsibility for the inability of the seller or buyer to obtain a sale or purchase contract at that price.

2 The Towamencin Municipal Authority owned wastewater assets are currently leased to the Towamencin Township. The Towamencin Township intends to terminate the lease and acquire possession and operational control of the assets of the wastewater system on or before the closing date.

Client and Users. The client is NextEra Water Pennsylvania, LLC. The intended users of the valuation are NextEra Water Pennsylvania, LLC, and the Pennsylvania Public Utility Commission ("PUC").

Jurisdictional Exceptions. In accordance with 66 Pa. C.S. Section 1329, and PUC rules, the acquiring public utility and selling utility jointly retain a licensed engineer to conduct an assessment of the tangible assets of the Wastewater System ("Engineering Assessment") to be acquired. The Engineering Assessment is required to be used by the appraiser in determining fair market value. The Engineering Assessment provides both a condition assessment and original cost inventory of the assets.

Extraordinary Assumptions. There were no extraordinary assumptions required for this appraisal.

Hypothetical Conditions. There were no hypothetical conditions assumed for this appraisal.

Limiting Conditions. We accepted all information and data provided by NextEra and/or the Towamencin Municipal Authority ("Authority") and/or Towamencin Township ("Towamencin") as it pertains to this assignment "as is" after a limited review. That is, we neither audited nor verified any data, engineering assessment, financial record or operating data provided for this assignment. We assumed all title to all assets included in the appraisal is good and marketable, no hidden defects in the property or soil and no hazardous conditions or materials exist which could affect the assets. We are not an environmental consultant or auditor, and we take no responsibility for any actual or potential environmental liabilities. We have not made a specific compliance survey or analysis of the subject property to determine whether it is subject to, or in

compliance with, the American Disabilities Act of 1990, and this valuation does not consider the effect, if any, of noncompliance.

The economic and industry information and data included in this report have been obtained from various printed or electronic reference sources that we believe to be reliable. We have not performed any corroborating procedures to substantiate that information and data.

Site Inspection. We viewed or observed the Wastewater System's facilities on October 14, 2022. We also relied on engineering assessment of the Wastewater System's facilities report, "Towamencin Township Sewerage Facilities Engineering Assessment and Original Cost" and related files prepared by Gilmore and Associates, Inc., to confirm the condition of the Wastewater System's property and equipment.

Fiduciary Duty. Gannett Fleming has a fiduciary duty to, and does provide a thorough, objective, and fair market valuation using the cost, market, and income approaches in accordance with 66 Pa. C.S. Section 1329 and Pennsylvania laws.

Gannett Fleming attests that it does not derive any material financial benefit from the sale of, or purchase of, a selling utility other than fees for services rendered. Gannett Fleming also verifies it does not have any immediate family members who are directors, officers or employees of either an acquiring public utility, entity or selling utility within a 12-month period of the date of hire to perform this appraisal. We further affirm that Gannett Fleming is not directly or indirectly owned, partnered or in any way affiliated with a water/wastewater distribution company.

Sources of Information. The following sources of information were reviewed during the assignment:

"Towamencin Township Sewerage Facilities Engineering Assessment and Original Cost" and related files prepared by Gilmore and Associates, Inc.;

NextEra/Authority/Towamencin provided electronic files (e.g., PDF and Excel);

Wastewater System's Customer data;

Wastewater System's Fee Schedule;

Wastewater System's Permits;

Wastewater System's 537 Plan;

Wastewater System's Chapter 94 Reports;

Wastewater System's Sewage Service and Treatment Agreements;

DEP's Inspection and Discharge Monitoring Reports;

Towamencin's Sewer Ordinances;

Towamencin's Corrective Action Plans;

Asset Purchase Agreement;

Authority and Towamencin's Audited Financials (2018 - 2020);

Authority and Towamencin's 2022 Budget;

Blue Chip Financial Forecasts;

US Census Bureau, various data files;

Value Line Investment Survey; and

S&P Capital IQ.

Description of the Towamencin Township. The Towamencin Township is located in Montgomery County, in southeastern Pennsylvania. Towamencin Township is bordered by Franconia Township on its north, Hatfield Township on its northeast, Lansdale Borough on its east, Upper Gwynedd Township on its east and southeast, Worcester Township on its south, Skippack Township on its south-southwest, and Lower Salford Township on its north-northwest. Towamencin Township is the 30th largest land mass of Montgomery County's 62 municipalities

and was the 17th most populous with 18,441 people (2019) and 7,811 housing units (2018). Towamencin Township consists of 9.7 square miles and lies approximately 30 miles north-northwest of Philadelphia, Pennsylvania. According to U.S. Census figures, Towamencin Township's population grew 2.5% from 2010 to 2020, while population in Pennsylvania grew 2.4% and Montgomery County grew 7.1%.

Description of the Towamencin Municipal Authority. The Towamencin Municipal Authority is a component unit of the Towamencin Township. Most of the assets of the Wastewater System are owned by the Towamencin Municipal Authority, with the remainder being owned by the Towamencin Township. Towamencin Municipal Authority owns and operates the wastewater treatment plant ("WWTP") and owns the collection system which is leased and operated by the Towamencin Township. The Towamencin Municipal Authority operates under a five member board of directors that is appointed by the Towamencin Township. The Towamencin Township intends to terminate the lease and acquire possession and operational control of the assets of the Towamencin Municipal Authority's assets on or before the closing date.

Description of the Wastewater System. The Wastewater System consists of a WWTP, three pump stations, about 92 miles of mains, approximately 2,100 manholes, over 5,800 services, associated infrastructure and appurtenances, and related land and land rights. The Wastewater System's WWTP receives and treats wastewater from the following municipalities: Towamencin Township; Hatfield Township; Lansdale Borough; Lower Salford Township; Upper Gwynedd Township; Worcester Township; and a small portion of Franconia Township.

The Wastewater System's WWTP is a 6.5 million gallons per day ("MGD") capacity plant. In 2021, the WWTP's average daily flow was 3.61 MGD. The WWTP processes employ channel grinders/comminutors, influent pumping and metering, primary screening, pre-aeration,

conventional activated sludge, and contact stabilization activated sludge, intermediate clarification, trickling filter treatment, final clarification, and disinfection by chlorination. The present treatment facilities function as two separate treatment plants, termed the Stage I and Stage II plants, which are operated in parallel and discharge to the Towamencin Creek via common outfall sewers. The WWTP facilities were constructed in 1966 and consisted of the Stage I treatment train rated at 1.3 MGD. The plant was expanded to include a separate Stage II treatment train rated at 4.33 MGD in 1987; and additional capacity was added to the Stage I facilities in 1989, increasing the rating to 2.17 MGD. The total rated hydraulic loading is 6.5 MGD, with a maximum monthly hydraulic loading of 7.3 MGD. The WWTP operates under NPDES Permit No. PA0039004.

The Wastewater System's three pump stations include the Rittenhouse Road Pump Station, located in Towamencin Township, the Milestone Pump Station, and Hollis Hills Pump Station, both of which are located in Worcester Township. The Wastewater System's Rittenhouse Road Pump Station's force main is 16-inches in diameter and approximately 15,730 linear feet installed in 1987, the Milestone Pump Station's force main is 4-inches in diameter and approximately 1,680 linear feet installed in 1996, and the Hollis Hills Pump Station's force main is 4-inches in diameter and approximately 5,740 linear feet installed in 1991.

The Wastewater System's 460,000 linear feet of gravity sewer (78.5 miles) and interceptors (8.1 miles) consist of 8-inch, 10-inch, 12-inch, 15-inch, and 21-inch diameter pipe which were mainly installed between 1967 to 2015. There are 2,125 manholes, and 5,844 services laterals in the system.

According to the Engineering Assessment, "[t]he overall assessment of the wastewater treatment plant and the three pump stations is the facilities are in good to very good condition. The

collection, conveyance, interceptors, and force mains are also in good to very good condition based on the replacement of the major interceptors and the ongoing improvements to the system."[3]

The Towamencin Township utilizes a proprietary fund type measurement, reflecting two enterprise funds, to account for the Wastewater System's collections operations. These two enterprise funds include the operations of the Towamencin Township's wastewater collection operations. The Towamencin Township's financial statements also discretely reports the Towamencin Municipal Authority, which account for the wastewater treatment operations.[4] The Towamencin Township financial statements reflect the use of the full accrual accounting, which measures revenues when earned and expenses when a liability is incurred, regardless of the timing of related cash flows.

During our analysis, we used the Towamencin Township and Towamencin Municipal Authority's audited financial statements, and the Wastewater System's 2022 budget. For the year ended December 31, 2021 (shown on Exhibit 1) the Wastewater System reported revenues of $5.215 million and expenses of $4.667 million.[5] At the same point in time, the Wastewater System was capitalized with $21.008 million of fund equity and $8.871 million of debt was attributable to the Wastewater System. At the same point in time, the Wastewater System had total assets of $30.728 million, including $23.867 million of net utility plant.

3 Gilmore and Associates, Inc., "Towamencin Township Sewerage Facilities Engineering Assessment and Original Cost," July 2022, pg 1.
4 For accounting purposes, governmental component units are presented one of two ways: blended or discretely presented. A blended component unit's financial information is reported within the government's financial statements, as if it were part of the government, and a discretely presented component unit's financial information is reported in a separate column in the government's government-wide financial statements.
5 The 2021 data is estimated based on the 2022 budget which reported "2021 Actual Projected" data and/or 2020 actual data, depending on the availability of data.

The Wastewater System is exempt from PUC regulation as a municipal utility. The Wastewater System's rate requirements are established by the needed funds to run the system. Most municipalities, including Wastewater System, use a Government Accounting Standards Board ("GASB") process of accounting or the PA Department of Community and Economic Development ("DCED") versus Financial Accounting Standards Board ("FASB") method of accounting used by investor-owned utilities ("IOU"). Municipalities are not typically concerned with the return on and the return of their investments of their utility systems since they deem a public service is being provided to their taxpayers. Municipalities typically expense (i.e., maintenance expense) renewals replacement, and customer collection services capital expenditures and they do not typically fully account for the replacement of all capital assets which are all typically capitalized (i.e., construction of capital asset, construction expenditure, etc.) and "booked" at original cost by IOUs. For these reasons, we do not believe Wastewater System's financial statements should be fully relied upon without recognizing their limitations.

As shown on page 1 of Exhibit 2, the Wastewater System provides service directly to 5,847 customers ("domestic customers"). The Wastewater System's domestic customers include 5,844 retail customers located in and around Towamencin Township and three wholesale customers whose flows are transported and treated at the WWTP. The Wastewater System's three wholesale customers service 515 customers whose flows are ultimately transported and treated at the WWTP ("ultimate wholesale customers"). In total, the Wastewater System provides wastewater service directly and indirectly to 6,359 customers ("ultimate customers"). The Wastewater System's 6,359 ultimate customers are comprised of 5,844 retail customers and 515 ultimate wholesale customers as shown on Exhibit 2, page 1.

The Wastewater System provides service to a population of 20,425 people and services to

12,172 Equivalent Dwelling Units ("EDU"). EDUs are estimated to increase by 1,633 EDUs through 2026. The ratio (Exhibit 2 page 2) of EDU per domestic customers is 2.08 and the ratio of EDU per ultimate customers is 1.91, which are indicative of large commercial activity in the Wastewater System's service area and are atypical of other wastewater systems. The Wastewater System's rates are based on EDUs, not water use.

Demographics and Growth for the Wastewater System. As shown on Exhibit 3, Table 3.1, according to U.S. Census figures, the U.S. population grew 7.4% from 2010 to 2020, and the population in Pennsylvania grew 2.4%. During this same period, Montgomery County's population grew 7.1%, the Towamencin Township's population grew 2.5%, and the population of the municipalities that are provided service by the Wastewater System grew 8.0% (Exhibit 3, Table 3.2). Towamencin Township's population growth was ranked 676 of the 2,572 municipalities in Pennsylvania and the municipalities that are provided service by the Wastewater System's population growth rate would be ranked 261 of the 2,572 municipalities in Pennsylvania.

The Census Bureau and planning agencies provide population projections for future time periods. Population projections are a primary indicator of expected future growth, and they help determine predictable demand for utility services, housing, roads, business services and facilities. The Delaware Valley Regional Planning Commission ("DVRPC") publishes population projections and employment projections for Towamencin Township, the Wastewater System's service area, and the nine Delaware Valley counties ("Nine DVRPC Counties"). The DVRPC counties include Bucks County, Chester County, Delaware County, Montgomery County and Philadelphia County, in Pennsylvania, and Burlington County, Camden County, Gloucester County, and Mercer County, in New Jersey.

As shown on Page 2 of Exhibit 3, Table 3.3, Towamencin Township's population growth

is projected to be about 120% the growth rate projected for the Nine DVRPC Counties during each five-year period from 2015 through 2045 and the Wastewater System's service area population growth is projected to be about 132% the growth rate projected for the Nine DVRPC Counties. Towamencin Township's project population growth places them in the upper 63 percent or 63rd percentile of the 369 municipalities analyzed by DVRPC. Page 3 of Exhibit 3, Table 3.4 shows Towamencin Township's employment growth is projected to be about 323% the growth rate projected growth rate projected for the Nine DVRPC Counties during each five-year period from 2015 through 2045 and the Wastewater System's service area employment growth is projected to be about 110% the growth rate projected for the Nine DVRPC Counties.

Currently, there are approximately 99,328 people (Exhibit 2) in the Wastewater System's service area 97,502 people in households. There are 38,655 occupied housing units in the Wastewater System's service area, and the ratio of people to households is 2.52 persons per household. The Wastewater System's service area density is 3.5 people per customer based on an estimated service area population of 20,425 and 5,847 domestic customers.[6] The Wastewater System's service area density is the same as the 3.5 per customer density of water and wastewater systems (see Table 2 in this report) indicating similar market penetration.

HISTORY AND NATURE OF THE BUSINESS

Economic Outlook. The valuation date (June 30, 2022) is the specific date at which the value of the Wastewater System is based. Generally, only the circumstances existing at the valuation date and events occurring up to the valuation date are considered. Events which could affect the value may occur after the valuation date.

6 The service area density for ultimate customers is 3.2 people per customer.

An outbreak of a new strain of coronavirus was first reported in Wuhan, China in late 2019 and quickly spread around the world. A coronavirus is a kind of common virus that causes an infection in sinuses, or upper throat. The World Health Organization ("WHO") declared the spread of the infection a pandemic. The WHO named the virus SARS-CoV-2, and the disease COVID-19.

We do not believe the appraised value of the long-lived Wastewater system assets is materially impacted by COVID-19 or its related relatively short-term events and does not significantly affect the determination of value as of the specified valuation date of June 30, 2022. In the valuation of any company, the general economic outlook as of the valuation date is important since it influences how investors perceive alternative investment opportunities at that point in time. As part of our analysis, we considered the forecasts for the U.S. economy that prevailed as of June 30, 2022. We focused on the forecasts and economic commentary presented in Blue Chip Financial Forecasts in the June 1, 2022 edition. Some of these economic forecasts are presented in Table 1.

Economic Indicators

	Latest Qtr	Consensus Forecasts	
	1Q 2022	2Q 2022	3Q 2022
Key Assumptions			
Real GDP	-1.5	2.9	2.5
GDP Price Index	8.1	5.9	4.6
Consumer Price Index	9.2	7.6	4.8
Interest Rates			
3-mo. Treasury Bills	0.30	1.1	1.9
10 Year Notes	1.94	2.9	3.1
30 Year Notes	2.25	3.0	3.3
Aaa Corporate Bond Yield	3.35	4.1	4.5
Baa Corporate Bond Yield	3.90	5.0	5.4
State & Local Bonds	3.02	3.5	3.8
Home Mortgage Rate	3.79	5.1	5.3

Table 1

Industry Review. A review of the industry in which the company operates is important in determining value. The trends and stability of the specific economic environment affecting operations need to be reviewed to gain further insight regarding the prospects and risks associated with the industry and each company.

The wastewater utility industry has a Standard Industrial Classification ("SIC") code of 4952 (Sewerage Systems), has sewer utilities, and includes establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided. There are currently 2,104 U.S. Businesses with a SIC code of 4952.

The wastewater utility industry is a fragmented industry, although not as fragmented as the water supply industry. According to the U.S. Environmental Protection Agency's ("EPA") most

recent survey of publicly owned wastewater treatment facilities in 2012, there are approximately 15,000 such facilities in the nation, serving approximately 76% of the U.S. population. Eighty percent of domestic wastewater systems are government owned rather than IOUs. Currently, there are no wastewater utility companies that have actively traded stock.

A comparative industry to the wastewater utility industry is the water supply industry. The water utility industry has a Standard Industrial Classification ("SIC") code of 4941 (Water Supply), has water utilities, and includes establishments primarily engaged in distributing water for sale for residential, commercial, and industrial uses. Government controlled establishments such as municipal service districts and public utilities dominate the industry. Private companies or IOUs are active in the construction and improvement of water supply facilities and infrastructure. There are currently 11,283 U.S. Businesses with a SIC code of 4941.

The water supply industry is the most fragmented of the major utility industries with more than 53,000 community water systems in the U.S. (82% of which serve less than 3,300 customers). The nation's water systems range in size from large municipally owned systems, such as the New York City water system that serves approximately 9 million people, to small systems, where a few customers share a common well.

An estimated 14% of all water suppliers are managed or owned by IOUs. IOUs consist of companies with common stock that is either actively traded or inactively traded, as well as companies that are closely held, or not publicly traded. Currently (December 31, 2021), there are only about nine investor-owned water utility companies with publicly traded stock in the U.S.

The water utility industry and wastewater utility industry's increased compliance with state and federal water purity levels and large infrastructure replacements are driving consolidation of the water utility and wastewater utility industries. Because many water utility and wastewater

utility operations do not have the means to finance the significant capital expenditures needed to comply with these requirements, many have been selling their operations to larger, financially stronger operations.

The larger IOUs have been following an aggressive acquisition program to expand their operations by acquiring smaller water and wastewater systems. Generally, they enter a new market by acquiring one or several water or wastewater utilities. After their initial entry into a new market, the larger investor-owned water utility companies continually seek to expand their market share and services through the acquisition of water and wastewater utility businesses and operations that can be integrated with their existing operations. Such acquisitions may allow a company to expand market share and increase asset utilization by eliminating duplicate management, administrative, and operational functions. Acquisitions of small, independent utilities can often add earning assets without necessarily incurring the costs associated with the Safe Drinking Water Act ("SDWA") if such acquisitions are contiguous to the potential purchaser.

In summary, the result of increased capital spending, to meet the SDWA and Clean Water Act ("CWA") requirements[7] and to replace the aging infrastructure of many systems, has moved the water and wastewater industries toward consolidation. Moreover, Federal and State regulations and controls concerning water quality are still in the process of being developed and it is not possible to predict the scope or the enforceability of regulations or standards which may be established in the future, or the cost and effect of existing and potential regulations and legislation

7 The SDWA, or Safe Drinking Water Act, is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the act, the EPA is required to set standards for drinking water quality and oversee all states, localities, and water suppliers who implement these standards. The CWA, or Clean Water Act, is the primary federal law in the United States governing water pollution. The CWA's objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

upon the water and wastewater systems. However, as a small to medium sized wastewater system, the Wastewater System faces the cost of compliance with significantly limited financial resources, competing for financial needs against other municipal services and the general unwillingness of elected officials to raise taxes when compared to larger IOU water utilities.

QUANTITATIVE AND QUALITATIVE ANALYSIS

Comparison Review. The comparison review considers the financial and operating statistics for the Wastewater System, and a group of companies ("Comparable Group") that operate in the same basic or similar industry as the Wastewater System. Since no marketplace exists for the common stock of the Wastewater System, an alternative to estimate the value of the Wastewater System is to analyze the price investors are willing to pay for the publicly traded common stock of companies that are like the Wastewater System. We list the Comparable Group chosen for the study in Table 2.

The companies in the Comparable Group were selected based upon: (1) the availability of financial information; (2) inclusion in the S&P Capital IQ database; (3) a June 30, 2022 market value of common stock, the product of multiplying the closing stock price by the number of common shares outstanding, greater than $350.0 million; (4) a June 30, 2022 total enterprise value (the sum of market value, preferred stock and total debt) greater than $550.0 million; (5) were not the subject of a known acquisition at June 30, 2022; (6) with a Standard Industrial Classification (SIC) of 4941 (i.e., Water Supply Facilities and Infrastructure) and (7) with a North American Industry Classification System (NAICS) of 221310 (i.e., Water Supply and Irrigation Systems). The eight companies ("Comparable Group") that met the criteria for selection are listed in Table 2.

Acquisition Date Size Statistics

	Revenues (Mill. $)	Customers	Population	Customer Density
Towamencin Wastewater System Assets	$5.279	5,847	20,425	3.5
Comparable Group				
American States Water Co	$498.853	287,500	1,000,000	3.5
American Water Works Co Inc	3,930.000	3,530,000	14,000,000	4.0
Artesian Resources -CL A	90.859	100,640	326,700	3.2
California Water Service Gp	790.909	547,600	2,000,000	3.7
Essential Utilities, Inc.	1,878.144	1,820,049	5,000,000	2.7
Middlesex Water Co	143.141	121,300	500,000	4.1
SJW Corp	573.686	398,000	1,526,000	3.8
York Water Co	55.119	73,144	204,000	2.8
Median	$536.270	342,750	1,263,000	3.5

Table 2

We believe that similar economic, industry and business risks have affected the Comparable Group as those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike. Table 2 presents comparative statistics regarding total revenues, customers, population of the area served, and customer density (population ÷ customers). On average, the Comparable Group are larger than the Wastewater System. The relative size difference between the group and the Wastewater System suggests that the risk of the Wastewater System is greater than the Comparable Group. We will discuss the difference in risk resulting from size later in this report.

Financial Review. We conducted a financial review that considered the financial and operating statistics for the Wastewater System and the Comparable Group for the three-year period, 2019 to 2021. It is our opinion that the economic, industry and business risks affecting the Comparable Group selected are similar to those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike.

The determination of reasonable water rates and sewer rates for the Comparable Group is subject to rate regulation. For the Comparable Group, rate regulation serves as a substitute for competition in the marketplace since utility companies are precluded from exercising complete control over the price to be charged their customers. Under rate regulation, a cost of service formula is used to set the price for service charged to customers. The cost of service formula equates revenues to the sum of annual operating expenses, taxes other than income, depreciation expense, income taxes, and the product of the rate base times a fair rate of return.

It is the responsibility of the utility seeking changes in rates to present sufficient evidence to their regulators in support of their request. Historically, the Wastewater System's rates have not considered a fair rate of return nor taxes. That is, the Wastewater System's rates would have been higher, and their financial results would have been healthier if they included a provision for a fair rate of return and taxes. Additionally, Upper Gwynedd Township began reducing most of its flows to the WWTP during the three-year period 2019 to 2021 as part of an agreed to diversion program which reduced the Wastewater System's revenues by about $1.0 million between 2020 and 2021. Consequently the results of the Wastewater System's historical financial performance shown on Exhibits 4 and 6 should be viewed with this knowledge.

Financial Benchmark Analysis. To gain insight into the risk differences between the Wastewater System and the Comparable Group, we reviewed financial ratios and coverages.

Unfortunately, there is no single measure that best indicates investment risk from an investor's perspective. However, from a creditor's viewpoint, the best measure of investment risk is debt rating. The debt rating process generally provides a good measure of investment risk for common stockholders because the factors considered in the debt rating process are usually relevant factors that a common stock investor would consider in assessing the risk of an investment.

The types of financial benchmarks applied by credit rating agencies such as Standard and Poor's ("S&P") for rating IOU public utility debt are broader than the traditional measure of financial risk, leverage. Besides reviewing the amounts of leverage employed (i.e., percentage of debt used in the capital structure), S&P also focuses on earnings protection and cash flow adequacy. During the period 2019-2021, the Wastewater System's financial benchmark ratios show (Exhibit 4) lower investment risk than the Comparable Group based on coverage and cash flow.

Risk Analysis. From an operations standpoint, the Wastewater System and the Comparable Group are indistinguishable. Both are required to meet SDWA and CWA requirements and are also required to provide safe and reliable services to their customers.

A basic premise of finance is the tradeoff between risk and return. That is, the higher the perceived risk, the higher the required return. Conversely, the lower the perceived risk, the lower the required return.

As mentioned previously, size is a determinant of risk. Based on size, the Wastewater System's risk is higher than the Comparable Group given Wastewater System's relatively small size. Table 2 details the size difference between the Wastewater System and the Comparable Group. As shown on Table 2, the Wastewater System is many times smaller than the Comparable Group.

Size is a determinant of risk because the loss of a large customer impacts a small company much more than a large company because a large customer of a small company usually accounts for a larger percentage of the small company's sales. Further, a larger company has much more diversification in customer mix, economic conditions, source of supplies, weather, demographic, and financing than the Wastewater System. Because the larger Comparable Group has a more diverse geographic operation than the Wastewater System, it enables them to sustain earnings fluctuations caused by adverse weather conditions in one portion of its service territory. Further, the larger Comparable Group has a more diverse customer base and is less susceptible to local downturns associated with regional economic conditions than the Wastewater System.

Exhibit 5, Table 5.1, provides an illustration which shows company size has been inversely related to returns and the volatility of their common stock. Specifically, Ibbotson Associates sorted 2,966 publicly traded common stocks based on size of market value (market price multiplied by the number of shares) and placed them into four different portfolios (quartiles). The common stock quartile return, and the resultant size premium, column B, increased at an increasing rate as you move from a larger stock quartile to a smaller stock quartile. Similarly, the total risk, or standard deviation of annual returns (a measure of risk), also increased with decreasing company size (column C).

The Comparable Group's market value on June 30, 2022, ranged from $459 million to $27,039 million as shown on Table 5.2 of Exhibit 5. Based on their market value, the Comparable Group's median market quartile was 3. Wastewater System's market value would place them in quartile 4 based upon Wastewater System's financial statements and since the largest company in quartile 4 on Table 5.1 had a market value of $452 million.

The change in risk adjusted common stock return rate between quartile 3 and quartile 4 (column J) is 1.11 percentage points (3.68% - 2.57%). The results of the illustration shown on Exhibit 5 suggests the Wastewater System's common equity cost rate could be about 1.11 percentage points higher than the Comparable Group. The history of common stock returns indicates small company stocks are riskier than large company stocks because as one moves from the larger to smaller quartiles, the standard deviation (a measure of risk) of returns increases. Historically, common stock investors have been compensated for taking on this additional risk by the higher returns provided by small company stocks.

In general, it is reasonable to expect small companies to be more risky than large ones. Exhibit 5 shows small company stocks have been riskier over a long period of time than larger company stocks due to the various advantages that larger companies have over smaller companies. For example, small capitalized firms generally have less access to capital and, overall, not as many financial resources. Further, small capitalized stocks have lower trading liquidity than larger ones.

The bond market, particularly the corporate bond market, also differentiates between large and small bond issues, where many large institutional investors such as pension funds and insurance companies require large blocks of bonds for liquidity and performance. Because of this size preference, smaller bond issuers often pay a cost rate premium when compared to larger bond issuers.

A higher return requirement for companies the size of Wastewater System translates into a higher capitalization rate. All else being equal, a higher capitalization rate will produce a lower value. However, all things are seldom equal as shown by the array of market multiples for the companies that comprise the Comparable Group (Exhibit 18, page 2). As shown on Exhibit 18,

the Comparable Group's current market multiples do not suggest a higher capitalization rate due to size as there are numerous other risks affecting the Comparable Group's market values.

Property Plant and Equipment Analysis. The Wastewater System can best be characterized as a fully integrated domestic wastewater system with wholesale customers ("integrated with wholesale").[8] The Wastewater System does not have the number of large treatment facilities that the Comparable Group has. The Wastewater System's gross property, plant and equipment is in relatively good condition given its age (Exhibit 6, Table 6.1) with 60% of their gross property, plant and equipment remaining undepreciated while 78% of the Comparable Group's gross property, plant and equipment remained undepreciated.[9]

Property Plant and Equipment Analysis for Contributions. Most regulatory commissions determine rates for utilities based on a cost of service formula reflective of gross plant, property, and equipment less accumulated depreciation (i.e., net property, plant, and equipment) being roughly equal to investor provided capital (i.e., debt and equity capital) plus "cost free" capital such as customer contributions. Under 66 Pa. C.S. Section 1329 (Valuation of Acquired Water and Wastewater Systems), the original source of funding for any part of the assets of a selling utility is not relevant to determining the value of a selling utility's assets.

We found a 19% (100% - 81%) difference between the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital on the valuation date (Exhibit 6, page 1, Table 6.2). The difference between the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital is comprised of "cost

8 A fully integrated domestic wastewater system is characterized as having both collection assets and treatment assets.
9 The Wastewater System's gross and net property, plant and equipment is developed on Exhibit 7.

free" capital such as customer contributions.[10] This is evidenced by the 19% difference in the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital (Exhibit 6, page 1, Table 6.2). Additionally, we verified known components of the Comparable Group's "cost free" capital by reviewing their individual balance sheets (Exhibit 6, page 1, Table 6.2) at year-end 2021.

We did not analyze the Wastewater System's property, plant, and equipment for "cost free" capital, or customer contributions, because the original source of funding for any part of the assets of a selling utility is irrelevant to the valuation process under 66 Pa. C.S. Section 1329.

Capital Expenditures Analysis. The level of capital expenditures required for business purposes is an indicator of risk. Over the last four years, the Comparable Group had annual capital expenditures of about 9% of net plant (Exhibit 6, page 2, Table 6.3). During this same time, 2019-21, the Wastewater System had annual capital expenditures of about 2% of net plant. Therefore, the Wastewater System historical capital spending was below the Comparable Group's median.

Growth Rate Analyses. Higher growth rates are an indication of less risk. A review of the growth rates in revenue, operating income and operating income plus depreciation, reveal that the Wastewater System's has been growing less than the Comparable Group (Exhibit 6, page 4, Table 6.4) over the last three years. Prospectively, the Wastewater System's growth rates should lag the Comparable Group's without increased rates and a higher level of planned capital additions.

Profit Margin Analyses. Higher profit margins are an indication of less risk. We compared earnings before interest and taxes ("EBIT") to revenues to see how successful the

10 Under rate regulation "cost free" capital, such as customer contributions, is subtracted from plant assets in determining the dollar amount of property on which a utility may earn a "fair rate of return" and therefore, "cost free" capital has no economic value to investors.

Wastewater System's management has been at generating income from the operation of the business. We also compared operating profitability or earnings before interest, tax, depreciation, and amortization ("EBITDA") divided by total revenue to gain a clearer view of the Wastewater System's core profitability. The Wastewater System's EBITDA profit margins are higher than the Comparable Group's indicating less risk, while the EBIT profit margins are lower indicating more risk (Exhibit 6, page 5, Table 6.5).

VALUATION

The purpose of this valuation is to comply with 66 Pa. C.S. Section 1329 (Valuation of Acquired Water and Wastewater Systems) and conduct a fair market value appraisal of the Wastewater System's assets as of June 30, 2022 in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market, and income approaches. Consequently, three basic valuation approaches were considered in this analysis: the cost approach, the income approach, and the market approach.

The Cost Approach. In general terms, the cost approach measures value by determining the amount of money required to replace the future service capability of an asset. The cost approach is based on the premise that an informed purchaser will not pay more for a property than the cost of constructing an equally desirable substitute property, minus applicable depreciation, and assuming no undue delay.

The cost approach can include the use of the: original cost method; trended original cost method; reproduction cost method; and replacement cost method. From these cost bases, the calculated accrued depreciation (accumulated depreciation) is subtracted.

The original cost method begins with determining the original cost new ("OCN") measure

of the cost of the assets when first constructed. The OCN is based on (1) a review and summary of the utility's accounting records, contractors' invoices and bid tabulations to determine the most appropriate data sources of each type of asset; (2) and the "pricing out" of assets using unit costs for each vintage year that property was placed in service.

Under the trended cost method, the trended original cost ("TOC") measures the reproduction cost by multiplying the OCN by specific cost indices. The TOC is based on (1) a review and summary of the OCN at each location to determine those elements that would be replaced-in-kind, those that would be replaced with current methods and technologies and those that would not be replaced; (2) the selection of cost indexes and the calculation of trended original cost for those elements that would be replaced-in-kind; and (3) the estimation of the cost to purchase or construct those elements that would be replaced with current methods and technologies. The TOC is a procedure for estimating reproduction cost new of property and is sometimes used as a substitute for reproduction cost method and may be considered a form of the reproduction cost method, though not as precise.

The reproduction cost method begins with determining the reproduction cost new ("RPCN") by determining the current cost of constructing identical new property. The replacement cost method begins with estimating the replacement cost new ("RCN") based on approximating the current cost of replacing service of existing property with similar new property having the nearest equivalent utility to the property being valued (as defined by the *International Glossary of Business Valuation Terms*).

The RPCN and the RCN methods include the research and verification of the inventory of a company's tangible personal property. Upon verification of the inventory, current material costs, current construction costs, engineering costs, administration costs, interest during

construction, and entrepreneurial profit[11] are applied to the inventory listing in order to determine the RPCN and to determine the RCN.

The RPCN method assumes the assets would be recreated under the conditions existing at the date certain or valuation date, using the exact materials, standards, design, layout, and quality of workmanship used to create the original assets. The RCN assumes the assets would be recreated under the conditions existing at the date certain or valuation date, using similar materials, current standards, under current conditions with similarly functional property.

From these cost bases (i.e., OCN, TOC, RPCN and RCN), the calculated accrued depreciation (accumulated depreciation) is subtracted ("LD"). The calculated accrued depreciation is based on the assets' attained ages, and the service life of the assets. The cost bases of depreciable assets are reduced annually by the accumulated depreciation to reflect the loss in the service value of the assets since being constructed.

Depreciation represents the loss in property value from: physical deterioration; functional obsolescence; and external obsolescence. The accrued depreciation represents the sum of the annual depreciation amounts that would have been charged for depreciation at a point in time. Accrued depreciation is a calculated amount that would be in the book reserve account at a point in time using the current depreciation parameters (i.e., average service life). The average service lives of depreciable assets are based on the materials used for construction and how long the depreciable assets are likely to meet service demands.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized "survivor curves" known as the Iowa type

11 The administration costs and entrepreneurial profit are those of the contractors and engineers. The cost of overhead of the entity having the assets constructed can also be included. Generally overhead costs are allocated as part of an asset's cost, and usually represent at least 5% to 15% of infrastructure asset total costs.

curves. The accrued depreciation ratio from a survivor curve is a concept that is used to estimate the consumed service capacity of plant at a point in time. The survivor curve is used to find the applicable accrued depreciation factors of the assets to result in the total accumulated depreciation.

The Original Cost Method. For this report, the Towamencin Township provided us a copy of the Engineer's assessment report "Towamencin Township Sewerage Facilities Engineering Assessment and Original Cost" and related files prepared by Gilmore and Associates, Inc., the Wastewater System's Chapter 94 reports, the system's 537 Plan, and the APA to confirm the condition of the Wastewater System's property and equipment. We utilized the inventory from the Engineering Assessment and calculated the Original Cost and Related Accrued Depreciation of the Wastewater System as of June 30, 2022 ("OCNLD Study") shown on Exhibit 7.

Page 1 of Exhibit 7 summarizes the original cost and related accrued depreciation by account for the Wastewater System as of June 30, 2022. The original cost was brought forward from page 2 of Exhibit 7 and the accrued depreciation from page 3 of Exhibit 7.

The original cost of the Wastewater System was determined from the Engineering Assessment and is summarized on page 2 of Exhibit 7. A summarizing analysis of the original cost of the Wastewater System by account and vintage year is shown on Exhibit 8.

The accrued depreciation calculation, shown on page 3 of Exhibit 7, was based on recognized methods using estimated survivor characteristics and the straight-line depreciation method. The estimated survivor curves are based on those used by other Pennsylvania regulated wastewater companies and the material and age of the assets. The average service life procedure was used to apply the methods of depreciation to group properties for which a survivor curve was used to recognize the existence of life dispersion. The detailed calculations of accrued depreciation applicable to original cost by account and vintage are included in Exhibit 8.

The results of the OCNLD Study established that the OCN of the Wastewater System's utility plant in service as of June 30, 2022 was not less than $63.0 million ($63,040,435 rounded). The OCNLD Study also determined a theoretical calculated accrued depreciation reserve of the utility plant in service of $25.5 million ($25,508,642 rounded) as of June 30, 2022. After factoring in the OCNLD Study's accrued depreciation reserve, the OCNLD of Wastewater System's utility plant in service as of June 30, 2022 was determined to be $37.5 million ($63,040,435 - $25,508,642 = $37,531,793).

The Replacement Cost Method. We utilized the OCN to calculate the trended original cost (TOC) measures, or the replacement cost of the depreciable assets (RCN), by multiplying the OCN by specific preliminary transition factors.[12] The transition factors included both cost changes measured during TOC process and preliminary obsolescence, so all RPCN values were valued on an RCN basis. The result of this analysis is shown in the Replacement Cost and Related Accrued Depreciation of the Wastewater System as of June 30, 2022 ("RCNLD Study") shown on Exhibit 9.

Page 1 of Exhibit 9 summarizes the replacement cost new and related accrued depreciation by account for the Wastewater System as of June 30, 2022. The replacement cost new was brought forward from page 2 of Exhibit 9 and the accrued depreciation from page 3 of Exhibit 9.

The replacement cost new of the Wastewater System (see Exhibit 10) was calculated by trending the original cost measures by multiplying the OCN by Handy-Whitman indices and preliminary obsolescence factors.[13] A summarizing analysis of the replacement cost new of the Wastewater System by account and vintage year and related preliminary transition factors is shown

12 We used the TOC method because the mandated use of the Engineering Assessment's original cost essentially dictates the use of TOC over the reproduction cost or the replacement cost methods.
13 See the Accrued Depreciation and Obsolescence section of this report for a further discussion.

on Exhibit 10.[14]

The accrued depreciation calculation, shown on page 3 of Exhibit 9, was based on recognized methods using estimated survivor characteristics and the straight-line depreciation method. The estimated survivor curves are those used in the OCNLD Study. The average service life procedure was used to apply the methods of depreciation to group properties for which a survivor curve was used to recognize the existence of life dispersion. The detailed calculations of accrued depreciation applicable to replacement cost new by account and vintage are included in Exhibit 11.

The results of the RCNLD Study established that the preliminary RCN of the Wastewater System's utility plant in service as of June 30, 2022 was not less than $247.8 million ($247,789,105 rounded). The RCNLD Study also determined a theoretical calculated accrued depreciation reserve of the utility plant in service of $122.5 million ($122,531,937 rounded) as of June 30, 2022. After factoring in the RCNLD Study's accrued depreciation reserve, the preliminary RCNLD of Wastewater System's utility plant in service as of June 30, 2022 was determined to be $125.3 million ($247,789,105 - $122,531,937 = $125,257,168).

The results of the OCNLD and preliminary RCNLD Cost Approaches show a range of value for the Wastewater System of $37.5 million to $125.3 million and collectively, indicated value of $125.3 million ($125,257,168 rounded) for the Wastewater System based on the results of the preliminary RCNLD.

Benchmark Metrics. Besides providing an indication of value based upon a cost method, the OCN and OCNLD can also be used to calculate meaningful benchmark metrics. These

14 All land and land rights were valued at original cost.

benchmark metrics are utilized to evaluate the reasonableness of other indications of value produced by alternative valuation methods, including the cost method itself. For example, the Comparable Group's market value of common equity plus minority interest, preferred stock, and total debt net of cash and cash equivalents ("Enterprise Value") is currently 1.74-times (Exhibit 18, page 2) their OCNLD or net property, plant and equipment. Similarly, the Comparable Group's Enterprise Value is currently 1.37-times (Exhibit 18, page 2) their OCN or gross property, plant and equipment.

The above-mentioned property, plant and equipment "multiples" may understate the multiple applicable to the Wastewater System because some of the Comparable Group's property, plant and equipment includes assets that were originally financed with "cost free" capital such as customer contributions.[15] Subtracting customer contributions ("CIAC") from the Comparable Group's property, plant and equipment (Exhibit 18, page 3) based on differences between investor provided capital and OCN results in CIAC adjusted multiples of 1.93-times OCNLD and 1.52-times OCN for the Comparable Group.

Multiplying the Wastewater System's OCN of $63.0 million by the Comparable Group's 1.37-times OCN multiple or the 1.52-times contributions adjusted OCN multiple indicates a range of market value of $86.3 million to $95.8 million for the Wastewater System, below the RCNLD of $125.3 million. Further, multiplying the Wastewater System's OCNLD of $37.5 million by the Comparable Group's 1.74-times OCNLD multiple or the 1.93-times contributions adjusted OCNLD multiple indicates a range of market value of $65.3 million to $72.4 million for the Wastewater System, below the RCNLD of $125.3 million. Using a similar technique, we

15 Under rate regulation "cost free" capital, such as customer contributions, is subtracted from plant assets in determining the dollar amount of property on which a utility may earn a "fair rate of return" and therefore, "cost free" capital has no economic value to investors.

multiplied the Wastewater System's number of domestic customers of 5,847 by the Comparable Group's $9,910-times customer multiple and produced a market value of $57.9 million, which is below the RCNLD of $125.3 million.[16]

Accrued Depreciation and Obsolescence. The accrued depreciation reflects the total loss in value from RCN due to physical deterioration, functional and economic obsolescence. The physical deterioration was accounted for with our determination of average service lives of depreciable assets. The average service lives used in determining the preliminary RCNLD reflect the materials used for construction, age, and the average length of time the depreciable assets are likely to meet service demands.

Functional obsolescence ("FO") is a "form of deterioration due to a feature in the property that is no longer useful or functional, resulting in a loss of value for the entire property."[17] FO is sometimes evident due to increased operating costs, increased maintenance costs, lost profits and for a wastewater utility, excess inflow and infiltration ("I&I"). Neither the Engineering Assessment or the Wastewater System's Chapter 94 Report note excess I&I, capacity-related bypassing, SSOs or surcharging. Additionally, the Engineering Assessment did not find any assets that were no longer useful or functional. Therefore, we conclude no significant FO is suggested.

Economic obsolescence ("EO") refers to the loss of value that is caused by factors that are external to the property. "EO manifests itself in the profit margin of business. If the operating

16 Customers "multiples" may understate the multiple applicable to the Wastewater System because some of the Comparable Group's property, plant and equipment includes assets that were originally financed with "cost free" capital, such as customer contributions, which diminishes the value of a customer. Further, this technique does not account for the additional value of the ultimate wholesale customers.

17 "Physical Deterioration: The loss in value of a real estate property due to the physical wearing out of a building," *Corporate Finance Institute*, Updated October 3, 2021. Accessed 6/20/22. https://corporatefinanceinstitute.com/resources/knowledge/other/physical-deterioration/

margin of an asset or group of assets is below what provides a sufficient economic return to the supporting assets, and there is a difference between the existing operating level/capacity and a sufficient operating/level capacity, EO may be an issue."[18] To evaluate EO we compared our RCNLD value of $125.3 million to the economic values produced by our Income and Market Approaches, discussed later in this report, and conclude no significant EO is suggested.

Cost Approach Conclusion. On page 4 of Exhibit 9 we reduced our RCN indicated value of $247.8 million for accrued depreciation in reaching our RCNLD conclusion. The RCNLD's accrued depreciation reflects the total loss in value from RCN due to physical deterioration, functional and economic obsolescence. We ascribed $122.5 million to physical deterioration and found no functional obsolescence or economic obsolescence in reaching our $125.3 million RCNLD conclusion. The results of the RCNLD method of $125.3 million ($125,257,168 rounded) form the basis for our Cost Approach conclusion, shown on Exhibit 9, page 4. Based on this result, the Cost Approach to valuation indicates a value of $125.3 million for the Wastewater System's based on the RCNLD method.

The Income Approach. Capitalizing or discounting a future income stream to a present value provides an indication of the value of a security or asset. The capitalization or discount rate reflects future growth, business risk, economic factors, financial risk, and industry risk of the assets. The theory behind the income approach is that the value of a business is the future economic benefit that ownership will provide.

18 Mickle, Joseph and Sapnas, Charles. "Perspectives, Economic Obsolescence: Discover Loss of Value Caused by External Factors," *Valuation Research Corporation*. Accessed 6/20/22. https://www.valuationresearch.com/pure-perspectives/economic-obsolescence-determining-loss-value-caused-external-factors/#:~:text=Economic%20obsolescence%20(EO)%20is%20the,companies%20in%20capital%2Dintensive%20industries.

The two most common methods of the income approach to valuation are the capitalization of earning or cash flow method and the discounted cash flow method ("DCF"). The capitalization of earning method converts a single base economic income number to a value by dividing it by a capitalization rate. The capitalization of earnings is best suited when the future earnings, or cash flow, can be predicted. The implicit assumption in the capitalization of earning method is that the cash flow is a perpetuity, and the capitalization rate is a constant.

The DCF method uses estimates of future free cash flow and discounts them to arrive at a present value or price of the cash flows. Generally, the DCF analysis begins with an estimate of the Debt Free Net Cash Flow over the next five to twenty years along with a terminal value. In each year, the Debt Free Net Cash Flow is comprised of projected EBIT, minus income taxes, plus projected depreciation, and amortization, minus projected changes in net cash working capital, and minus projected capital expenditures. The second element of the DCF analysis is the determination of an appropriate discount rate.

The capitalization rate used in the capitalization of earnings method and the discount rate used in the DCF method are related. The discount rate is the market participant's opportunity cost rate related to the risk of the cash flows. For the Wastewater System, the market participants are assumed to include IOU and larger regional municipal authorities ("MUNI"). For the Wastewater System, the appropriate discount rate is the current municipal revenue bond yield on June 30, 2022, of 3.93%. The appropriate IOU discount rate is the current net of tax overall cost of capital (weighted average cost of capital) on June 30, 2022, and ranges from 7.70% to 10.66%.[19]

19 Both the American Society of Appraisers, ASA Business Valuation Standards, 2009, and the National Association of Certified Valuation Analysts, Professional Standards, 2007, use the same definition: "Weighted Average Cost of Capital (WACC). The cost of capital (discount rate) determined by the weighted average, at market values, of the cost of all financing sources in the business enterprise's capital structure."

The capitalization rate is simply the discount rate minus the expected growth rate. If no growth is assumed, the capitalization rate is equal to the discount rate.

The capitalization of earnings method is generally a reasonable approach for valuing the Wastewater System as it is currently owned (i.e., non-IOU) and operated. However, change in ownership of the Wastewater System to a MUNI or IOU produces a myriad of problems for both the capitalization of earnings method and the DCF Method because any future cash flow estimates would be hypothetical or estimated due to the uncertain nature that would accompany new ownership including future rates, future expenses, future capital expenditures, taxes, and regulation.

For a MUNI, the appropriate discount rate is the current municipal revenue bond, 3.93%, because debt is the only major source of capital available to finance an acquisition (Exhibit 25, pages 2-6). Although a MUNI likely carries equity on their books (balance sheet), all existing equity is already invested in other assets and therefore, cannot be used to finance an acquisition.[20] For valuation purposes, an embedded cost of debt, or the historical cost of all debt issuances outstanding is not used because this capital is already invested in assets. Whereas the marginal cost of debt, 3.93%, at the valuation date is used in accordance with accepted valuation practices and used for market valuation purposes.

As discussed previously, for an IOU, the appropriate discount rate is the net of tax overall cost of capital (weighted average cost of capital), 7.70% to 10.66% (Exhibit 25, pages 2-8). In this instance, the net of tax overall cost of capital (weighted average cost of capital) is based on the Comparable Group's market value capital structure of 25.1% debt and 74.9% equity, a market

20 For example, when a municipal or government entity, such as the Commonwealth of Pennsylvania, finance construction of a road or bridge, they only consider the marginal debt cost despite having "equity" reflected on their books (balance sheet).

cost of debt of 4.85% and a range of market cost of equity of 9.11% to 13.06%.[21] The Comparable Group's net of tax overall cost of capital (weighted average cost of capital) is used as a proxy to conform to the "hypothetical buyer" or "hypothetical seller" of fair market valuation. Use of the buyer's net of tax overall cost of capital (weighted average cost of capital) would produce an investment valuation, not a fair market valuation.[22]

We began the Income Approach for the Wastewater System by first determining the Debt Free Net Cash Flow to be capitalized or discounted. The Debt Free Net Cash Flow is comprised of EBIT, minus income taxes, plus depreciation and amortization, plus or minus projected changes in net cash working capital, less projected capital expenditures. The development of Wastewater System's Debt Free Net Cash Flow begins on Exhibit 1 and ends on Exhibits 12 through 16.

Differences in accounting practices exist between GASB, DCED and FASB because there are differences in their purpose. The GASB's and DCED's impetuses are to make sure government entities are accountable for the money they receive from the public or taxpayers, while the FASB's focus is to help investors and creditors make decisions. These differences in accounting objectives between GASB, DCED and FASB can present a problem when it comes to comparing the financial statements of entities that are either publicly or privately owned, such as the Wastewater System and the Comparable Group.

Exhibit 1 presents the Wastewater System's financial information contained in their

21 For example, see http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905. Also see http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/ , or http://accountingexplained.com/misc/corporate-finance/wacc .

22 We did not use the 6.70% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation because a "hypothetical buyer" cannot finance an acquisition at such a rate and therefore, its use would provide a meaningless result. Where the 6.70% DSIC related cost was determined based the Comparable Group's book value capital structure of 49.1% debt and 50.9% equity, a cost of debt of 4.85% and a DSIC cost of equity of 9.80%. We note the 6.70% Comparable Group's DSIC related net of tax overall cost of capital falls below the 7.70% to 10.66% range of discount rates used in our Income Approach.

financial statements, so it is more consistent with the Comparable Group and more practical for valuation purposes. The information on Exhibit 1 was used to develop Exhibits 12 through 16. As noted previously, the Wastewater System's financial statements and their rates did not include taxes nor a fair rate of return. Accordingly, on Exhibits 13 through 16 we adjusted the Wastewater System's post-2022 financial information for pro forma expenses and returns to be reflective of a MUNI or IOU ownership.

The Capitalization of Earnings Method. The capitalization of earnings method begins with an estimate of the income or cash flow producing capabilities of the business (Exhibit 12) for a recent time period and assumes current ownership and operations. We began the capitalization of earnings method for the Wastewater System by first determining the Debt Free Net Cash Flow to be capitalized. The Debt Free Net Cash Flow is comprised of current EBIT, minus income taxes, plus current depreciation and amortization, minus projected changes in net cash working capital, and minus projected capital expenditures. Specifically, our capitalization of earnings method capitalizes Wastewater System's current (budget 2022) Debt Free Net Cash Flow. The second element of the capitalization of earnings method is the determination of an appropriate capitalization rate. Our analysis uses the current municipal revenue bond yield on June 30, 2022, of 3.93% (Exhibit 12, line 24) as the capitalization rate. We also did a second capitalization of earnings calculation based on a 3.73% capitalization rate (Exhibit 12, line 27), or 20-basis points below the current level because we assumed the Wastewater System's Debt Free Net Cash Flow growth will be at least 0.2% (20-basis points).

We computed the Wastewater System's indicated value based on the capitalization of earnings method by dividing the projected Debt Free Net Cash Flow by the capitalization factor. The capitalization factor is equal to the discount rate minus assumed growth in projected Debt Free

Net Cash Flow. We considered ranges of growth in the capitalization of earnings method. Essentially, we considered two ranges of growth in the capitalization of earnings method, no growth and 0.2% growth. However, based upon our quantitative and qualitative analysis, and prospective rate increase, we believe the 0.2% growth scenario is reasonable for the Water System based on current ownership and operations.

For pro forma 2022, we adjusted the Wastewater System's Debt Free Net Cash Flow (Exhibit 12, lines 23 and 28) to include the average 2019-2022 capital expenditure to get a clearer picture of Debt Free Net Cash Flow. Exhibit 12 shows the results of the capitalization of earnings method. For the Wastewater System, the capitalization of earnings method using a 3.93% capitalization rate (no growth) indicates a value of $36.8 million to $33.7 million on pro forma 2022 results. The capitalization of earnings method using a 3.73% capitalization rate (growth) indicates a value of $38.7 million to $35.5 million on pro forma 2022 results. Collectively, for Wastewater System, we believe the 0.2% growth scenario is the most probable result based on current ownership and operations and therefore, the capitalization of earnings method suggests a value of $35.5 million based on pro forma 2022 results and current operations and ownership.

The DCF Method. For the Wastewater System, the DCF method considers two types of discounted cash flow analyses, the EBIT and EBITDA terminal value model ("Market Multiple DCF") and the capitalization of terminal value model ("Capitalization DCF"). We show the results of these models on Exhibits 13 through 16.

The DCF method begins with an estimate of the income or cash flow producing capabilities of the business. Specifically, our DCF methods use estimates of the results of the Wastewater System's operations over the next 20 years. We use two different assumptions for the Wastewater

System's future operations in the DCF methods: MUNI ownership shown on Exhibits 13 and 15; and IOU ownership shown on Exhibits 14 and 16.

Under the MUNI ownership the discount rate is the current 3.93% municipal revenue bond yield and under the IOU ownership the discount rate is the current net of tax overall cost of capital, reflecting the upper and lower range of the net of tax overall cost of capital for the Comparable Group of 7.70% to 10.66%. For the Capitalization DCF, the capitalization rate reflects a scenario of no additional growth (i.e., discount rate = capitalization rate) and a scenario of minimal growth of 0.2% (i.e., discount rate – 0.2% growth = capitalization rate) under MUNI ownership and 0.2% growth (i.e., discount rate – 0.2% growth = capitalization rate) under IOU ownership based on inflation, and changes in Debt Free Net Cash Flows.

We computed the Market Multiple DCF terminal values by multiplying the Wastewater System's projected EBITDA and EBIT by the Comparable Group's adjusted multiples of 18.6-times and 27.8-times, respectively. We computed the Capitalization DCF terminal value by dividing the projected Debt Free Net Cash Flow by the capitalization factor. The capitalization factor is equal to the discount rate minus assumed growth in projected Debt Free Net Cash Flow.

Exhibit 13 shows the results of the DCF method under the MUNI ownership scenario. The results of the Capitalization DCF shown on Exhibit 13 show a range of value for the Wastewater System of $50.5 million to $52.3 million. The results of the Market Multiple DCF shown on Exhibit 13 show a value of $54.4 million. Collectively, the DCF method based on the MUNI ownership scenario indicates a value of $53.4 million for the Wastewater System based on the 0.2% growth assumption.

Exhibit 14 shows the results of the DCF method under the IOU ownership scenario. The results of the Capitalization DCF shown on Exhibit 14 show a range of value for Wastewater

System of $26.9 million to $44.8 million. The results of the Market Multiple DCF shown on Exhibit 14 show a range of value of $45.3 million to $71.1 million. Collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of $45.1 million for the Wastewater System.[23]

The DCF method based on the MUNI ownership scenario indicates a value of $53.4 million and the DCF method based on the IOU ownership scenario indicates a value of $45.1 million. Collectively, the DCF method indicates a value of $49.2 million based on OCNLD.

Change in ownership of the Wastewater System to a MUNI or an IOU produces a myriad of problems for the DCF Method. Under a MUNI purchase, future cash flow estimates are uncertain because they would reflect the actual price paid for the acquisition. Under an IOU purchase and the associated regulation by the PUC, future cash flow estimates are uncertain since regulation by the PUC would result in an unknown determination of rate base and the related depreciation and authorized/achieved earning levels. In the current instance, we know the Market Approach and the Cost Approach (RCNLD) indicate values considerably higher than the OCNLD value.

Therefore, Exhibits 13 and 14 are recalculated on Exhibits 15 and 16 to reflect revenues and cash flows derived from an earnings base between the values indicated by the RCNLD and the Market Approach. Exhibit 15 shows the results of the DCF method under the MUNI ownership scenario. The results of the Capitalization DCF shown on Exhibit 15 show a range of

23 If we used the 6.70% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation shown on Exhibit 14, the results of the Capitalization DCF would show a value for Wastewater System of $54.1 million. Further, the results of the Market Multiple DCF would show a value of $83.2 million and collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of indicates a value of $69.0 million for the Wastewater System. The DCF method based on the MUNI ownership scenario indicates a value of $53.4 million and the DCF method based on the IOU ownership scenario indicates a value of $69.0 million. Collectively, the DCF method indicates a value of $61.2 million based on OCNLD when DSIC is considered.

value for the Wastewater System of $114.3 million to $117.7 million. The results of the Market Multiple DCF shown on Exhibit 15 show a value of $119.6 million. Collectively, the DCF method based on the MUNI ownership scenario indicates a value of $118.7 million for the Wastewater System based on the 0.2% growth assumption.

Exhibit 16 shows the results of the DCF method under the IOU ownership. The results of the Capitalization DCF shown on Exhibit 16 show a range of value for Wastewater System of $67.6 million to $107.0 million. The results of the Market Multiple DCF shown on Exhibit 16 show a range of value of $105.9 million to $161.2 million. Collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of $106.5 million for the Wastewater System.[24]

The DCF method based on the MUNI ownership scenario indicates a value of $118.7 million and the DCF method based on the IOU ownership scenario indicates a value of $106.5 million. Collectively, the DCF method indicates a value of $112.6 million ($112,582,948 rounded) as summarized on Exhibit 17.

The Market Approach. There are two methods of doing the Market Approach to valuation: the market multiples method; and the selected transaction method. We developed both the market multiples method and the selected transaction method in our valuation analysis.

The Market Multiples Method. The market multiples method valuation begins by reviewing market price data of corporations engaged in the same or a similar line of business as

24 If we used the 6.70% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation shown on Exhibit 16, the results of the Capitalization DCF would show a value for Wastewater System of $127.4 million. Further, the results of the Market Multiple DCF would show a value of $187.1 million and collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of $158.0 million for the Wastewater System. The DCF method based on the MUNI ownership scenario indicates a value of $118.7 million and the DCF method based on the IOU ownership scenario using DSIC indicates a value of $158.0 million. Collectively, the DCF method indicates a value of $138.4 million when DSIC is considered.

the Wastewater System. We relied upon market data for the Comparable Group for these purposes since they are equally affected by similar economic, industry, and business risks as the Wastewater System. Since no marketplace exists for the common stock of the Wastewater System, an alternative to estimate the value of the Wastewater System is to analyze the price investors are willing to pay for the publicly traded common stock of companies that are similar to the Wastewater System. The specific market price data reviewed includes the market value of common equity plus minority interest, preferred stock, and total debt net of cash and cash equivalents (i.e., Enterprise Value). Where the market value of common equity is the product of multiplying the closing stock price by the number of common shares outstanding. The Enterprise Value provides an indication of the value of the entire business. The Enterprise Value multiples ("Market Multiples") are shown on Exhibit 18. For the Comparable Group, the Market Multiples were calculated as of June 30, 2022, based on the latest twelve months of financial data available at the appraisal date (Exhibit 18, page 2).

We used the Comparable Group's Enterprise Value on June 30, 2022, and calculated Market Multiples of: revenue ("Revenue"); EBITDA; EBIT; gross property plant and equipment ("GPPE"); net property plant and equipment ("NPPE"); investor provided capital ("ICAP"); utility customers ("Customers"); and population of the area served ("Population").

The next step in the market multiples method valuation was applying the Comparable Group's Market Multiples to corresponding financial and operating statistics of the Wastewater System. The Comparable Group's Market Multiples reflect their capitalization rate of each financial and operating statistic. For example, a Market Multiple of EBIT of 16.14 times equates to a capitalization of EBIT of 6.20% (1 ÷ 16.14 = 6.20%). Each capitalization rate is unique to the entity and the statistic being evaluated and reflects the growth and investment risk of the entity.

We believe that similar economic, industry and business risks have affected the Comparable Group as those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike. On average, the utilities in the Comparable Group are larger than the Wastewater System. The relative size difference between the Comparable Group and Wastewater System suggests that the risk to investors of the Wastewater System is higher than the Comparable Group. Further, based upon our quantitative and qualitative analysis, we concluded that the Wastewater System has more risk than the Comparable Group.

Accordingly, the Comparable Group's Market Multiples are not directly applicable to the Wastewater System. We assumed the higher risk due to the Wastewater System's size is added to the higher risk found in our quantitative and qualitative analysis. This combined risk was assumed to result in the Wastewater System being 5% more risky than the Comparable Group and produces an 95% (100% - 5%) base risk adjustment to the Comparable Group's Market Multiples. We applied the 95% base risk adjustment to all financial multiples. For example, the Comparable Group's ICAP multiple was multiplied by 95% to produce a lower multiple applicable to the Wastewater System to account for risk differences.

The Comparable Group's Market Multiples of Revenue, EBITDA, and EBIT were adjusted for the base risk adjustment to produce multiples applicable to the Wastewater System (Exhibit 18, page 3). The Comparable Group's Market Multiples of GPPE and NPPE were adjusted for the base risk adjustment and for their percentage of property plant and equipment (Exhibit 18, page 3) financed with "cost free" capital such as contributions because "cost free" capital should not be part of this valuation process. The Comparable Group's Market Multiples of Customers and

Population were adjusted for the type of assets of the Wastewater System, earnings rate, and growth.

The net risk adjustments applied to the Comparable Group's Market Multiples are shown on page 1 of Exhibit 18. The adjustments to the Comparable Group's Market Multiples are: 95% of ICAP (more risk/less growth); 105% of GPPE (more risk/lower growth and contributions); 105% of NPPE (more risk/lower growth and contributions); 95% of Revenue (more risk/lower growth); 95% of EBIT; 95% EBITDA (more risk/lower growth); 107% of Customers (growth, earning rate, and contributions); and 107% Population (growth, earning rate, and contributions). The calculation of the net risk adjustments that are applied to the Comparable Group's Market Multiples are shown on page 3 of Exhibit 18.

Page 1 of Exhibit 18 shows the market multiples method indicated values based on: Revenue, EBIT and EBITDA (collectivity called "Income Statement Items"); ICAP, GPPE and NPPE (collectivity called "Capital Items"); and Customers and Population (collectivity called "Demographics Items"). For most municipal utilities, the indicated values based on Income Statement Items are far below the indicated values that are based on Capital Items and those based on Demographics Items. We attribute this to the fact that the dollars of Revenue, EBIT and EBITDA do not reflect any provision for taxes while the multiples for the Comparable Group do.[25] Consequently, we do not believe the results of the multiples of Revenue, EBIT and EBITDA are meaningful and should not be used for municipal utilities.

In the market multiples method, the meaningful Market Multiples of the Comparable Group are used to develop an indicated value of the Wastewater System.[26] This is accomplished

25 The Revenue, EBIT and EBITDA for the Wastewater System also do not include a fair rate of return.
26 Initially, the value of the Wastewater System's domestic customers is determined before the value attributable to the Wastewater System's ultimate wholesale customers is added.

by multiplying the Wastewater System's financial and operating data by the Comparable Group's median Market Multiples (Exhibit 18, page 1). The results of the market multiples method (Exhibit 18, page 1) show a range of value for the Wastewater System's domestic customers of $65.3 million to $72.7 million and collectively, indicate value of $69.0 million ($68,991,161 rounded) based on the market multiples method. We note, the result of the market multiples method does not include the additional value attributable to the Wastewater System's ultimate wholesale customers. Additionally, the results may not account for the Wastewater System atypical EDU to customer ratio since the Comparable Group's EDUs are not known.

The Selected Transactions Method. The selected transactions method entails analyzing certain public information relating to selected transactions involving the purchase or sales of businesses involved in the same or similar business line. The number of selected transactions available for review is limited because most acquisitions in the water and wastewater industry involve small acquisitions for which no public information exits. Additionally, not all transactions are comparable since some purchase prices may only involve the acquisition of the common stock, purchase prices may be net of cash and others may only involve assets. In any of these instances, the derived multiples (e.g., purchase price as a multiple of: Revenues; EBITDA; EBIT; etc.) would understate (overstate) the multiples involving a purchase price for an entire business enterprise (common stock) or business assets.

The selected transactions method provides a valuation of a business, or assets, at the time the acquisition of that business was completed, rather than the appraisal date market value (June 30, 2022). The change in the Comparable Group's market multiples of NPPE and ICAP, shown

in Figure 1, illustrates the change in market valuation over a recent 72-month period.[27] In Figure 1 the Comparable Group's market multiples of NPPE and ICAP were indexed to June 30, 2022 valuation multiples so that the June 30, 2022 valuation multiples have an index value of 100.

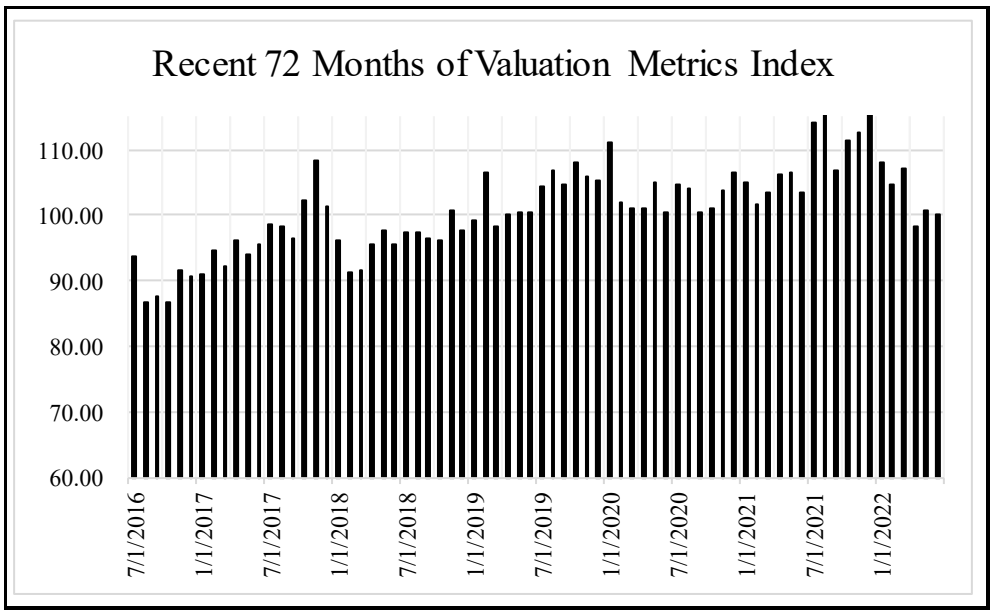

Figure 1

The index of the Comparable Group's appraisal date (June 30, 2022) valuation multiples is 2% above 2022's lowest levels and 8% below 2022's highest levels and 2% above 2021's lowest levels and 18% below 2021's highest levels. The index of the Comparable Group's June 30, 2022 valuation multiples are 2% higher than 2020's lowest levels and 11% below 2020's highest levels, are 2% higher than 2019's lowest levels and 8% below 2019's highest levels, are 9% higher than 2018's lowest levels and 1% above 2018's highest level, are 9% higher than 2017's lowest levels and 8% below 2017's highest level and are 6% to 13% higher than 2016's multiples' index.

27 Note that Figure 1 only depicts change in market valuations based on NPPE and ICAP. Other metrics (e.g., EBIT, Customers, etc.) may reveal different changes in market valuations.

Because of the rapid rise in valuation multiples since early 2016 we limited our search for selected transactions to: (1) those that occurred in 2016 or later; (2) purchases of water or sewer systems; (3) assets being purchased; and (4) those that did not discount "cost free" capital/customer contributions in the valuation. The selected transactions that met the stated selection criteria are shown on pages 2 and 3 of Exhibits 19 and 21.

Using certain public information, we calculated sales price multiples of selected transactions involving the purchase or sale of businesses that met the stated selection criteria. On Exhibit 19 the calculated sales price multiples (pages 2 and 3) include the same transactions multiples that were used in the market multiple method (Exhibit 18) and consist of: ICAP; GPPE; NPPE; Revenue; EBITDA; EBIT; Customers; and Population.

As shown on pages 2 and 3 of Exhibit 19, the selected transactions method indicated values based on the Income Statement Items are far different than the Wastewater System's selected transactions method indicated values based on Capital Items and those based on Demographics Items. We attribute this to the fact the selling utilities' dollars of Income Statement Items do not reflect any provision for taxes.[28] Consequently, we do not believe the results of the multiples of Income Statement Items are meaningful.

The selected transaction method relies on and reflects information that was known, ex-ante, at the time the winning purchase bid (price) was offered, and the metrics used are time period sensitive. For example, bids made in 2016 only reflects metrics from 2015 since the results of 2016 could not be known at the time of the bids. The selected transaction method ex-ante information (metrics) is shown on page 2 of Exhibit 19. Complete information only exists for a

28 Further, Revenue, EBIT and EBITDA for the Wastewater System also do not include a fair rate of return.

few of the transactions, with only Customers and Population having ample data for all transactions as is evident from the information shown (Exhibit 19, page 2). Therefore, we supplemented the ex-ante data with ex-post information of GPPE and NPPE (collectivity called "Asset Items") as shown on page 3 of Exhibit 19.

In the selected transactions method, the selected transactions multiples of the selling utilities are used to develop an indicated value of the Wastewater System's domestic customers. This process is accomplished by multiplying the Wastewater System's financial and operating data by the selling utilities' transactions multiples (Pages 2 and 3 of Exhibits 19 and 21). The results of the selected transactions method (Exhibit 19, page 1) show a range of value for the Wastewater System's domestic customers of $52.3 million to $82.8 million when all transactions are considered and a range of value of $71.8 million to $79.8 million when fully integrated assets (excluding wholesale) are solely considered. However, these results do not fully account for the Wastewater System's EDUs nor they include the additional value attributable to the Wastewater System's ultimate wholesale customers.

Exhibit 20 also shows a comparison between the Wastewater System's ratio of EDU to domestic customers ("EDU ratio") to that of the wastewater and water systems which comprise the selected transactions group. As shown (Exhibit 20), the Wastewater System's EDU ratio is generally 30% to 50% higher than the selected transactions group's ratio, which leads us to conclude the results shown on Exhibit 19 do not account for the full value of the Wastewater System's EDUs.

As a result, we recalculated Exhibit 19 on Exhibit 21 and substituted the demographic items with EDUs. The results of the recalculated selected transactions method (Exhibit 21, page 1) show a range of value for the Wastewater System's domestic customers of $81.5 million to $82.8

million when all transactions are considered and a range of value of $79.8 million to $99.9 million when fully integrated assets (excluding wholesale) are solely considered.

We believe the values suggested by the Asset Items used on Exhibit 21 are similarly impacted by EDUs as the original demographic items. Therefore, we gave less weight (i.e., 25%) to the results indicated by the Asset Items as the EDUs (i.e., 75%) in reaching our conclusion shown on Exhibit 21, page 1.[29] We determined an indicated value of $92.4 million ($92,449,456 rounded) for the Wastewater System's domestic customers using the recalculated selected transactions method by considering the results of all transactions, $81.8 million, and the results of the fully integrated assets (excluding wholesale) of $96.0 million.[30] The additional value attributable to the Wastewater System's ultimate wholesale customers is determined later in the Market Value of Ultimate Wholesale Customers section of this report.

Wall Street Transactions. In 2018 two IOUs, Connecticut Water Service, Inc. ("Connecticut Water") and SJW Group, announced a planned merger with Connecticut Water being acquired by SJW through a stock purchase (stock swap). SJW Group's purchase of Connecticut Water was approved in late 2019. Similarly, in 2021 two IOUs, were involved in another transaction which involved Aquarion Company, parent of Aquarion Water Company, completing its acquisition of the New England Service Company, Inc. ("NESC") through a stock purchase (stock swap).[31] Again in 2022 two IOUs, were involved in another transaction which involved Aquarion Company, parent of Aquarion Water Company, announcing its acquisition of

29 If equal weighting was given to both Asset Items and EDUs, the indicated value for the Wastewater System's domestic customers would have been $88.0 million.
30 The appraisal gave 25% weight to all selected transactions results and 75% weight to the integrated systems (excluding wholesale) transactions results. We did so due to the small sample size of integrated systems (excluding wholesale) transactions.
31 NESC was the sole stockholder of four regulated water companies operating in three separate states.

The Torrington Water Company, Inc. ("TORW") through a stock purchase (stock swap). Connecticut Water, NESC and TORW were publicly traded as was the stock they received in the transactions.

Although these acquisitions are not directly applicable to the Wastewater System, they do provide a range of indicated value for the Wastewater System's domestic customers (Exhibit 22, page 1) which we relied on as checks. In these selected transactions, the significant selected transactions multiples of the selling utilities, Connecticut Water, NESC, and TORW are used to develop an indicated value of the Wastewater System's domestic customers. This is accomplished by multiplying the Wastewater System's financial and operating data by the selling utilities' transactions multiples. The results of the Connecticut Water selected transactions (Exhibit 22, page 2) show a range of value for the Wastewater System's domestic customers of $57.5 million when the reported significant selected transactions multiples are considered and a value of $76.9 million when the reported significant selected transactions multiples have been adjusted for "cost free" capital. The results of the NESC selected transactions (Exhibit 22, page 3) show a range of value for the Wastewater System's domestic customers of $44.0 million when the reported significant selected transactions multiples are considered and a value of $66.3 million when the reported significant selected transactions multiples have been adjusted for "cost free" capital. The TORW selected transactions (Exhibit 22, page 4) show a range of value for the Wastewater System's domestic customers of $65.8 million when the reported significant selected transactions multiples are considered and a value of $99.6 million when the reported significant selected transactions multiples have been adjusted for "cost free" capital.

Collectively, the Wall Street selected transactions indicate values of $66.3 million to $99.6 million, are similar to the values found by the market multiples method of $69.0 million and

the selected transaction method of $92.4 million for the Wastewater System's domestic customers.[32]

The results of the market multiples method shown on Exhibit 18 indicate value of $69.0 million for the Wastewater System's domestic customers may not account for the Wastewater System atypical EDU to customer ratio since the Comparable Group's EDUs are not known. The results of the selected transactions method shown on Exhibit 21 indicate value of $92.4 million for the Wastewater System's domestic customers after accounting for EDUs. Based on the aforesaid results, the Market Approach to valuation indicates a value of $92.4 million for the Wastewater System's domestic customers based on the results of the selected transactions method. The additional value attributable to the Wastewater System's ultimate wholesale customers is determined in the next section of this report.

Market Value of Ultimate Wholesale Customers . Exhibit 23 shows the calculation of the value of ultimate whole customers and the Market Approach conclusion. As shown, we computed the market value of receiving only treatment services of $37.4 million by subtracting the value of collection/distribution assets from the value of integrated systems (excluding wholesale).[33] We then determined the number of ultimate wholesale customers EDUs of 515 to be valued by subtracting the number of domestic customers from the number of ultimate customers EDUs (12,172 - 11,657).

32 We note Connecticut Water, NECS and TORW were fully integrated companies, as is Wastewater System. Additionally, they were publicly traded, which the Wastewater System is not, and therefore, may overstate the value for the Wastewater System. However, these transactions were stock transactions, which may understate the value for the Wastewater System's asset purchase.

33 See the Selected Transactions section of this report for the asset value determination of collection/distribution assets and integrated systems (excluding wholesale).

The market value of receiving only treatment services, $37.4 million, was then divided by the number of domestic customers EDUs to produce the treatment value per domestic customer of $3,212 ($37,438,291 ÷ 11,657). We applied a relative ultimate wholesale customer equivalency factor of 95% as a discount for control. The relative wholesale customer equivalency factor was multiplied by the treatment value per domestic customer to determine the treatment value per ultimate wholesale customer of $3,051 ($3,212 × 95%).

The treatment value per ultimate wholesale customer was then multiplied by number of ultimate wholesale customers to produce the market value of the Wastewater System's ultimate wholesale customers of $1.6 million ($3,051 × 515). The market value of the Wastewater System's ultimate wholesale customers was then added to the market value of the Wastewater System's domestic customers to produce the total market value for the Wastewater System. Based on the aforesaid results, the Market Approach to valuation indicates a value of $94.0 million ($94,020,721 rounded) for the Wastewater System ($92.4 million + $1.6 million) as shown on Exhibit 23.

Conclusion. We summarize our findings for the Wastewater System on Exhibit 24. Our finding for the Wastewater System is based on the Cost, Market, and Income Approaches to valuation. We used seven methods under the Cost, Market, and Income Approaches to valuation: Original Cost Method, Replacement Cost Method, Capitalization of Earnings Method, Market Multiple Discounted Cash Flow Method, Capitalization Discounted Cash Flow Method, Market Multiples Method, and the Selected Transactions Method.

The results from the market multiple discounted cash flow method and the capitalization discounted cash flow method form the basis for our Income Approach. Our Market Approach is supported by the market multiples method and selected transactions method. The results from the

original cost method form the basis for our replacement cost method, and both methods form the basis for our Cost Approach.

We considered the results of each approach as an indicator of value individually, or as independent indicators of value. Therefore, all three approaches to valuation were given consideration in arriving at our estimate of the fair market value conclusion. Based on these facts, our conclusion regarding the fair market value is $110.6 million. Our conclusion regarding the fair market value can be described by the weights and the specific results of the three approaches to valuation that are shown on Exhibit 24. The results of our analyses, shown on Exhibit 24, indicate a range of value for the Wastewater System of $94.0 million to $125.3 million and collectively indicate a fair market value of $110,619,000 for the Wastewater System.

APPENDIX A - QUALIFICATIONS

APPENDIX A

Professional Qualifications
of
Harold Walker, III
Manager, Financial Studies
Gannett Fleming Valuation and Rate Consultants, LLC.

EDUCATION

Mr. Walker graduated from Pennsylvania State University in 1984 with a Bachelor of Science Degree in Finance. His studies concentrated on securities analysis and portfolio management with an emphasis on economics and quantitative business analysis. He has also completed the regulation and the rate-making process courses presented by the College of Business Administration and Economics Center for Public Utilities at New Mexico State University. Additionally, he has attended programs presented by The Institute of Chartered Financial Analysts (CFA).

Mr. Walker was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is based upon education, experience, and the successful completion of a comprehensive examination. He is also a member of the Society of Utility and Regulatory Financial Analysts (SURFA) and has attended numerous financial forums sponsored by the Society. The SURFA forums are recognized by the Association for Investment Management and Research (AIMR) and the National Association of State Boards of Accountancy for continuing education credits.

Mr. Walker is also a licensed Municipal Advisor Representative (Series 50) by Municipal Securities Rulemaking Board (MSRB) and Financial Industry Regulatory Authority (FINRA).

BUSINESS EXPERIENCE

In 1996, Mr. Walker joined Gannett Fleming Valuation and Rate Consultants, LLC. In his capacity as Manager, Financial Studies and for the past 25 years, he has continuously studied rates of return requirements for regulated firms. In this regard, he supervised the preparation of rate of return studies in connection with his testimony and in the past, for other individuals. He also assisted and/or developed dividend policy studies, nuclear prudence studies, calculated fixed charge rates for avoided costs involving cogeneration projects, financial decision studies for capital budgeting purposes and developed financial models for determining future capital requirements and the effect of those requirements on investors and ratepayers, valued utility property and common stock for acquisition and divestiture, and assisted in the private placement of fixed capital securities for public utilities.

Head, Gannett Fleming GASB 34 Task Force responsible for developing Governmental Accounting Standards Board (GASB) 34 services and educating Gannett Fleming personnel and

Gannett Fleming clients on GASB 34 and how it may affect them. The GASB 34 related services include inventory of assets, valuation of assets, salvage estimation, annual depreciation rate determination, estimation of depreciation reserve, asset service life determination, asset condition assessment, condition assessment documentation, maintenance estimate for asset preservation, establishment of condition level index, geographic information system (GIS) and data management services, management discussion and analysis (MD&A) reporting, required supplemental information (RSI) reporting, auditor interface, and GASB 34 compliance review.

In 2004, Mr. Walker was elected to serve on the Board of Directors of SURFA. Previously, he served as an ex-officio directors as an advisor to SURFA's existing President. In 2000, Mr. Walker was elected President of SURFA for the 2001-2002 term. Prior to that, he was elected to serve on the Board of Directors of SURFA during the period 1997-1998 and 1999-2000. Currently, he also serves on the Pennsylvania Municipal Authorities Association, Electric Deregulation Committee.

Prior to joining Gannett Fleming Valuation and Rate Consultants, LLC., Mr. Walker was employed by AUS Consultants - Utility Services. He held various positions during his eleven years with AUS, concluding his employment there as a Vice President. His duties included providing and supervising financial and economic studies on behalf of investor owned and municipally owned water, wastewater, electric, natural gas distribution and transmission, oil pipeline and telephone utilities as well as resource recovery companies.

Mr. Walker was also the Publisher of C.A. Turner Utility Reports from 1988 to 1996 while employed at AUS Consultants - Utility Services. C.A. Turner Utility Reports is a financial publication which provides financial data and related ratios and forecasts covering the utility industry. From 1993 to 1994, he became a contributing author for the Fortnightly, a utility trade journal while employed at AUS Consultants - Utility Services. His column was the Financial News column and focused mainly on the natural gas industry.

EXPERT TESTIMONY

Mr. Walker has submitted testimony or been deposed on various topics before regulatory commissions and courts in 26 states including: Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, Nevada, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia. His testimonies covered various subjects including: fair market value, the taking of natural resources, appropriate capital structure and fixed capital cost rates, depreciation, fair rate of return, purchased water adjustments, synchronization of interest charges for income tax purposes, valuation, cash working capital, lead-lag studies, financial analyses of investment alternatives, benchmarking, and fair value.

PROFESSIONAL AFFILIATIONS

Society of Utility and Regulatory Financial Analysts
Board of Directors, 1996-2000, 2005-2008
President, 2000-2002
Treasurer, 1996-1998
National Association of Water Companies
Pennsylvania Municipal Authorities Association
Electric Deregulation Committee

TECHNICAL PUBLICATIONS & PRESENTATIONS

Walker, Harold. Panelist "Now is the Time to Maximize Your Utility's Value." Presented at the Pennsylvania Association of Township Supervisors 97th Annual State Convention, April 2019.

Walker, Harold. Panelist "Fair Market Acquisitions Debate." Presented at National Association of Regulatory Utilities Commissioners Winter Policy Summit, February 2019.

Walker, Harold. Panelist "Fair Market Value Legislation." Presented at the National Association of Water Companies Water Summit, October 2018.

Walker, Harold. Panelist "Leveraging Water & Sewer to Address Roads, Schools, and Pension Obligations." Presented at the Maryland Association of Counties 2018 Summer Conference, August 2018.

Walker, Harold. Panelist "Is the Glass Half Full or Half Empty? Valuing Municipal Water Acquisitions." Presented at the Mid-Atlantic Conference of Regulatory Utilities Commissioners 23rd Annual Education Conference, June 2018.

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Walker, Harold. "Valuation and Inventory Under GASB 34." Presented at the Government Finance Officers Association South Central Pennsylvania Regional Chapter conference, August 2003.

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Walker, Harold. "Managing Risk." Conference Chairperson, presented at the Society of Utility & Regulatory Financial Analysts 33rd Financial Forum, April 2001.

Walker, Harold. "Paying for Your MSW System - Waste Generation Fees." Presented at the Federation of New York Solid Waste Association Solid Waste/Recycling Conference and Trade Show, May 2001.

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Walker, Harold. "Cost of Capital Issues." Presented at the National Association of Water Companies New England Chapter conference, October 2000.

Walker, Harold, Timothy Hartman, and Mark Everett. "Waste Generation Study: Life After Flow Control." Presented at Waste Con 2000, October 1999.

Walker, Harold, and Timothy Hartman. "The Enhancement of Revenues Through a Waste Generation Study." Presented at SWANA's Planning and Management Symposium, July 1999.

COMPLIANCE & APPRAISAL CERTIFICATION

Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021*

Fulfillment of Requirements for a Personal Property Appraisal and Report

- **State the identity of the client and any intended users, by name or type:**

  The client is NextEra Water Pennsylvania, LLC. The intended users of the valuation are NextEra Water Pennsylvania, LLC, and the Pennsylvania Public Utility Commission ("PUC").

- **State the intended use of the appraisal**

  The intended use of the valuation is to comply with 66 Pa. C.S. Section 1329, Valuation of Acquired Water and Wastewater Systems and conduct a fair market value appraisal of the Wastewater System in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market, and income approaches.

- **Describe information sufficient to identify the property, real, personal, and intangible, involved in the appraisal, including the physical and economic property characteristics relevant to the assignment.**

  The Towamencin Municipal Authority is a component unit of the Towamencin Township. Most of the assets of the Wastewater System are owned by the Towamencin Municipal Authority, with the remainder being owned by the Towamencin Township. Towamencin Municipal Authority owns and operates the wastewater treatment plant ("WWTP") and owns the collection system which is leased and operated by the Towamencin Township. The Towamencin Municipal Authority operates under a five member board of directors that is appointed by the Towamencin Township. The Towamencin Township intends to terminate the lease and acquire possession and operational control of the assets of the Towamencin Municipal Authority's assets on or before the closing date.

  The Towamencin Township is located in Montgomery County, in southeastern Pennsylvania. Towamencin Township is bordered by Franconia Township on its north, Hatfield Township on its northeast, Lansdale Borough on its east, Upper Gwynedd Township on its east and southeast, Worcester Township on its south, Skippack Township on its south-southwest, and Lower Salford Township on its north-northwest. The Wastewater System consists of a WWTP, three pump stations, about 92 miles of mains, approximately 2,100 manholes, over 5,800 services, associated infrastructure and appurtenances, and related land and land rights.

  The Wastewater System's WWTP is a 6.5 million gallons per day ("MGD") capacity plant. The Wastewater System's three pump stations include the Rittenhouse Road Pump Station, located in Towamencin Township, the Milestone

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Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021*

Fulfillment of Requirements for a Personal Property Appraisal and Report

Pump Station, and Hollis Hills Pump Station, both of which are located in Worcester Township. The Wastewater System's Rittenhouse Road Pump Station's force main is 16-inches in diameter and approximately 15,730 linear feet installed in 1987, the Milestone Pump Station's force main is 4-inches in diameter and approximately 1,680 linear feet installed in 1996, and the Hollis Hills Pump Station's force main is 4-inches in diameter and approximately 5,740 linear feet installed in 1991.

The Wastewater System's 460,000 linear feet of gravity sewer (78.5 miles) and interceptors (8.1 miles) consist of 8-inch, 10-inch, 12-inch, 15-inch, and 21-inch diameter pipe which were mainly installed between 1967 to 2015. There are 2,125 manholes, and 5,844 services laterals in the system.

The Wastewater System's WWTP receives and treats wastewater from the following municipalities: Towamencin Township; Hatfield Township; Lansdale Borough; Lower Salford Township; Upper Gwynedd Township; Worcester Township; and a small portion of Franconia Township.

the Wastewater System provides service directly to 5,847 customers ("domestic customers"). The Wastewater System's domestic customers include 5,844 retail customers located in and around Towamencin Township and three wholesale customers whose flows are transported and treated at the WWTP. The Wastewater System's three wholesale customers service 515 customers whose flows are ultimately transported and treated at the WWTP ("ultimate wholesale customers"). In total, the Wastewater System provides wastewater service directly and indirectly to 6,359 customers ("ultimate customers").

The Wastewater System's land and land rights include land used for the WWTP, three pump stations, about 92 miles of mains, approximately 2,100 manholes, over 5,800 services, associated infrastructure and appurtenances, and multiple easements and rights-of-way necessary to operate the Wastewater System.

- **State the real property interests appraised**

  The Wastewater System's land and land rights agreements necessary to access its property.

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Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021*

Fulfillment of Requirements for a Personal Property Appraisal and Report

- **State the type and definition of value and cite the source of the definition, including whether the opinion of value is in terms of cash or of financing terms equivalent to cash, or based on non-market financing or financing with unusual conditions or incentives**

  Fair market value is defined as:

  > "The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts." The International Glossary of Business Valuation Standards

- **State the effective date of the appraisal and the date of the report**

  The effective date of the appraisal is as of June 30, 2022, and the appraisal report date is November 2, 2022.

- **Describe sufficient information to disclose to the client and any other intended users of the appraisal the scope of work used to develop the appraisal**

  Gannett Fleming Valuation and Rate Consultants, LLC was retained by NextEra Water Pennsylvania, LLC ("NextEra") to estimate the fair market value of the Towamencin Township's wastewater system assets ("Wastewater System") as of June 30, 2022.

  The intended use of the valuation is to comply with 66 Pa. C.S. Section 1329, Valuation of Acquired Water and Wastewater Systems and conduct a fair market value appraisal of the Wastewater System in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market, and income approaches.

  As stated, the standard of value for this engagement is fair market value. The premise of value is the going concern. The going concern premise of business value assumes that the business will continue running normally using all its assets to produce income and will continue operating beyond the valuation date.

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We valued the Wastewater System's assets as a group under the premise that the assets collectively comprise an ongoing operating business enterprise. Additionally, in accordance with 66 Pa. C.S. Section 1329, the original source of funding for any part of the Wastewater System's assets was not relevant to the determination of the value of said assets.

We accepted all information and data provided by NextEra and/or the Towamencin Municipal Authority ("Authority") and/or Towamencin Township ("Towamencin") as it pertains to this assignment "as is" after a limited review. That is, we neither audited nor verified any data, engineering assessment, financial record or operating data provided for this assignment. We assumed all title to all assets included in the appraisal is good and marketable, no hidden defects in the property or soil and no hazardous conditions or materials exist which could affect the assets.

The appraisal considered all three approaches to value: the cost, income, and market. Briefly the scopes of work for each are as follows:

The cost approach utilized the original cost method and replacement cost method. The reproduction cost method was calculated by trending (trended cost method) the asset inventory developed by Gilmore and Associates, Inc. from its original cost new inventory. The original cost method determined the original cost new measure of the cost of the assets when first constructed. The original cost new inventory was trended using the Handy Whitman Index of Public Utility Construction Costs for the water industry to produce the reproduction cost new and converted to replacement cost new after obsolescence was factored. The calculated accrued depreciation was determined for the original cost new and for the replacement cost new. The calculated accrued depreciation was based on the assets' attained ages, and the service life of the assets. The cost basis of depreciable assets was reduced annually by the accumulated depreciation to reflect the loss in the service value of the assets since being constructed. All land and land rights were valued at original cost.

Income Approach - The income approach utilized the capitalization of earning (cash flow) method and the discounted cash flow method. The capitalization of earning method converted a single base economic income number to a value by dividing it by a capitalization rate. The discounted cash flow method used estimates of future debt free net cash flow and discounted them to arrive at a present value or price of the cash flows. The capitalization rate and the discount rate were developed based on market debt and equity rates at the appraisal date. The discounted cash

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Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021*

Fulfillment of Requirements for a Personal Property Appraisal and Report

flow method reflected two types of discounted cash flow analyses, the EBIT and EBITDA terminal value model and a capitalization of terminal value model.

Market Approach - The market approach was developed based on the market multiples method and the selected transaction method. The market multiples method was based on the market price data of publicly traded corporations engaged in the same or a similar line of business as the Wastewater System. The market price data of these comparable publicly traded corporations was used to calculate the market multiples for the comparable publicly traded corporations at the appraisal date. The selected transactions method used certain public information relating to the purchase or sales of businesses involved in the same or a similar business line as the Wastewater System to calculated market multiples at the time of transaction (sale/purchase). The calculated market multiples determined by the market multiples method and the selected transaction method were then multiplied by the corresponding the Wastewater System financial and operating statistic to produce an indicated value for the Wastewater System.

Reconciliation of the Valuation Approaches - The fair market value conclusion was based on reconciliation of each of the three approaches to value and the intended purpose of the appraisal.

- **Clearly and conspicuously:**
  - **State all extraordinary assumptions and hypothetical conditions;**

    There were no extraordinary assumptions required or hypothetical conditions in this appraisal.

  - **State that their use might have affected the assignment results**

    Not applicable.

- **Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment**

  Not applicable.

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Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021*

Fulfillment of Requirements for a Personal Property Appraisal and Report

- **Describe the information analyzed, the appraisal procedures followed, and the reasoning that supports the analyses, opinions, and conclusions**

  See scope of work above.

- **State the use of the real estate existing as of the date of value and the use of the real estate reflected in the appraisal**

  The Wastewater System's land and land rights include land used for wastewater treatment plant, three pump stations, about 92 miles of mains, approximately 2,100 manholes, over 5,800 services, associated infrastructure and appurtenances and multiple easements and rights-of-way necessary to operate the Wastewater System.

  The Wastewater System's land and land rights were assumed to be used for the operation of the Wastewater System for the appraisal.

- **State and describe the support and rationale for the appraiser's opinion of the highest and best use of the real estate**

  All land and land rights were assumed to be used for the operation of the Wastewater System for the appraisal, were valued at original cost, and not at highest and best use of the real estate.

- **State and explain any permitted departures from specific requirements of STANDARD 1 and the reason for excluding any of the usual valuation approaches. The appraisal then becomes a limited appraisal - a limited appraisal report must contain a prominent section that clearly identifies the extent of the appraisal process performed and the departures taken**

  No departures for Standard 1 were made.

- **Include a signed certification in accordance with Standards Rule 2-3**

  See attached for signed certification.

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APPRAISAL CERTIFICATION
Montgomery County, Pennsylvania
Towamencin Township
Wastewater System Assets
Fair Market Value Appraisal Report
As of June 30, 2022

Gannett Fleming Valuation and Rate Consultants, LLC certify that, to the best of its knowledge and belief:

— The statements of fact contained in this report are true and correct.

— The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.

— Gannett Fleming Valuation and Rate Consultants, LLC has not performed an appraisal of the Towamencin Township's wastewater system prior to this appraisal.

— Gannett Fleming Valuation and Rate Consultants, LLC, nor its professional staff has any present or prospective interest in the property that is the subject of this report and has no interest or bias with respect to the parties involved.

— We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

— Our engagement in this assignment is not contingent upon developing or reporting predetermined results.

— Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

— Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice (2020-2021)

APPRAISAL CERTIFICATION
Montgomery County, Pennsylvania
Towamencin Township
Wastewater System Assets
Fair Market Value Appraisal Report
As of June 30, 2022

— The signers of this report relied upon Constance E. Heppenstall, Senior Project Manager, Rate Studies at Gannett Fleming Valuation and Rate Consultants, LLC, who viewed or observed the property that is the subject of this report.

— Individuals providing significant appraisal assistance to the person signing this certification include John J. Spanos, President, Joanna Lappin, Depreciation Analyst and Constance E. Heppenstall, Senior Project Manager, Rate Studies at Gannett Fleming Valuation and Rate Consultants, LLC.

Gannett Fleming Valuation and Rate Consultants, LLC

By,

HAROLD WALKER, III

Manager, Financial Studies

EXHIBITS

EXHIBIT 1

Towamencin Wastewater System Assets
Selected Audited Financial Information

	12-Months Ended December 31:				
	2018	2019	2020	2021	
Gross property, plant & equipment	57,911,052	59,501,274	59,970,738	59,970,738	*
Accumulated depreciation	32,129,234	34,759,820	36,104,130	36,104,130	*
Net property, plant & equipment	25,781,818	24,741,454	23,866,608	23,866,608	
Assets	33,172,286	32,608,500	30,728,071	30,728,071	*
Debt Current	559,000	542,000	568,000	568,000	
Debt	9,954,000	9,454,000	8,871,000	8,303,000	
Equity	22,506,621	22,198,149	21,008,443	21,008,443	*
Total Capital	33,019,621	32,194,149	30,447,443	29,879,443	
OPERATING REVENUES					
Charges for services	5,150,424	5,503,864	5,631,315	5,178,822	**
Other operating income	916	4,792	0	36,117	**
TOTAL OPERATING REVENUES	5,151,340	5,508,656	5,631,315	5,214,939	
OPERATING EXPENSES					
Expenses	3,566,517	3,619,345	3,824,073	3,322,822	**
Depreciation	1,319,217	1,331,963	1,344,310	1,344,310	*
TOTAL OPERATING EXPENSES	4,885,734	4,951,308	5,168,383	4,667,132	
CAPX	1,058,870	531,353	469,464	360,192	**
Interest	184,521	219,997	189,304	175,380	
Principal	548,000	559,000	557,000	568,000	

Comment: 2021 data is estimated based on 2022 budget which reported "2021 Actual Projected" data, denoted by **, and/or 2020 actual data, denoted by *.

Source of Information: Audited Financial Statements (2018-2020) and 2022 Budget

Towamencin Wastewater System Assets
Population, Housing Units, Customer Count, EDUs, Flows and
EDU Per Customer Ratios

	Township	Ultimate	System
Population in Houses (2022)	17,817	97,502	
Occupied Housing Units (2022)	7,465	38,655	
Average Size	2.39	2.52	

	Domestic	Ultimate
Population to Customers	3.5	3.2

Customers	Domestic Customers	Ultimate Wholesale Customers	Ultimate Customers	EDUs
Retail Customers				
Residential	5,667		5,667	7,702
Commercial	177		177	3,955
Wholesale Customers				
Hatfield Township	1	194	194	194
Lansdale Borough	1	41	41	41
Upper Gwynedd Township	1	280	280	280
Total	5,847	515	6,359	12,172

Projected New EDUs

	2022	2023	2024	2025	2026
New EDUs	168	460	564	428	13

Annual Daily Average Sewage Flow (MGD)

	2017	2018	2019	2020	2021
WWTP Totals	3.694	4.528	3.848	3.788	3.609

Towamencin Wastewater System Assets
Population, Housing Units, Customer Count, EDUs, Flows and
EDU Per Customer Ratios

Population and Housing Units (2022)

	Total Population	Population in Households	Occupied Housing Units	Persons Per Housing Unit	Estimated Population Served
Towamencin Twp	17,915	17,817	7,465	2.39	17,915
Hatfield Township	18,743	18,644	7,224	2.58	580
Lansdale Borough	18,841	17,900	7,169	2.50	125
Lower Salford Twp	16,070	15,697	5,754	2.73	40
Upper Gwynedd Twp	17,107	16,859	7,086	2.38	840
Worcester Township	10,652	10,585	3,957	2.68	925
Total	99,328	97,502	38,655	2.52	20,425

Ratio of EDUs per Customer

Customers	EDU Per Domestic Customer	EDU Per Ultimate Customer	EDUs
Retail Residential	1.36	1.36	7,702
Retail Commercial	22.34	22.34	3,955
Wholesale Customers	171.67	1.00	515
Total	2.08	1.91	12,172

TABLE 3.1 US Population Census Counts, 2010 & 2020

State	Population 2010	Population 2020	Percentage Change
Alabama	4,779,736	5,024,279	5.1%
Alaska	710,231	733,391	3.3%
Arizona	6,392,017	7,151,502	11.9%
Arkansas	2,915,918	3,011,524	3.3%
California	37,253,956	39,538,223	6.1%
Colorado	5,029,196	5,773,714	14.8%
Connecticut	3,574,097	3,605,944	0.9%
Delaware	897,934	989,948	10.2%
District of Columbia	601,723	689,545	14.6%
Florida	18,801,310	21,538,187	14.6%
Georgia	9,687,653	10,711,908	10.6%
Hawaii	1,360,301	1,455,271	7.0%
Idaho	1,567,582	1,839,106	17.3%
Illinois	12,830,632	12,812,508	-0.1%
Indiana	6,483,802	6,785,528	4.7%
Iowa	3,046,355	3,190,369	4.7%
Kansas	2,853,118	2,937,880	3.0%
Kentucky	4,339,367	4,505,836	3.8%
Louisiana	4,533,372	4,657,757	2.7%
Maine	1,328,361	1,362,359	2.6%
Maryland	5,773,552	6,177,224	7.0%
Massachusetts	6,547,629	7,029,917	7.4%
Michigan	9,883,640	10,077,331	2.0%
Minnesota	5,303,925	5,706,494	7.6%
Mississippi	2,967,297	2,961,279	-0.2%
Missouri	5,988,927	6,154,913	2.8%
Montana	989,415	1,084,225	9.6%
Nebraska	1,826,341	1,961,504	7.4%
Nevada	2,700,551	3,104,614	15.0%
New Hampshire	1,316,470	1,377,529	4.6%
New Jersey	8,791,894	9,288,994	5.7%
New Mexico	2,059,179	2,117,522	2.8%
New York	19,378,102	20,201,249	4.2%
North Carolina	9,535,483	10,439,388	9.5%
North Dakota	672,591	779,094	15.8%
Ohio	11,536,504	11,799,448	2.3%
Oklahoma	3,751,351	3,959,353	5.5%
Oregon	3,831,074	4,237,256	10.6%
Pennsylvania	12,702,379	13,002,700	2.4%
Rhode Island	1,052,567	1,097,379	4.3%
South Carolina	4,625,364	5,118,425	10.7%
South Dakota	814,180	886,667	8.9%
Tennessee	6,346,105	6,910,840	8.9%
Texas	25,145,561	29,145,505	15.9%
Utah	2,763,885	3,271,616	18.4%
Vermont	625,741	643,077	2.8%
Virginia	8,001,024	8,631,393	7.9%
Washington	6,724,540	7,705,281	14.6%
West Virginia	1,852,994	1,793,716	-3.2%
Wisconsin	5,686,986	5,893,718	3.6%
Wyoming	563,626	576,851	2.3%
Total - States & D.C.	308,745,538	331,449,281	7.4%

Source: U.S. Census Bureau, Population Division

TABLE 3.2 Pennsylvania Population Census by County and Municipality, 2010 & 2020

Geographic Area	Population 2010	Population 2020	Percentage Change	Municipal Growth Rank
Pennsylvania	12,702,379	13,002,700	2.4%	-
Montgomery County	799,874	856,553	7.1%	-
Towamencin Township	17,578	18,009	2.5%	676 out of 2,572
Hatfield Township	17,249	18,640	8.1%	260 out of 2,572
Lansdale Borough	16,269	18,773	15.4%	89 out of 2,572
Lower Salford Township	14,959	15,896	6.3%	363 out of 2,572
Upper Gwynedd Township	15,552	17,072	9.8%	200 out of 2,572
Worcester Township	9,750	10,317	5.8%	395 out of 2,572
System Total	91,357	98,707	8.0%	261 out of 2,572

Source: U.S. Census Bureau,Census 2020 Redistricting Data (Public Law 94-171) Summary File.

TABLE 3.3 Forecasted Population by County and Municipality, 2015-2045

	Population							Percentage Change						
	Estimate 2015	Forecast 2020	Forecast 2025	Forecast 2030	Forecast 2035	Forecast 2040	Forecast 2045	2015 to 2020	2020 to 2025	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2015 to 2045
Bucks County	627,367	640,495	654,792	669,299	681,273	691,111	699,498	2.1%	2.2%	2.2%	1.8%	1.4%	1.2%	11.5%
Chester County	515,939	543,702	571,641	599,932	624,832	645,562	662,283	5.4%	5.1%	4.9%	4.2%	3.3%	2.6%	28.4%
Delaware County	563,894	568,337	572,758	577,248	581,136	584,329	587,037	0.8%	0.8%	0.8%	0.7%	0.5%	0.5%	4.1%
Montgomery County	819,264	840,934	863,327	884,387	903,114	918,918	932,820	2.6%	2.7%	2.4%	2.1%	1.7%	1.5%	13.9%
Philadelphia County	1,567,443	1,594,787	1,616,816	1,643,971	1,667,290	1,683,402	1,696,133	1.7%	1.4%	1.7%	1.4%	1.0%	0.8%	8.2%
Subtotal - Five Pennsylvania Counties	4,093,907	4,188,255	4,279,334	4,374,837	4,457,645	4,523,322	4,577,771	2.3%	2.2%	2.2%	1.9%	1.5%	1.2%	11.8%
Burlington County	450,226	459,344	468,428	475,978	482,560	488,026	492,709	2.0%	2.0%	1.6%	1.4%	1.1%	1.0%	9.4%
Camden County	510,923	514,006	517,073	520,189	522,886	525,101	526,997	0.6%	0.6%	0.6%	0.5%	0.4%	0.4%	3.1%
Gloucester County	291,479	307,766	323,969	340,425	354,677	366,383	376,308	5.6%	5.3%	5.1%	4.2%	3.3%	2.7%	29.1%
Mercer County	371,398	377,328	383,227	389,219	394,407	398,669	402,283	1.6%	1.6%	1.6%	1.3%	1.1%	0.9%	8.3%
Subtotal - Four New Jersey Counties	1,624,026	1,658,444	1,692,697	1,725,811	1,754,530	1,778,179	1,798,297	2.1%	2.1%	2.0%	1.7%	1.3%	1.1%	10.7%
Total - Nine DVRPC Counties	5,717,933	5,846,699	5,972,031	6,100,648	6,212,175	6,301,501	6,376,068	2.3%	2.1%	2.2%	1.8%	1.4%	1.2%	11.5%
Towamencin Township	18,272	18,755	19,235	19,723	20,146	20,493	20,787	2.6%	2.6%	2.5%	2.1%	1.7%	1.4%	13.8%
Hatboro Borough	7,411	7,591	7,770	7,952	8,110	8,240	8,349	2.4%	2.4%	2.3%	2.0%	1.6%	1.3%	12.7%
Lansdale Borough	16,512	17,019	17,523	18,035	18,479	18,843	19,152	3.1%	3.0%	2.9%	2.5%	2.0%	1.6%	16.0%
Lower Salford Township	15,344	15,922	16,497	17,081	17,587	18,002	18,355	3.8%	3.6%	3.5%	3.0%	2.4%	2.0%	19.6%
Upper Gwynedd Township	15,928	16,116	16,304	16,492	16,679	16,866	17,053	1.2%	1.2%	1.2%	1.1%	1.1%	1.1%	7.1%
Worcester Township	10,435	10,917	11,396	11,882	12,304	12,650	12,943	4.6%	4.4%	4.3%	3.6%	2.8%	2.3%	24.0%
System Total	83,902	86,320	88,725	91,165	93,305	95,094	96,639	2.9%	2.8%	2.8%	2.3%	1.9%	1.6%	15.2%

Source: Delaware Valley Regional Planning Commission, June 2016.

TABLE 3.4 Forecasted Employment by County and Municipality, 2015-2045

	Employment							Percentage Change						
	Estimate 2015	Forecast 2020	Forecast 2025	Forecast 2030	Forecast 2035	Forecast 2040	Forecast 2045	2015 to 2020	2020 to 2025	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2015 to 2045
Bucks County	322,731	329,645	337,203	344,859	351,310	356,671	361,124	2.1%	2.3%	2.3%	1.9%	1.5%	1.2%	11.9%
Chester County	309,605	326,320	343,050	359,774	374,967	387,391	397,405	5.4%	5.1%	4.9%	4.2%	3.3%	2.6%	28.4%
Delaware County	268,054	270,167	272,269	274,401	276,248	277,763	279,050	0.8%	0.8%	0.8%	0.7%	0.5%	0.5%	4.1%
Montgomery County	582,443	598,434	614,469	629,563	642,996	654,966	664,385	2.7%	2.7%	2.5%	2.1%	1.9%	1.4%	14.1%
Philadelphia County	772,847	786,308	797,156	810,574	822,002	829,937	836,825	1.7%	1.4%	1.7%	1.4%	1.0%	0.8%	8.3%
Subtotal - Five Pennsylvania Counties	2,255,680	2,310,874	2,364,147	2,419,171	2,467,523	2,506,728	2,538,789	2.4%	2.3%	2.3%	2.0%	1.6%	1.3%	12.6%
Burlington County	241,298	246,351	251,368	255,562	258,363	261,195	263,622	2.1%	2.0%	1.7%	1.1%	1.1%	0.9%	9.3%
Camden County	263,582	265,169	266,753	268,359	269,750	270,892	271,869	0.6%	0.6%	0.6%	0.5%	0.4%	0.4%	3.1%
Gloucester County	121,382	128,161	134,902	141,752	147,682	152,554	156,686	5.6%	5.3%	5.1%	4.2%	3.3%	2.7%	29.1%
Mercer County	286,295	290,864	295,408	300,025	304,021	307,302	310,084	1.6%	1.6%	1.6%	1.3%	1.1%	0.9%	8.3%
Subtotal - Four New Jersey Counties	912,557	930,545	948,431	965,698	979,816	991,943	1,002,261	2.0%	1.9%	1.8%	1.5%	1.2%	1.0%	9.8%
Total - Nine DVRPC Counties	3,168,237	3,241,419	3,312,578	3,384,869	3,447,339	3,498,671	3,541,050	2.3%	2.2%	2.2%	1.8%	1.5%	1.2%	11.8%
Towamencin Township	7,548	8,086	8,612	9,125	9,567	9,909	10,421	7.1%	6.5%	6.0%	4.8%	3.6%	5.2%	38.1%
Hatboro Borough	3,893	3,978	4,018	4,055	4,125	4,204	4,193	2.2%	1.0%	0.9%	1.7%	1.9%	-0.3%	7.7%
Lansdale Borough	7,772	7,952	8,045	8,126	8,254	8,372	8,384	2.3%	1.2%	1.0%	1.6%	1.4%	0.1%	7.9%
Lower Salford Township	9,663	9,864	10,234	10,586	10,776	10,886	11,163	2.1%	3.8%	3.4%	1.8%	1.0%	2.5%	15.5%
Upper Gwynedd Township	25,099	25,428	25,751	26,036	26,324	26,607	26,599	1.3%	1.3%	1.1%	1.1%	1.1%	0.0%	6.0%
Worcester Township	2,954	3,069	3,189	3,304	3,394	3,457	3,560	3.9%	3.9%	3.6%	2.7%	1.9%	3.0%	20.5%
System Total	56,929	58,377	59,849	61,232	62,440	63,435	64,320	2.5%	2.5%	2.3%	2.0%	1.6%	1.4%	13.0%

Source: Delaware Valley Regional Planning Commission, September 2016. Base employment data from the National Establishments Time Series (NETS) database, 2010 and 2013.

EXHIBIT 4

Comparison of Credit Market Financial Risk Metrics
For Towamencin Wastewater System Assets
And the Comparable Group
2019 - 2021 (1)

	Towamencin Wastewater System Assets			Comparable Group		
	2021	2020	2019	2021	2020	2019
Debt Service Coverage	2.5	2.4	2.4	2.3	2.4	2.0
Pre-Tax Interest Coverage - Including AFC(2)(x)	3.1	2.4	2.5	4.4	3.7	3.6
Post-Tax Interest Coverage - Including AFC(2)(x)	3.1	2.4	2.5	3.7	3.2	2.9
GCF / Interest Coverage(3)(x)	10.8	9.5	8.6	5.9	5.2	4.7
GCF / Tot. Debt(4)(%)	19.4	17.1	16.7	18.2	15.9	15.8
GCF / Construction(5)(%)	476.6	344.6	314.2	73.2	72.2	63.0

Notes: (1) Average of the achieved results for each individual company based upon the financials as originally reported.
(2) Represents the number of times available earnings, including AFC, cover all interest charges.
(3) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
(4) GCF (see note 3) as a percentage of total debt.
(5) The percent of GCF (see note 3) which cover gross construction expenditures.

Source: 2019-21 Annual Reports
S&P Capital IQ
EXHIBIT 1

Towamencin Wastewater System Assets
Illustrating the Impact of Size on Risk and Retun
Through Common Stock Returns

TABLE 5.1 Change in Return and Risk for Size-Quartiles Portfolio of the NYSE/AMEX/NASDAQ Common Stocks (1)

	A	B	C	D	E	F	G	H	I	J
									Beta Adjusted	
Market Quartile	Market Quartile Name	Average Quartile Premium 1926-20 (%)	Standard Deviation of Return (%)	Change in Quartile Premium (%)	Largest Market Value in the Quartile (Mill $)	Quartile Beta	Comparison Group Beta	Beta Ratio	Quartile Size Premium (%)	Change in Quartile Premium (%)
(Largest Stocks)										
1	Large-Cap	0.00	19.9	--	1,966,079	1.00	0.80	80%	0.00	
2	Mid-Cap	2.48	24.3	2.48	13,179	1.13	0.80	71%	1.76	1.76
3	Low-Cap	3.95	28.5	1.47	2,446	1.23	0.80	65%	2.57	0.81
4	Mico-Cap	6.21	38.5	2.26	452	1.35	0.80	59%	3.68	1.11
(Smallest Stocks)										

Notes: (1) 2020 Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook

TABLE 5.2 Recent Market Values and Ibbotson Associates Market Quartiles for the Comparable Group

	6/30/2022 Market Value (Mill $)	Market Quartile Name	Market Quartile
Comparable Group			
American States Water Co	3,012	Mid-Cap	2
American Water Works Co Inc	27,039	Large-Cap	1
Artesian Resources -Cl A	459	Low-Cap	3
California Water Service Gp	2,987	Mid-Cap	2
Essential Utilities, Inc.	11,867	Mid-Cap	2
Middlesex Water Co	1,540	Low-Cap	3
SJW Corp	1,887	Low-Cap	3
York Water Co	576	Low-Cap	3
Median	2,437	Low-Cap	3

Towamencin Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
Growth Rate Analyses
Profit Margin Analyses

TABLE 6.1 Property Plant & Equipment Analysis

(Current Know Statistics)

	Gross Property, Plant & Equipment	Net Property, Plant & Equipment	Percentage of Property, Plant & Equipment Not Depreciated
	(Millions of $)		
Towamencin Wastewater System Assets *	$63.040	$37.532	60%
Comparable Group			
American States Water Company	$2,262.295	$1,669.085	74%
American Water Works Company	27,872.000	21,489.000	77%
Artesian Resources Corporation	792.379	622.626	79%
California Water Service Group	4,261.451	2,887.415	68%
Essential Utilities, Inc.	12,882.910	10,440.989	81%
Middlesex Water Company	1,079.458	873.682	81%
SJW Group	3,735.674	2,558.665	68%
The York Water Company	492.086	390.597	79%
Median			78%

* - Developed on Exhibit 7.

TABLE 6.2 Property Plant & Equipment Analysis for Contributions

(As of 3/31/2022)

	Net Property, Plant & Equipment	Investor's Capital	Percentage of Property, Plant & Equipment Net of Contributions	2021 Percentage of Known "Cost Free" Capital
	(Millions of $)			
Comparable Group				
American States Water Co	$1,669.085	$1,331.945	80%	22%
American Water Works Co Inc	21,489.000	18,266.000	85%	20%
Artesian Resources -CL A	622.626	353.016	57%	40%
California Water Service Gp	2,887.415	2,280.721	79%	27%
Essential Utilities, Inc.	10,440.989	11,382.495	109%	21%
Middlesex Water Co	873.682	713.094	82%	26%
SJW Corp	2,558.665	2,634.890	103%	26%
York Water Co	390.597	307.419	79%	27%
Median			81%	26%

Towamencin Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
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TABLE 6.3 Capital Expenditures Analysis

	PP&E-Total Net (Millions of $)				Capital Expenditures (Millions of $)			
	2021	2020	2019	2018	2021	2020	2019	2018
Towamencin Wastewater System Assets	$23.867	$23.867	$24.741	$25.782	$0.360	$0.469	$0.531	$1.059
Comparable Group								
American States Water Co	$1,645.218	$1,557.936	$1,458.595	$1,304.683	$144.515	$130.423	$151.940	$126.561
American Water Works Co Inc	21,176.000	19,805.000	18,335.000	17,409.000	1,764.000	1,822.000	1,654.000	1,586.000
Artesian Resources -CL A	594.633	563.817	535.013	502.527	40.814	34.277	40.677	49.053
California Water Service Gp	2,849.059	2,654.027	2,409.873	2,220.873	293.194	298.651	273.770	271.707
Essential Utilities, Inc.	10,300.796	9,573.211	6,358.657	5,930.326	1,020.519	835.642	550.273	495.737
Middlesex Water Co	881.299	813.014	722.044	628.476	79.378	105.619	89.125	72.094
SJW Corp	2,518.530	2,356.988	2,230.343	1,365.771	233.933	195.323	164.325	135.973
York Water Co	383.626	344.365	313.993	299.871	46.400	33.299	20.537	16.882

	Capital Expenditures / PP&E-Total Net			
	2021	2020	2019	2018
Towamencin Wastewater System Assets	2%	2%	2%	4%
Comparable Group				
American States Water Co	9%	8%	10%	10%
American Water Works Co Inc	8%	9%	9%	9%
Artesian Resources -CL A	7%	6%	8%	10%
California Water Service Gp	10%	11%	11%	12%
Essential Utilities, Inc.	10%	9%	9%	8%
Middlesex Water Co	9%	13%	12%	11%
SJW Corp	9%	8%	7%	10%
York Water Co	12%	10%	7%	6%
Median	9%	9%	9%	10%

Towamencin Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
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Profit Margin Analyses

	Revenues				EBITDA			
	2021	2020	2019	2018	2021	2020	2019	2018
	(Millions of $)				(Millions of $)			
Towamencin Wastewater System Assets	$5.215	$5.631	$5.509	$5.151	$1.892	$1.807	$1.889	$1.585
Comparable Group								
American States Water Co	$498.853	$488.243	$473.869	$436.816	$185.064	$171.044	$164.085	$144.803
American Water Works Co Inc	3,930.000	3,777.000	3,610.000	3,440.000	1,306.476	1,154.957	1,102.741	917.849
Artesian Resources -CL A	90.859	88.141	83.595	80.411	433.284	387.423	380.137	340.460
California Water Service Gp	790.909	794.307	714.557	698.196	30.401	25.800	26.382	25.061
Essential Utilities, Inc.	1,878.144	1,462.698	889.692	838.091	147.867	140.577	127.710	122.709
Middlesex Water Co	143.141	141.592	134.598	138.077	38.056	33.947	35.841	28.720
SJW Corp	573.686	564.526	420.482	397.699	86.302	83.532	68.003	63.335
York Water Co	55.119	53.852	51.578	48.437	25.743	24.780	24.359	21.800

	EBIT			
	2021	2020	2019	2018
	(Millions of $)			
Towamencin Wastewater System Assets	$0.548	$0.463	$0.557	$0.266
Comparable Group				
American States Water Co	$145.090	$133.840	$128.372	$104.140
American Water Works Co Inc	1,274.000	1,297.000	1,230.000	1,159.000
Artesian Resources -CL A	28.031	27.979	25.106	23.946
California Water Service Gp	139.248	143.065	109.924	119.686
Essential Utilities, Inc.	615.095	456.424	357.241	329.531
Middlesex Water Co	35.241	37.699	34.318	37.766
SJW Corp	107.206	117.296	70.089	89.694
York Water Co	22.182	23.069	22.335	21.232

Towamencin Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
Growth Rate Analyses
Profit Margin Analyses

TABLE 6.4 Growth Rate Analyses

	Revenue Growth			EBITDA Growth		
	2021	2020	2019	2021	2020	2019
Towamencin Wastewater System Assets	-7.4%	2.2%	7.0%	4.7%	-4.3%	19.2%
Comparable Group						
American States Water Co	2.2%	3.0%	8.5%	8.2%	4.2%	13.3%
American Water Works Co Inc	4.1%	4.6%	4.9%	13.1%	4.7%	20.1%
Artesian Resources -CL A	3.1%	5.4%	4.0%	11.8%	1.9%	11.7%
California Water Service Gp	-0.4%	11.2%	2.3%	17.8%	-2.2%	5.3%
Essential Utilities, Inc.	28.4%	64.4%	6.2%	5.2%	10.1%	4.1%
Middlesex Water Co	1.1%	5.2%	-2.5%	12.1%	-5.3%	24.8%
SJW Corp	1.6%	34.3%	5.7%	3.3%	22.8%	7.4%
York Water Co	2.4%	4.4%	6.5%	3.9%	1.7%	11.7%
Median	2.3%	5.3%	5.3%	10.0%	3.1%	11.7%

	EBIT Growth		
	2021	2020	2019
Towamencin Wastewater System Assets	18.4%	-16.9%	109.4%
Comparable Group			
American States Water Co	8.4%	4.3%	23.3%
American Water Works Co Inc	-1.8%	5.4%	6.1%
Artesian Resources -CL A	0.2%	11.4%	4.8%
California Water Service Gp	-2.7%	30.1%	-8.2%
Essential Utilities, Inc.	34.8%	27.8%	8.4%
Middlesex Water Co	-6.5%	9.9%	-9.1%
SJW Corp	-8.6%	67.4%	-21.9%
York Water Co	-3.8%	3.3%	5.2%
Median	-2.3%	10.7%	5.0%

Towamencin Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
Growth Rate Analyses
Profit Margin Analyses

TABLE 6.5 Profit Margin Analyses

	EBITDA / Revenue - Margin		
	2021	2020	2019
Towamencin Wastewater System Assets	36.3%	32.1%	34.3%
Comparable Group			
American States Water Co	37.1%	35.0%	34.6%
American Water Works Co Inc	33.2%	30.6%	30.5%
Artesian Resources -CL A	476.9%	439.5%	454.7%
California Water Service Gp	3.8%	3.2%	3.7%
Essential Utilities, Inc.	7.9%	9.6%	14.4%
Middlesex Water Co	26.6%	24.0%	26.6%
SJW Corp	15.0%	14.8%	16.2%
York Water Co	46.7%	46.0%	47.2%
Median	29.9%	27.3%	28.6%

	EBIT / Revenue - Margin		
	2021	2020	2019
Towamencin Wastewater System Assets	10.5%	8.2%	10.1%
Comparable Group			
American States Water Co	29.1%	27.4%	27.1%
American Water Works Co Inc	32.4%	34.3%	34.1%
Artesian Resources -CL A	30.9%	31.7%	30.0%
California Water Service Gp	17.6%	18.0%	15.4%
Essential Utilities, Inc.	32.8%	31.2%	40.2%
Middlesex Water Co	24.6%	26.6%	25.5%
SJW Corp	18.7%	20.8%	16.7%
York Water Co	40.2%	42.8%	43.3%
Median	30.0%	29.3%	28.6%

Source: S&P Capital IQ
EXHIBIT 1

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF ORIGINAL COST AND ACCRUED DEPRECIATION
OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	ORIGINAL COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,829,747.84	946,451
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	38,865,565.48	16,133,590
360.10	FORCE MAINS	743,000.00	323,474
361.10	INTERCEPTOR	4,643,933.39	815,529
361.20	GRAVITY MAINS	16,495,375.98	6,935,650
390.70	OFFICE FURNITURE AND EQUIPMENT	83,225.76	73,371
391.70	TRANSPORTATION EQUIPMENT	379,586.22	280,577
	TOTAL COMPANY	**63,040,434.67**	**25,508,642**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF ANALYSIS OF ORIGINAL COST
OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	ORIGINAL COST
(1)	(2)	(3)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,829,747.84
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	38,865,565.48
360.10	FORCE MAINS	743,000.00
361.10	INTERCEPTOR	4,643,933.39
361.20	GRAVITY MAINS	16,495,375.98
390.70	OFFICE FURNITURE AND EQUIPMENT	83,225.76
391.70	TRANSPORTATION EQUIPMENT	379,586.22
	TOTAL COMPANY	**63,040,434.67**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF SERVICE LIFE ESTIMATES AND CALCULATED ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	SURVIVOR CURVE	ORIGINAL COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)	(5)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	60-R3	1,829,747.84	946,451
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	65-R2.5	38,865,565.48	16,133,590
360.10	FORCE MAINS	70-R2.5	743,000.00	323,474
361.10	INTERCEPTOR	70-R2.5	4,643,933.39	815,529
361.20	GRAVITY MAINS	65-R2.5	16,495,375.98	6,935,650
390.70	OFFICE FURNITURE AND EQUIPMENT	20-SQ	83,225.76	73,371
391.70	TRANSPORTATION EQUIPMENT	11-S1.5	379,586.22	280,577
	TOTAL COMPANY		**63,040,434.67**	**25,508,642**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 354.30 - STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1987	1,581,000.00	60.00	1.67	26,402.70	28.23	0.5295	837,140
1991	119,747.84	60.00	1.67	1,999.79	31.45	0.4758	56,980
1996	129,000.00	60.00	1.67	2,154.30	35.66	0.4057	52,331
	1,829,747.84			30,556.79			946,451

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 354.40 - STRUCTURES AND IMPROVEMENTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1967	880,340.64	65.00	1.54	13,557.25	20.78	0.6803	598,905
1969	54,532.38	65.00	1.54	839.80	21.97	0.6620	36,100
1976	7,031,602.67	65.00	1.54	108,286.68	26.49	0.5925	4,165,943
1978	281,272.40	65.00	1.54	4,331.59	27.87	0.5712	160,671
1979	608,000.79	65.00	1.54	9,363.21	28.58	0.5603	340,669
1980	489,997.22	65.00	1.54	7,545.96	29.29	0.5494	269,195
1982	208,461.10	65.00	1.54	3,210.30	30.73	0.5272	109,907
1983	96,073.47	65.00	1.54	1,479.53	31.47	0.5159	49,559
1984	199,020.95	65.00	1.54	3,064.92	32.21	0.5045	100,398
1985	4,665,805.69	65.00	1.54	71,853.41	32.96	0.4929	2,299,869
1986	1,686,502.48	65.00	1.54	25,972.14	33.72	0.4812	811,596
1987	2,829,479.10	65.00	1.54	43,573.98	34.49	0.4694	1,328,101
1988	939,264.26	65.00	1.54	14,464.67	35.26	0.4575	429,751
1989	3,313,051.54	65.00	1.54	51,020.99	36.04	0.4455	1,476,097
1990	2,406,228.01	65.00	1.54	37,055.91	36.83	0.4334	1,042,811
1991	48,851.88	65.00	1.54	752.32	37.63	0.4211	20,571
1992	1,399,403.82	65.00	1.54	21,550.82	38.43	0.4088	572,034
1993	769,229.16	65.00	1.54	11,846.13	39.23	0.3965	304,969
1994	83,720.00	65.00	1.54	1,289.29	40.05	0.3839	32,136
1995	119,523.47	65.00	1.54	1,840.66	40.87	0.3712	44,371
1996	191,799.57	65.00	1.54	2,953.71	41.70	0.3585	68,752
1997	317,164.60	65.00	1.54	4,884.33	42.53	0.3457	109,641
1998	262,947.06	65.00	1.54	4,049.38	43.37	0.3328	87,501
1999	271,062.28	65.00	1.54	4,174.36	44.22	0.3197	86,656
2000	249,373.28	65.00	1.54	3,840.35	45.07	0.3066	76,463
2001	147,369.45	65.00	1.54	2,269.49	45.93	0.2934	43,235
2002	626,314.29	65.00	1.54	9,645.24	46.79	0.2802	175,462
2003	1,037,027.74	65.00	1.54	15,970.23	47.66	0.2668	276,648
2004	538,764.04	65.00	1.54	8,296.97	48.53	0.2534	136,512
2005	694,557.92	65.00	1.54	10,696.19	49.41	0.2399	166,590
2006	485,209.00	65.00	1.54	7,472.22	50.30	0.2262	109,730
2007	433,280.90	65.00	1.54	6,672.53	51.18	0.2126	92,124
2008	301,405.08	65.00	1.54	4,641.64	52.08	0.1988	59,910
2009	57,839.10	65.00	1.54	890.72	52.98	0.1849	10,696
2010	241,551.73	65.00	1.54	3,719.90	53.88	0.1711	41,325
2011	181,199.02	65.00	1.54	2,790.46	54.78	0.1572	28,490
2012	520,208.99	65.00	1.54	8,011.22	55.70	0.1431	74,432
2013	178,792.95	65.00	1.54	2,753.41	56.61	0.1291	23,079
2014	527,651.11	65.00	1.54	8,125.83	57.53	0.1149	60,638
2015	544,916.09	65.00	1.54	8,391.71	58.45	0.1008	54,911
2016	591,734.66	65.00	1.54	9,112.71	59.38	0.0865	51,161
2017	508,021.11	65.00	1.54	7,823.53	60.31	0.0722	36,654

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 354.40 - STRUCTURES AND IMPROVEMENTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
2018	574,879.38	65.00	1.54	8,853.14	61.24	0.0579	33,257
2019	318,573.17	65.00	1.54	4,906.03	62.17	0.0435	13,871
2020	629,634.49	65.00	1.54	9,696.37	63.11	0.0291	18,310
2021	250,169.79	65.00	1.54	3,852.61	64.06	0.0145	3,617
2022	73,757.65	65.00	1.54	1,135.87	64.76	0.0037	272
	38,865,565.48			598,529.71			16,133,590

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 360.10 - FORCE MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 70-R2.5							
NET SALVAGE PERCENT.. 0							
1987	695,000.00	70.00	1.43	9,938.50	39.24	0.4394	305,404
1991	34,000.00	70.00	1.43	486.20	42.44	0.3937	13,386
1996	14,000.00	70.00	1.43	200.20	46.58	0.3346	4,684
	743,000.00			10,624.90			323,474

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 361.10 - INTERCEPTORS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 70-R2.5							
NET SALVAGE PERCENT.. 0							
1968	407,150.93	70.00	1.43	5,822.26	25.59	0.6344	258,309
1970	8,079.22	70.00	1.43	115.53	26.88	0.6160	4,977
1971	32,599.29	70.00	1.43	466.17	27.55	0.6064	19,769
1975	92,994.02	70.00	1.43	1,329.81	30.29	0.5673	52,755
1977	86,139.95	70.00	1.43	1,231.80	31.70	0.5471	47,131
1987	211,172.39	70.00	1.43	3,019.77	39.24	0.4394	92,795
1988	61,137.18	70.00	1.43	874.26	40.03	0.4281	26,175
1989	96,467.21	70.00	1.43	1,379.48	40.83	0.4167	40,199
2011	38,531.04	70.00	1.43	550.99	59.77	0.1461	5,631
2012	114,459.19	70.00	1.43	1,636.77	60.68	0.1331	15,239
2013	115,968.75	70.00	1.43	1,658.35	61.60	0.1200	13,916
2014	82,681.97	70.00	1.43	1,182.35	62.52	0.1069	8,835
2015	613,884.23	70.00	1.43	8,778.54	63.45	0.0936	57,441
2016	221,023.94	70.00	1.43	3,160.64	64.37	0.0804	17,777
2017	1,849,559.07	70.00	1.43	26,448.69	65.30	0.0671	124,179
2018	493,083.33	70.00	1.43	7,051.09	66.24	0.0537	26,484
2019	80,232.97	70.00	1.43	1,147.33	67.17	0.0404	3,244
2020	13,376.49	70.00	1.43	191.28	68.11	0.0270	361
2021	22,498.72	70.00	1.43	321.73	69.06	0.0134	302
2022	2,893.50	70.00	1.43	41.38	69.76	0.0034	10
	4,643,933.39			66,408.22			815,529

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 361.20 - GRAVITY MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1955	77,972.46	65.00	1.54	1,200.78	14.64	0.7748	60,411
1956	25,444.68	65.00	1.54	391.85	15.08	0.7680	19,542
1957	11,734.30	65.00	1.54	180.71	15.53	0.7611	8,931
1963	5,505.89	65.00	1.54	84.79	18.53	0.7149	3,936
1967	59,709.28	65.00	1.54	919.52	20.78	0.6803	40,621
1968	818,246.89	65.00	1.54	12,601.00	21.37	0.6712	549,232
1969	63,846.03	65.00	1.54	983.23	21.97	0.6620	42,266
1970	242,959.02	65.00	1.54	3,741.57	22.59	0.6525	158,521
1971	253,412.95	65.00	1.54	3,902.56	23.21	0.6429	162,924
1972	124,741.86	65.00	1.54	1,921.02	23.85	0.6331	78,972
1975	876,506.60	65.00	1.54	13,498.20	25.82	0.6028	528,332
1976	128,974.64	65.00	1.54	1,986.21	26.49	0.5925	76,412
1977	258,369.70	65.00	1.54	3,978.89	27.18	0.5819	150,332
1978	321,955.66	65.00	1.54	4,958.12	27.87	0.5712	183,911
1979	358,165.69	65.00	1.54	5,515.75	28.58	0.5603	200,684
1980	337,864.06	65.00	1.54	5,203.11	29.29	0.5494	185,616
1981	58,722.81	65.00	1.54	904.33	30.01	0.5383	31,611
1982	32,036.82	65.00	1.54	493.37	30.73	0.5272	16,891
1983	22,213.40	65.00	1.54	342.09	31.47	0.5159	11,459
1984	661,582.09	65.00	1.54	10,188.36	32.21	0.5045	333,742
1985	359,564.89	65.00	1.54	5,537.30	32.96	0.4929	177,237
1986	152,368.81	65.00	1.54	2,346.48	33.72	0.4812	73,324
1987	160,593.14	65.00	1.54	2,473.13	34.49	0.4694	75,379
1988	1,435,855.95	65.00	1.54	22,112.18	35.26	0.4575	656,962
1989	116,679.65	65.00	1.54	1,796.87	36.04	0.4455	51,985
1990	389,619.61	65.00	1.54	6,000.14	36.83	0.4334	168,853
1991	1,617,070.21	65.00	1.54	24,902.88	37.63	0.4211	680,916
1992	500,597.55	65.00	1.54	7,709.20	38.43	0.4088	204,629
1993	775,705.62	65.00	1.54	11,945.87	39.23	0.3965	307,536
1994	399,955.98	65.00	1.54	6,159.32	40.05	0.3839	153,523
1995	465,462.48	65.00	1.54	7,168.12	40.87	0.3712	172,794
1996	642,013.27	65.00	1.54	9,887.00	41.70	0.3585	230,136
1997	408,269.17	65.00	1.54	6,287.35	42.53	0.3457	141,135
1998	348,109.38	65.00	1.54	5,360.88	43.37	0.3328	115,840
1999	78,238.71	65.00	1.54	1,204.88	44.22	0.3197	25,012
2000	188,765.66	65.00	1.54	2,906.99	45.07	0.3066	57,879
2001	1,178,657.58	65.00	1.54	18,151.33	45.93	0.2934	345,795
2003	564,697.02	65.00	1.54	8,696.33	47.66	0.2668	150,644
2004	41,559.28	65.00	1.54	640.01	48.53	0.2534	10,530
2005	181,281.74	65.00	1.54	2,791.74	49.41	0.2399	43,480
2006	43,637.22	65.00	1.54	672.01	50.30	0.2262	9,869
2007	126,063.58	65.00	1.54	1,941.38	51.18	0.2126	26,804

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 361.20 - GRAVITY MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
2008	134,346.78	65.00	1.54	2,068.94	52.08	0.1988	26,704
2010	403,735.09	65.00	1.54	6,217.52	53.88	0.1711	69,071
2012	432,470.31	65.00	1.54	6,660.04	55.70	0.1431	61,878
2013	120,758.35	65.00	1.54	1,859.68	56.61	0.1291	15,587
2015	322,375.26	65.00	1.54	4,964.58	58.45	0.1008	32,486
2017	37,048.62	65.00	1.54	570.55	60.31	0.0722	2,673
2020	52,308.24	65.00	1.54	805.55	63.11	0.0291	1,521
2021	77,602.00	65.00	1.54	1,195.07	64.06	0.0145	1,122
	16,495,375.98			254,028.78			6,935,650

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 390.70 - OFFICE FURNITURE AND EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1990	20,194.00	20.00				1.0000	20,194
1992	10,489.00	20.00				1.0000	10,489
1998	15,849.00	20.00				1.0000	15,849
2003	9,806.00	20.00	5.00	490.30	1.00	0.9500	9,316
2004	7,395.00	20.00	5.00	369.75	2.00	0.9000	6,656
2005	3,976.00	20.00	5.00	198.80	3.00	0.8500	3,380
2008	1,799.98	20.00	5.00	90.00	6.00	0.7000	1,260
2011	6,358.78	20.00	5.00	317.94	9.00	0.5500	3,497
2013	3,490.00	20.00	5.00	174.50	11.00	0.4500	1,570
2016	3,868.00	20.00	5.00	193.40	14.00	0.3000	1,160
	83,225.76			1,834.69			73,371

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.20

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

ACCOUNT 391.70 - TRANSPORTATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 11-S1.5							
NET SALVAGE PERCENT.. 0							
1980	2,300.00	11.00				1.0000	2,300
1989	13,549.00	11.00				1.0000	13,549
1990	32,907.00	11.00				1.0000	32,907
1992	40,625.00	11.00				1.0000	40,625
1997	22,810.00	11.00				1.0000	22,810
1999	49,000.00	11.00				1.0000	49,000
2002	5,750.00	11.00	9.09	522.68	0.52	0.9527	5,478
2006	33,297.00	11.00	9.09	3,026.70	1.55	0.8591	28,605
2012	9,895.70	11.00	9.09	899.52	3.58	0.6746	6,675
2013	27,451.52	11.00	9.09	2,495.34	4.04	0.6327	17,369
2016	47,078.00	11.00	9.09	4,279.39	5.78	0.4746	22,341
2017	94,923.00	11.00	9.09	8,628.50	6.49	0.4100	38,918
	379,586.22			19,852.13			280,577

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 5.23

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER ASSETS

SUMMARY OF
CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AT JUNE 30, 2022

ACCT	GP	AVG. AGE	ORIGINAL COST	--ANNUAL ACCRUAL-- RATE	AMOUNT	ACCRUED DEPRECIATION
35430		34.1	1,829,747.84	1.67	30,556.79	946,451
35440		31.2	38,865,565.48	1.54	598,529.71	16,133,590
36010		34.6	743,000.00	1.43	10,624.90	323,474
36110		14.1	4,643,933.39	1.43	66,408.22	815,529
36120		31.6	16,495,375.98	1.54	254,028.78	6,935,650
39070		22.6	83,225.76	2.20	1,834.69	73,371
39170		16.5	379,586.22	5.23	19,852.13	280,577
GRAND TOTAL		30.1	63,040,434.67	1.56	981,835.22	25,508,642

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF REPLACEMENT COST AND ACCRUED DEPRECIATION
OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	REPLACEMENT COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	6,566,945.66	3,412,691
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	154,201,318.03	76,266,632
360.10	FORCE MAINS	2,749,918.55	1,199,153
361.10	INTERCEPTOR	12,800,449.87	5,136,982
361.20	GRAVITY MAINS	70,869,828.38	36,039,682
390.70	OFFICE FURNITURE AND EQUIPMENT	149,574.99	134,734
391.70	TRANSPORTATION EQUIPMENT	451,069.75	342,063
	TOTAL COMPANY	**247,789,105.23**	**122,531,937**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF ANALYSIS OF REPLACEMENT COST
OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	REPLACEMENT COST
(1)	(2)	(3)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	6,566,945.66
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	154,201,318.03
360.10	FORCE MAINS	2,749,918.55
361.10	INTERCEPTOR	12,800,449.87
361.20	GRAVITY MAINS	70,869,828.38
390.70	OFFICE FURNITURE AND EQUIPMENT	149,574.99
391.70	TRANSPORTATION EQUIPMENT	451,069.75
	TOTAL COMPANY	**247,789,105.23**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF SERVICE LIFE ESTIMATES AND CALCULATED ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	SURVIVOR CURVE	REPLACEMENT COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)	(5)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	60-R3	6,566,945.66	3,412,691
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	65-R2.5	154,201,318.03	76,266,632
360.10	FORCE MAINS	70-R2.5	2,749,918.55	1,199,153
361.10	INTERCEPTOR	70-R2.5	12,800,449.87	5,136,982
361.20	GRAVITY MAINS	65-R2.5	70,869,828.38	36,039,682
390.70	OFFICE FURNITURE AND EQUIPMENT	20-SQ	149,574.99	134,734
391.70	TRANSPORTATION EQUIPMENT	11-S1.5	451,069.75	342,063
	TOTAL COMPANY		**247,789,105.23**	**122,531,937**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF REPLACEMENT COST NEW AND REPLACEMENT COST NEW LESS DEPRECIATION OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

	DESCRIPTION		REPLACEMENT COST
	(1)		(2)
1.	REPLACEMENT COST NEW		$ 247,789,105
2.	LESS: ACCRUED DEPRECIATION	–	122,531,937
3.	PRELIMINARY RCNLD		$ 125,257,168
4.		**CONCLUSION RCNLD**	**$ 125,257,168**

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF REPLACEMENT COST AND TRANSITION FACTORS BY ACCOUNT AND VINTAGE YEAR
OF WASTEWATER SYSTEM AS OF JUNE 30, 2022

ACCOUNT	DESCRIPTION	VINTAGE YEAR	BASE COST	TRANSITION FACTOR	FACTOR REFERENCE	REPLACEMENT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1987	1,581,000.00	3.68619	(1)	5,827,870.29
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1991	119,747.84	3.21533	(1)	385,028.64
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1996	129,000.00	2.74455	(1)	354,046.73
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1967	880,340.64	14.44262	(1)	12,714,427.93
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1969	54,532.38	12.76812	(1)	696,275.75
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1976	7,031,602.67	6.77692	(1)	47,652,630.40
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1978	281,272.40	5.95270	(1)	1,674,330.98
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1979	608,000.79	5.40491	(1)	3,286,188.32
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1980	489,997.22	4.86740	(1)	2,385,014.09
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1982	208,461.10	4.44949	(1)	927,546.61
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1983	96,073.47	4.27670	(1)	410,877.32
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1984	199,020.95	4.04128	(1)	804,300.26
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1985	4,665,805.69	3.91556	(1)	18,269,221.39
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1986	1,686,502.48	3.78112	(1)	6,376,861.31
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1987	2,829,479.10	3.68619	(1)	10,430,004.55
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1988	939,264.26	3.50996	(1)	3,296,780.13
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1989	3,313,051.54	3.32453	(1)	11,014,333.61
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1990	2,406,228.01	3.25092	(1)	7,822,460.80
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1991	48,851.88	3.21533	(1)	157,074.84
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1992	1,399,403.82	3.13523	(1)	4,387,454.68
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1993	769,229.16	2.99660	(1)	2,305,071.05
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1994	83,720.00	2.86039	(1)	239,471.82
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1995	119,523.47	2.78797	(1)	333,228.41
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1996	191,799.57	2.74455	(1)	526,403.18
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1997	317,164.60	2.66163	(1)	844,175.26
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1998	262,947.06	2.61424	(1)	687,407.60
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1999	271,062.28	2.56851	(1)	696,227.02
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2000	249,373.28	2.43370	(1)	606,900.16
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2001	147,369.45	2.33069	(1)	343,472.18
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2002	626,314.29	2.26478	(1)	1,418,465.01
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2003	1,037,027.74	2.23604	(1)	2,318,836.14
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2004	538,764.04	2.09264	(1)	1,127,437.34
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2005	694,557.92	1.96652	(1)	1,365,860.55
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2006	485,209.00	1.89056	(1)	917,315.73
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2007	433,280.90	1.77621	(1)	769,597.73
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2008	301,405.08	1.63755	(1)	493,564.82
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2009	57,839.10	1.61949	(1)	93,669.57
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2010	241,551.73	1.57321	(1)	380,012.63
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2011	181,199.02	1.50856	(1)	273,349.89
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2012	520,208.99	1.45861	(1)	758,781.66
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2013	178,792.95	1.43485	(1)	256,541.68
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2014	527,651.11	1.39620	(1)	736,704.64
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2015	544,916.09	1.36167	(1)	741,995.48
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2016	591,734.66	1.33283	(1)	788,681.14
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2017	508,021.11	1.30519	(1)	663,061.63
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2018	574,879.38	1.25142	(1)	719,415.82
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2019	318,573.17	1.23045	(1)	391,987.38
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2020	629,634.49	1.19864	(1)	754,704.74
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2021	250,169.79	1.07702	(1)	269,437.15
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2022	73,757.65	1.00000	(1)	73,757.65
360.10	FORCE MAINS	1987	695,000.00	3.74144	(2)	2,600,304.18
360.10	FORCE MAINS	1991	34,000.00	3.20521	(2)	108,977.20
360.10	FORCE MAINS	1996	14,000.00	2.90265	(2)	40,637.17
361.10	INTERCEPTOR	1968	407,150.93	12.77922	(2)	5,203,071.62
361.10	INTERCEPTOR	1970	8,079.22	11.71429	(2)	94,642.29
361.10	INTERCEPTOR	1971	32,599.29	10.46809	(2)	341,252.14
361.10	INTERCEPTOR	1975	92,994.02	6.73973	(2)	626,754.22
361.10	INTERCEPTOR	1977	86,139.95	6.07407	(2)	523,220.44
361.10	INTERCEPTOR	1987	211,172.39	3.74144	(2)	790,089.85
361.10	INTERCEPTOR	1988	61,137.18	3.51429	(2)	214,853.52
361.10	INTERCEPTOR	1989	96,467.21	3.33559	(2)	321,775.37

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ACCOUNT	DESCRIPTION	VINTAGE YEAR	BASE COST	TRANSITION FACTOR	FACTOR REFERENCE	REPLACEMENT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)
361.10	INTERCEPTOR	2011	38,531.04	1.51852	(2)	58,510.10
361.10	INTERCEPTOR	2012	114,459.19	1.43231	(2)	163,941.55
361.10	INTERCEPTOR	2013	115,968.75	1.40371	(2)	162,786.38
361.10	INTERCEPTOR	2014	82,681.97	1.34610	(2)	111,298.30
361.10	INTERCEPTOR	2015	613,884.23	1.32973	(2)	816,300.11
361.10	INTERCEPTOR	2016	221,023.94	1.30331	(2)	288,062.99
361.10	INTERCEPTOR	2017	1,849,559.07	1.26641	(2)	2,342,298.75
361.10	INTERCEPTOR	2018	493,083.33	1.22540	(2)	604,226.65
361.10	INTERCEPTOR	2019	80,232.97	1.18554	(2)	95,119.57
361.10	INTERCEPTOR	2020	13,376.49	1.14685	(2)	15,340.87
361.10	INTERCEPTOR	2021	22,498.72	1.06725	(2)	24,011.65
361.10	INTERCEPTOR	2022	2,893.50	1.00000	(2)	2,893.50
361.20	GRAVITY MAINS	1955	77,972.46	18.56604	(2)	1,447,639.63
361.20	GRAVITY MAINS	1956	25,444.68	17.26316	(2)	439,255.53
361.20	GRAVITY MAINS	1957	11,734.30	16.40000	(2)	192,442.52
361.20	GRAVITY MAINS	1963	5,505.89	13.66667	(2)	75,247.16
361.20	GRAVITY MAINS	1967	59,709.28	12.94737	(2)	773,078.05
361.20	GRAVITY MAINS	1968	818,246.89	12.77922	(2)	10,456,557.66
361.20	GRAVITY MAINS	1969	63,846.03	12.30000	(2)	785,306.17
361.20	GRAVITY MAINS	1970	242,959.02	11.71429	(2)	2,846,091.38
361.20	GRAVITY MAINS	1971	253,412.95	10.46809	(2)	2,652,748.33
361.20	GRAVITY MAINS	1972	124,741.86	10.04082	(2)	1,252,510.10
361.20	GRAVITY MAINS	1975	876,506.60	6.73973	(2)	5,907,414.35
361.20	GRAVITY MAINS	1976	128,974.64	6.38961	(2)	824,097.70
361.20	GRAVITY MAINS	1977	258,369.70	6.07407	(2)	1,569,356.70
361.20	GRAVITY MAINS	1978	321,955.66	5.68786	(2)	1,831,239.13
361.20	GRAVITY MAINS	1979	358,165.69	5.31892	(2)	1,905,054.26
361.20	GRAVITY MAINS	1980	337,864.06	4.87129	(2)	1,645,832.85
361.20	GRAVITY MAINS	1981	58,722.81	4.49315	(2)	263,850.43
361.20	GRAVITY MAINS	1982	32,036.82	4.25974	(2)	136,468.53
361.20	GRAVITY MAINS	1983	22,213.40	4.11715	(2)	91,456.01
361.20	GRAVITY MAINS	1984	661,582.09	4.03279	(2)	2,668,019.58
361.20	GRAVITY MAINS	1985	359,564.89	3.87402	(2)	1,392,960.05
361.20	GRAVITY MAINS	1986	152,368.81	3.85882	(2)	587,964.35
361.20	GRAVITY MAINS	1987	160,593.14	3.74144	(2)	600,850.38
361.20	GRAVITY MAINS	1988	1,435,855.95	3.51429	(2)	5,046,008.05
361.20	GRAVITY MAINS	1989	116,679.65	3.33559	(2)	389,195.85
361.20	GRAVITY MAINS	1990	389,619.61	3.26910	(2)	1,273,706.63
361.20	GRAVITY MAINS	1991	1,617,070.21	3.20521	(2)	5,183,052.40
361.20	GRAVITY MAINS	1992	500,597.55	3.16399	(2)	1,583,884.21
361.20	GRAVITY MAINS	1993	775,705.62	3.06542	(2)	2,377,863.96
361.20	GRAVITY MAINS	1994	399,955.98	3.00917	(2)	1,203,537.26
361.20	GRAVITY MAINS	1995	465,462.48	2.96386	(2)	1,379,563.49
361.20	GRAVITY MAINS	1996	642,013.27	2.90265	(2)	1,863,542.94
361.20	GRAVITY MAINS	1997	408,269.17	2.83573	(2)	1,157,743.12
361.20	GRAVITY MAINS	1998	348,109.38	2.77183	(2)	964,900.37
361.20	GRAVITY MAINS	1999	78,238.71	2.72576	(2)	213,260.08
361.20	GRAVITY MAINS	2000	188,765.66	2.61008	(2)	492,693.39
361.20	GRAVITY MAINS	2001	1,178,657.58	2.51662	(2)	2,966,238.00
361.20	GRAVITY MAINS	2003	564,697.02	2.41769	(2)	1,365,262.57
361.20	GRAVITY MAINS	2004	41,559.28	2.27778	(2)	94,662.80
361.20	GRAVITY MAINS	2005	181,281.74	2.09808	(2)	380,343.78
361.20	GRAVITY MAINS	2006	43,637.22	1.97194	(2)	86,050.15
361.20	GRAVITY MAINS	2007	126,063.58	1.85660	(2)	234,050.12
361.20	GRAVITY MAINS	2008	134,346.78	1.67347	(2)	224,825.22
361.20	GRAVITY MAINS	2010	403,735.09	1.57692	(2)	636,659.18
361.20	GRAVITY MAINS	2012	432,470.31	1.43231	(2)	619,433.46
361.20	GRAVITY MAINS	2013	120,758.35	1.40371	(2)	169,509.58
361.20	GRAVITY MAINS	2015	322,375.26	1.32973	(2)	428,671.97
361.20	GRAVITY MAINS	2017	37,048.62	1.26641	(2)	46,918.72
361.20	GRAVITY MAINS	2020	52,308.24	1.14685	(2)	59,989.87

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SUMMARY OF REPLACEMENT COST AND TRANSITION FACTORS BY ACCOUNT AND VINTAGE YEAR
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ACCOUNT (1)	DESCRIPTION (2)	VINTAGE YEAR (3)	BASE COST (4)	TRANSITION FACTOR (5)	FACTOR REFERENCE (6)	REPLACEMENT COST (7)
361.20	GRAVITY MAINS	2021	77,602.00	1.06725	(2)	82,820.36
390.70	OFFICE FURNITURE AND EQUIPMENT	1990	20,194.00	1.89776	(3)	38,323.37
390.70	OFFICE FURNITURE AND EQUIPMENT	1992	10,489.00	1.89776	(3)	19,905.60
390.70	OFFICE FURNITURE AND EQUIPMENT	1998	15,849.00	1.89776	(3)	30,077.60
390.70	OFFICE FURNITURE AND EQUIPMENT	2003	9,806.00	1.89776	(3)	18,609.43
390.70	OFFICE FURNITURE AND EQUIPMENT	2004	7,395.00	1.80496	(3)	13,347.64
390.70	OFFICE FURNITURE AND EQUIPMENT	2005	3,976.00	1.70266	(3)	6,769.79
390.70	OFFICE FURNITURE AND EQUIPMENT	2008	1,799.98	1.56549	(3)	2,817.84
390.70	OFFICE FURNITURE AND EQUIPMENT	2011	6,358.78	1.47227	(3)	9,361.86
390.70	OFFICE FURNITURE AND EQUIPMENT	2013	3,490.00	1.43543	(3)	5,009.66
390.70	OFFICE FURNITURE AND EQUIPMENT	2016	3,868.00	1.38371	(3)	5,352.20
391.70	TRANSPORTATION EQUIPMENT	1980	2,300.00	1.90815	(4)	4,388.74
391.70	TRANSPORTATION EQUIPMENT	1989	13,549.00	1.39802	(4)	18,941.74
391.70	TRANSPORTATION EQUIPMENT	1990	32,907.00	1.36895	(4)	45,048.13
391.70	TRANSPORTATION EQUIPMENT	1992	40,625.00	1.27079	(4)	51,625.66
391.70	TRANSPORTATION EQUIPMENT	1997	22,810.00	1.18291	(4)	26,982.08
391.70	TRANSPORTATION EQUIPMENT	1999	49,000.00	1.19200	(4)	58,408.05
391.70	TRANSPORTATION EQUIPMENT	2002	5,750.00	1.21630	(4)	6,993.74
391.70	TRANSPORTATION EQUIPMENT	2006	33,297.00	1.25419	(4)	41,760.78
391.70	TRANSPORTATION EQUIPMENT	2012	9,895.70	1.16155	(4)	11,494.35
391.70	TRANSPORTATION EQUIPMENT	2013	27,451.52	1.14948	(4)	31,554.95
391.70	TRANSPORTATION EQUIPMENT	2016	47,078.00	1.09300	(4)	51,456.44
391.70	TRANSPORTATION EQUIPMENT	2017	94,923.00	1.07893	(4)	102,415.09
	TOTAL COMPANY		**63,040,434.67**			**247,789,105.23**

NOTES : (1) Handy-Whitman Index of Public Utility Costs, 1/1/22, Cost Trends of Water Utility Construction, North Atlantic Region, Line 8
(2) Handy-Whitman Index of Public Utility Costs, 1/1/22, Cost Trends of Water Utility Construction, North Atlantic Region, Line 34
(3) U.S. Bureau of Labor Statistics, Producer Price Index, Series Title: PPI industry group data for Office furniture (including fixtures) mfg, not seasonally adjusted
(4) U.S. Bureau of Labor Statistics, Producer Price Index, Series Title: PPI industry data for Automobile, light truck and utility vehicle mfg, not seasonally adjusted

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ACCOUNT 354.30 - STRUCTURES AND IMPROVEMENTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 60-R3							
NET SALVAGE PERCENT.. 0							
1987	5,827,870.29	60.00	1.67	97,325.43	28.23	0.5295	3,085,857
1991	385,028.64	60.00	1.67	6,429.98	31.45	0.4758	183,208
1996	354,046.73	60.00	1.67	5,912.58	35.66	0.4057	143,626
	6,566,945.66			109,667.99			3,412,691

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

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ACCOUNT 354.40 - STRUCTURES AND IMPROVEMENTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1967	12,714,427.93	65.00	1.54	195,802.19	20.78	0.6803	8,649,752
1969	696,275.75	65.00	1.54	10,722.65	21.97	0.6620	460,935
1976	47,652,630.40	65.00	1.54	733,850.51	26.49	0.5925	28,232,277
1978	1,674,330.98	65.00	1.54	25,784.70	27.87	0.5712	956,428
1979	3,286,188.32	65.00	1.54	50,607.30	28.58	0.5603	1,841,284
1980	2,385,014.09	65.00	1.54	36,729.22	29.29	0.5494	1,310,279
1982	927,546.61	65.00	1.54	14,284.22	30.73	0.5272	489,030
1983	410,877.32	65.00	1.54	6,327.51	31.47	0.5159	211,951
1984	804,300.26	65.00	1.54	12,386.22	32.21	0.5045	405,737
1985	18,269,221.39	65.00	1.54	281,346.01	32.96	0.4929	9,005,265
1986	6,376,861.31	65.00	1.54	98,203.66	33.72	0.4812	3,068,737
1987	10,430,004.55	65.00	1.54	160,622.07	34.49	0.4694	4,895,636
1988	3,296,780.13	65.00	1.54	50,770.41	35.26	0.4575	1,508,409
1989	11,014,333.61	65.00	1.54	169,620.74	36.04	0.4455	4,907,326
1990	7,822,460.80	65.00	1.54	120,465.90	36.83	0.4334	3,390,098
1991	157,074.84	65.00	1.54	2,418.95	37.63	0.4211	66,141
1992	4,387,454.68	65.00	1.54	67,566.80	38.43	0.4088	1,793,460
1993	2,305,071.05	65.00	1.54	35,498.09	39.23	0.3965	913,868
1994	239,471.82	65.00	1.54	3,687.87	40.05	0.3839	91,921
1995	333,228.41	65.00	1.54	5,131.72	40.87	0.3712	123,704
1996	526,403.18	65.00	1.54	8,106.61	41.70	0.3585	188,694
1997	844,175.26	65.00	1.54	13,000.30	42.53	0.3457	291,823
1998	687,407.60	65.00	1.54	10,586.08	43.37	0.3328	228,749
1999	696,227.02	65.00	1.54	10,721.90	44.22	0.3197	222,577
2000	606,900.16	65.00	1.54	9,346.26	45.07	0.3066	186,088
2001	343,472.18	65.00	1.54	5,289.47	45.93	0.2934	100,768
2002	1,418,465.01	65.00	1.54	21,844.36	46.79	0.2802	397,383
2003	2,318,836.14	65.00	1.54	35,710.08	47.66	0.2668	618,596
2004	1,127,437.34	65.00	1.54	17,362.54	48.53	0.2534	285,670
2005	1,365,860.55	65.00	1.54	21,034.25	49.41	0.2399	327,602
2006	917,315.73	65.00	1.54	14,126.66	50.30	0.2262	207,451
2007	769,597.73	65.00	1.54	11,851.81	51.18	0.2126	163,632
2008	493,564.82	65.00	1.54	7,600.90	52.08	0.1988	98,106
2009	93,669.57	65.00	1.54	1,442.51	52.98	0.1849	17,321
2010	380,012.63	65.00	1.54	5,852.19	53.88	0.1711	65,013
2011	273,349.89	65.00	1.54	4,209.59	54.78	0.1572	42,979
2012	758,781.66	65.00	1.54	11,685.24	55.70	0.1431	108,566
2013	256,541.68	65.00	1.54	3,950.74	56.61	0.1291	33,114
2014	736,704.64	65.00	1.54	11,345.25	57.53	0.1149	84,662
2015	741,995.48	65.00	1.54	11,426.73	58.45	0.1008	74,771
2016	788,681.14	65.00	1.54	12,145.69	59.38	0.0865	68,189
2017	663,061.63	65.00	1.54	10,211.15	60.31	0.0722	47,840

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 354.40 - STRUCTURES AND IMPROVEMENTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
2018	719,415.82	65.00	1.54	11,079.00	61.24	0.0579	41,618
2019	391,987.38	65.00	1.54	6,036.61	62.17	0.0435	17,067
2020	754,704.74	65.00	1.54	11,622.45	63.11	0.0291	21,947
2021	269,437.15	65.00	1.54	4,149.33	64.06	0.0145	3,896
2022	73,757.65	65.00	1.54	1,135.87	64.76	0.0037	272
	154,201,318.03			2,374,700.31			76,266,632

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 360.10 - FORCE MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 70-R2.5							
NET SALVAGE PERCENT.. 0							
1987	2,600,304.18	70.00	1.43	37,184.35	39.24	0.4394	1,142,652
1991	108,977.20	70.00	1.43	1,558.37	42.44	0.3937	42,905
1996	40,637.17	70.00	1.43	581.11	46.58	0.3346	13,596
	2,749,918.55			39,323.83			1,199,153

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 361.10 - INTERCEPTOR

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 70-R2.5							
NET SALVAGE PERCENT.. 0							
1968	5,203,071.62	70.00	1.43	74,403.92	25.59	0.6344	3,300,985
1970	94,642.29	70.00	1.43	1,353.38	26.88	0.6160	58,300
1971	341,252.14	70.00	1.43	4,879.91	27.55	0.6064	206,946
1975	626,754.22	70.00	1.43	8,962.59	30.29	0.5673	355,551
1977	523,220.44	70.00	1.43	7,482.05	31.70	0.5471	286,275
1987	790,089.85	70.00	1.43	11,298.28	39.24	0.4394	347,189
1988	214,853.52	70.00	1.43	3,072.41	40.03	0.4281	91,987
1989	321,775.37	70.00	1.43	4,601.39	40.83	0.4167	134,087
2011	58,510.10	70.00	1.43	836.69	59.77	0.1461	8,551
2012	163,941.55	70.00	1.43	2,344.36	60.68	0.1331	21,827
2013	162,786.38	70.00	1.43	2,327.85	61.60	0.1200	19,534
2014	111,298.30	70.00	1.43	1,591.57	62.52	0.1069	11,893
2015	816,300.11	70.00	1.43	11,673.09	63.45	0.0936	76,381
2016	288,062.99	70.00	1.43	4,119.30	64.37	0.0804	23,169
2017	2,342,298.75	70.00	1.43	33,494.87	65.30	0.0671	157,262
2018	604,226.65	70.00	1.43	8,640.44	66.24	0.0537	32,453
2019	95,119.57	70.00	1.43	1,360.21	67.17	0.0404	3,846
2020	15,340.87	70.00	1.43	219.37	68.11	0.0270	414
2021	24,011.65	70.00	1.43	343.37	69.06	0.0134	322
2022	2,893.50	70.00	1.43	41.38	69.76	0.0034	10
	12,800,449.87			183,046.43			5,136,982

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 361.20 - GRAVITY MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
1955	1,447,639.63	65.00	1.54	22,293.65	14.64	0.7748	1,121,588
1956	439,255.53	65.00	1.54	6,764.54	15.08	0.7680	337,348
1957	192,442.52	65.00	1.54	2,963.61	15.53	0.7611	146,464
1963	75,247.16	65.00	1.54	1,158.81	18.53	0.7149	53,796
1967	773,078.05	65.00	1.54	11,905.40	20.78	0.6803	525,933
1968	10,456,557.66	65.00	1.54	161,030.99	21.37	0.6712	7,018,755
1969	785,306.17	65.00	1.54	12,093.72	21.97	0.6620	519,873
1970	2,846,091.38	65.00	1.54	43,829.81	22.59	0.6525	1,856,961
1971	2,652,748.33	65.00	1.54	40,852.32	23.21	0.6429	1,705,505
1972	1,252,510.10	65.00	1.54	19,288.66	23.85	0.6331	792,939
1975	5,907,414.35	65.00	1.54	90,974.18	25.82	0.6028	3,560,812
1976	824,097.70	65.00	1.54	12,691.10	26.49	0.5925	488,245
1977	1,569,356.70	65.00	1.54	24,168.09	27.18	0.5819	913,130
1978	1,831,239.13	65.00	1.54	28,201.08	27.87	0.5712	1,046,059
1979	1,905,054.26	65.00	1.54	29,337.84	28.58	0.5603	1,067,421
1980	1,645,832.85	65.00	1.54	25,345.83	29.29	0.5494	904,188
1981	263,850.43	65.00	1.54	4,063.30	30.01	0.5383	142,033
1982	136,468.53	65.00	1.54	2,101.62	30.73	0.5272	71,950
1983	91,456.01	65.00	1.54	1,408.42	31.47	0.5159	47,178
1984	2,668,019.58	65.00	1.54	41,087.50	32.21	0.5045	1,345,909
1985	1,392,960.05	65.00	1.54	21,451.58	32.96	0.4929	686,618
1986	587,964.35	65.00	1.54	9,054.65	33.72	0.4812	282,946
1987	600,850.38	65.00	1.54	9,253.10	34.49	0.4694	282,027
1988	5,046,008.05	65.00	1.54	77,708.52	35.26	0.4575	2,308,751
1989	389,195.85	65.00	1.54	5,993.62	36.04	0.4455	173,402
1990	1,273,706.63	65.00	1.54	19,615.08	36.83	0.4334	551,999
1991	5,183,052.40	65.00	1.54	79,819.01	37.63	0.4211	2,182,480
1992	1,583,884.21	65.00	1.54	24,391.82	38.43	0.4088	647,444
1993	2,377,863.96	65.00	1.54	36,619.10	39.23	0.3965	942,728
1994	1,203,537.26	65.00	1.54	18,534.47	40.05	0.3839	461,978
1995	1,379,563.49	65.00	1.54	21,245.28	40.87	0.3712	512,135
1996	1,863,542.94	65.00	1.54	28,698.56	41.70	0.3585	668,006
1997	1,157,743.12	65.00	1.54	17,829.24	42.53	0.3457	400,220
1998	964,900.37	65.00	1.54	14,859.47	43.37	0.3328	321,090
1999	213,260.08	65.00	1.54	3,284.21	44.22	0.3197	68,177
2000	492,693.39	65.00	1.54	7,587.48	45.07	0.3066	151,070
2001	2,966,238.00	65.00	1.54	45,680.07	45.93	0.2934	870,235
2003	1,365,262.57	65.00	1.54	21,025.04	47.66	0.2668	364,211
2004	94,662.80	65.00	1.54	1,457.81	48.53	0.2534	23,986
2005	380,343.78	65.00	1.54	5,857.29	49.41	0.2399	91,225
2006	86,050.15	65.00	1.54	1,325.17	50.30	0.2262	19,460
2007	234,050.12	65.00	1.54	3,604.37	51.18	0.2126	49,764

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 361.20 - GRAVITY MAINS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 65-R2.5							
NET SALVAGE PERCENT.. 0							
2008	224,825.22	65.00	1.54	3,462.31	52.08	0.1988	44,689
2010	636,659.18	65.00	1.54	9,804.55	53.88	0.1711	108,920
2012	619,433.46	65.00	1.54	9,539.28	55.70	0.1431	88,629
2013	169,509.58	65.00	1.54	2,610.45	56.61	0.1291	21,880
2015	428,671.97	65.00	1.54	6,601.55	58.45	0.1008	43,197
2017	46,918.72	65.00	1.54	722.55	60.31	0.0722	3,385
2020	59,989.87	65.00	1.54	923.84	63.11	0.0291	1,745
2021	82,820.36	65.00	1.54	1,275.43	64.06	0.0145	1,198
	70,869,828.38			1,091,395.37			36,039,682

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 390.70 - OFFICE FURNITURE AND EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. 20-SQUARE							
NET SALVAGE PERCENT.. 0							
1990	38,323.37	20.00				1.0000	38,323
1992	19,905.60	20.00				1.0000	19,906
1998	30,077.60	20.00				1.0000	30,078
2003	18,609.43	20.00	5.00	930.47	1.00	0.9500	17,679
2004	13,347.64	20.00	5.00	667.38	2.00	0.9000	12,013
2005	6,769.79	20.00	5.00	338.49	3.00	0.8500	5,754
2008	2,817.84	20.00	5.00	140.89	6.00	0.7000	1,972
2011	9,361.86	20.00	5.00	468.09	9.00	0.5500	5,149
2013	5,009.66	20.00	5.00	250.48	11.00	0.4500	2,254
2016	5,352.20	20.00	5.00	267.61	14.00	0.3000	1,606
	149,574.99			3,063.41			134,734

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.05

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

ACCOUNT 391.70 - TRANSPORTATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	--ACCRUED DEPREC.-- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVOR CURVE.. IOWA 11-S1.5							
NET SALVAGE PERCENT.. 0							
1980	4,388.74	11.00				1.0000	4,389
1989	18,941.74	11.00				1.0000	18,942
1990	45,048.13	11.00				1.0000	45,048
1992	51,625.66	11.00				1.0000	51,626
1997	26,982.08	11.00				1.0000	26,982
1999	58,408.05	11.00				1.0000	58,408
2002	6,993.74	11.00	9.09	635.73	0.52	0.9527	6,663
2006	41,760.78	11.00	9.09	3,796.05	1.55	0.8591	35,876
2012	11,494.35	11.00	9.09	1,044.84	3.58	0.6746	7,754
2013	31,554.95	11.00	9.09	2,868.34	4.04	0.6327	19,966
2016	51,456.44	11.00	9.09	4,677.39	5.78	0.4746	24,419
2017	102,415.09	11.00	9.09	9,309.53	6.49	0.4100	41,990
	451,069.75			22,331.88			342,063

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 4.95

TOWAMENCIN TOWNSHIP
TOWAMENCIN WASTEWATER SYSTEM ASSETS

SUMMARY OF
CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO REPLACEMENT COST AT JUNE 30, 2022

ACCT	GP	AVG. AGE	ORIGINAL COST	--ANNUAL ACCRUAL-- RATE	AMOUNT	ACCRUED DEPRECIATION
35430		34.3	6,566,945.66	1.67	109,667.99	3,412,691
35440		37.8	154,201,318.03	1.54	2,374,700.31	76,266,632
36010		34.7	2,749,918.55	1.43	39,323.83	1,199,153
36110		33.5	12,800,449.87	1.43	183,046.43	5,136,982
36120		39.3	70,869,828.38	1.54	1,091,395.37	36,039,682
39070		23.2	149,574.99	2.05	3,063.41	134,734
39170		17.4	451,069.75	4.95	22,331.88	342,063
GRAND TOTAL		37.8	247,789,105.23	1.54	3,823,529.22	122,531,937

Income Approach
Towamencin Wastewater System Assets
Pro Forma Operations
Earnings Capitalization Model

		Actual			Budget Year 0
		2019	2020	2021	2022
1.	**OPERATING REVENUES (1)**				
2.	Charges for services	5,503,864	5,631,315	5,178,822	5,243,040
3.	Other operating revenue	4,792	0	36,117	36,150
4.	Tap Fees	0	0	0	0
5.	**Total Operating Revenues**	5,508,656	5,631,315	5,214,939	5,279,190
6.	**Rate Increase**				
7.	**OPERATING EXPENSES (1)**				
8.	Operating & Maintenance Expenses	3,619,345	3,824,073	3,322,822	3,613,737
9.	**Operating Expenses Before Depreciation**	3,619,345	3,824,073	3,322,822	3,613,737
10.	Depreciation (2)	1,331,963	1,344,310	1,344,310	1,345,527
11.	**Total Operating Expenses**	4,951,308	5,168,383	4,667,132	4,959,264
12.	**Operating Income**	557,348	462,932	547,807	319,926
13.	Revenues (3)	5,508,656	5,631,315	5,214,939	5,279,190
14.	EBITDA (4)	1,889,311	1,807,242	1,892,117	1,665,453
15.	EBIT (5)	557,348	462,932	547,807	319,926
16.	EBIT	557,348	462,932	547,807	319,926
17.	(-) Income Taxes	0	0	0	0
18.	Debt Free Net Income	557,348	462,932	547,807	319,926
19.	(+) Depreciation & Amortization	1,331,963	1,344,310	1,344,310	1,345,527
20.	(-) Capital Expenditures (6)	422,187	495,837	234,278	222,858
21.	(-) Changes in Working Capital (7)	(2,754)	(2,816)	(2,607)	(2,640)
22.	Debt Free Net Cash Flow	$1,469,878	$1,314,221	$1,660,446	$1,445,235

Income Approach
Towamencin Wastewater System Assets
Pro Forma Operations
Earnings Capitalization Model

		2022	Pro Forma 2022 (11)
		3.93% Capitalization Rate Model (No Growth)	3.93% Capitalization Rate Model (No Growth)
23.	Debt Free Net Cash Flow (10)	$1,445,235	$1,324,303
24.	Capitalization Factor: (8)	3.93%	3.93%
25.	Indicated Value (line 23 ÷ line 24)	$36,774,417	$33,697,267
		3.73% Capitalization Rate Model (0.20% Growth)	3.73% Capitalization Rate Model (0.20% Growth)
26.	Debt Free Net Cash Flow (10)	$1,445,235	$1,324,303
27.	Capitalization Factor: (9)	3.73%	3.73%
28.	Indicated Value (line 26 ÷ line 27)	$38,746,236	$35,504,091

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma Operations
Earnings Capitalization Model

Notes: (1) Assumptions:

Charges for services - Pre-2022 are actual. 2022 results are based on 2022 budget. Post-2022 based on customer growth (EDU) and average revenue per customer.

OPERATING EXPENSES - increase at 3.0% annually after 2022 unless noted elsewhere. Assumed economies of scale are shown on lines below.

(2) Depreciation - Pre-2022 based on actual depreciation. Post-2022 based on depreciation rate plus same rate on half of CAPX.

(3) Line 5.

(4) Line 12 + line 10.

(5) Line 12.

(6) Capital Expenditures - Pre-2023 based on financials/budget. Post-2022 years are estimates based on Engineers Assessment and at 1.53% of prior year-end GROSS Property, plant

(7) Changes in Working Capital - based on water industry -0.05% of revenues.

(8) Discount rate is the the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 equal to discount rate, where capitalization rate = K - g.

(9) Discount rate is the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.

(10) Final year shown, line 22.

(11) Debt Free Net Cash Flow adjusted for average 2019-2022 CAPX.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Actual			Budget	Estimated	Estimated
				Year 0	Year 1	Year 2
	2019	2020	2021	2022	2023	2024
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417
3. Other operating revenue	4,792	0	36,117	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	0
6. **Total Operating Revenues**	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
7. **Rate Increase**						
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,619,345	3,824,073	3,322,822	3,613,737	3,722,149	3,833,814
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	(234,200)	(241,226)	(248,463)
12. LESS: EOS - Professional Services	0	0	0	(154,383)	(159,014)	(163,784)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	3,619,345	3,824,073	3,322,822	3,225,155	3,321,909	3,421,567
16. Depreciation (2)	1,331,963	1,344,310	1,344,310	1,345,527	998,430	1,040,620
17. **Total Operating Expenses**	4,951,308	5,168,383	4,667,132	4,570,681	4,320,339	4,462,187
18. **Operating Income**	557,348	462,932	547,807	708,509	1,057,937	1,035,380
19. Revenues (3)	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
20. EBITDA (4)	1,889,311	1,807,242	1,892,117	2,054,035	2,056,367	2,076,000
21. EBIT (5)	557,348	462,932	547,807	708,509	1,057,937	1,035,380
22. EBIT	557,348	462,932	547,807	708,509	1,057,937	1,035,380
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	557,348	462,932	547,807	708,509	1,057,937	1,035,380
25. (+) Depreciation & Amortization	1,331,963	1,344,310	1,344,310	1,345,527	998,430	1,040,620
26. (-) Capital Expenditures (6)	422,187	495,837	234,278	222,858	2,747,000	3,803,000
27. (-) Changes in Working Capital (7)	(2,754)	(2,816)	(2,607)	(2,640)	(2,689)	(2,749)
28. Debt Free Net Cash Flow	$1,469,878	$1,314,221	$1,660,446	$1,833,817	($687,944)	($1,724,251)
29. PV Time Period (mid-year)				(0.5)	0.5	1.5
					1	2
30. Present Value Factor: 3.93% (8)					0.9809	0.9438
31. Present Value Debt Free Net Cash Flow					($674,804)	($1,627,348)
					1	2
32. Present Value Factor: 3.73% (9)					0.9819	0.9465
33. Present Value Debt Free Net Cash Flow					($675,492)	($1,632,003)

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated Year 6	Estimated Year 7	Estimated Year 8
	2025	2026	2027	2028	2029	2030
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,671,387	6,917,648	6,938,120	6,972,810	8,058,825	8,099,120
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	1,134,277	0	0	1,045,922	0	0
6. **Total Operating Revenues**	6,841,814	6,953,798	6,974,270	8,054,882	8,094,975	8,135,270
7. **Rate Increase**	**20%**			**15%**		
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,948,828	4,067,293	4,189,312	4,314,991	4,444,441	4,577,774
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(255,916)	(263,594)	(271,502)	(279,647)	(288,036)	(296,677)
12. LESS: EOS - Professional Services	(168,698)	(173,759)	(178,972)	(184,341)	(189,871)	(195,567)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	3,524,214	3,629,940	3,738,838	3,851,003	3,966,533	4,085,529
16. Depreciation (2)	1,097,732	1,159,443	1,211,199	1,273,082	1,341,041	1,388,237
17. **Total Operating Expenses**	4,621,945	4,789,383	4,950,037	5,124,086	5,307,575	5,473,766
18. **Operating Income**	2,219,869	2,164,415	2,024,233	2,930,796	2,787,400	2,661,504
19. Revenues (3)	6,841,814	6,953,798	6,974,270	8,054,882	8,094,975	8,135,270
20. EBITDA (4)	3,317,600	3,323,858	3,235,432	4,203,879	4,128,442	4,049,741
21. EBIT (5)	2,219,869	2,164,415	2,024,233	2,930,796	2,787,400	2,661,504
22. EBIT	2,219,869	2,164,415	2,024,233	2,930,796	2,787,400	2,661,504
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	2,219,869	2,164,415	2,024,233	2,930,796	2,787,400	2,661,504
25. (+) Depreciation & Amortization	1,097,732	1,159,443	1,211,199	1,273,082	1,341,041	1,388,237
26. (-) Capital Expenditures (6)	5,027,000	4,121,000	3,592,000	6,202,500	3,586,000	3,521,000
27. (-) Changes in Working Capital (7)	(3,421)	(3,477)	(3,487)	(4,027)	(4,047)	(4,068)
28. Debt Free Net Cash Flow	($1,705,979)	($793,665)	($353,081)	($1,994,594)	$546,489	$532,808
29. PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
	3	4	5	6	7	8
30. Present Value Factor: 3.93% (8)	0.9081	0.8738	0.8407	0.8090	0.7784	0.7489
31. Present Value Debt Free Net Cash Flow	($1,549,199)	($693,505)	($296,835)	($1,613,626)	$425,387	$399,020
	3	4	5	6	7	8
32. Present Value Factor: 3.73% (9)	0.9125	0.8797	0.8481	0.8176	0.7882	0.7598
33. Present Value Debt Free Net Cash Flow	($1,556,706)	($698,187)	($299,448)	($1,630,780)	$430,743	$404,828

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 9	Estimated Year 10	Estimated Year 11	Estimated Year 12	Estimated Year 13	Estimated Year 14
	2031	2032	2033	2034	2035	2036
1. **OPERATING REVENUES (1)**						
2. Charges for services	8,139,615	8,752,935	8,796,700	8,840,683	9,062,584	9,107,897
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	569,773	0	0	176,814	0	182,158
6. **Total Operating Revenues**	8,745,538	8,789,085	8,832,850	9,053,647	9,098,734	9,326,205
7. **Rate Increase**	**7%**			**2%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	4,715,107	4,856,560	5,002,257	5,152,325	5,306,895	5,466,101
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(305,578)	(314,745)	(324,187)	(333,913)	(343,930)	(354,248)
12. LESS: EOS - Professional Services	(201,434)	(207,477)	(213,701)	(220,113)	(226,716)	(233,517)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	4,208,095	4,334,338	4,464,368	4,598,299	4,736,248	4,878,336
16. Depreciation (2)	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336
17. **Total Operating Expenses**	5,631,230	5,773,208	5,918,285	6,071,109	6,228,197	6,389,672
18. **Operating Income**	3,114,308	3,015,877	2,914,565	2,982,538	2,870,537	2,936,533
19. Revenues (3)	8,745,538	8,789,085	8,832,850	9,053,647	9,098,734	9,326,205
20. EBITDA (4)	4,537,443	4,454,747	4,368,482	4,455,348	4,362,486	4,447,869
21. EBIT (5)	3,114,308	3,015,877	2,914,565	2,982,538	2,870,537	2,936,533
22. EBIT	3,114,308	3,015,877	2,914,565	2,982,538	2,870,537	2,936,533
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	3,114,308	3,015,877	2,914,565	2,982,538	2,870,537	2,936,533
25. (+) Depreciation & Amortization	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336
26. (-) Capital Expenditures (6)	1,361,500	937,000	1,417,255	1,435,672	1,454,328	1,473,227
27. (-) Changes in Working Capital (7)	(4,373)	(4,395)	(4,416)	(4,527)	(4,549)	(4,663)
28. Debt Free Net Cash Flow	$3,180,315	$3,522,141	$2,955,643	$3,024,202	$2,912,707	$2,979,305
29. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
	9	10	11	12	13	14
30. Present Value Factor: 3.93% (8)	0.7206	0.6934	0.6671	0.6419	0.6176	0.5943
31. Present Value Debt Free Net Cash Flow	$2,291,735	$2,442,253	$1,971,709	$1,941,236	$1,798,888	$1,770,601
	9	10	11	12	13	14
32. Present Value Factor: 3.73% (9)	0.7325	0.7062	0.6808	0.6563	0.6327	0.6099
33. Present Value Debt Free Net Cash Flow	$2,329,581	$2,487,336	$2,012,202	$1,984,784	$1,842,870	$1,817,078

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 15	Estimated Year 16	Estimated Year 17	Estimated Year 18	Estimated Year 19	Estimated Year 20
	2037	2038	2039	2040	2041	2042
1. **OPERATING REVENUES (1)**						
2. Charges for services	9,336,506	9,383,188	9,618,706	9,666,800	9,958,012	10,007,802
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	187,664	0	241,670	0	280,218
6. **Total Operating Revenues**	9,372,656	9,607,002	9,654,856	9,944,620	9,994,162	10,324,170
7. **Rate Increase**		**2%**		**3%**		**3%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	5,630,084	5,798,987	5,972,957	6,152,145	6,336,710	6,526,811
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(364,876)	(375,822)	(387,097)	(398,709)	(410,671)	(422,991)
12. LESS: EOS - Professional Services	(240,523)	(247,739)	(255,171)	(262,826)	(270,711)	(278,832)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	5,024,686	5,175,427	5,330,689	5,490,610	5,655,328	5,824,988
16. Depreciation (2)	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069
17. **Total Operating Expenses**	6,555,661	6,726,297	6,901,713	7,082,049	7,267,447	7,458,057
18. **Operating Income**	2,816,995	2,880,705	2,753,143	2,862,571	2,726,715	2,866,113
19. Revenues (3)	9,372,656	9,607,002	9,654,856	9,944,620	9,994,162	10,324,170
20. EBITDA (4)	4,347,970	4,431,575	4,324,167	4,454,010	4,338,834	4,499,182
21. EBIT (5)	2,816,995	2,880,705	2,753,143	2,862,571	2,726,715	2,866,113
22. EBIT	2,816,995	2,880,705	2,753,143	2,862,571	2,726,715	2,866,113
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	2,816,995	2,880,705	2,753,143	2,862,571	2,726,715	2,866,113
25. (+) Depreciation & Amortization	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069
26. (-) Capital Expenditures (6)	1,492,371	1,511,764	1,531,409	1,551,309	1,571,468	1,591,889
27. (-) Changes in Working Capital (7)	(4,686)	(4,804)	(4,827)	(4,972)	(4,997)	(5,162)
28. Debt Free Net Cash Flow	$2,860,285	$2,924,615	$2,797,585	$2,907,673	$2,772,363	$2,912,455
29. PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
	15	16	17	18	19	20
30. Present Value Factor: 3.93% (8)	0.5718	0.5502	0.5294	0.5094	0.4901	0.4716
31. Present Value Debt Free Net Cash Flow	$1,635,511	$1,609,123	$1,481,042	$1,481,169	$1,358,735	$1,373,514
	15	16	17	18	19	20
32. Present Value Factor: 3.73% (9)	0.5880	0.5669	0.5465	0.5268	0.5079	0.4896
33. Present Value Debt Free Net Cash Flow	$1,681,848	$1,657,964	$1,528,880	$1,531,762	$1,408,083	$1,425,938

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 3.93%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$2,912,455
Divided by Capitalization Factor (8)	3.93%
20th Year Terminal Value	74,108,268
20th Year Present Value Factor (11)	0.4716
Present Value of Terminal Value	34,949,459
Present Value Debt Free Net Cash Flow for 20 Years	15,524,604
Indicated Value	$50,474,064

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.93%		Multiples (13)	Terminal Value
Projected EBIT	$2,866,113	27.8	$79,677,944
Projected EBITDA	4,499,182	18.6	83,684,783
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			82,362,526
20th Year Present Value Factor (11)			0.4716
Present Value of Terminal Value			38,842,167
Present Value Debt Free Net Cash Flow for 20 Years			15,524,604
Indicated Value			$54,366,772

DCF With Capitalization of Terminal Value Model @ 3.73%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$2,912,455
Divided by Capitalization Factor (9)	3.73%
20th Year Terminal Value	78,081,902
20th Year Present Value Factor (12)	0.4716
Present Value of Terminal Value	36,823,425
Present Value Debt Free Net Cash Flow for 20 Years	15,524,604
Indicated Value	$52,348,030

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.73%		Multiples (13)	Terminal Value
Projected EBIT	$2,866,113	27.8	$79,677,944
Projected EBITDA	4,499,182	18.6	83,684,783
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			82,362,526
20th Year Present Value Factor (12)			0.4716
Present Value of Terminal Value			38,842,167
Present Value Debt Free Net Cash Flow for 20 Years			15,524,604
Indicated Value			$54,366,772

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2022 are actual. 2022 results are based on 2022 budget. Post-2022 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by MUNI in 2023 with shown rate increases.

OPERATING EXPENSES - increase at 3.0% annually after 2022 unless noted elsewhere. Assumed economies of scale are shown on lines below.
Wages & Benefits - Post-2022 assumed 15% savings due to economies of scale. Increase at 3.0% afterwards.

Professional Services - Post-2022 assumed 50% savings due to economies of scale. Increase at 3.0% afterwards.

Eliminated Expenses - Post-2020 assumed 100% savings due to economies of scale (elimination of line rentals). Increase at 3.0% afterwards.

No Additional O&M.

(2) Depreciation - Pre-2022 based on actual depreciation. Post-2022 based on depreciation rate plus same rate on half of CAPX.
(3) Line 6.
(4) Line 18 + line 16.
(5) Line 18.
(6) Capital Expenditures - Pre-2023 based on financials/budget. Post-2022 years are estimates based on Engineers Assessment and at 1.53% of prior year-end GROSS Property, plant
(7) Changes in Working Capital - based on water industry -0.05% of revenues.
(8) Discount rate is the the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 equal to discount rate, where capitalization rate = K - g.
(9) Discount rate is the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.
(10) Final year shown, line 28.
(11) Final year shown, line 30.
(12) Final year shown, line 30.
(13) Developed on Market Multiples EXHIBIT 18.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Actual			Budget	Estimated	Estimated
				Year 0	Year 1	Year 2
	2019	2020	2021	2022	2023	2024
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417
3. Other operating revenue	4,792	0	36,117	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	0
6. **Total Operating Revenues**	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
7. **Rate Increase**						
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,619,345	3,824,073	3,322,822	3,613,737	3,722,149	3,833,814
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	(234,200)	(241,226)	(248,463)
12. LESS: EOS - Professional Services	0	0	0	(154,383)	(159,014)	(163,784)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	0	0	0	0	83,785	86,851
16. **Operating Expenses Before Depreciation**	3,619,345	3,824,073	3,322,822	3,225,155	3,405,694	3,508,418
17. Depreciation (2)	1,331,963	1,344,310	1,344,310	1,345,527	998,430	1,040,620
18. **Total Operating Expenses**	4,951,308	5,168,383	4,667,132	4,570,681	4,404,124	4,549,038
19. **Operating Income**	557,348	462,932	547,807	708,509	974,152	948,529
20. Revenues (3)	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
21. EBITDA (4)	1,889,311	1,807,242	1,892,117	2,054,035	1,972,582	1,989,149
22. EBIT (5)	557,348	462,932	547,807	708,509	974,152	948,529
23. EBIT	557,348	462,932	547,807	708,509	974,152	948,529
24. (-) Income Taxes	0	0	0	204,688	281,432	274,030
25. Debt Free Net Income	557,348	462,932	547,807	503,821	692,720	674,499
26. (+) Depreciation & Amortization	1,331,963	1,344,310	1,344,310	1,345,527	998,430	1,040,620
27. (-) Capital Expenditures (6)	422,187	495,837	234,278	222,858	2,747,000	3,803,000
28. (-) Changes in Working Capital (7)	(2,754)	(2,816)	(2,607)	(2,640)	(2,689)	(2,749)
29. Debt Free Net Cash Flow	$1,469,878	$1,314,221	$1,660,446	$1,629,129	($1,053,161)	($2,085,132)
30. PV Time Period (mid-year)				(0.5)	0.5	1.5
31. Present Value Factor: 7.70% (8)					0.9636	0.8947
32. Present Value Debt Free Net Cash Flow					($1,014,826)	($1,865,567)
					1	2
33. Present Value Factor: 10.66% (9)					0.9506	0.8590
34. Present Value Debt Free Net Cash Flow					($1,001,135)	($1,791,128)
					1	2
35. Present Value Factor: 7.50% (8)					0.9645	0.8972
36. Present Value Debt Free Net Cash Flow					($1,015,774)	($1,870,780)
					1	2
37. Present Value Factor: 10.46% (9)					0.9515	0.8614
38. Present Value Debt Free Net Cash Flow					($1,002,083)	($1,796,133)

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated Year 6	Estimated Year 7	Estimated Year 8
	2025	2026	2027	2028	2029	2030
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,671,387	10,952,943	10,985,356	11,040,283	12,759,807	12,823,606
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	5,104,248	0	0	1,656,042	0	0
6. **Total Operating Revenues**	10,811,785	10,989,093	11,021,506	12,732,475	12,795,957	12,859,756
7. **Rate Increase**	**90%**			**15%**		
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,948,828	4,067,293	4,189,312	4,314,991	4,444,441	4,577,774
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(255,916)	(263,594)	(271,502)	(279,647)	(288,036)	(296,677)
12. LESS: EOS - Professional Services	(168,698)	(173,759)	(178,972)	(184,341)	(189,871)	(195,567)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	91,486	127,351	132,601	136,194	152,989	156,565
16. **Operating Expenses Before Depreciation**	3,615,700	3,757,291	3,871,439	3,987,197	4,119,522	4,242,094
17. Depreciation (2)	1,097,732	1,159,443	1,211,199	1,273,082	1,341,041	1,388,237
18. **Total Operating Expenses**	4,713,431	4,916,734	5,082,638	5,260,280	5,460,564	5,630,331
19. **Operating Income**	6,098,354	6,072,359	5,938,868	7,472,195	7,335,393	7,229,425
20. Revenues (3)	10,811,785	10,989,093	11,021,506	12,732,475	12,795,957	12,859,756
21. EBITDA (4)	7,196,085	7,231,802	7,150,067	8,745,278	8,676,435	8,617,662
22. EBIT (5)	6,098,354	6,072,359	5,938,868	7,472,195	7,335,393	7,229,425
23. EBIT	6,098,354	6,072,359	5,938,868	7,472,195	7,335,393	7,229,425
24. (-) Income Taxes	1,761,814	1,754,305	1,715,739	2,158,717	2,119,195	2,088,581
25. Debt Free Net Income	4,336,540	4,318,054	4,223,129	5,313,478	5,216,198	5,140,844
26. (+) Depreciation & Amortization	1,097,732	1,159,443	1,211,199	1,273,082	1,341,041	1,388,237
27. (-) Capital Expenditures (6)	5,027,000	4,121,000	3,592,000	6,202,500	3,586,000	3,521,000
28. (-) Changes in Working Capital (7)	(5,406)	(5,495)	(5,511)	(6,366)	(6,398)	(6,430)
29. Debt Free Net Cash Flow	$412,677	$1,361,992	$1,847,839	$390,427	$2,977,638	$3,014,510
30. PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
31. Present Value Factor: 7.70% (8)	0.8307	0.7713	0.7162	0.6650	0.6174	0.5733
32. Present Value Debt Free Net Cash Flow	$342,811	$1,050,504	$1,323,422	$259,634	$1,838,393	$1,728,219
	3	4	5	6	7	8
33. Present Value Factor: 10.66% (9)	0.7763	0.7015	0.6339	0.5729	0.5177	0.4678
34. Present Value Debt Free Net Cash Flow	$320,361	$955,437	$1,171,345	$223,676	$1,541,523	$1,410,188
	3	4	5	6	7	8
35. Present Value Factor: 7.50% (8)	0.8346	0.7764	0.7222	0.6718	0.6249	0.5813
36. Present Value Debt Free Net Cash Flow	$344,420	$1,057,450	$1,334,509	$262,289	$1,860,726	$1,752,335
	3	4	5	6	7	8
37. Present Value Factor: 10.46% (9)	0.7798	0.7060	0.6391	0.5786	0.5238	0.4742
38. Present Value Debt Free Net Cash Flow	$321,806	$961,566	$1,180,954	$225,901	$1,559,687	$1,429,481

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 9	Estimated Year 10	Estimated Year 11	Estimated Year 12	Estimated Year 13	Estimated Year 14
	2031	2032	2033	2034	2035	2036
1. **OPERATING REVENUES (1)**						
2. Charges for services	12,887,724	13,470,249	13,537,600	13,605,288	13,946,781	14,016,515
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	515,509	0	0	272,106	0	140,165
6. **Total Operating Revenues**	13,439,383	13,506,399	13,573,750	13,913,544	13,982,931	14,192,830
7. **Rate Increase**	**4%**			**2%**		**1%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	4,715,107	4,856,560	5,002,257	5,152,325	5,306,895	5,466,101
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(305,578)	(314,745)	(324,187)	(333,913)	(343,930)	(354,248)
12. LESS: EOS - Professional Services	(201,434)	(207,477)	(213,701)	(220,113)	(226,716)	(233,517)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	159,982	163,192	162,854	163,186	165,065	165,407
16. **Operating Expenses Before Depreciation**	4,368,077	4,497,530	4,627,222	4,761,485	4,901,313	5,043,743
17. Depreciation (2)	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336
18. **Total Operating Expenses**	5,791,212	5,936,400	6,081,139	6,234,295	6,393,262	6,555,079
19. **Operating Income**	7,648,171	7,569,999	7,492,611	7,679,249	7,589,669	7,637,751
20. Revenues (3)	13,439,383	13,506,399	13,573,750	13,913,544	13,982,931	14,192,830
21. EBITDA (4)	9,071,306	9,008,869	8,946,528	9,152,059	9,081,618	9,149,087
22. EBIT (5)	7,648,171	7,569,999	7,492,611	7,679,249	7,589,669	7,637,751
23. EBIT	7,648,171	7,569,999	7,492,611	7,679,249	7,589,669	7,637,751
24. (-) Income Taxes	2,209,557	2,186,973	2,164,615	2,218,535	2,192,655	2,206,546
25. Debt Free Net Income	5,438,614	5,383,026	5,327,996	5,460,714	5,397,014	5,431,205
26. (+) Depreciation & Amortization	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336
27. (-) Capital Expenditures (6)	1,361,500	937,000	1,417,255	1,435,672	1,454,328	1,473,227
28. (-) Changes in Working Capital (7)	(6,720)	(6,753)	(6,787)	(6,957)	(6,991)	(7,096)
29. Debt Free Net Cash Flow	$5,506,968	$5,891,649	$5,371,445	$5,504,808	$5,441,626	$5,476,411
30. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
31. Present Value Factor: 7.70% (8)	0.5323	0.4943	0.4589	0.4261	0.3956	0.3674
32. Present Value Debt Free Net Cash Flow	$2,931,359	$2,912,242	$2,464,956	$2,345,599	$2,152,707	$2,012,033
	9	10	11	12	13	14
33. Present Value Factor: 10.66% (9)	0.4227	0.3820	0.3452	0.3120	0.2819	0.2548
34. Present Value Debt Free Net Cash Flow	$2,327,796	$2,250,610	$1,854,223	$1,717,500	$1,533,994	$1,395,389
	9	10	11	12	13	14
35. Present Value Factor: 7.50% (8)	0.5408	0.5031	0.4680	0.4353	0.4049	0.3767
36. Present Value Debt Free Net Cash Flow	$2,978,168	$2,964,089	$2,513,836	$2,396,243	$2,203,314	$2,062,964
	9	10	11	12	13	14
37. Present Value Factor: 10.46% (9)	0.4293	0.3886	0.3518	0.3185	0.2884	0.2611
38. Present Value Debt Free Net Cash Flow	$2,364,142	$2,289,495	$1,889,674	$1,753,281	$1,569,365	$1,429,891

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 15	Estimated Year 16	Estimated Year 17	Estimated Year 18	Estimated Year 19	Estimated Year 20
	2037	2038	2039	2040	2041	2042
1. **OPERATING REVENUES (1)**						
2. Charges for services	14,227,463	14,298,601	14,513,795	14,586,364	14,849,866	14,924,116
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	142,986	0	189,623	0	238,786
6. **Total Operating Revenues**	14,263,613	14,477,737	14,549,945	14,812,137	14,886,016	15,199,052
7. **Rate Increase**		**1%**		**1%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	5,630,084	5,798,987	5,972,957	6,152,145	6,336,710	6,526,811
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(364,876)	(375,822)	(387,097)	(398,709)	(410,671)	(422,991)
12. LESS: EOS - Professional Services	(240,523)	(247,739)	(255,171)	(262,826)	(270,711)	(278,832)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	166,546	166,894	168,056	168,410	169,844	170,206
16. **Operating Expenses Before Depreciation**	5,191,232	5,342,321	5,498,745	5,659,020	5,825,172	5,995,194
17. Depreciation (2)	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069
18. **Total Operating Expenses**	6,722,207	6,893,191	7,069,769	7,250,459	7,437,291	7,628,263
19. **Operating Income**	7,541,406	7,584,546	7,480,176	7,561,678	7,448,725	7,570,789
20. Revenues (3)	14,263,613	14,477,737	14,549,945	14,812,137	14,886,016	15,199,052
21. EBITDA (4)	9,072,381	9,135,416	9,051,200	9,153,117	9,060,844	9,203,858
22. EBIT (5)	7,541,406	7,584,546	7,480,176	7,561,678	7,448,725	7,570,789
23. EBIT	7,541,406	7,584,546	7,480,176	7,561,678	7,448,725	7,570,789
24. (-) Income Taxes	2,178,712	2,191,175	2,161,023	2,184,569	2,151,937	2,187,201
25. Debt Free Net Income	5,362,694	5,393,371	5,319,153	5,377,109	5,296,788	5,383,588
26. (+) Depreciation & Amortization	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069
27. (-) Capital Expenditures (6)	1,492,371	1,511,764	1,531,409	1,551,309	1,571,468	1,591,889
28. (-) Changes in Working Capital (7)	(7,132)	(7,239)	(7,275)	(7,406)	(7,443)	(7,600)
29. Debt Free Net Cash Flow	$5,408,430	$5,439,716	$5,366,043	$5,424,645	$5,344,882	$5,432,367
30. PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
31. Present Value Factor: 7.70% (8)	0.3411	0.3167	0.2941	0.2730	0.2535	0.2354
32. Present Value Debt Free Net Cash Flow	$1,844,815	$1,722,758	$1,578,153	$1,480,928	$1,354,928	$1,278,779
	15	16	17	18	19	20
33. Present Value Factor: 10.66% (9)	0.2302	0.2080	0.1880	0.1699	0.1535	0.1387
34. Present Value Debt Free Net Cash Flow	$1,245,021	$1,131,461	$1,008,816	$921,647	$820,439	$753,469
	15	16	17	18	19	20
35. Present Value Factor: 7.50% (8)	0.3504	0.3260	0.3032	0.2821	0.2624	0.2441
36. Present Value Debt Free Net Cash Flow	$1,895,114	$1,773,348	$1,626,984	$1,530,292	$1,402,497	$1,326,041
	15	16	17	18	19	20
37. Present Value Factor: 10.46% (9)	0.2363	0.2140	0.1937	0.1754	0.1587	0.1437
38. Present Value Debt Free Net Cash Flow	$1,278,012	$1,164,099	$1,039,402	$951,483	$848,233	$780,631

See last page of this EXHIBIT for notes and assumptions.

Income Approach
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Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 7.70%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,432,367
Divided by Capitalization Factor (8)	7.70%
20th Year Terminal Value	70,550,226
20th Year Present Value Factor (11)	0.2354
Present Value of Terminal Value	16,607,523
Present Value Debt Free Net Cash Flow for 20 Years	27,741,848
Indicated Value	$44,349,371

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 7.70%		Multiples (13)	Terminal Value
Projected EBIT	$7,570,789	27.8	$210,467,936
Projected EBITDA	9,203,858	18.6	171,191,756
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			184,152,896
20th Year Present Value Factor (11)			0.2354
Present Value of Terminal Value			43,349,592
Present Value Debt Free Net Cash Flow for 20 Years			27,741,848
Indicated Value			$71,091,439

DCF With Capitalization of Terminal Value Model @ 10.66%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,432,367
Divided by Capitalization Factor (9)	10.66%
20th Year Terminal Value	50,960,294
20th Year Present Value Factor (12)	0.1387
Present Value of Terminal Value	7,068,193
Present Value Debt Free Net Cash Flow for 20 Years	19,790,632
Indicated Value	$26,858,825

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 10.66%		Multiples (13)	Terminal Value
Projected EBIT	$7,570,789	27.8	$210,467,936
Projected EBITDA	9,203,858	18.6	171,191,756
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			184,152,896
20th Year Present Value Factor (12)			0.1387
Present Value of Terminal Value			25,542,007
Present Value Debt Free Net Cash Flow for 20 Years			19,790,632
Indicated Value			$45,332,639

DCF With Capitalization of Terminal Value Model @ 7.50%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,432,367
Divided by Capitalization Factor (8)	7.50%
20th Year Terminal Value	72,431,565
20th Year Present Value Factor (11)	0.2354
Present Value of Terminal Value	17,050,390
Present Value Debt Free Net Cash Flow for 20 Years	27,741,848
Indicated Value	$44,792,238

DCF With Capitalization of Terminal Value Model @ 10.46%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,432,367
Divided by Capitalization Factor (9)	10.46%
20th Year Terminal Value	51,934,679
20th Year Present Value Factor (12)	0.1387
Present Value of Terminal Value	7,203,340
Present Value Debt Free Net Cash Flow for 20 Years	19,790,632
Indicated Value	$26,993,972

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2022 are actual. 2022 results are based on 2022 budget. Post-2022 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by IOU in 2023 with shown rate increases.

OPERATING EXPENSES - increase at 3.0% annually after 2022 unless noted elsewhere. Assumed economies of scale are shown on lines below.

Wages & Benefits - Post-2022 assumed 15% savings due to economies of scale. Increase at 3.0% afterwards.

Professional Services - Post-2022 assumed 50% savings due to economies of scale. Increase at 3.0% afterwards.

Eliminated Expenses - Post-2020 assumed 100% savings due to economies of scale (elimination of line rentals). Increase at 3.0% afterwards.

No Additional O&M.

PURTA & Reg Assessment - 2023 assumed due to IOU purchase in 2023.

(2) Depreciation - Pre-2022 based on actual depreciation. Post-2022 based on depreciation rate plus same rate on half of CAPX.

(3) Line 6.

(4) Line 19 + line 17.

(5) Line 19.

(6) Capital Expenditures - Pre-2023 based on financials/budget. Post-2022 years are estimates based on Engineers Assessment and at 1.53% of prior year-end GROSS Property, plant

(7) Changes in Working Capital - based on water industry -0.05% of revenues.

(8) Discount rate is the current lower end of the IOU discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.

(9) Discount rate is the current upper end of the IOU discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.

(10) Final year shown, line 29.

(11) Final year shown, line 31.

(12) Final year shown, line 33.

(13) Developed on Market Multiples EXHIBIT 18.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Actual			Budget	Estimated	Estimated
				Year 0	Year 1	Year 2
	2019	2020	2021	2022	2023	2024
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417
3. Other operating revenue	4,792	0	36,117	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	0
6. **Total Operating Revenues**	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
7. **Rate Increase**						
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,619,345	3,824,073	3,322,822	3,613,737	3,722,149	3,833,814
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	(234,200)	(241,226)	(248,463)
12. LESS: EOS - Professional Services	0	0	0	(154,383)	(159,014)	(163,784)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	3,619,345	3,824,073	3,322,822	3,225,155	3,321,909	3,421,567
16. Depreciation (2)	1,331,963	1,344,310	1,344,310	1,345,511	1,943,767	1,985,417
17. **Total Operating Expenses**	4,951,308	5,168,383	4,667,132	4,570,666	5,265,676	5,406,983
18. **Operating Income**	557,348	462,932	547,807	708,524	112,600	90,584
19. Revenues (3)	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
20. EBITDA (4)	1,889,311	1,807,242	1,892,117	2,054,035	2,056,367	2,076,000
21. EBIT (5)	557,348	462,932	547,807	708,524	112,600	90,584
22. EBIT	557,348	462,932	547,807	708,524	112,600	90,584
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	557,348	462,932	547,807	708,524	112,600	90,584
25. (+) Depreciation & Amortization	1,331,963	1,344,310	1,344,310	1,345,511	1,943,767	1,985,417
26. (-) Capital Expenditures (6)	422,187	495,837	234,278	222,858	2,747,000	3,803,000
27. (-) Changes in Working Capital (7)	(2,754)	(2,816)	(2,607)	(2,640)	(2,689)	(2,749)
28. Debt Free Net Cash Flow	$1,469,878	$1,314,221	$1,660,446	$1,833,817	($687,944)	($1,724,251)
29. PV Time Period (mid-year)				(0.5)	0.5	1.5
					1	2
30. Present Value Factor: 3.93% (8)					0.9809	0.9438
31. Present Value Debt Free Net Cash Flow					($674,804)	($1,627,348)
					1	2
32. Present Value Factor: 3.73% (9)					0.9819	0.9465
33. Present Value Debt Free Net Cash Flow					($675,492)	($1,632,003)

See last page of this EXHIBIT for notes and assumptions.

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Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated Year 6	Estimated Year 7	Estimated Year 8
	2025	2026	2027	2028	2029	2030
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,671,387	9,800,002	9,829,003	9,878,148	11,416,669	11,473,753
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	3,969,971	0	0	1,481,722	0	0
6. **Total Operating Revenues**	9,677,508	9,836,152	9,865,153	11,396,020	11,452,819	11,509,903
7. **Rate Increase**	**70%**			**15%**		
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,948,828	4,067,293	4,189,312	4,314,991	4,444,441	4,577,774
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(255,916)	(263,594)	(271,502)	(279,647)	(288,036)	(296,677)
12. LESS: EOS - Professional Services	(168,698)	(173,759)	(178,972)	(184,341)	(189,871)	(195,567)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	3,524,214	3,629,940	3,738,838	3,851,003	3,966,533	4,085,529
16. Depreciation (2)	2,041,796	2,102,716	2,153,808	2,214,898	2,281,986	2,328,576
17. **Total Operating Expenses**	5,566,009	5,732,656	5,892,646	6,065,901	6,248,519	6,414,106
18. **Operating Income**	4,111,499	4,103,496	3,972,507	5,330,119	5,204,300	5,095,797
19. Revenues (3)	9,677,508	9,836,152	9,865,153	11,396,020	11,452,819	11,509,903
20. EBITDA (4)	6,153,294	6,206,212	6,126,315	7,545,017	7,486,286	7,424,374
21. EBIT (5)	4,111,499	4,103,496	3,972,507	5,330,119	5,204,300	5,095,797
22. EBIT	4,111,499	4,103,496	3,972,507	5,330,119	5,204,300	5,095,797
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	4,111,499	4,103,496	3,972,507	5,330,119	5,204,300	5,095,797
25. (+) Depreciation & Amortization	2,041,796	2,102,716	2,153,808	2,214,898	2,281,986	2,328,576
26. (-) Capital Expenditures (6)	5,027,000	4,121,000	3,592,000	6,202,500	3,586,000	3,521,000
27. (-) Changes in Working Capital (7)	(4,839)	(4,918)	(4,933)	(5,698)	(5,726)	(5,755)
28. Debt Free Net Cash Flow	$1,131,133	$2,090,130	$2,539,247	$1,348,215	$3,906,012	$3,909,128
29. PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
	3	4	5	6	7	8
30. Present Value Factor: 3.93% (8)	0.9081	0.8738	0.8407	0.8090	0.7784	0.7489
31. Present Value Debt Free Net Cash Flow	$1,027,182	$1,826,356	$2,134,745	$1,090,706	$3,040,440	$2,927,546
	3	4	5	6	7	8
32. Present Value Factor: 3.73% (9)	0.9125	0.8797	0.8481	0.8176	0.7882	0.7598
33. Present Value Debt Free Net Cash Flow	$1,032,159	$1,838,687	$2,153,536	$1,102,300	$3,078,719	$2,970,156

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 9	Estimated Year 10	Estimated Year 11	Estimated Year 12	Estimated Year 13	Estimated Year 14
	2031	2032	2033	2034	2035	2036
1. **OPERATING REVENUES (1)**						
2. Charges for services	11,531,121	12,052,328	12,112,590	12,173,153	12,478,699	12,541,092
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	461,245	0	0	243,463	0	250,822
6. **Total Operating Revenues**	12,028,516	12,088,478	12,148,740	12,452,766	12,514,849	12,828,064
7. **Rate Increase**	**4%**			**2%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	4,715,107	4,856,560	5,002,257	5,152,325	5,306,895	5,466,101
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(305,578)	(314,745)	(324,187)	(333,913)	(343,930)	(354,248)
12. LESS: EOS - Professional Services	(201,434)	(207,477)	(213,701)	(220,113)	(226,716)	(233,517)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	4,208,095	4,334,338	4,464,368	4,598,299	4,736,248	4,878,336
16. Depreciation (2)	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867
17. **Total Operating Expenses**	6,571,122	6,712,899	6,862,746	7,027,444	7,196,554	7,370,203
18. **Operating Income**	5,457,394	5,375,579	5,285,994	5,425,322	5,318,295	5,457,861
19. Revenues (3)	12,028,516	12,088,478	12,148,740	12,452,766	12,514,849	12,828,064
20. EBITDA (4)	7,820,421	7,754,140	7,684,372	7,854,467	7,778,601	7,949,728
21. EBIT (5)	5,457,394	5,375,579	5,285,994	5,425,322	5,318,295	5,457,861
22. EBIT	5,457,394	5,375,579	5,285,994	5,425,322	5,318,295	5,457,861
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	5,457,394	5,375,579	5,285,994	5,425,322	5,318,295	5,457,861
25. (+) Depreciation & Amortization	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867
26. (-) Capital Expenditures (6)	1,361,500	937,000	2,338,060	2,368,053	2,398,431	2,429,198
27. (-) Changes in Working Capital (7)	(6,014)	(6,044)	(6,074)	(6,226)	(6,257)	(6,414)
28. Debt Free Net Cash Flow	$6,464,935	$6,823,184	$5,352,386	$5,492,640	$5,386,427	$5,526,944
29. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
	9	10	11	12	13	14
30. Present Value Factor: 3.93% (8)	0.7206	0.6934	0.6671	0.6419	0.6176	0.5943
31. Present Value Debt Free Net Cash Flow	$4,658,632	$4,731,196	$3,570,577	$3,525,726	$3,326,657	$3,284,663
	9	10	11	12	13	14
32. Present Value Factor: 3.73% (9)	0.7325	0.7062	0.6808	0.6563	0.6327	0.6099
33. Present Value Debt Free Net Cash Flow	$4,735,565	$4,818,533	$3,643,904	$3,604,820	$3,407,992	$3,370,883

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 15	Estimated Year 16	Estimated Year 17	Estimated Year 18	Estimated Year 19	Estimated Year 20
	2037	2038	2039	2040	2041	2042
1. **OPERATING REVENUES (1)**						
2. Charges for services	12,855,874	12,920,153	13,114,601	13,180,174	13,444,766	13,511,990
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	129,202	0	197,703	0	283,752
6. **Total Operating Revenues**	12,892,024	13,085,505	13,150,751	13,414,027	13,480,916	13,831,892
7. **Rate Increase**		**1%**		**2%**		**2%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	5,630,084	5,798,987	5,972,957	6,152,145	6,336,710	6,526,811
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(364,876)	(375,822)	(387,097)	(398,709)	(410,671)	(422,991)
12. LESS: EOS - Professional Services	(240,523)	(247,739)	(255,171)	(262,826)	(270,711)	(278,832)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. **Operating Expenses Before Depreciation**	5,024,686	5,175,427	5,330,689	5,490,610	5,655,328	5,824,988
16. Depreciation (2)	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921
17. **Total Operating Expenses**	7,548,519	7,731,636	7,919,690	8,112,823	8,311,180	8,514,909
18. **Operating Income**	5,343,505	5,353,869	5,231,061	5,301,204	5,169,736	5,316,983
19. Revenues (3)	12,892,024	13,085,505	13,150,751	13,414,027	13,480,916	13,831,892
20. EBITDA (4)	7,867,338	7,910,078	7,820,062	7,923,417	7,825,588	8,006,904
21. EBIT (5)	5,343,505	5,353,869	5,231,061	5,301,204	5,169,736	5,316,983
22. EBIT	5,343,505	5,353,869	5,231,061	5,301,204	5,169,736	5,316,983
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	5,343,505	5,353,869	5,231,061	5,301,204	5,169,736	5,316,983
25. (+) Depreciation & Amortization	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921
26. (-) Capital Expenditures (6)	2,460,360	2,491,922	2,523,889	2,556,266	2,589,059	2,622,272
27. (-) Changes in Working Capital (7)	(6,446)	(6,543)	(6,575)	(6,707)	(6,740)	(6,916)
28. Debt Free Net Cash Flow	$5,413,424	$5,424,699	$5,302,748	$5,373,858	$5,243,269	$5,391,548
29. PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
	15	16	17	18	19	20
30. Present Value Factor: 3.93% (8)	0.5718	0.5502	0.5294	0.5094	0.4901	0.4716
31. Present Value Debt Free Net Cash Flow	$3,095,396	$2,984,670	$2,807,275	$2,737,443	$2,569,726	$2,542,654
	15	16	17	18	19	20
32. Present Value Factor: 3.73% (9)	0.5880	0.5669	0.5465	0.5268	0.5079	0.4896
33. Present Value Debt Free Net Cash Flow	$3,183,093	$3,075,262	$2,897,952	$2,830,948	$2,663,056	$2,639,702

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 3.93%	
	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,391,548
Divided by Capitalization Factor (8)	3.93%
20th Year Terminal Value	137,189,512
20th Year Present Value Factor (11)	0.4716
Present Value of Terminal Value	64,698,574
Present Value Debt Free Net Cash Flow for 20 Years	49,579,436
Indicated Value	$114,278,010

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.93%			
		Multiples (13)	Terminal Value
Projected EBIT	$5,316,983	27.8	$147,812,129
Projected EBITDA	8,006,904	18.6	148,928,412
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			148,560,038
20th Year Present Value Factor (11)			0.4716
Present Value of Terminal Value			70,060,914
Present Value Debt Free Net Cash Flow for 20 Years			49,579,436
Indicated Value			$119,640,350

DCF With Capitalization of Terminal Value Model @ 3.73%	
	Terminal Value
Projected Debt Free Net Cash Flow (10)	$5,391,548
Divided by Capitalization Factor (9)	3.73%
20th Year Terminal Value	144,545,518
20th Year Present Value Factor (12)	0.4716
Present Value of Terminal Value	68,167,666
Present Value Debt Free Net Cash Flow for 20 Years	49,579,436
Indicated Value	$117,747,102

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.73%			
		Multiples (13)	Terminal Value
Projected EBIT	$5,316,983	27.8	$147,812,129
Projected EBITDA	8,006,904	18.6	148,928,412
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			148,560,038
20th Year Present Value Factor (12)			0.4716
Present Value of Terminal Value			70,060,914
Present Value Debt Free Net Cash Flow for 20 Years			49,579,436
Indicated Value			$119,640,350

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2022 are actual. 2022 results are based on 2022 budget. Post-2022 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by MUNI in 2023 with shown rate increases.

OPERATING EXPENSES - increase at 3.0% annually after 2022 unless noted elsewhere. Assumed economies of scale are shown on lines below.
Wages & Benefits - Post-2022 assumed 15% savings due to economies of scale. Increase at 3.0% afterwards.

Professional Services - Post-2022 assumed 50% savings due to economies of scale. Increase at 3.0% afterwards.

Eliminated Expenses - Post-2020 assumed 100% savings due to economies of scale (elimination of line rentals). Increase at 3.0% afterwards.

No Additional O&M.

(2) Depreciation - Pre-2022 based on actual depreciation. Post-2022 based on depreciation rate plus same rate on half of CAPX.
(3) Line 6.
(4) Line 18 + line 16.
(5) Line 18.
(6) Capital Expenditures - Pre-2023 based on financials/budget. Post-2022 years are estimates based on Engineers Assessment and at 1.51% of prior year-end GROSS Property, plant
(7) Changes in Working Capital - based on water industry -0.05% of revenues.
(8) Discount rate is the the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 equal to discount rate, where capitalization rate = K - g.
(9) Discount rate is the current MUNI discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.
(10) Final year shown, line 28.
(11) Final year shown, line 30.
(12) Final year shown, line 30.
(13) Developed on Market Multiples EXHIBIT 18.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Actual			Budget	Estimated	Estimated
				Year 0	Year 1	Year 2
	2019	2020	2021	2022	2023	2024
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417
3. Other operating revenue	4,792	0	36,117	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	0
6. **Total Operating Revenues**	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
7. **Rate Increase**						
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,619,345	3,824,073	3,322,822	3,613,737	3,722,149	3,833,814
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	(234,200)	(241,226)	(248,463)
12. LESS: EOS - Professional Services	0	0	0	(154,383)	(159,014)	(163,784)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	0	0	0	0	209,407	211,120
16. **Operating Expenses Before Depreciation**	3,619,345	3,824,073	3,322,822	3,225,155	3,531,316	3,632,687
17. Depreciation (2)	1,331,963	1,344,310	1,344,310	1,345,511	1,943,767	1,985,417
18. **Total Operating Expenses**	4,951,308	5,168,383	4,667,132	4,570,666	5,475,083	5,618,103
19. **Operating Income**	557,348	462,932	547,807	708,524	(96,807)	(120,536)
20. Revenues (3)	5,508,656	5,631,315	5,214,939	5,279,190	5,378,276	5,497,567
21. EBITDA (4)	1,889,311	1,807,242	1,892,117	2,054,035	1,846,960	1,864,880
22. EBIT (5)	557,348	462,932	547,807	708,524	(96,807)	(120,536)
23. EBIT	557,348	462,932	547,807	708,524	(96,807)	(120,536)
24. (-) Income Taxes	0	0	0	204,693	(27,968)	(34,823)
25. Debt Free Net Income	557,348	462,932	547,807	503,831	(68,839)	(85,713)
26. (+) Depreciation & Amortization	1,331,963	1,344,310	1,344,310	1,345,511	1,943,767	1,985,417
27. (-) Capital Expenditures (6)	422,187	495,837	234,278	222,858	2,747,000	3,803,000
28. (-) Changes in Working Capital (7)	(2,754)	(2,816)	(2,607)	(2,640)	(2,689)	(2,749)
29. Debt Free Net Cash Flow	$1,469,878	$1,314,221	$1,660,446	$1,629,124	($869,383)	($1,900,548)
30. PV Time Period (mid-year)				(0.5)	0.5	1.5
31. Present Value Factor: 7.70% (8)					0.9636	0.8947
32. Present Value Debt Free Net Cash Flow					($837,738)	($1,700,420)
					1	2
33. Present Value Factor: 10.66% (9)					0.9506	0.8590
34. Present Value Debt Free Net Cash Flow					($826,436)	($1,632,571)
					1	2
35. Present Value Factor: 7.50% (8)					0.9645	0.8972
36. Present Value Debt Free Net Cash Flow					($838,520)	($1,705,172)
					1	2
37. Present Value Factor: 10.46% (9)					0.9515	0.8614
38. Present Value Debt Free Net Cash Flow					($827,218)	($1,637,132)

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated Year 6	Estimated Year 7	Estimated Year 8
	2025	2026	2027	2028	2029	2030
1. **OPERATING REVENUES (1)**						
2. Charges for services	5,671,387	14,411,767	14,454,416	14,526,688	18,979,118	19,074,013
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	8,507,080	0	0	4,358,006	0	0
6. **Total Operating Revenues**	14,214,617	14,447,917	14,490,566	18,920,844	19,015,268	19,110,163
7. **Rate Increase**	**150%**			**30%**		
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	3,948,828	4,067,293	4,189,312	4,314,991	4,444,441	4,577,774
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(255,916)	(263,594)	(271,502)	(279,647)	(288,036)	(296,677)
12. LESS: EOS - Professional Services	(168,698)	(173,759)	(178,972)	(184,341)	(189,871)	(195,567)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	214,402	268,277	272,495	274,797	305,716	308,120
16. **Operating Expenses Before Depreciation**	3,738,616	3,898,217	4,011,333	4,125,800	4,272,249	4,393,649
17. Depreciation (2)	2,041,796	2,102,716	2,153,808	2,214,898	2,281,986	2,328,576
18. **Total Operating Expenses**	5,780,411	6,000,933	6,165,141	6,340,698	6,554,235	6,722,226
19. **Operating Income**	8,434,206	8,446,984	8,325,425	12,580,146	12,461,033	12,387,937
20. Revenues (3)	14,214,617	14,447,917	14,490,566	18,920,844	19,015,268	19,110,163
21. EBITDA (4)	10,476,001	10,549,700	10,479,233	14,795,044	14,743,019	14,716,514
22. EBIT (5)	8,434,206	8,446,984	8,325,425	12,580,146	12,461,033	12,387,937
23. EBIT	8,434,206	8,446,984	8,325,425	12,580,146	12,461,033	12,387,937
24. (-) Income Taxes	2,436,642	2,440,334	2,405,215	3,634,404	3,599,992	3,578,875
25. Debt Free Net Income	5,997,564	6,006,650	5,920,210	8,945,742	8,861,041	8,809,062
26. (+) Depreciation & Amortization	2,041,796	2,102,716	2,153,808	2,214,898	2,281,986	2,328,576
27. (-) Capital Expenditures (6)	5,027,000	4,121,000	3,592,000	6,202,500	3,586,000	3,521,000
28. (-) Changes in Working Capital (7)	(7,107)	(7,224)	(7,245)	(9,460)	(9,508)	(9,555)
29. Debt Free Net Cash Flow	$3,019,467	$3,995,590	$4,489,263	$4,967,600	$7,566,534	$7,626,194
30. PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
31. Present Value Factor: 7.70% (8)	0.8307	0.7713	0.7162	0.6650	0.6174	0.5733
32. Present Value Debt Free Net Cash Flow	$2,508,271	$3,081,799	$3,215,210	$3,303,454	$4,671,578	$4,372,097
	3	4	5	6	7	8
33. Present Value Factor: 10.66% (9)	0.7763	0.7015	0.6339	0.5729	0.5177	0.4678
34. Present Value Debt Free Net Cash Flow	$2,344,012	$2,802,906	$2,845,744	$2,845,938	$3,917,195	$3,567,533
	3	4	5	6	7	8
35. Present Value Factor: 7.50% (8)	0.8346	0.7764	0.7222	0.6718	0.6249	0.5813
36. Present Value Debt Free Net Cash Flow	$2,520,047	$3,102,176	$3,242,146	$3,337,234	$4,728,327	$4,433,106
	3	4	5	6	7	8
37. Present Value Factor: 10.46% (9)	0.7798	0.7060	0.6391	0.5786	0.5238	0.4742
38. Present Value Debt Free Net Cash Flow	$2,354,580	$2,820,886	$2,869,088	$2,874,253	$3,963,351	$3,616,341

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 9	Estimated Year 10	Estimated Year 11	Estimated Year 12	Estimated Year 13	Estimated Year 14
	2031	2032	2033	2034	2035	2036
1. **OPERATING REVENUES (1)**						
2. Charges for services	19,169,383	23,118,276	23,233,868	23,350,037	23,584,121	23,702,042
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	3,833,877	0	0	116,750	0	118,510
6. **Total Operating Revenues**	23,039,410	23,154,426	23,270,018	23,502,937	23,620,271	23,856,702
7. **Rate Increase**	**20%**			**0%**		**0%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	4,715,107	4,856,560	5,002,257	5,152,325	5,306,895	5,466,101
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(305,578)	(314,745)	(324,187)	(333,913)	(343,930)	(354,248)
12. LESS: EOS - Professional Services	(201,434)	(207,477)	(213,701)	(220,113)	(226,716)	(233,517)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	310,368	331,291	329,881	330,452	331,691	332,269
16. **Operating Expenses Before Depreciation**	4,518,463	4,665,629	4,794,249	4,928,751	5,067,939	5,210,605
17. Depreciation (2)	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867
18. **Total Operating Expenses**	6,881,490	7,044,190	7,192,627	7,357,896	7,528,245	7,702,472
19. **Operating Income**	16,157,920	16,110,236	16,077,391	16,145,041	16,092,026	16,154,230
20. Revenues (3)	23,039,410	23,154,426	23,270,018	23,502,937	23,620,271	23,856,702
21. EBITDA (4)	18,520,947	18,488,797	18,475,769	18,574,186	18,552,332	18,646,097
22. EBIT (5)	16,157,920	16,110,236	16,077,391	16,145,041	16,092,026	16,154,230
23. EBIT	16,157,920	16,110,236	16,077,391	16,145,041	16,092,026	16,154,230
24. (-) Income Taxes	4,668,023	4,654,247	4,644,758	4,664,302	4,648,986	4,666,957
25. Debt Free Net Income	11,489,897	11,455,989	11,432,633	11,480,739	11,443,040	11,487,273
26. (+) Depreciation & Amortization	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867
27. (-) Capital Expenditures (6)	1,361,500	937,000	2,338,060	2,368,053	2,398,431	2,429,198
28. (-) Changes in Working Capital (7)	(11,520)	(11,577)	(11,635)	(11,751)	(11,810)	(11,928)
29. Debt Free Net Cash Flow	$12,502,943	$12,909,127	$11,504,586	$11,553,582	$11,516,725	$11,561,870
30. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
31. Present Value Factor: 7.70% (8)	0.5323	0.4943	0.4589	0.4261	0.3956	0.3674
32. Present Value Debt Free Net Cash Flow	$6,655,317	$6,380,981	$5,279,454	$4,922,981	$4,556,016	$4,247,831
	9	10	11	12	13	14
33. Present Value Factor: 10.66% (9)	0.4227	0.3820	0.3452	0.3120	0.2819	0.2548
34. Present Value Debt Free Net Cash Flow	$5,284,994	$4,931,287	$3,971,383	$3,604,718	$3,246,565	$2,945,965
	9	10	11	12	13	14
35. Present Value Factor: 7.50% (8)	0.5408	0.5031	0.4680	0.4353	0.4049	0.3767
36. Present Value Debt Free Net Cash Flow	$6,761,592	$6,494,582	$5,384,146	$5,029,274	$4,663,122	$4,355,357
	9	10	11	12	13	14
37. Present Value Factor: 10.46% (9)	0.4293	0.3886	0.3518	0.3185	0.2884	0.2611
38. Present Value Debt Free Net Cash Flow	$5,367,514	$5,016,487	$4,047,313	$3,679,816	$3,321,423	$3,018,804

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated Year 15	Estimated Year 16	Estimated Year 17	Estimated Year 18	Estimated Year 19	Estimated Year 20
	2037	2038	2039	2040	2041	2042
1. **OPERATING REVENUES (1)**						
2. Charges for services	23,939,655	24,059,353	24,300,548	24,422,051	24,740,514	24,864,217
3. Other operating revenue	36,150	36,150	36,150	36,150	36,150	36,150
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	120,297	0	195,376	0	223,778
6. **Total Operating Revenues**	23,975,805	24,215,800	24,336,698	24,653,577	24,776,664	25,124,145
7. **Rate Increase**		**1%**		**1%**		**1%**
8. **OPERATING EXPENSES (1)**						
9. Operating & Maintenance Expenses	5,630,084	5,798,987	5,972,957	6,152,145	6,336,710	6,526,811
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(364,876)	(375,822)	(387,097)	(398,709)	(410,671)	(422,991)
12. LESS: EOS - Professional Services	(240,523)	(247,739)	(255,171)	(262,826)	(270,711)	(278,832)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	333,525	334,111	335,385	335,980	337,689	338,293
16. **Operating Expenses Before Depreciation**	5,358,211	5,509,538	5,666,074	5,826,590	5,993,017	6,163,281
17. Depreciation (2)	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921
18. **Total Operating Expenses**	7,882,044	8,065,747	8,255,075	8,448,803	8,648,869	8,853,202
19. **Operating Income**	16,093,761	16,150,053	16,081,623	16,204,774	16,127,795	16,270,943
20. Revenues (3)	23,975,805	24,215,800	24,336,698	24,653,577	24,776,664	25,124,145
21. EBITDA (4)	18,617,594	18,706,262	18,670,624	18,826,987	18,783,647	18,960,864
22. EBIT (5)	16,093,761	16,150,053	16,081,623	16,204,774	16,127,795	16,270,943
23. EBIT	16,093,761	16,150,053	16,081,623	16,204,774	16,127,795	16,270,943
24. (-) Income Taxes	4,649,487	4,665,750	4,645,981	4,681,559	4,659,320	4,700,675
25. Debt Free Net Income	11,444,274	11,484,303	11,435,642	11,523,215	11,468,475	11,570,268
26. (+) Depreciation & Amortization	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921
27. (-) Capital Expenditures (6)	2,460,360	2,491,922	2,523,889	2,556,266	2,589,059	2,622,272
28. (-) Changes in Working Capital (7)	(11,988)	(12,108)	(12,168)	(12,327)	(12,388)	(12,562)
29. Debt Free Net Cash Flow	$11,519,735	$11,560,698	$11,512,922	$11,601,489	$11,547,656	$11,650,479
30. PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
31. Present Value Factor: 7.70% (8)	0.3411	0.3167	0.2941	0.2730	0.2535	0.2354
32. Present Value Debt Free Net Cash Flow	$3,929,382	$3,661,273	$3,385,950	$3,167,206	$2,927,331	$2,742,523
	15	16	17	18	19	20
33. Present Value Factor: 10.66% (9)	0.2302	0.2080	0.1880	0.1699	0.1535	0.1387
34. Present Value Debt Free Net Cash Flow	$2,651,843	$2,404,625	$2,164,429	$1,971,093	$1,772,565	$1,615,921
	15	16	17	18	19	20
35. Present Value Factor: 7.50% (8)	0.3504	0.3260	0.3032	0.2821	0.2624	0.2441
36. Present Value Debt Free Net Cash Flow	$4,036,515	$3,768,788	$3,490,718	$3,272,780	$3,030,105	$2,843,882
	15	16	17	18	19	20
37. Present Value Factor: 10.46% (9)	0.2363	0.2140	0.1937	0.1754	0.1587	0.1437
38. Present Value Debt Free Net Cash Flow	$2,722,113	$2,473,989	$2,230,053	$2,034,901	$1,832,613	$1,674,174

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 7.70%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$11,650,479
Divided by Capitalization Factor (8)	7.70%
20th Year Terminal Value	151,304,921
20th Year Present Value Factor (11)	0.2354
Present Value of Terminal Value	35,617,178
Present Value Debt Free Net Cash Flow for 20 Years	70,470,497
Indicated Value	$106,087,676

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 7.70%		Multiples (13)	Terminal Value
Projected EBIT	$16,270,943	27.8	$452,332,217
Projected EBITDA	18,960,864	18.6	352,672,068
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			385,559,917
20th Year Present Value Factor (11)			0.2354
Present Value of Terminal Value			90,760,804
Present Value Debt Free Net Cash Flow for 20 Years			70,470,497
Indicated Value			$161,231,302

DCF With Capitalization of Terminal Value Model @ 10.66%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$11,650,479
Divided by Capitalization Factor (9)	10.66%
20th Year Terminal Value	109,291,547
20th Year Present Value Factor (12)	0.1387
Present Value of Terminal Value	15,158,738
Present Value Debt Free Net Cash Flow for 20 Years	52,429,710
Indicated Value	$67,588,447

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 10.66%		Multiples (13)	Terminal Value
Projected EBIT	$16,270,943	27.8	$452,332,217
Projected EBITDA	18,960,864	18.6	352,672,068
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			385,559,917
20th Year Present Value Factor (12)			0.1387
Present Value of Terminal Value			53,477,160
Present Value Debt Free Net Cash Flow for 20 Years			52,429,710
Indicated Value			$105,906,870

DCF With Capitalization of Terminal Value Model @ 7.50%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$11,650,479
Divided by Capitalization Factor (8)	7.50%
20th Year Terminal Value	155,339,719
20th Year Present Value Factor (11)	0.2354
Present Value of Terminal Value	36,566,970
Present Value Debt Free Net Cash Flow for 20 Years	70,470,497
Indicated Value	$107,037,467

DCF With Capitalization of Terminal Value Model @ 10.46%	Terminal Value
Projected Debt Free Net Cash Flow (10)	$11,650,479
Divided by Capitalization Factor (9)	10.46%
20th Year Terminal Value	111,381,252
20th Year Present Value Factor (12)	0.1387
Present Value of Terminal Value	15,448,580
Present Value Debt Free Net Cash Flow for 20 Years	52,429,710
Indicated Value	$67,878,289

See last page of this EXHIBIT for notes and assumptions.

Income Approach
Towamencin Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Notes: (1) Assumptions:

Charges for services - Pre-2022 are actual. 2022 results are based on 2022 budget. Post-2022 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by IOU in 2023 with shown rate increases.

OPERATING EXPENSES - increase at 3.0% annually after 2022 unless noted elsewhere. Assumed economies of scale are shown on lines below.

Wages & Benefits - Post-2022 assumed 15% savings due to economies of scale. Increase at 3.0% afterwards.

Professional Services - Post-2022 assumed 50% savings due to economies of scale. Increase at 3.0% afterwards.

Eliminated Expenses - Post-2020 assumed 100% savings due to economies of scale (elimination of line rentals). Increase at 3.0% afterwards.

No Additional O&M.

PURTA & Reg Assessment - 2023 assumed due to IOU purchase in 2023.

(2) Depreciation - Pre-2022 based on actual depreciation. Post-2022 based on depreciation rate plus same rate on half of CAPX.

(3) Line 6.

(4) Line 19 + line 17.

(5) Line 19.

(6) Capital Expenditures - Pre-2023 based on financials/budget. Post-2022 years are estimates based on Engineers Assessment and at 1.51% of prior year-end GROSS Property, plant

(7) Changes in Working Capital - based on water industry -0.05% of revenues.

(8) Discount rate is the current lower end of the IOU discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.

(9) Discount rate is the current upper end of the IOU discount rate. Capitalization rate (K) at 6/30/2022 adjusted for stated growth (g) where capitalization rate = K - g.

(10) Final year shown, line 29.

(11) Final year shown, line 31.

(12) Final year shown, line 33.

(13) Developed on Market Multiples EXHIBIT 18.

Terms:

CAPX - Capital Expenditures
CIP - Capital improvement plan
Dep - Depreciation expense
GROSS PPE - GROSS Property, plant and equipment
IOU - Investor owned utility
MUNI - Large regional municipally owned utility
NET PPE - NET Property, plant and equipment

Towamencin Wastewater System Assets
Summary of Income Approach Results and Conclusion

Methods	Results
Exhibit 15, page 5 (MUNI)	
DCF With Capitalization of Terminal Value Model @ 3.73%	$117,747,102
DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.73%	119,640,350
Indicated Value (Median)	$118,693,726
Exhibit 16, page 5 (IOU)	
DCF With Capitalization of Terminal Value Model @ 7.50%	$107,037,467
DCF With Capitalization of Terminal Value Model @ 10.46%	67,878,289
DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 7.70%	161,231,302
DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 10.66%	105,906,870
Indicated Value (Median)	$106,472,169
Conclusion	
MUNI DCF	$118,693,726
IOU DCF	106,472,169
Conclusion (Median)	$112,582,948

Market Multiples Method
Towamencin Wastewater System Assets
2022 Operations
Market Multiple Method

	A	B	C	D (Col B × Col C)	E (Col A × Col D)
	Subject Company Statistic (1)	Comparison Group's Valuation Multiples 6/30/2022	Towamencin's Growth & Risk Adjustment	Towamencin's Risk Adjusted Valuation Multiples 6/30/2022	Towamencin's Market Multiples Valuation
Risk Adjusted Multiple					
1. Towamencin Wastewater System Assets					
2. Investor Provided Capital	$29,879,443	1.93	95.00%	1.83	$54,679,381
3. Gross PP&E	$63,040,435	1.37	105.00%	1.44	90,778,226
4. Net PP&E	$37,531,793	1.74	105.00%	1.83	68,683,181
5. Revenues	$5,279,190	8.22	95.00%	7.81	41,230,474
6. EBITDA	$1,665,453	19.60	95.00%	18.62	31,010,735
7. EBIT	$319,926	29.30	95.00%	27.84	8,906,754
8. Customers	5,847	$9,910	107.00%	$10,604	62,001,588
9. Population	20,425	$3,135	107.00%	$3,354	68,505,450
10.					
11. Average					$53,224,474

Conclusion of Market Multiple Method Valuation For Domestic Customers

		Low	High		Conclusion
12.	Capital Items	$54,679,381	$90,778,226		$72,728,804
13.	(Items 2-4)				
14.	Income Statement Items	8,906,754	41,230,474		-
15.	(Items 5 -7)				
16.	Demographics Items	62,001,588	68,505,450		65,253,519
17.	(Items 8-9)				
				Conclusion *	$68,991,161

* - Conclusion based on weighting of 50% Capital Items and 50% Demographics Items

Market Multiples Method
Towamencin Wastewater System Assets
Development of Market Multiples Method for the Market Multiples Method

	Latest Quarter End			Latest 12 Months			2021		6/30/2022
	Gross PP&E	Net PP&E	Invest. Total Capital	12 Mos. Rev.	12 Mos. EBITDA	12 Mos. EBIT	Customers	Population	Enterprise Value
	($ Mill)	($ Mill)	($ Mill)	($ Mill)	($ Mill)	($ Mill)			($ Mill)
American States Water Co	$2,262.295	$1,669.085	$1,331.945	$490.363	$180.720	$140.194	287,500	1,000,000	$3,646.648
American Water Works Company Inc	$27,872.000	$21,489.000	$18,266.000	$3,884.000	$1,927.000	$1,290.000	3,530,000	14,000,000	$37,751.435
Artesian Resources Corp	$792.379	$622.626	$353.016	$92.401	$40.358	$28.400	100,640	326,700	$630.804
California Water Service Group	$4,261.451	$2,887.415	$2,280.721	$816.165	$258.580	$145.186	547,600	2,000,000	$4,034.802
Essential Utilities, Inc.	$12,882.910	$10,440.989	$11,382.495	$1,993.854	$914.581	$611.227	1,820,049	5,000,000	$17,935.876
Middlesex Water Co	$1,079.458	$873.682	$713.094	$146.796	$64.856	$37.528	121,300	500,000	$1,871.509
SJW Corp.	$3,735.674	$2,558.665	$2,634.890	$583.203	$206.513	$105.889	398,000	1,526,000	$3,476.085
York Water Company (The)	$492.086	$390.597	$307.419	$56.278	$31.276	$22.111	73,144	204,000	$728.980
Average	$6,672.282	$5,116.507	$4,658.698	$1,007.883	$452.986	$297.567	859,779	3,069,588	$8,759.517
Max	$27,872.000	$21,489.000	$18,266.000	$3,884.000	$1,927.000	$1,290.000	3,530,000	14,000,000	$37,751.435
Min	$492.086	$390.597	$307.419	$56.278	$31.276	$22.111	73,144	204,000	$630.804
Median	$2,998.985	$2,113.875	$1,806.333	$536.783	$193.617	$123.042	342,750	1,263,000	$3,561.366

	Enterprise Value as a Multiple of								
	Invest. Capital	Gross PP&E	Net PP&E	Rev.	EBITDA	EBIT	Customers	Population	Population Per Customer
	(x)	(x)	(x)	(x)	(x)	(x)	($)	($)	
American States Water Co	2.74	1.61	2.18	7.44	20.18	26.01	$12,684	$3,647	3.48
American Water Works Company Inc	2.07	1.35	1.76	9.72	19.59	29.26	$10,694	$2,697	3.97
Artesian Resources Corp	1.79	0.80	1.01	6.83	15.63	22.21	$6,268	$1,931	3.25
California Water Service Group	1.77	0.95	1.40	4.94	15.60	27.79	$7,368	$2,017	3.65
Essential Utilities, Inc.	1.58	1.39	1.72	9.00	19.61	29.34	$9,855	$3,587	2.75
Middlesex Water Co	2.62	1.73	2.14	12.75	28.86	49.87	$15,429	$3,743	4.12
SJW Corp.	1.32	0.93	1.36	5.96	16.83	32.83	$8,734	$2,278	3.83
York Water Company (The)	2.37	1.48	1.87	12.95	23.31	32.97	$9,966	$3,573	2.79
Average	2.03	1.28	1.68	8.70	19.95	31.29	$10,125	$2,934	3.48
Max	2.74	1.73	2.18	12.95	28.86	49.87	$15,429	$3,743	4.12
Min	1.32	0.80	1.01	4.94	15.60	22.21	$6,268	$1,931	2.75
Median	1.93	1.37	1.74	8.22	19.60	29.30	$9,910	$3,135	3.57

Market Multiples Method
Towamencin Wastewater System Assets
Quantification of the Effective Risk/Growth Adjustments

		Net PP&E	Gross PP&E	Invest. Capital
Comparable Group Multiple		1.74	1.37	1.93
Ratio to Net PPE			78.74%	
Not Contributed Multiple (NPPE = ICAP mult.)		1.93	1.52	
Base Risk Factor	x	95%	95%	
Subject Company Adjusted Multiple		1.83	1.44	
Subject Company Adjusted Multiple		1.83	1.44	
Comparable Group Multiple	÷	1.74	1.37	
Effective Risk/Growth Adjustment		105%	105%	

		Net PP&E	Gross PP&E
Plant Assets		100%	100%
Ratio of Known "Cost Free" Capital		26%	26%
Plant Assets Less Known "Cost Free" Capital		74%	74%
Comparable Group Multiple		1.74	1.37
Plant Assets Less Known "Cost Free" Capital	÷	74%	74%
Mulitple Without "Cost Free" Capital		2.35	1.85
Base Risk Factor	x	95%	95%
Subject Company Adjusted Multiple		2.23	1.76
Subject Company Adjusted Multiple		2.23	1.76
Comparable Group Multiple	÷	1.74	1.37
Effective Risk/Growth Adjustment		128%	128%

		Net PP&E	Customers
Comparable Group Multiple		1.74	9,910.00
Implied Capitalization Rate (1÷Multiple)		57.47%	0.0101%
Ratio of Net PP&E Mult. to Invest. Capital Mult.		110.92%	
Less 1	-	1.00	
Difference in Capital Source due to Contributions		10.92%	
Assumed Investor Financed (1-Difference in Capital Source)		89.08%	89.08%
Implied Capitalization Rate (1÷Multiple)	x		0.0101%
Not Contributed Cap. Rate			0.0090%
Not Contributed Multiple (1÷Cap. Rate)			11,124.83
Base Risk Factor	x		95%
Subject Company Adjusted Multiple			10,568.59
Subject Company Adjusted Multiple			10,568.59
Comparable Group Multiple	÷		9,910.00
Effective Risk/Growth Adjustment			107%

Selected Transactions Method
For Towamencin Wastewater System Assets
Summary

		Median	Mid-Point	Domestic Customers Value
	All Selected Transactions Companies (N = 20)			
1.	Asset Items			$82,805,895
2.	Ex-Ante (page 2)	$78,048,984	$89,534,515	
3.	Ex-Post (page 3)	$66,578,020	$97,062,062	
4.	Demographics Items			$52,288,945
5.	Ex-Ante (page 2)	$49,465,674	$55,112,216	
6.	Ex-Post (page 3)	$49,465,674	$55,112,216	
7.			Indicated Value *	$67,547,420
	Fully Integrated Selected Transactions Companies (N = 8)			
8.	Asset Items			$79,770,967
9.	Ex-Ante (page 2)	$78,684,828	$88,703,854	
10.	Ex-Post (page 3)	$73,844,134	$77,851,051	
11.	Demographics Items			$71,792,095
12.	Ex-Ante (page 2)	$69,795,044	$73,789,147	
13.	Ex-Post (page 3)	$69,795,044	$73,789,147	
14.			Indicated Value *	$75,781,531
	Mostly Collection/Distribution Selected Transactions Companies (N = 12)			
15.	Asset Items			$79,458,886
16.	Ex-Ante (page 2)	$71,144,482	$89,534,515	
17.	Ex-Post (page 3)	$60,094,485	$97,062,062	
18.	Demographics Items			$37,318,120
19.	Ex-Ante (page 2)	$28,270,970	$46,365,270	
20.	Ex-Post (page 3)	$28,270,970	$46,365,270	
21.			Indicated Value *	$58,388,503
	Integrated, Excluding Wholesale Selected Transactions Companies (N = 6)			
22.	Asset Items			$77,703,161
23.	Ex-Ante (page 2)	$75,938,470	$86,843,196	
24.	Ex-Post (page 3)	$70,179,929	$77,851,051	
25.	Demographics Items			$69,291,147
26.	Ex-Ante (page 2)	$66,749,697	$71,832,597	
27.	Ex-Post (page 3)	$66,749,697	$71,832,597	
28.			Indicated Value *	$73,497,154

* - Indicated Value based on weighting of 50% Asset Items and 50% Demographics Items

Selected Transactions Method - Ex-Ante
For Towamencin Wastewater System Assets
Based on 2016 - 2021 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Gross PP&E	Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
			Selected Transactions' Metrics								
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$91,435,797	$73,813,794	$13,047,844	$6,180,616	$3,811,679	12,780	46,468
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$25,988,330	$17,967,319	$2,261,294	$907,386	$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$60,847,250	$36,113,701	$4,418,775	$2,487,775	$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	NA	NA	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	NA	NA	$7,735,788	$4,660,967	$4,660,967	8,984	27,609
Kane Borough Authority Wastewater System	WW	INT	$17,560,000	$10,809,115	$20,265,926	$8,897,773	$1,433,978	$684,830	$181,672	2,019	4,645
Borough of Royersford Wastewater System Assets	WW	INT	$13,000,000	$4,702,972	$6,883,116	$4,545,699	$863,000	$280,365	$280,365	1,596	5,154
York City Sewer Authority Wastewater System Assets	WW	INT	$235,000,000	$100,493,098	$120,654,506	$78,592,332	$24,641,181	$9,759,797	$6,150,926	13,747	80,929
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	NA	NA	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	NA	NA	$1,130,372	$49,804	$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	NA	NA	$753,857	$151,916	$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	NA	NA	$1,193,055	($173,564)	($244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	NA	NA	$9,290,500	$4,506,168	$4,506,168	10,219	37,841
East Norriton Township Wastewater System Assets	WW	C/D	$21,000,000	$4,055,138	NA	NA	$3,320,000	$612,827	$612,827	4,966	14,296
Valley Township Water System Assets	W	C/D	$7,325,000	NA	NA	NA	$698,550	$78,704	$78,704	1,669	7,493
Valley Township Wastewater System Assets	WW	C/D	$13,950,000	NA	NA	NA	$2,743,957	($408,562)	($408,562)	3,125	7,493
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$13,750,000	NA	$15,295,347	$11,548,897	$1,380,242	$858,878	$858,878	1,428	5,530
Lower Makefield Township Wastewater System Assets	WW	C/D	$53,000,000	$16,525,411	NA	$17,592,071	$10,012,924	$4,053,817	$3,520,813	11,151	33,197
Willistown Township Wastewater Systems Assets	WW	C/D	$17,500,000	$9,866,721	$8,673,707	$4,887,532	$2,148,508	$297,618	($8,933)	2,294	11,214
East Whiteland Township Wastewater System Assets	WW	C/D	$54,930,000	$42,513,245	$48,672,940	$34,143,673	$4,328,000	$1,942,553	$1,209,102	3,895	14,720
				Subject Company's Metrics							
Towamencin Wastewater System Assets				$29,879,443	$63,040,435	$37,531,793	$5,279,190	$1,665,453	$319,926	5,847	20,425
				Subject Company's Selected Transactions Multiples Valuations							
Municipal Authority of the City of Mckeesport	WW	INT	$62,577,357	$55,554,401	$107,554,242	$79,320,672	$63,117,986	$42,036,371	$13,093,582	$71,371,831	$68,569,768
New Garden Township/Authority's WW System's Assets	WW	INT	$57,413,194	$38,321,734	$71,558,766	$61,622,321	$68,870,348	$54,145,494	$18,889,339	$96,039,254	$49,858,295
Limerick Township Wastewater System's Assets	WW	INT	$67,125,234	$51,582,888	$77,806,913	$78,048,984	$89,723,321	$50,276,058	$26,887,287	$81,076,385	$81,600,037
Steelton Borough (Water) Authority	W	INT	$65,345,408	NA	NA	NA	NA	NA	NA	$53,219,053	$77,471,763
Exeter Township Wastewater System Assets	WW	INT	$47,981,081	NA	NA	NA	$65,513,977	$34,302,643	$6,589,393	$62,479,074	$71,020,319
Kane Borough Authority Wastewater System	WW	INT	$55,447,186	$48,540,793	$54,623,215	$74,070,027	$64,647,140	$42,704,547	$30,923,363	$50,853,551	$77,214,855
Borough of Royersford Wastewater System Assets	WW	INT	$72,464,772	$82,593,041	$119,063,176	$107,335,155	$79,524,299	$77,223,937	$14,834,392	$47,625,940	$51,518,238
York City Sewer Authority Wastewater System Assets	WW	INT	$70,851,802	$69,872,153	$122,784,492	$112,224,324	$50,347,004	$40,101,393	$12,222,993	$99,952,353	$59,309,704
Sadsbury Township Wastewater Utility	WW	C/D	$51,633,094	NA	NA	NA	NA	NA	NA	$54,193,136	$49,073,052
East Bradford Township Wastewater System Assets	WW	C/D	$61,901,806	$115,042,437	NA	NA	$23,351,560	$167,200,727	$32,118,554	$23,425,481	$10,272,078
Township of Mahoning Water System Assets	W	C/D	$29,579,163	NA	NA	NA	$33,157,362	$51,907,473	$16,560,812	$23,342,644	$22,927,523
Township of Mahoning Sewer System Assets	WW	C/D	$2,279,581	NA	NA	NA	$21,085,699	($45,725,137)	($6,239,401)	$19,202,015	$23,074,730
Cheltenham Township Wastewater System Assets	WW	C/D	$21,313,586	NA	NA	NA	$28,553,824	$18,572,102	$3,567,622	$28,751,517	$27,122,863
East Norriton Township Wastewater System Assets	WW	C/D	$51,814,854	$154,734,143	NA	NA	$33,392,467	$57,070,777	$10,963,055	$24,725,534	$30,003,148
Valley Township Water System Assets	W	C/D	$57,153,211	NA	NA	NA	$55,357,622	$155,004,107	$29,775,635	$25,661,639	$19,967,053
Valley Township Wastewater System Assets	WW	C/D	$4,635,357	NA	NA	NA	$26,838,868	($56,865,468)	($10,923,616)	$26,101,008	$38,025,991
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$41,831,062	NA	$56,671,220	$44,684,973	$52,591,402	$26,662,668	$5,121,786	$56,299,895	$50,785,488
Lower Makefield Township Wastewater System Assets	WW	C/D	$46,262,146	$95,828,810	NA	$113,072,817	$27,943,593	$21,774,296	$4,815,963	$27,790,422	$32,609,121
Willistown Township Wastewater Systems Assets	WW	C/D	($11,850,398)	$52,995,342	$127,189,864	$134,384,057	$42,999,991	$97,929,080	($626,780,142)	$44,604,403	$31,874,220
East Whiteland Township Wastewater System Assets	WW	C/D	$57,180,021	$38,606,270	$71,144,482	$60,380,774	$67,002,289	$47,094,393	$14,534,390	$82,458,462	$76,219,107

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

Selected Transactions Method - Ex-Post
For Towamencin Wastewater System Assets
Based on 2016 - 2021 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Ex-POST - OCN - Gross PP&E	Ex-Post - OCNLD - Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
			Ex-Post Selected Transactions' Metrics								
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$108,231,570	$80,085,602	$13,047,844	$6,180,616	$3,811,679	12,780	46,468
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$27,146,852	$18,567,728	$2,261,294	$907,386	$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$63,480,402	$46,153,867	$4,418,775	$2,487,775	$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	$19,739,906	$14,433,435	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	$68,404,345	$42,678,351	$7,735,788	$4,660,967	$4,660,967	8,984	27,609
Kane Borough Authority Wastewater System	WW	INT	$17,560,000	$10,809,115	$21,023,527	$13,503,901	$1,433,978	$684,830	$181,672	2,019	4,645
Borough of Royersford Wastewater System Assets	WW	INT	$13,000,000	$4,702,972	$7,666,493	$5,453,064	$863,000	$280,365	$280,365	1,596	5,154
York City Sewer Authority Wastewater System Assets	WW	INT	$235,000,000	$100,493,098	$155,875,776	$115,727,779	$24,641,181	$9,759,797	$6,150,926	13,747	80,929
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	$7,480,601	$6,128,876	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	$8,294,931	$5,473,948	$1,130,372	$49,804	$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	$5,294,272	$3,507,138	$753,857	$151,916	$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	$4,931,649	$3,234,859	$1,193,055	($173,564)	($244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	$19,818,216	$15,408,458	$9,290,500	$4,506,168	$4,506,168	10,219	37,841
East Norriton Township Wastewater System Assets	WW	C/D	$21,000,000	$4,055,138	$16,916,212	$9,251,450	$3,320,000	$612,827	$612,827	4,966	14,296
Valley Township Water System Assets	W	C/D	$7,325,000	NA	$6,843,616	$4,983,659	$698,550	$78,704	$78,704	1,669	7,493
Valley Township Wastewater System Assets	WW	C/D	$13,950,000	NA	$13,389,108	$8,832,690	$2,743,957	($408,562)	($408,562)	3,125	7,493
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$13,750,000	NA	$15,295,347	$11,548,897	$1,380,242	$858,878	$858,878	1,428	5,530
Lower Makefield Township Wastewater System Assets	WW	C/D	$53,000,000	$16,525,411	$32,003,924	$19,808,274	$10,012,924	$4,053,817	$3,520,813	11,151	33,197
Willistown Township Wastewater Systems Assets	WW	C/D	$17,500,000	$9,866,721	$19,641,520	$13,367,274	$2,148,508	$297,618	($8,933)	2,294	11,214
East Whiteland Township Wastewater System Assets	WW	C/D	$54,930,000	$42,513,245	$43,447,309	$32,955,596	$4,328,000	$1,942,553	$1,209,102	3,895	14,720
				Subject Company's Metrics							
Towamencin Wastewater System Assets				$29,879,443	$63,040,435	$37,531,793	$5,279,190	$1,665,453	$319,926	5,847	20,425
			Ex-Post Subject Company's Selected Transactions Multiples Valuations								
Municipal Authority of the City of Mckeesport	WW	INT	$59,714,536	$55,554,401	$90,863,579	$73,108,768	$63,117,986	$42,036,371	$13,093,582	$71,371,831	$68,569,768
New Garden Township/Authority's WW System's Assets	WW	INT	$56,782,384	$38,321,734	$68,504,916	$59,629,691	$68,870,348	$54,145,494	$18,889,339	$96,039,254	$49,858,295
Limerick Township Wastewater System's Assets	WW	INT	$64,599,491	$51,582,888	$74,579,500	$61,070,455	$89,723,321	$50,276,058	$26,887,287	$81,076,385	$81,600,037
Steelton Borough (Water) Authority	W	INT	$65,263,335	NA	$71,854,941	$58,507,580	NA	NA	NA	$53,219,053	$77,471,763
Exeter Township Wastewater System Assets	WW	INT	$58,971,572	NA	$88,472,183	$84,423,414	$65,513,977	$34,302,643	$6,589,393	$62,479,074	$71,020,319
Kane Borough Authority Wastewater System	WW	INT	$52,043,012	$48,540,793	$52,654,820	$48,805,029	$64,647,140	$42,704,547	$30,923,363	$50,853,551	$77,214,855
Borough of Royersford Wastewater System Assets	WW	INT	$68,711,499	$82,593,041	$106,897,072	$89,475,075	$79,524,299	$77,223,937	$14,834,392	$47,625,940	$51,518,238
York City Sewer Authority Wastewater System Assets	WW	INT	$62,882,391	$69,872,153	$95,040,439	$76,213,088	$50,347,004	$40,101,393	$12,222,993	$99,952,353	$59,309,704
Sadsbury Township Wastewater Utility	WW	C/D	$59,465,626	NA	$77,951,494	$56,644,821	NA	NA	NA	$54,193,136	$49,073,052
East Bradford Township Wastewater System Assets	WW	C/D	$55,461,551	$115,042,437	$37,999,372	$34,282,196	$23,351,560	$167,200,727	$32,118,554	$23,425,481	$10,272,078
Township of Mahoning Water System Assets	W	C/D	$36,420,589	NA	$56,378,639	$50,669,672	$33,157,362	$51,907,473	$16,560,812	$23,342,644	$22,927,523
Township of Mahoning Sewer System Assets	WW	C/D	$18,228,273	NA	$60,912,746	$55,287,263	$21,085,699	($45,725,137)	($6,239,401)	$19,202,015	$23,074,730
Cheltenham Township Wastewater System Assets	WW	C/D	$55,544,055	NA	$159,841,927	$122,398,529	$28,553,824	$18,572,102	$3,567,622	$28,751,517	$27,122,863
East Norriton Township Wastewater System Assets	WW	C/D	$59,292,785	$154,734,143	$78,259,195	$85,193,959	$33,392,467	$57,070,777	$10,963,055	$24,725,534	$30,003,148
Valley Township Water System Assets	W	C/D	$58,343,594	NA	$67,474,737	$55,164,365	$55,357,622	$155,004,107	$29,775,635	$25,661,639	$19,967,053
Valley Township Wastewater System Assets	WW	C/D	$21,162,044	NA	$65,681,304	$59,276,224	$26,838,868	($56,865,468)	($10,923,616)	$26,101,008	$38,025,991
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$41,831,062	NA	$56,671,220	$44,684,973	$52,591,402	$26,662,668	$5,121,786	$56,299,895	$50,785,488
Lower Makefield Township Wastewater System Assets	WW	C/D	$51,947,756	$95,828,810	$104,397,919	$100,421,926	$27,943,593	$21,774,296	$4,815,963	$27,790,422	$32,609,121
Willistown Township Wastewater Systems Assets	WW	C/D	($31,384,323)	$52,995,342	$56,167,120	$49,135,402	$42,999,991	$97,929,080	($626,780,142)	$44,604,403	$31,874,220
East Whiteland Township Wastewater System Assets	WW	C/D	$58,521,732	$38,606,270	$79,701,394	$62,557,551	$67,002,289	$47,094,393	$14,534,390	$82,458,462	$76,219,107

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

EXHIBIT 20

Ratio of EDU to Customers
For the Transactions Used in Selected Transactions Method and Towamencin Wastewater System Assets
Based on 2016 - 2021 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

Name	Service	System	Customers	EDU	Ratio of EDU to Customer	Towamencin Wastewater System Domestic Customers Ratio of EDU to Customer	Towamencin's EDU Factor
Municipal Authority of the City of Mckeesport	WW	INT	12,780	24,262	1.90		
New Garden Township/Authority's WW System's Assets	WW	INT	1,796	2,323	1.29		
Limerick Township Wastewater System's Assets	WW	INT	5,416	8,268	1.53		
Steelton Borough (Water) Authority	W	INT	2,472	NA	NA		
Exeter Township Wastewater System Assets	WW	INT	8,984	12,839	1.43		
Kane Borough Authority Wastewater System	WW	INT	2,019	2,447	1.21		
Borough of Royersford Wastewater System Assets	WW	INT	1,596	1,716	1.08		
York City Sewer Authority Wastewater System Assets	WW	INT	13,747	26,157	1.90		
Sadsbury Township Wastewater Utility	WW	C/D	998	1,127	1.13		
East Bradford Township Wastewater System Assets	WW	C/D	1,248	1,705	1.37		
Township of Mahoning Water System Assets	W	C/D	1,186	1,370	1.16		
Township of Mahoning Sewer System Assets	WW	C/D	1,451	2,195	1.51		
Cheltenham Township Wastewater System Assets	WW	C/D	10,219	17,105	1.67		
East Norriton Township Wastewater System Assets	WW	C/D	4,966	11,048	2.22		
Valley Township Water System Assets	W	C/D	1,669	NA	NA		
Valley Township Wastewater System Assets	WW	C/D	3,125	3,271	1.05		
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	1,428	1,573	1.10		
Lower Makefield Township Wastewater System Assets	WW	C/D	11,151	14,966	1.34		
Willistown Township Wastewater Systems Assets	WW	C/D	2,294	4,961	2.16		
East Whiteland Township Wastewater System Assets	WW	C/D	3,895	7,908	2.03		
All Selected Transactions Companies (N = 20)							
Median					1.40		
Mid-Point					1.64		
Value					1.52	1.99	1.31
Integrated, Excluding Wholesale Selected Transactions Companies (N = 6)							
Median					1.29		
Mid-Point					1.31		
Value					1.30	1.99	1.53
Mostly Collection/Distribution Selected Transactions Companies (N = 12)							
Median					1.37		
Mid-Point					1.64		
Value					1.51	1.99	1.32
Towamencin Wastewater System Assets	WW	INT					
Domestic Customers			5,847	11,657	1.99		
Ultimate Customers			6,359	12,172	1.91		

Selected Transactions Method
For Towamencin Wastewater System Assets
Summary

		Median	Mid-Point	Domestic Customers Value
	All Selected Transactions Companies (N = 20)			
1.	Asset Items			$82,805,895
2.	Ex-Ante (page 2)	$78,048,984	$89,534,515	
3.	Ex-Post (page 3)	$66,578,020	$97,062,062	
4.	Demographics Items			$81,528,565
5.	Ex-Ante (page 2)	$77,961,657	$85,095,474	
6.	Ex-Post (page 3)	$77,961,657	$85,095,474	
7.			Indicated Value *	$81,847,898
	Fully Integrated Selected Transactions Companies (N = 8)			
8.	Asset Items			$79,770,967
9.	Ex-Ante (page 2)	$78,684,828	$88,703,854	
10.	Ex-Post (page 3)	$73,844,134	$77,851,051	
11.	Demographics Items			$99,901,711
12.	Ex-Ante (page 2)	$88,310,606	$111,492,817	
13.	Ex-Post (page 3)	$88,310,606	$111,492,817	
14.			Indicated Value *	$94,869,025
	Mostly Collection/Distribution Selected Transactions Companies (N = 12)			
15.	Asset Items			$79,458,886
16.	Ex-Ante (page 2)	$71,144,482	$89,534,515	
17.	Ex-Post (page 3)	$60,094,485	$97,062,062	
18.	Demographics Items			$51,573,728
19.	Ex-Ante (page 2)	$41,120,238	$62,027,219	
20.	Ex-Post (page 3)	$41,120,238	$62,027,219	
21.			Indicated Value *	$58,545,018
	Integrated, Excluding Wholesale Selected Transactions Companies (N = 6)			
22.	Asset Items			$77,703,161
23.	Ex-Ante (page 2)	$75,938,470	$86,843,196	
24.	Ex-Post (page 3)	$70,179,929	$77,851,051	
25.	Demographics Items			$102,076,692
26.	Ex-Ante (page 2)	$88,310,606	$115,842,778	
27.	Ex-Post (page 3)	$88,310,606	$115,842,778	
28.			Indicated Value *	$95,983,309

Conclusion of Selected Transactions Method Valuation For Domestic Customers

		Indicated Values	Weight	
29.	Integrated, Excluding Wholesale Transactions	$95,983,309	75%	$71,987,482
30.	All Selected Transactions Companies	81,847,898	25%	20,461,974
31.			Conclusion	$92,449,456

* - Indicated Value based on weighting of 25% Asset Items and 75% Demographics Items

Selected Transactions Method - Ex-Ante
For Towamencin Wastewater System Assets
Based on 2016 - 2021 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

			Selected Transactions' Metrics								
Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Gross PP&E	Net PP&E	Revenues	EBITDA	EBIT	EDU	EDU
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$91,435,797	$73,813,794	$13,047,844	$6,180,616	$3,811,679	24,262	24,262
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$25,988,330	$17,967,319	$2,261,294	$907,386	$499,638	2,323	2,323
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$60,847,250	$36,113,701	$4,418,775	$2,487,775	$893,600	8,268	8,268
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	NA	NA	NA	NA	NA	NA	NA
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	NA	NA	$7,735,788	$4,660,967	$4,660,967	12,839	12,839
Kane Borough Authority Wastewater System	WW	INT	$17,560,000	$10,809,115	$20,265,926	$8,897,773	$1,433,978	$684,830	$181,672	2,447	2,447
Borough of Royersford Wastewater System Assets	WW	INT	$13,000,000	$4,702,972	$6,883,116	$4,545,699	$863,000	$280,365	$280,365	1,716	1,716
York City Sewer Authority Wastewater System Assets	WW	INT	$235,000,000	$100,493,098	$120,654,506	$78,592,332	$24,641,181	$9,759,797	$6,150,926	26,157	26,157
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	NA	NA	NA	NA	NA	1,127	1,127
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	NA	NA	$1,130,372	$49,804	$49,804	1,705	1,705
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	NA	NA	$753,857	$151,916	$91,468	1,370	1,370
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	NA	NA	$1,193,055	($173,564)	($244,337)	2,195	2,195
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	NA	NA	$9,290,500	$4,506,168	$4,506,168	17,105	17,105
East Norriton Township Wastewater System Assets	WW	C/D	$21,000,000	$4,055,138	NA	NA	$3,320,000	$612,827	$612,827	11,048	11,048
Valley Township Water System Assets	W	C/D	$7,325,000	NA	NA	NA	$698,550	$78,704	$78,704	NA	NA
Valley Township Wastewater System Assets	WW	C/D	$13,950,000	NA	NA	NA	$2,743,957	($408,562)	($408,562)	3,271	3,271
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$13,750,000	NA	$15,295,347	$11,548,897	$1,380,242	$858,878	$858,878	1,573	1,573
Lower Makefield Township Wastewater System Assets	WW	C/D	$53,000,000	$16,525,411	NA	$17,592,071	$10,012,924	$4,053,817	$3,520,813	14,966	14,966
Willistown Township Wastewater Systems Assets	WW	C/D	$17,500,000	$9,866,721	$8,673,707	$4,887,532	$2,148,508	$297,618	($8,933)	4,961	4,961
East Whiteland Township Wastewater System Assets	WW	C/D	$54,930,000	$42,513,245	$48,672,940	$34,143,673	$4,328,000	$1,942,553	$1,209,102	7,908	7,908
				Subject Company's Metrics							
Towamencin Wastewater System Assets				$29,879,443	$63,040,435	$37,531,793	$5,279,190	$1,665,453	$319,926	11,657	11,657
				Subject Company's Selected Transactions Multiples Valuations							
Municipal Authority of the City of Mckeesport	WW	INT	$63,822,725	$55,554,401	$107,554,242	$79,320,672	$63,117,986	$42,036,371	$13,093,582	$74,952,271	$74,952,271
New Garden Township/Authority's WW System's Assets	WW	INT	$76,184,341	$38,321,734	$71,558,766	$61,622,321	$68,870,348	$54,145,494	$18,889,339	$148,033,362	$148,033,362
Limerick Township Wastewater System's Assets	WW	INT	$73,261,433	$51,582,888	$77,806,913	$78,048,984	$89,723,321	$50,276,058	$26,887,287	$105,883,007	$105,883,007
Steelton Borough (Water) Authority	W	INT	#DIV/0!	NA	NA	NA	NA	NA	NA	NA	NA
Exeter Township Wastewater System Assets	WW	INT	$56,145,974	NA	NA	NA	$65,513,977	$34,302,643	$6,589,393	$87,161,928	$87,161,928
Kane Borough Authority Wastewater System	WW	INT	$60,351,684	$48,540,793	$54,623,215	$74,070,027	$64,647,140	$42,704,547	$30,923,363	$83,652,195	$83,652,195
Borough of Royersford Wastewater System Assets	WW	INT	$82,149,402	$82,593,041	$119,063,176	$107,335,155	$79,524,299	$77,223,937	$14,834,392	$88,310,606	$88,310,606
York City Sewer Authority Wastewater System Assets	WW	INT	$77,126,281	$69,872,153	$122,784,492	$112,224,324	$50,347,004	$40,101,393	$12,222,993	$104,728,944	$104,728,944
Sadsbury Township Wastewater Utility	WW	C/D	$95,676,353	NA	NA	NA	NA	NA	NA	$95,676,353	$95,676,353
East Bradford Township Wastewater System Assets	WW	C/D	$67,680,463	$115,042,437	NA	NA	$23,351,560	$167,200,727	$32,118,554	$34,184,751	$34,184,751
Township of Mahoning Water System Assets	W	C/D	$36,440,039	NA	NA	NA	$33,157,362	$51,907,473	$16,560,812	$40,287,273	$40,287,273
Township of Mahoning Sewer System Assets	WW	C/D	$3,946,863	NA	NA	NA	$21,085,699	($45,725,137)	($6,239,401)	$25,306,577	$25,306,577
Cheltenham Township Wastewater System Assets	WW	C/D	$23,836,792	NA	NA	NA	$28,553,824	$18,572,102	$3,567,622	$34,245,206	$34,245,206
East Norriton Township Wastewater System Assets	WW	C/D	$50,079,269	$154,734,143	NA	NA	$33,392,467	$57,070,777	$10,963,055	$22,157,585	$22,157,585
Valley Township Water System Assets	W	C/D	$80,045,788	NA	NA	NA	$55,357,622	$155,004,107	$29,775,635	NA	NA
Valley Township Wastewater System Assets	WW	C/D	$11,695,637	NA	NA	NA	$26,838,868	($56,865,468)	($10,923,616)	$49,714,201	$49,714,201
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$55,646,537	NA	$56,671,220	$44,684,973	$52,591,402	$26,662,668	$5,121,786	$101,896,853	$101,896,853
Lower Makefield Township Wastewater System Assets	WW	C/D	$49,428,394	$95,828,810	NA	$113,072,817	$27,943,593	$21,774,296	$4,815,963	$41,281,638	$41,281,638
Willistown Township Wastewater Systems Assets	WW	C/D	($11,130,167)	$52,995,342	$127,189,864	$134,384,057	$42,999,991	$97,929,080	($626,780,142)	$41,120,238	$41,120,238
East Whiteland Township Wastewater System Assets	WW	C/D	$57,588,085	$38,606,270	$71,144,482	$60,380,774	$67,002,289	$47,094,393	$14,534,390	$80,971,043	$80,971,043

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

Selected Transactions Method - Ex-Post
For Towamencin Wastewater System Assets
Based on 2016 - 2021 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Ex-POST - OCN - Gross PP&E	Ex-Post - OCNLD - Net PP&E	Revenues	EBITDA	EBIT	EDU	EDU
			Ex-Post Selected Transactions' Metrics								
Municipal Authority of the City of Mckeesport	WW	INT	$156,000,000	$83,903,219	$108,231,570	$80,085,602	$13,047,844	$6,180,616	$3,811,679	24,262	24,262
New Garden Township/Authority's WW System's Assets	WW	INT	$29,500,000	$23,001,140	$27,146,852	$18,567,728	$2,261,294	$907,386	$499,638	2,323	2,323
Limerick Township Wastewater System's Assets	WW	INT	$75,100,000	$43,501,755	$63,480,402	$46,153,867	$4,418,775	$2,487,775	$893,600	8,268	8,268
Steelton Borough (Water) Authority	W	INT	$22,500,000	NA	$19,739,906	$14,433,435	NA	NA	NA	NA	NA
Exeter Township Wastewater System Assets	WW	INT	$96,000,000	NA	$68,404,345	$42,678,351	$7,735,788	$4,660,967	$4,660,967	12,839	12,839
Kane Borough Authority Wastewater System	WW	INT	$17,560,000	$10,809,115	$21,023,527	$13,503,901	$1,433,978	$684,830	$181,672	2,447	2,447
Borough of Royersford Wastewater System Assets	WW	INT	$13,000,000	$4,702,972	$7,666,493	$5,453,064	$863,000	$280,365	$280,365	1,716	1,716
York City Sewer Authority Wastewater System Assets	WW	INT	$235,000,000	$100,493,098	$155,875,776	$115,727,779	$24,641,181	$9,759,797	$6,150,926	26,157	26,157
Sadsbury Township Wastewater Utility	WW	C/D	$9,250,000	NA	$7,480,601	$6,128,876	NA	NA	NA	1,127	1,127
East Bradford Township Wastewater System Assets	WW	C/D	$5,000,000	$1,298,627	$8,294,931	$5,473,948	$1,130,372	$49,804	$49,804	1,705	1,705
Township of Mahoning Water System Assets	W	C/D	$4,734,800	NA	$5,294,272	$3,507,138	$753,857	$151,916	$91,468	1,370	1,370
Township of Mahoning Sewer System Assets	WW	C/D	$4,765,200	NA	$4,931,649	$3,234,859	$1,193,055	($173,564)	($244,337)	2,195	2,195
Cheltenham Township Wastewater System Assets	WW	C/D	$50,250,000	NA	$19,818,216	$15,408,458	$9,290,500	$4,506,168	$4,506,168	17,105	17,105
East Norriton Township Wastewater System Assets	WW	C/D	$21,000,000	$4,055,138	$16,916,212	$9,251,450	$3,320,000	$612,827	$612,827	11,048	11,048
Valley Township Water System Assets	W	C/D	$7,325,000	NA	$6,843,616	$4,983,659	$698,550	$78,704	$78,704	NA	NA
Valley Township Wastewater System Assets	WW	C/D	$13,950,000	NA	$13,389,108	$8,832,690	$2,743,957	($408,562)	($408,562)	3,271	3,271
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$13,750,000	NA	$15,295,347	$11,548,897	$1,380,242	$858,878	$858,878	1,573	1,573
Lower Makefield Township Wastewater System Assets	WW	C/D	$53,000,000	$16,525,411	$32,003,924	$19,808,274	$10,012,924	$4,053,817	$3,520,813	14,966	14,966
Willistown Township Wastewater Systems Assets	WW	C/D	$17,500,000	$9,866,721	$19,641,520	$13,367,274	$2,148,508	$297,618	($8,933)	4,961	4,961
East Whiteland Township Wastewater System Assets	WW	C/D	$54,930,000	$42,513,245	$43,447,309	$32,955,596	$4,328,000	$1,942,553	$1,209,102	7908	7908
				Subject Company's Metrics							
Towamencin Wastewater System Assets				$29,879,443	$63,040,435	$37,531,793	$5,279,190	$1,665,453	$319,926	11,657	11,657
				Ex-Post Subject Company's Selected Transactions Multiples Valuations							
Municipal Authority of the City of Mckeesport	WW	INT	$60,959,904	$55,554,401	$90,863,579	$73,108,768	$63,117,986	$42,036,371	$13,093,582	$74,952,271	$74,952,271
New Garden Township/Authority's WW System's Assets	WW	INT	$75,553,531	$38,321,734	$68,504,916	$59,629,691	$68,870,348	$54,145,494	$18,889,339	$148,033,362	$148,033,362
Limerick Township Wastewater System's Assets	WW	INT	$70,735,690	$51,582,888	$74,579,500	$61,070,455	$89,723,321	$50,276,058	$26,887,287	$105,883,007	$105,883,007
Steelton Borough (Water) Authority	W	INT	$65,181,261	NA	$71,854,941	$58,507,580	NA	NA	NA	NA	NA
Exeter Township Wastewater System Assets	WW	INT	$64,803,638	NA	$88,472,183	$84,423,414	$65,513,977	$34,302,643	$6,589,393	$87,161,928	$87,161,928
Kane Borough Authority Wastewater System	WW	INT	$56,947,510	$48,540,793	$52,654,820	$48,805,029	$64,647,140	$42,704,547	$30,923,363	$83,652,195	$83,652,195
Borough of Royersford Wastewater System Assets	WW	INT	$78,396,128	$82,593,041	$106,897,072	$89,475,075	$79,524,299	$77,223,937	$14,834,392	$88,310,606	$88,310,606
York City Sewer Authority Wastewater System Assets	WW	INT	$69,156,870	$69,872,153	$95,040,439	$76,213,088	$50,347,004	$40,101,393	$12,222,993	$104,728,944	$104,728,944
Sadsbury Township Wastewater Utility	WW	C/D	$81,487,255	NA	$77,951,494	$56,644,821	NA	NA	NA	$95,676,353	$95,676,353
East Bradford Township Wastewater System Assets	WW	C/D	$59,795,543	$115,042,437	$37,999,372	$34,282,196	$23,351,560	$167,200,727	$32,118,554	$34,184,751	$34,184,751
Township of Mahoning Water System Assets	W	C/D	$41,321,215	NA	$56,378,639	$50,669,672	$33,157,362	$51,907,473	$16,560,812	$40,287,273	$40,287,273
Township of Mahoning Sewer System Assets	WW	C/D	$19,419,189	NA	$60,912,746	$55,287,263	$21,085,699	($45,725,137)	($6,239,401)	$25,306,577	$25,306,577
Cheltenham Township Wastewater System Assets	WW	C/D	$57,346,345	NA	$159,841,927	$122,398,529	$28,553,824	$18,572,102	$3,567,622	$34,245,206	$34,245,206
East Norriton Township Wastewater System Assets	WW	C/D	$57,991,096	$154,734,143	$78,259,195	$85,193,959	$33,392,467	$57,070,777	$10,963,055	$22,157,585	$22,157,585
Valley Township Water System Assets	W	C/D	$72,555,293	NA	$67,474,737	$55,164,365	$55,357,622	$155,004,107	$29,775,635	NA	NA
Valley Township Wastewater System Assets	WW	C/D	$26,205,102	NA	$65,681,304	$59,276,224	$26,838,868	($56,865,468)	($10,923,616)	$49,714,201	$49,714,201
Upper Pottsgrove Township Wastewater System Assets	WW	C/D	$55,646,537	NA	$56,671,220	$44,684,973	$52,591,402	$26,662,668	$5,121,786	$101,896,853	$101,896,853
Lower Makefield Township Wastewater System Assets	WW	C/D	$54,718,223	$95,828,810	$104,397,919	$100,421,926	$27,943,593	$21,774,296	$4,815,963	$41,281,638	$41,281,638
Willistown Township Wastewater Systems Assets	WW	C/D	($30,664,091)	$52,995,342	$56,167,120	$49,135,402	$42,999,991	$97,929,080	($626,780,142)	$41,120,238	$41,120,238
East Whiteland Township Wastewater System Assets	WW	C/D	$58,929,797	$38,606,270	$79,701,394	$62,557,551	$67,002,289	$47,094,393	$14,534,390	$80,971,043	$80,971,043

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".
Where "WW" is wastewater and "W" is water.

Summar of Selected Transactions Method - Wall Street Transactions
For Towamencin Wastewater System Assets
Based on Recent Walls Sreet Transactions Without Discount for Cost Free Capital

	Towamencin Wastewater System Assets's Domestic Customers Indicated Value
Based on Recent SJW Group's Purchase of Connecticut Water Service Inc.	$76,912,298
Based on Recent Aquarion Water Company's Purchase of New England Service Company, Inc.	$66,288,736
Based on Recent Aquarion Water Company's Purchase of Torrington Water Company, Inc.	$99,569,554

Summar of Selected Transactions Method - Wall Street Transactions
For Towamencin Wastewater System Assets
Based on Recent SJW Group's Bid and Purchase of Connecticut Water Service Inc., With and Without Discount for Cost Free Capital

Connecticut Water Service Inc. (*Financial information reported in 000 of $*)			Towamencin Wastewater System Assets			
Purchase Price was: $1,106,267						
	Subject Company Statistics	Transaction Multiple	Towamencin Wastewater System Assets's Company Statistics	Selected Transactions Multiples Valuation		Domestic Customers Indicated Value *
Investor Provided Capital	$573,223	1.93	$29,879,443	$57,664,545		
Gross PP&E	$939,050	1.18	$63,040,435	$74,266,073		
Net PP&E	$697,723	1.59	$37,531,793	$59,508,123	$65,965,309	
Revenues	$107,054	10.33	$5,279,190	$54,553,720		
EBITDA	$48,920	22.61	$1,665,453	$37,662,219		
EBIT	$32,236	34.32	$319,926	$10,979,158		$57,457,168
Customers	135,645	$8,156	5,847	$47,685,823		
Population	450,000	$2,458	20,425	$50,212,232	$48,949,028	
Average				$49,066,487		
	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$573,223	1.93	$29,879,443	$57,664,545		
Gross PP&E (Less "Cost Free" Capital)	$646,723	1.71	$63,040,435	$107,835,344		
Net PP&E (Less "Cost Free" Capital)	$480,521	2.30	$37,531,793	$86,406,600	$82,749,944	
Revenues	$107,054	10.33	$5,279,190	$54,553,720		
EBITDA	$48,920	22.61	$1,665,453	$37,662,219		
EBIT	$32,236	34.32	$319,926	$10,979,158		$76,912,298
Customers (Adj. "Cost Free" Capital)	93,419	$11,842	5,847	$69,240,461		
Population (Adj. "Cost Free" Capital)	309,914	$3,570	20,425	$72,908,841	$71,074,651	
Average				$62,156,361		

* - Indicated Value based on weighting of 50% Capital Items and 50% Demographics Items

Summar of Selected Transactions Method - Wall Street Transactions
For Towamencin Wastewater System Assets
Based on Recent Aquarion Water Company's Purchase of New England Service Company, Inc., With and Without Discount for Cost Free Capital

New England Service Company, Inc.			Towamencin Wastewater System Assets			
Purchase Price was: $49,290,414			Towamencin Wastewater System Assets's Company Statistics	Selected Transactions Multiples Valuation		Domestic Customers Indicated Value *
	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$26,734,587	1.84	$29,879,443	$55,088,568		
Gross PP&E	$54,517,263	0.90	$63,040,435	$56,996,425		
Net PP&E	$36,566,790	1.35	$37,531,793	$50,591,195	$53,793,810	
Revenues	$7,994,088	6.17	$5,279,190	$32,550,737		
EBITDA	$2,729,953	18.06	$1,665,453	$30,070,432		
EBIT	$1,559,860	31.60	$319,926	$10,109,439		$43,989,525
Customers	9,515	$5,180	5,847	$30,289,127		
Population	26,437	$1,864	20,425	$38,081,352	$34,185,240	
Average				$37,972,159		
	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$26,734,587	1.84	$29,879,443	$55,088,568		
Gross PP&E (Less "Cost Free" Capital)	$32,535,719	1.51	$63,040,435	$95,503,933		
Net PP&E (Less "Cost Free" Capital)	$21,822,937	2.26	$37,531,793	$84,771,248	$75,296,250	
Revenues	$7,994,088	6.17	$5,279,190	$32,550,737		
EBITDA	$2,729,953	18.06	$1,665,453	$30,070,432		
EBIT	$1,559,860	31.60	$319,926	$10,109,439		$66,288,736
Customers (Adj. "Cost Free" Capital)	5,679	$8,680	5,847	$50,752,846		
Population (Adj. "Cost Free" Capital)	15,778	$3,124	20,425	$63,809,596	$57,281,221	
Average				$52,832,100		

* - Indicated Value based on weighting of 50% Capital Items and 50% Demographics Items

Summar of Selected Transactions Method - Wall Street Transactions
For Towamencin Wastewater System Assets
Based on Recent Aquarion Water Company's Bid For Torrington Water Company, With and Without Discount for Cost Free Capital

Torrington Water Company			Towamencin Wastewater System Assets			
Purchase Price was: $91,880,072						
	Subject Company Statistics	Transaction Multiple	Towamencin Wastewater System Assets's Company Statistics	Selected Transactions Multiples Valuation		Domestic Customers Indicated Value *
Investor Provided Capital	$36,395,842	2.52	$29,879,443	$75,429,643		
Gross PP&E	$75,202,417	1.22	$63,040,435	$77,020,925		
Net PP&E	$48,743,673	1.88	$37,531,793	$70,746,081	$73,883,503	
Revenues	$7,835,144	11.73	$5,279,190	$61,907,268		
EBITDA	$3,264,018	28.15	$1,665,453	$46,881,464		
EBIT	$2,046,050	44.91	$319,926	$14,366,643		$65,842,659
Customers	10,125	$9,075	5,847	$53,059,040		
Population	30,005	$3,062	20,425	$62,544,592	$57,801,816	
Average				$57,744,457		
	Subject Company Statistics	Transaction Multiple				
Investor Provided Capital	$36,395,842	2.52	$29,879,443	$75,429,643		
Gross PP&E (Less "Cost Free" Capital)	$44,868,813	2.05	$63,040,435	$129,090,994		
Net PP&E (Less "Cost Free" Capital)	$29,082,453	3.16	$37,531,793	$118,574,036	$102,260,319	
Revenues	$7,835,144	11.73	$5,279,190	$61,907,268		
EBITDA	$3,264,018	28.15	$1,665,453	$46,881,464		
EBIT	$2,046,050	44.91	$319,926	$14,366,643		$99,569,554
Customers (Adj. "Cost Free" Capital)	6,041	$15,209	5,847	$88,929,655		
Population (Adj. "Cost Free" Capital)	17,902	$5,132	20,425	$104,827,922	$96,878,788	
Average				$80,000,953		

* - Indicated Value based on weighting of 50% Capital Items and 50% Demographics Items

Market Approach
Towamencin Wastewater System Assets
Determination of the Value of Ultimate Whole Customers and the
Market Approach Conclusion

1.	Integrated, Excluding Wholesale Transactions		$95,983,309
2.	Mostly Collection/Distribution Transactions	−	$58,545,018
3.	Market Value of Treatment Only		$37,438,291
4.	Number of Ultimate Customers EDU		12,172
5.	Number of Domestic Customers EDU	−	11,657
6.	Number of Ultimate Wholesale Customers EDU		515
7.	Market Value of Treatment Only		$37,438,291
8.	Number of Domestic Customers EDU	÷	11,657
9.	Treatment Value Per Domestic Customer		$3,212
10.	Ultimate Wholesale Customer Equivalency Factor *	×	95%
11.	Treatment Value Per Ultimate Wholesale Customer		$3,051
12.	Number of Ultimate Wholesale Customers EDU	×	515
13.	Value of Ultimate Wholesale Customers		$1,571,265
14.	Market Approach - Domestic Customers		$92,449,456
15.	Market Value of Ultimate Wholesale Customers	+	$1,571,265
16.	Conclusion - Market Approach		$94,020,721

* Discounted for lack of control.

Towamencin Wastewater System Assets
Summary of Approach Results and
Fair Market Value Conclusion at Appraisal Date

Valuation Approach	Indicated Value	Conclusion	Consideration
Cost Approach	$125,257,168		33.33%
Income Approach	112,582,948		33.33%
Market Approach	94,020,721		33.34%
		Conclusion $110,619,000	

WORKPAPERS

Daily Bond Yields and Key Indicators

Updated by 11 am ET with data from the previous business day.	Data as of 8-Jun-22

Moody's Daily Long-term Corporate Bond Yield Averages			
	Utilities	Industrial	Corporate
Aaa	NA	4.13	4.13
Aa	4.5	4.17	4.34
A	4.72	4.53	4.63
Baa	5.07	5.13	5.1
Avg	4.76	4.49	4.63

Moody's Daily Treasury Yield Averages	
Short-Term (3-5 yrs)	3
Medium-Term (5-10 yrs)	3.04
Long-Term (10+ yrs)	3.33

Moody's Daily Public Utility Common Stock Yield Averages	
Price	580.33
Yield	3.31
New Dividend	19.21

Moody's Commodity and Scrap Price Indexes	
Spot Commodity Index	10,719.06
Industrial Metals Index	3,427.16

* Moody's “Aaa” Utilities Index was suspended on 12/10/01. Since 2000, TVA was the only issuer left in the index as a decade of deregulation, debt growth, competition, and consolidation eliminated the rest of the Aaa universe.

Index Name: S&P Municipal Bond Revenue Index

As of: 30-Aug-22

Effective date	Yield To Maturity
6/24/2022	4.00%
6/27/2022	4.00%
6/28/2022	4.02%
6/29/2022	4.01%
6/30/2022	3.97%
7/1/2022	3.93%
7/5/2022	3.89%
7/6/2022	3.86%
7/7/2022	3.84%
end	end

FED H.15

DATE	DAAA	DBAA	DGS10	DGS20	DGS30
2022-06-24	4.25	5.35	3.13	3.51	3.26
2022-06-27	4.29	5.39	3.20	3.56	3.31
2022-06-28	4.30	5.42	3.20	3.55	3.30
2022-06-29	4.21	5.34	3.10	3.46	3.22
2022-06-30	4.19	5.29	2.98	3.38	3.14
2022-07-01	4.26	5.30	2.88	3.35	3.11
2022-07-04	#N/A	#N/A	#N/A	#N/A	#N/A
2022-07-05	4.12	5.23	2.82	3.31	3.05
2022-07-06	4.17	5.32	2.93	3.42	3.14

FED H.15

		10-yr T-bond	20-yr T-bond	30-yr T-bond
Spot	6/30/22	2.98	3.38	3.14

FED H.15		**AAA Corp**	**BAA CORP**		A Rated Utility		
	6/30/22	4.19	5.29	Spread	0.06	0.19	
Moody's Spot ===>		4.13	5.10	Moody's Spot ===>	4.72	4.72	
		0.06	0.19	Implied	4.78	4.91	4.85

Moody's Daily Long-term Corporate Bond Yield Averages

	6/8/2022	Utilities	Industrial	Corporate
Spot	Aaa	NA	4.13	4.13
	Aa	4.5	4.17	4.34
	A	4.72	4.53	4.63
	Baa	5.07	5.13	5.1
	Avg	4.76	4.49	4.63

S&P Municipal Bond Revenue Index

6/30/22 3.97%

Utilities
Aa
A **4.85**
Baa

		Decade Spread	**Annual Spread**
10-Year	2.98		
20-Year	3.38	0.400	0.04
30-Year	3.14	-0.240	

REVENUE BOND INDEX		3.97
10-20 Yr		0.2
20-30 Yr		-0.24
		3.93

30-Yr Rev Bond Est. **3.93**

Lt Debt	4.85	4.85
Prf Stk	6.36	131%
Pref Stock Est.	131%	**6.36**

	6/30/22
A-Rated Rev Bonds	**3.93**
A-Rated PU Bonds	**4.85**
A-Rated PU Pref Stk	**6.36**
30-yr T-bond	**3.14**

	SBBI	SBBI
Equity Risk Premium	7.46	7.46
Beta (Value Line Med.)	0.80	0.80
Risk Adjusted Equity Premium	5.97	5.97
Yield (RF)	3.14	3.14
Size Premium	3.95	0.00
	13.06	9.11

High 13.06
Low 9.11

0.80

12.33 Total Return SBBI 1926-2021
4.87 Income Return SBBI 1926-2021

3.14 30-yr T-bond

	Recent Market Value (Mill $)	Market Quartile Name	Market Quartile	Quartile Size Premium	Value Line Beta
American States Water Co	3,012.25	Mid-Cap	2	2.48	0.65
American Water Works Co Inc	27,039.43	Large-Cap	1	0	0.85
Artesian Resources Corp	458.83	Low-Cap	3	3.95	-
California Water Service Gp	2,987.09	Mid-Cap	2	2.48	0.65
Essential Utilities, Inc.	11,866.78	Mid-Cap	2	2.48	0.95
Middlesex Water Co	1,539.59	Low-Cap	3	3.95	0.70
SJW Corp	1,887.10	Low-Cap	3	3.95	0.80
York Water Co	575.98	Low-Cap	3	3.95	0.85
Average	6,170.880	Mid-Cap	2	2.48	0.78
Median	2,437.095	Low-Cap	3	3.95	0.80

9/11/2022

		3/31/22					6/30/22		Book Ratios					Market Ratios			
Company Name	Ticker Symbol	LT Debt-Total Qtly	Preferred S	Minority In	Common Equity-Total-Qtly	Invested Capital-Total Qtly	Market Value-Mnthly		LTD	Pref	Equity			LTD	Pref	Equity	
AMERICAN ST.	**AWR**	644.520	0.000	0.000	687.425	1,331.945	3,012.254	AMERICA	0.484	0.000	0.516	1.000		0.176	0.000	0.824	1.000
AMERICAN W/	**AWK**	10,485.000	0.000	0.000	7,460.000	17,945.000	27,039.435	AMERICA	0.584	0.000	0.416	1.000		0.279	0.000	0.721	1.000
ARTESIAN RES	**ARTN.A**	144.913	0.000	0.000	180.561	325.474	458.827	ARTESIAI	0.445	0.000	0.555	1.000		0.240	0.000	0.760	1.000
CALIFORNIA W	**CWT**	1,060.843	0.000	5.248	1,164.630	2,230.721	2,987.090	CALIFORI	0.476	0.000	0.524	1.000		0.262	0.000	0.738	1.000
ESSENTIAL UT	**WTRG**	6,047.652	0.000	0.000	5,255.100	11,302.752	11,866.779	ESSENTIA	0.535	0.000	0.465	1.000		0.338	0.000	0.662	1.000
MIDDLESEX W	**MSEX**	318.128	2.084	0.000	377.882	698.094	1,539.591	MIDDLES	0.456	0.003	0.541	1.000		0.171	0.001	0.828	1.000
SJW GROUP	**SJW**	1,530.475	0.000	0.000	1,028.418	2,558.893	1,887.100	SJW GROI	0.598	0.000	0.402	1.000		0.448	0.000	0.552	1.000
THE YORK WA	**YORW**	152.999	0.000	0.000	154.420	307.419	575.982	THE YORI	0.498	0.000	0.502	1.000		0.210	0.000	0.790	1.000
									0.510	0.000	0.490		Avg	0.266	0.000	0.734	
									0.491	0.000	0.509		Med	0.251	0.000	0.749	

Assumptions:	6/30/2022
Debt Cost	4.85
Pref. Stock Cost	6.36
Equity Cost	13.06
Equity Cost	9.11

	Ratio	Cost	Wt	Shield	Overall	
	25.10%	4.850	1.22	0.72	0.876492	
	0.00%	6.360	0.00	1	0	
	74.90%	13.060	9.78	1	9.78194	
			11.00		**10.66**	**<<<<ANSWER**
	25.10%	4.850	1.22	0.72	0.876492	
	0.00%	6.360	0.00	1	0	
	74.90%	9.108	6.82	1	6.821892	
			8.04		**7.70**	**<<<<ANSWER**

Appendix A-5.1
Page 166 of 549
EXHIBIT 25
Page 7 of 390

	ROE
Public Meeting held June 16, 2022	9.8

DSIC Weighted Cost of Capital

Assumptions:	6/30/2022
Debt Cost	4.85
Pref. Stock Cost	6.36
DSIC Equity Cost	9.8

	Ratio	Cost	Wt	Shield	Overall	
Debt	49.10%	4.850	2.38	0.72	1.714572	
Pref	0.00%	6.360	0.00	1	0	
Equity	50.90%	9.800	4.99	1	4.9882	
			7.37		**6.70**	**<<<<ANSWER**

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Aqua America's Pennsylvania Subsidiary Enters Agreement to Purchase Cheltenham Township Wastewater System

July 02, 2018 07:00 AM Eastern Daylight Time

BRYN MAWR, Pa.--(BUSINESS WIRE)--Aqua America announced today that its Pennsylvania subsidiary has signed an asset purchase agreement with Cheltenham Township to purchase its wastewater system, which serves approximately 10,500 connections in Montgomery County, for $50.25 million. The agreement must be approved by the Pennsylvania Public Utility Commission.

The transaction will be Aqua Pennsylvania's fourth acquisition application referred to the Pennsylvania PUC since Act 12, commonly referred to as fair market value legislation, was enacted last year. Aqua Pennsylvania has asset purchase agreements with the 2,100-customer New Garden Township wastewater system in Chester County and the 5,400-customer Limerick Township wastewater system in Montgomery County. The company also has an agreement, signed in December 2017, with East Bradford Township in Chester County to purchase its 1,200-customer wastewater collection system. Aqua already provides water service to East Bradford, as it does with Cheltenham.

These four systems, including Cheltenham, total more than 19,000 wastewater connections and would nearly double Aqua Pennsylvania's current 22,000-customer wastewater operation.

The new law encourages a consolidation of the fragmented industry for the benefit of customers, the environment, and local governments. This transaction will benefit customers by leveraging compliance expertise, purchasing power gained through economies of scale and operational efficiencies to ultimately benefit service to our customers at affordable rates.

"We are pleased with the momentum we are gaining to reach agreements with municipal systems," said Aqua America Chairman and CEO Christopher Franklin. "Act 12 is having its intended impact, allowing municipalities to be compensated for the fair value of their water and wastewater assets and enabling utility professionals to bring expertise to systems in need."

Aqua Pennsylvania President Marc Lucca says his team is ready to work with the Cheltenham community on making needed system improvements.

"As with our pending agreements with New Garden, East Bradford and Limerick, the Aqua Pennsylvania team is looking forward to assuming Cheltenham's sewer utility responsibilities so the township can direct its attention and capital to other priorities," said Lucca. "We are anxious to begin the work necessary to help the township meet the requirements of an outstanding Pennsylvania Department of Environmental Protection consent order, specifically related to inflow and infiltration issues there."

In total, Aqua has plans to spend nearly $50 million over the next 10 years to improve Cheltenham's wastewater system.

Aqua America is one of the largest U.S.-based, publicly traded water utilities and serves nearly 3 million people in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana and Virginia. Aqua America is listed on the New York Stock Exchange under the ticker symbol WTR. Visit AquaAmerica.com for more information.

Forward-Looking Statements

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 including, among others: the company's ability to successfully close the acquisition of the wastewater systems noted in this release. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: general economic business conditions, the successful integration of the customers and the facilities, the success of the company's growth efforts including its ability to utilize Act 12, and other factors discussed in our Annual Report on Form 10-K, which is on file with the Securities and Exchange Commission.

Cheltenham Township
1329 Proceeding
Cheltenham Twp. - Water Accounts reported for Sewer Billing

Type of Service	Gallons	Customers[1]
Commercial	280,938,300	534
Industrial	364,400	14
Public	9,962,700	23
Residential	484,692,800	9,648
Total	**775,958,200**	**10,219**

1. Customers include all Active and Inactive Accounts

The following table breaks down the above total figures by customer class as of December 31, 2017, 2016, and 2015 :

	2017	2016	2015
Customers:			
Residential	118,493	111,494	110,254
Commercial	9,386	8,626	8,569
Industrial	536	479	478
Public Authority	1,072	948	964
Fire Protection	3,178	2,876	2,815
Other (including non-metered accounts)	2,980	545	553
Total	135,645	124,968	123,633
Water Revenues *(in thousands):*			
Residential	$ 62,831	$ 59,884	$ 58,439
Commercial	13,676	12,250	11,816
Industrial	3,196	3,176	3,229
Public Authority	3,845	3,510	3,193
Fire Protection	20,235	18,486	18,016
Other (including non-metered accounts)	3,271	1,361	1,348
Total	$ 107,054	$ 98,667	$ 96,041
Customer Water Consumption *(millions of gallons):*			
Residential	6,408	6,583	6,551
Commercial	2,026	1,954	1,941
Industrial	711	724	777
Public Authority	575	539	503
Total	9,720	9,800	9,772

The Regulated Companies own various small, discrete parcels of land that are no longer required for water supply purposes. At December 31, 2017 , this land totaled over 600 acres. Over the past several years, we have been disposing of these land parcels through sales and/or donations, primarily to towns and municipalities. For more information, please refer to *Segments of Our Business* below.

Additional information on land dispositions can be found in Item 7 – "Management's Discussion and Analysis of Financial Conditions and Results of Operations – Commitments and Contingencies".

Competition

Our Regulated Companies face competition from a few small privately-owned water systems operating within, or adjacent to, our franchise areas and from municipal and public authority systems whose service areas in some cases overlap portions of our franchise areas.

Employees

As of December 31, 2017 , we employed a total of 294 people. Our employees are not covered by collective bargaining agreements.

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DEALS AUGUST 6, 2018 / 5:11 PM / 6 MONTHS AGO

SJW Group makes $1.1 billion all-cash offer for Connecticut Water

3 MIN READ

NEW YORK (Reuters) - SJW Group (SJW.N) and Connecticut Water Service Inc (CTWS.O) said on Monday they were changing from a merger to an acquisition agreement, with SJW offering to buy the New England utility for $1.1 billion in cash instead of combining stock.

The switch to an all-cash offer is worth $70 per Connecticut Water share, a 33 percent premium to Connecticut Water's share price prior to the original deal announced in March, according to a joint statement.

It was also higher than the implied $61.86 per share value of the Clinton, Connecticut-based firm under the merger-of-equals transaction, which would have created a combined company in which existing SJW shareholders would hold 60 percent of the stock.

SJW closed 2.3 percent lower, while Connecticut Water was 9 percent higher at $68.50.

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To pay for the acquisition, SJW will initially utilize a $975 million bridge loan from financial adviser JP Morgan Chase (JPM.N). Ultimately, the purchase would be covered by debt and between $450 million and $500 million of equity finance.

The new deal aims to conclude in the first quarter of 2019, subject to approvals from Connecticut Water's shareholders, as well as regulators in Connecticut and Maine.

The duo's original all-stock merger announcement in March triggered competing offers from Eversource Energy (ES.N) and California Water Service Group (CWT.N).

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"We have converted from a stock-for-stock deal to a cash offer, which will resolve any further market distractions from the inferior proposals," SJW Chief Executive Eric Thornburg told Reuters, in reference to the actions by Eversource and CalWater.

Switching to an acquisition, versus a merger structure, means that SJW shareholders will no longer be required to vote on approving the deal, the statement said.

CalWater has an open tender offer to acquire SJW that runs until Sept. 28.

However, asked if the change was aimed at heading off any shareholder challenge to the deal, Thornburg told Reuters it "wasn't a consideration" and it had received nothing but support from its shareholders.

RBS sounds alarm over Brexit

CalWater declined to comment. A spokesman for Eversource said the company was evaluating developments but, as it has made clear, it will be disciplined in pursuing this or any other transaction.

Reporting by David French in New York; Additional Reporting by Liana B. Baker; Editing by Lisa Shumaker

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Filed by Eversource Energy
(Commission File No. 001-05324) pursuant
to Rule 425 under the Securities Act of 1933

Subject Company: New England Service Company

JOINT NEWS RELEASE

New England Service Company To be Acquired by Aquarion Water Company

Region's largest private water company expands operations in Connecticut, Massachusetts and New Hampshire

BRIDGEPORT, CONN. – April 8, 2021 – Aquarion Company (Aquarion), parent of Aquarion Water Company, and New England Service Company (NESC) (OTC Pink Sheets Trading Symbol: NESW) today announced that they have entered into a definitive agreement whereby Aquarion will acquire all outstanding shares of NESC and NESC will become a wholly-owned subsidiary of Aquarion. Aquarion is a water supply company and holding company based in Bridgeport, Connecticut, providing regulated water service to customers in Connecticut, Massachusetts, and New Hampshire. NESC is a holding company based in Plainville, Connecticut providing regulated water service to customers in Connecticut, Massachusetts, and New Hampshire.

Under the agreement, which was unanimously approved by the Boards of Directors of both Aquarion and NESC, the acquisition will be executed through a stock-for-stock transaction that is structured to be a tax-free reorganization. The agreement provides that the stockholders of NESC will receive 0.51208 shares of the common shares of Aquarion's parent, Eversource Energy (Eversource) (NYSE: ES), in exchange for each share of NESC common stock. The fixed exchange ratio implies a $44.90 per share price based on the $87.68 closing price of Eversource Energy common shares on April 6, 2021. In connection with the exchange, Eversource Energy will issue approximately 463,000 shares of ES Common Stock at closing.

The merger includes NESC's Valley Water System in Connecticut, Colonial Water Company and Mountain Water Systems in Massachusetts, and Abenaki Water Company in New Hampshire, as well as unregulated service operations throughout New England. The merger will add nearly 10,000 customers to Aquarion's existing base of 216,000 customers. Under the agreement, all NESC employees will be retained.

"This merger will create long-term benefits for customers, employees, and the communities we serve," said Donald Morrissey, President of Aquarion Water Company. "We will make investments in these water systems focused on reliability and water quality and deliver a superior customer experience. We also welcome NESC's dedicated employees to the Aquarion team. I'm confident that we share a similar passion for delivering superior water service to customers and the communities we serve and being great stewards of the environment."

Over the last ten years, Aquarion has integrated over 70 water systems into its operations, strengthening the company's ability to deliver high-quality water to communities throughout the region.

"I am pleased to announce the NESC and Aquarion combination and look forward to working with Aquarion's leadership team on a smooth transition for our customers and employees," said Don Vaughan, NESC Chairman. He also noted, "Aquarion is well-positioned to deliver the reliable high-quality water service that our customers expect." NESC President, Nicholas LaChance, added "The stockholders, customers and employees of NESC will benefit from this deal with Aquarion. We view this transaction with Aquarion as a win for all of our stakeholders, and we look forward to working closely with their team."

The completion of the transaction will require approval by the stockholders of NESC, and the NESC Board of Directors has resolved to recommend the adoption of the merger agreement by the stockholders. The transaction is also subject to the approval of regulatory authorities, including the Connecticut Public Utilities Regulatory Authority, Massachusetts Department of Public Utilities, and New Hampshire Public Utilities Commission, and satisfaction of several other conditions. The parties plan to file all required regulatory applications over the coming months with an anticipated closing by the end of 2021.

Advisors and Counsel

Ropes & Gray LLP served as counsel to Aquarion Company and Eversource Energy in the transaction. Boenning & Scattergood, Inc. provided a fairness opinion to the Board of Directors of New England Service Company. Cranmore, FitzGerald and Meaney served as counsel to New England Service Company.

About Aquarion Water Company:

Aquarion Water Company is the public water supply company for more than 625,000 people in 52 cities and towns throughout Connecticut, as well as serving customers in Massachusetts and New Hampshire. It is the largest investor-owned water utility in New England and among the seven largest in the U.S. Based in Bridgeport, CT, Aquarion has been in the public water supply business since 1857. Across its operations, Aquarion strives to act as a responsible steward of the environment and to assist the communities it serves in promoting sustainable practices. Aquarion Company is a wholly-owned subsidiary of Eversource.

For more information on Aquarion Water Company, please visit www.aquarionwater.com or www.facebook.com/aquarionwater.

About New England Service Company

Headquartered in Plainville, Connecticut, NESC is predominantly involved in the operation, management and financing of water systems and other related activities. NESC was formed in 1997 to operate in both regulated and unregulated water markets. NESC is the sole stockholder of four regulated water companies.

For more information on New England Service Company please visit
www.NewEnglandServiceCompany.com

This news release includes statements concerning Aquarion and Aquarion Water Company's expectations, beliefs, plans, objectives, goals, strategies, assumptions of future events, future financial performance or growth and other statements that are not historical facts, including statements regarding the planned merger with New England Service Company, the timing of such transaction and benefits anticipated from such transaction. These statements are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Generally, readers can identify these forward-looking statements through the use of words or phrases such as "will," "estimate," "expect," "anticipate," "intend," "plan," "project," "believe," "forecast," "should," "could" and other similar expressions. Forward-looking statements involve risks and uncertainties that may cause actual results or outcomes to differ materially from those included in the forward-looking statements. Factors that may cause actual results to differ materially from those included in the forward-looking statements include, but are not limited to: the transaction is subject to conditions to closing, including regulatory approvals, that may not be satisfied; it may take longer than anticipated to consummate the transaction; we may not realize the benefits we anticipate from the transaction; unforeseen liabilities; risks relating to integration of the acquired business; and other presently unknown or unforeseen factors.

Other risk factors are detailed in Eversource Energy's reports filed with the Securities and Exchange Commission (SEC) and updated as necessary, and are available on Eversource Energy's website at www.eversource.com and on the SEC's website at www.sec.gov. All such factors are difficult to predict and contain uncertainties that may materially affect Aquarion or Aquarion Water Company's actual results, many of which are beyond our control. You should not place undue reliance on the forward-looking statements; each speaks only as of the date on which such statement is made, except as required by federal securities laws, and Aquarion Water Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

Additional Information

This communication does not constitute an offer to buy or solicitation of any offer to sell securities. This communication relates to a proposed business combination transaction between Aquarion Company and New England Service Company. In connection with the proposed business combination, Eversource Energy will file a registration statement with the SEC. This communication is not a substitute for any registration statement, prospectus/proxy statement or other document Eversource Energy, Aquarion Company and/or New England Service Company may file with the SEC in connection with the proposed transaction. INVESTORS AND SECURITY HOLDERS OF NEW ENGLAND SERVICE COMPANY ARE URGED TO READ CAREFULLY THE REGISTRATION STATEMENT, PROSPECTUS, PROXY STATEMENT AND OTHER DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT EVERSOURCE ENERGY, AQUARION COMPANY, NEW ENGLAND SERVICE COMPANY AND THE PROPOSED TRANSACTION. Investors and security holders may obtain free copies of these documents (when they are available) and other related documents filed with the SEC at the SEC's web site at www.sec.gov or by directing a request to Eversource's Investor Relations department at (860) 665-5154 or by email to jeffrey.kotkin@eversource.com.

Certain Information Regarding Participants

This filing may be deemed solicitation material in respect of the proposed business combination transaction between Aquarion Company and New England Service Company. The directors, trustees, executive officers and certain other members of management and employees of Eversource Energy, Aquarion Company and New England Service Company may be deemed "participants" in the solicitation of proxies from stockholders of New England Service Company in favor of the proposed merger. You can find information about Eversource's trustees and executive officers in Eversource's annual report on Form 10-K for the year ended December 31, 2020, which was filed with the SEC on February 17, 2021 and its proxy statement for its 2021 annual meeting filed with the SEC on March 26, 2021. Information regarding the persons who may, under the rules of the SEC, be considered participants in the solicitation of the stockholders of New England Service Company in connection with the proposed merger will be set forth in the registration statement, prospectus/proxy statement or other documents filed with the SEC if any when they become available. You may obtain these documents (when they become available) free of charge at the SEC's web site at www.sec.gov and from Investor Relations at Eversource as described above.

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Plainville, CT 06062
Phone: (860)-747-1665
NLaChance@NewEnglandServiceCompany.com

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MUNICIPALITIES SUPPLIED

1. Show below the names of the municipalities in which the respondent supplies water and the number of customers in each.

Line No.	Name (a)	Estimated Population Supplied*** (b)	Number of customers served by meter* (c)	Number of customers not served by meter** (d)	Total customers supplied (e)
1	Torrington	29,000	9,789	-	9,789
2	New Hartford	18	7	-	7
3	Litchfield	171	57	-	57
4	Harwinton	402	134	-	134
5	Burlington	414	138		138
6					
7					
8					
9					
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51					
52					
53					
54					
55	Total	30,005	10,125	-	10,125

425 1 tm228722d1_425.htm 425

Filed by Eversource Energy
(Commission File No. 001-05324) pursuant
to Rule 425 under the Securities Act of 1933
Subject Company: The Torrington Water Company

THE TORRINGTON WATER COMPANY LETTERHEAD

March 8, 2022

Dear Stockholder:

We are pleased to announce that on March 7, 2022, the Board of Directors of The Torrington Water Company (OTC Pink Sheets Trading Symbol: TORW) unanimously approved an Agreement and Plan of Merger (the "Agreement") with Aquarion Company (" Aquarion"), a wholly-owned subsidiary of Eversource Energy (NYSE: ES). Aquarion is a holding company based in Bridgeport, Connecticut with regulated water operations in Connecticut, Massachusetts, and New Hampshire. The Torrington Water Company ("TWC") is a public utility that provides water service to approximately 10,000 customers in the city of Torrington and the towns of Burlington, Harwinton, Litchfield and New Hartford, Connecticut.

Under the terms of the Agreement, which has been unanimously approved by the boards of directors of Aquarion and TWC, TWC would merge with and become a wholly-owned subsidiary of Aquarion, and the stockholdcrs of TWC would receive in exchange for their TWC shares a number of validly issued, fully paid and nonassessable common shares, par value $5.00 per share, of Eversource Energy. The exchange ratio ("Exchange Ratio") that determines the number of Eversource Energy common shares issued in the merger will float between 1.0241 and 1.07 IO and will be determined by dividing $93.51 by Eversource's volume weighted average share price for IO full trading days ending on and including the second full trading day prior to closing date of the merger ("Eversource Share Value"). The Exchange Ratio becomes fixed at 1.0710 if the Eversource Share Value is less than $87.32 and becomes fixed at 1.0241 if the Eversource Share Value is greater than $91.32. An Exchange Ratio of 1.0710 implies a $92.81 per share value based on the closing price of $88.66 for Eversource Energy common shares on March 7, 2022, or a market premium of approximately I 04% over TWC's $45.50 closing price on March 7, 2022. Boenning & Scattergood, Inc. provided a fairness opinion to the Board of Directors of TWC. Based on an Exchange Ratio or 1.07 IO and the most recently declared dividends by TWC and Eversource Energy, TWC shareholders would receive an equivalent dividend of $2.58 per share compared to their current dividend on TWC shares of$1.38 per share.

The completion of the merger will require approval by the stockholders of TWC, and the TWC Board of Directors has resolved to recommend the adoption of the Agreement by the stockholders. The merger is also subject to the satisfaction of several other customary closing conditions, including the approval of the Connecticut Public Utilities Regulatory Authority. The parties plan to file for the approval of the Connecticut Public Utilities Regulatory Authority shortly, with an anticipated consummation of the merger by the end of 2022.

Within the coming weeks, you will be mailed a Proxy Statement/Prospectus for the TWC Stockholder Meeting, at which TWC stockholders will consider and vote with respect to the proposed merger.

Enclosed with this letter is the press release announcing the signing of the Agreement. The press release provides additional information that will answer many of your questions.

Sincerely yours,
Susan Suhanovsky
President

Forward-Looking Statements

This letter includes statements concerning The Torrington Water Company's expectations, beliefs, plans, objectives, goals, strategies, assumptions of future events, future financial performance or growth and other statements that are not historical facts, including statements regarding the planned merger with Aquarion Water Company, the timing of such transaction and benefits anticipated from such transaction. These statements are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Generally, readers can identify these forward-looking statements through the use of words or phrases such as "will," "estimate," "expect," "anticipate," "intend," "plan," "project," "believe," "forecast," "should," "could" and other similar expressions. Forward-looking statements involve risks and uncertainties that may cause actual results or outcomes to differ materially from those included in the forward-looking statements. Factors that may cause actual results to differ materially from those included in the forward-looking statements include, but are not limited to: the transaction is subject to conditions to closing, including regulatory approvals, that may not be satisfied; it may take longer than anticipated to consummate the transaction; we may not realize the benefits we anticipate from the transaction; unforeseen liabilities; risks relating to integration of the acquired business; and other presently unknown or unforeseen factors.

This Communication Does Not Constitute a Solicitation of Proxies

This communication does not constitute an offer to buy or solicitation of any offer to sell securities. This communication relates to a proposed business combination transaction between Aquarion Company and The Torrington Water Company. In connection with the proposed business combination, Eversource Energy will file a registration statement with the SEC. This communication is not a substitute for any registration statement, prospectus/proxy statement or other document Eversource Energy, Aquarion Company and/or The Torrington Water Company may file with the SEC in connection with the proposed transaction. INVESTORS AND SECURITY HOLDERS OF THE TORRINGTON WATER COMPANY ARE URGED TO READ CAREFULLY THE REGISTRATION STATEMENT, PROSPECTUS, PROXY STATEMENT AND OTHER DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT EVERSOURCE ENERGY, AQUARION COMPANY, THE TORRINGTON WATER COMPANY AND THE PROPOSED TRANSACTION. Investors and security holders may be able to obtain free copies of these documents (when they are available) and other related documents filed with the SEC at the SEC's website at www.sec.gov. The materials may also be obtained for free by directing a written request to: Susan Suhanovsky, President, The Torrington Water Company, PO Box 867, Torrington, CT 06790, telephone (860) 489-4149. Investors should read the proxy materials/prospectus before making a decision regarding the merger.

This filing may be deemed solicitation material in respect of the proposed business combination transaction between Aquarion Company and The Torrington Water Company. The directors, trustees, executive officers and certain other members of management and employees of Eversource Energy, Aquarion Company and The Torrington Water Company may be deemed "participants" in the solicitation of proxies from stockholders of The Torrington Water Company in favor of the proposed merger. You can find information about Eversource's trustees and executive officers in Eversource's annual report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on February 17, 2022 and its proxy statement for its 2021 annual meeting filed with the SEC on March 26, 2021. Information regarding the persons who may, under the rules of the SEC, be considered participants in the solicitation of the stockholders of The Torrington Water Company in connection with the proposed merger will be set forth in the registration statement, prospectus/proxy statement or other documents filed with the SEC if any when they become available. You may obtain these documents (when they become available) free of charge at the SEC's web site at www.sec.gov and from Susan Suhanovsky at The Torrington Water Company as described above.

About Aquarion Water Company:

Aquarion Water Company is the public water supply company for more than 700,000 people in 68 cities and towns in Connecticut, Massachusetts and New Hampshire. It is the largest investor-owned water utility in New England and among the seven largest in the U.S. Based in Bridgeport, CT, Aquarion has been in the public water supply business since 1857. Across its operations, Aquarion strives to act as a responsible steward of the environment and to assist the communities it serves in promoting sustainable practices. Aquarion Water Company is a wholly-owned subsidiary of Eversource.

For more information on Aquarion Water Company, please visit www.aquarionwater.com or www.facebook.com/aquarionwater.

VALLEY WATER SYSTEMS, INC.

Notes to Financial Statements
Years Ended December 31, 2020 and 2019

1. Description of the Company

Valley Water Systems, Inc. (the "Company"), a wholly owned subsidiary of New England Service Company ("NESC"), is a public utility distributing water to approximately 6,760 customers in the towns of Plainville, Farmington, and Southington, Connecticut area. As a public utility operating in Connecticut, the Company functions under rules and regulations prescribed by the State of Connecticut Public Utilities Regulatory Authority ("PURA").

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company maintains its accounts in accordance with the PURA Uniform System of Accounts as prescribed for Water Utilities Class A. The Company prepares its financial statements in accordance with accounting principles generally accepted in the United States of America which include the provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 980, *Regulated Operations* ("ASC 980"). Under ASC 980, regulated companies defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that those costs and credits will be recognized in the rate setting process in a period different from the period in which they would have been reflected in income by an unregulated company. These deferred regulatory assets and liabilities are then reflected in the income statement in the period in which the same amounts are reflected in rates charged for service.

Use of Estimates

The preparation of financial statements require management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported revenues and expenses. Accordingly, actual results could differ from these estimates.

Cash and Cash Equivalents

Cash and cash equivalents includes cash balances held in bank accounts and highly liquid debt instruments with maturities of three months or less at the time of purchase.

From time to time, the Company had on deposit at financial institutions cash and cash equivalents which exceed current federal deposit insurance limitations. The Company had not experienced any losses in such accounts to date and believes it is not exposed to any significant credit risk on cash and cash equivalents.

Accounts Receivable

Accounts receivable are stated at the amount management expects to collect from outstanding balances. The Company continuously monitors the creditworthiness of customers and establishes, when necessary, an allowance for amounts that may become uncollectible in the future based on current economic trends, historical payment and bad debt write-off experience.

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CONSUMPTION INFORMATION (Dover Division)

1. Estimated total population of territory covered by franchise		
2. Estimated population reached by the distributing system		
3. Estimated population actually supplied		1,809
4. Total consumption during the year in gallons		50,866,736
5. Average daily consumption (in gallons)		138,429
6. Day on which the greatest amount was pumped		8/13/2020
7. Gallons pumped on above day		368,000
8. Week during which greatest amount was pumped	8/9/20-8/15/20	
9. Gallons pumped during above week		1,906,000
10. Gallons per day per service		218
11. Consumption metered		50,866,736
12. Consumption metered,	100 percent of total consumption	

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
637	1	0	636

Name of City, Town, or District	Number of Customers as of December 31
Dover, MA	636

Sixty-four of these connections represent contractual service to Town of Dover plus one master meter at town connection.

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CONSUMPTION INFORMATION (Plymouth Division)

1. Estimated total population of territory covered by franchise	2,513
2. Estimated population reached by the distributing system	2,513
3. Estimated population actually supplied	2,513
4. Total consumption during the year (GALS)	101,211,880
5. Average daily consumption	294,414
6. Day on which the greatest amount was pumped	7/27/2020
7. Gallons pumped on above day	724,300
8. Week during which greatest amount was pumped	7/26/2020-8/1/2020
9. Gallons pumped during above week	4,544,900
10. Gallons per day per service	219
11. Consumption metered	101,211,880
12. Consumption metered,	100% percent of total consumption

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
853	0	9	862

Name of City, Town, or District	Number of Customers as of December 31
Plymouth, MA	862

Page 415

CONSUMPTION INFORMATION (Springdale Division)

1. Estimated total population of territory covered by franchise		115
2. Estimated population reached by the distributing system		115
3. Estimated population actually supplied		115
4. Total consumption during the year (GALS)		7,463,606
5. Average daily consumption		20,448
6. Day on which the greatest amount was pumped		6/27/2020
7. Gallons pumped on above day		88,000
8. Week during which greatest amount was pumped	6/21/20-6/27/20	
9. Gallons pumped during above week		407,000
10. Gallons per day per service		418
11. Consumption metered		7,463,606
12. Consumption metered,	100 percent of total consumption	

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
41	0	1	42

Name of City, Town, or District	Number of Customers as of December 31
Dover, MA	42

A-6 LIST OF TOWNS SERVED

List by operating divisions the towns served directly, indicating those in which franchise is for limited area by an asterisk (*) after name. Give population of the area and the number of customers.

Line No.	Town	Population of Area	Number of Customers	Line No.	Town	Population of Area	Number of Customers
					Sub Totals Forward:	30,120	725
1	Belmont N. H.	7,356	160	16			
2	Bow, N.H.	7,519	95	17			
3	Carroll, N.H.	763	409	18			
4	Belmont, NH	7,356	22	19			
5	Gilford, NH	7,126	39	20			
6				21			
7				22			
8				23			
9				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15	Sub Totals Forward:	30,120	725	30	Total	30,120	725

A-7 PAYMENTS TO INDIVIDUALS

List names of all individuals, partnerships, or corporations to whom payments totaling $10,000 or more for services rendered were made or accrued during the year, and the amount paid or accrued to each. Where payments or accruals to the individual members of a partnership or firm together total $10,000 or more, list each individual and the amount paid or due each.

Line No.	Name	Address	Amount
1	NESC	Plainville,, Ct.	222,877
2	City of Laconia	Laconia, NH	91,004
3	Rowell's Services	Northfield, NH	57,242
4	Eversource	Boston, MA	43,226
5	CoBank	Greenwood Village, CO	43,000
6	Stephen P. St. Cyr & Associates	Biddeford, Me.	40,959
7	NH Brown Law	Somersworth, NH	37,206
8	PKF O'Conner Davies	Shelton, Ct.	36,020
9	State of NH	Concord, NH	16,544
10	Fortin Construction	Londonderry, NH	16,155
11	Town of Carroll	Carroll, NH	15,201
12	Town of Belmont	Belmont, NH	14,953
13	Harcros Chemicals	Chicago, IL	12,909
14			
15			
16			
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24			
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26			
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28			
29			
30	Total		$ 647,296

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CONSUMPTION INFORMATION

1. Estimated total population of territory covered by franchise	1100	
2. Estimated population reached by the distributing system	1100	
3. Estimated population actually supplied	1100	
4. Total consumption during the year	31,956,826	gals.
5. Average daily consumption	87,553	gals.
6. Day on which the greatest amount was pumped	7/20/2020	
7. Gallons pumped on above day	173,596	
8. Week during which greatest amount was pumped	7/16/20-7/25/20	
9. Gallons pumped during above week	975,066	
10. Gallons per day per service	180	
11. Consumption metered	31,956,826	gals.
12. Consumption metered,	100	% of total consumption

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
487	0		487

Name of City, Town, or District	Number of Customers as of December 31
Sheffield, MA	
*487 metered customers, 3 fixed fee customers	490

Wastewater treatment is provided by the Borough of West Chester pursuant to a Sewer Capacity Agreement dated November 14, 2017, by and between the Borough and East Bradford Township. Copies of West Chester's 2017 Chapter 94 Reports to DEP for the Goose Creek WWTP and for the Taylor Run WWTP are attached hereto as **Exhibit E3** and **Exhibit E4**.

15. The Goose Creek WWTP has a permitted treatment capacity of 1.672 MGD. The Taylor Run WWTP has a permitted treatment capacity of 1.50 MGD. The elevation of the Goose Creek WWTP is generally about EL 370. The elevation of the Taylor Run WWTP is generally about EL 260. The elevation of the Requested Territory ranges from approximately EL 365 to EL 280.

16. Water service in the Requested Territory is provided by both Aqua Pennsylvania, Inc. and private wells.

17. The original cost, by year and major plant category, of the East Bradford Township used and useful plant in service is $8,294,931 with a related calculation depreciation reserve of $2,820,983. The original cost value includes a series of capped sewers along the North Benjamin Drive area of the Township. The capped sewers include approximately 3,300 linear feet of 8" Gravity PVC pipe and 20 manholes, with an estimated original cost value of approximately $100,000 as estimated by Aqua. The pipe and manholes are included in the totals on page 2-11 and 2-12 of Exhibit W. Aqua will categorize the capped sewer pipe and manholes as plant held for future use in its asset allocation upon closing. The area of capped sewers along North Benjamin Drive is not included in the Requested Territory.

18. Tentative journal entries to record the transaction are presented in Section IV.

IV. ASSET PURCHASE AGREEMENT

19. The *Assets Purchase Agreement* is dated December 20, 2017. The *First Amendment to Assets Purchase Agreement* is dated April 18, 2018. The purchase price is Five Million Dollars

($5,000,000.00). In addition to the purchase price, Section 1.5 of the Agreement provides that Aqua will assume certain defined liabilities and pay certain out-of-pocket costs incurred by East Bradford Township.

20. The purchase price and Agreement are based on arm's length negotiations. Aqua and East Bradford Township are not affiliated with each other. Aqua will use short term debt initially for the purchase of the assets with the expectation that the short term debt will be converted to long term debt and equity capital at a later date.

21. The wastewater system assets to be acquired are the "Assets" and have the meaning specified in Section 1.1 of the Agreement. The Assets include the assets, properties and rights of East Bradford Township that comprise the wastewater system or that are owned by East Bradford Township and used by it solely in connection with operation of the system.

22. "Excluded Assets," which are those assets not being transferred to Aqua, have the meaning specified in Section 1.4 of the Agreement. Excluded Assets include customer service laterals that run from the curb area to individual customer residences or structures; piping and fixtures internal to each customer residence or structure; cash and cash equivalents; and the items set forth in Schedule 1.4 of the Agreement.

23. "Assumed Liabilities" has the meaning specified in Section 1.6 of the Agreement and include the liabilities and obligations under the Assumed Contracts that arise after Closing, liabilities incurred or arising from and after Closing under or from failure to comply with permits, approvals or licenses related to the system that are transferred to Aqua and the obligation to provide wastewater service after Closing. The Assumed Contracts, which are listed in Schedule 1.6 of the APA and attached hereto as **Exhibit F1** and **Exhibit F2**, are the Sewer Capacity Agreement dated November 14, 2017, by and between the Borough of West Chester and East Bradford Township and the Intergovernmental Cooperation Agreement dated March 15, 1999, between East Bradford and Birmingham Township.

East Bradford Township

	# of Customers	Annual Gallons Treated (2017)
Residential- Single Family	399	23,783,560
Residential- Townhomes	814	36,390,635
Commercial		
Bradford Retail - The Bistro		112,800
Bradford Retail - Strip Stores		688,000
Brookworth Plaza - Dunkin Donuts		147,200
Brookworth Plaza - CVS		35,300
Brookworth Plaza - empty building		-
Brookworth Plaza - Strip Stores		142,000
Brookworth Plaza - PNC Bank		17,000
Countryside Food Mart		52,700
Antique Ice Museum		3,600
Mrs. Mike's Restaurant		103,110
Brandywine Hall Nursing Home		8,281,000
Daily Local News - now empty building		24,400
Bradford Plaza - Strip Stores		1,991,430
Bradford Plaza - Giant Food Store		2,527,700
Bradford Plaza - Walgreens		47,000
Bradford Plaza - Giant Gas Station		6,200
Chester County Art Association		120,100
Industrial		
Diesel Systems		66,300
Chem Service		173,400
Other Class(?)*		
Goddard School		252,800
Hillsdale Elementary School		649,700
WCU S Campus Apts - 144		24,200
WCU S Campus Apts - 167		583,900
WCU S Campus Apts - 168		500,900
WCU S Campus Apts - 169		441,900
WCU S Campus Apts - 170		570,900
WCU S Campus Apts - 171		318,900
WCU S Campus Apts - 172		422,000
WCU S Campus Apts - 173		306,400
WCU S Campus Apts - 174		424,500
WCU S Campus Apts - 175		323,400
WCU S Campus Apts - 176		340,000
WCU S Campus Apts - 177		356,000
University Student Housing 1		4,463,500
University Student Housing 2		5,429,000
Total		90,121,435

*May include church, school, public, etc… (please insert a line for each)

420,000
153,300,000

35
399
814
1,248

Q. How many customers will the acquisition add?

A. The acquisition of East Norriton will add 4,966 customers to Aqua's existing 28,000 wastewater customers. This is an increase in customers of 17.7% (or about 20%).[23]

Q. Will the acquisition increase rates for the customers to be acquired?

A. Yes. Aqua witness Packer states that he reasonably expects that rates for East Norriton customers will increase under Aqua ownership.[24] As discussed above, Aqua calculates that if the entire revenue deficiency resulting from the acquisition is applied to East Norriton Township customers, the adjusted average bill for customers using four thousand gallons per month would increase from approximately $39 per month to $52 per month, which would be a 35% rate increase.[25]

Q. Will the acquisition increase rates for existing Aqua customers?

A. Yes. Mr. Packer's testimony shows that, as a result of the acquisition, rates for existing Aqua water customers and existing Aqua wastewater customers will increase if the revenue deficiency is not fully borne by the East Norriton Township customers. Mr. Packer's schedules show estimated increases to existing total Aqua water and wastewater customers ranging from $0.17 per month to $1.66 per month ($2.04 per year to $19.92 per year).[26] If the costs were spread to only existing wastewater customers, and not water customers, the

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[23] Exhibit U, Direct Testimony of William C. Packer, p. 9, lines 2-3 and 11-12, p. 16, lines 11-12.

[24] Exhibit U, Direct Testimony of William C. Packer, p. 18, lines 17-20 and Appendix A, p.1; Response to OCA-II-4, Attachment 1, p. 22 (attached as OCA Exhibit DJG-12).

[25] Exhibit U, Direct Testimony of William C. Packer, Appendix A, pp. 1-2 ($38.52 + $13.42 = $51.94). ($13.42 ÷ $38.52) x 100 = 34.84%.

[26] Exhibit U, Direct Testimony of William C. Packer, Appendix A, p. 1.

Q. Describe the scope and organization of your testimony.

A. My testimony addresses the application filed by Aqua Pennsylvania Wastewater, Inc. ("Aqua" or the "Company") for the acquisition of the East Norriton Township (the "Township") wastewater collection system assets. My testimony responds to the fair market value ("FMV") approaches addressed in the testimonies of Harold Walker, III of Gannett Fleming, who sponsors the FMV appraisals commissioned by the Company, and Jerome C. Weinert, who sponsors the appraisal commissioned by the Township. I also discuss the sufficiency of the notices sent to the customers of Aqua and the Township regarding the impact on rates of the proposed acquisition.

II. EXECUTIVE SUMMARY

A. Overview

Q. Please summarizes Aqua's application in this proceeding.

A. Aqua's application proposes to acquire the Township's wastewater assets under Sections 1102 and 1329 of the Public Utility Code (the "Code"). According to Section 1329(c)(2) of the Code, the ratemaking rate base is the lesser of the negotiated purchase price and the average of two FMV appraisals. The FMV estimated by Gannett Fleming and AUS Consultants is $24.2 million and $25.1 million, respectively. The purchase price negotiated by Aqua and the Township is $21 million. Thus, the proposed rate base in the application is $21 million.

Report by Class

Account	Name / Service Address	Tax ID	Book	Status	Alert Code
97990.00	F M BROWN SONS INC 790 DANIEL BOONE ROAD	43-5345-07-68-8539 BIRDSBORO	 PA	A 19508-8737	
99991.00	DIEROLF, CANDACE 21 PINE AVENUE	 BIRDSBORO	 PA	A 19508	
99992.00	TELFORD, MARK 19-6 CRANBERRY RIDGE	 READING	 PA	A 19606-3934	

Total Class: R: 8,708

Class: TRAILER PARK

20000.00	KLIEWER, KIM B 4851 PERKIOMEN AVENUE	43-5325-08-79- READING	100 PA	A 19606	
(610)670-0191					
20010.00	KL MHC LLC 44 KEYSTONE ROAD	43-5335-14-34- READING	201 PA	A 19606-3655	
20020.00	BORDIC MOBILE HOME PARK 214 BORDIC ROAD	43-5335-09-16- READING	200 PA	A 19606-3605	
20030.00	KL MHC LLC 44 KEYSTONE ROAD	43-5335-10-35- READING	201 PA	A 19606-3655	
20060.00	ALSACE TOWNSHIP 240 SPIES CHURCH ROAD	 READING	101 PA	A 19606	
20070.00	KL MHC LLC 44 KEYSTONE ROAD	43-5335-14-34-2494 READING	 PA	A 19606-3655	
91230.00	PENN VIEW MOBILE PARK BROADWAY AVENUE	43-5327-14-42- READING	200 PA	A 19606	
(610)779-4202					

Total Class: T: 7

Total: 8,984

Exeter Township supervisors agree to sell municipal wastewater system for $96 million

readingeagle.com/news/article/exeter-township-supervisors-agree-to-sell-municipal-wastewater-system-for-96-million

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The sale to Pennsylvania American Water Co. will keep taxes steady for 10 years and do other things for Exeter, the township manager said.

Written by Mike Urban

Exeter Township, PA —

The Exeter Township supervisors have agreed to sell the township's wastewater treatment plant and system to a private company for $96 million, a move they expect will save taxpayers money and put the township on much better financial footing.

The supervisors voted 4-1 on April 23 to approve the sale to Pennsylvania American Water Co., which supplies water to the township and operates 15 wastewater treatment systems statewide.

The two sides must finalize the asset purchase agreement, and the sale will require Pennsylvania Utility Commission approval, meaning the earliest the company is likely to take ownership would be early next year.

Township Manager John A. Granger said that if the sale goes through as planned, it will allow the township to hold real estate taxes steady for 10 years or more; pay for future capital projects including equipment replacement, township building relocation and storm sewer improvements; and still leave $48 million in the bank.

The current property tax rate is 2.14 mills, but that would have increased 32.6 percent to 2.8 mills in 2019 if the township retained ownership of the plant, he said.

The township is expected to raise sewer rates 29 percent before the sale is completed, but that rate hike would likely have been higher if the township held onto the system and made necessary upgrades, said Supervisor John Cusatis.

And the supervisors plan to enact a homestead tax exemption that would more than cover the rate increase for most homeowners, he said.

There are about 9,000 properties in Exeter connected to the wastewater system, and Pennsylvania American spokesman Terry M. Maenza said that they shouldn't notice any changes in sewer service once the company takes control of the system.

"It should be seamless," he said.

The company plans to retain the township's six wastewater employees, he said.

Cusatis and fellow Supervisors Lisa VanderLaan, William F. White and David G. Speece Jr. voted for the sale, saying it was a tough decision but the economic benefits were too good to turn down.

"The sale will pay off the library and sewer debt, stabilize the tax base and improve the township's credit rating," Cusatis said.

Supervisor Gary E. Lloyd Jr. voted against the sale, saying he didn't want to lose the valuable asset.

Cusatis said that most Exeter residents he spoke with support the move, but at the April 23 meeting several expressed concern about selling public property to private industry and giving up control of the wastewater system.

A written handout from resident Sherrie Greene noted that: "I have done some research and read that many municipalities have taken this route, then regretted it later. Once our sewer system is sold, it is gone forever and we cannot get it back."

Pennsylvania American, headquartered in Hershey, is a subsidiary of American Water Works Co., based in Vorhees, N.J.

This would be Pennsylvania American's first wastewater treatment system in Berks.

(Correspondent Valdis I. Lacis contributed to this story.)

Contact Mike Urban: 610-371-5023 or murban@readingeagle.com.

1. The collection of a DSIC prior to inclusion of the acquired assets in a base rate case;
2. The accrual of Allowance for Funds Used During Construction (AFUDC) on non-DSIC eligible post-acquisition improvements; and
3. The deferral of depreciation for book and ratemaking purposes on non-DSIC eligible post-acquisition improvements.

Q. Please briefly summarize the Acquisition Transaction that the Joint Applicants are proposing.

A. Under the terms of the Proposed Transaction, PAWC would acquire the wastewater utility assets of Kane for $17.56 million.

Q. Please describe the Kane wastewater utility.

A. Kane owns and operates a sanitary wastewater collection system that provides sanitary wastewater service to approximately 2,019 customers in Kane Borough and a portion of Westmore Township in McKean County. The breakout of Kane's customer count is: 1,847 residential, 162 commercial, 3 industrial, and 7 municipal. The $17.56 million purchase price for a wastewater utility assets serving 2,019 customers equates to a cost of approximately $8,700 per customer.

Q. Does the Application provide the terms of the Proposed Transaction?

A. Yes, the Asset Purchase Agreement ("APA") dated November 4, 2019 was included with the Application. The APA states that the purchase price is Seventeen Million, Five Hundred Sixty Thousand Dollars ($17,560,000). The Application indicates that the purchase price is based on arm's length negotiations. PAWC and Kane Borough are not affiliated with each other.

	Service Address	Customer Number	Edu Purchased	Group Code	Drainage Basin	SPA Amt	SPA Qty	SWR Amt	SWR Qty	Swr Base Amt	PEN Amt	INT Amt
3793	900 FOXMEADOW DR	12133	16	King Road	SOUTHEAST (6)	-	116,300.00	F	-	$ 1,348.80	-	-
3794	1000 FOXMEADOW DR	12134	16	King Road	SOUTHEAST (6)	-	94,400.00	F	-	$ 1,348.80	-	-
3795	1100 FOXMEADOW DR	12135	16	King Road	SOUTHEAST (6)	$ 216.44	153,200.00	F	-	$ 1,348.80	-	-
3796	1200 FOXMEADOW DR	12136	16	King Road	SOUTHEAST (6)	$ 69.15	130,400.00	F	-	$ 1,348.80	-	-
3799	1500 FOXMEADOW CIR	12139	16	King Road	SOUTHEAST (6)	$ 43.95	126,500.00	F	-	$ 1,348.80	-	-
3800	1600 FOXMEADOW CIR	12140	16	King Road	SOUTHEAST (6)	-	82,300.00	F	-	$ 1,348.80	-	-
3801	1700 FOXMEADOW CIR	12141	16	King Road	SOUTHEAST (6)	-	84,300.00	F	-	$ 1,348.80	-	-
3802	1800 FOXMEADOW CIR	12142	16	King Road	SOUTHEAST (6)	-	92,500.00	F	-	$ 1,348.80	-	-
3803	1900 FOXMEADOW DR	12143	16	King Road	SOUTHEAST (6)	-	111,200.00	F	-	$ 1,348.80	-	-
3804	2000 FOXMEADOW CIR	12144	16	King Road	SOUTHEAST (6)	$ 8.42	121,000.00	F	-	$ 1,348.80	-	-
3805	2100 FOXMEADOW CIR	12145	16	King Road	SOUTHEAST (6)	$ 160.88	144,600.00	F	-	$ 1,348.80	-	-
3806	2200 FOXMEADOW DR	12146	16	King Road	SOUTHEAST (6)	-	101,000.00	F	-	$ 1,348.80	-	-
3807	2300 FOXMEADOW DR	12147	16	King Road	SOUTHEAST (6)	$ 176.38	147,000.00	F	-	$ 1,348.80	-	-
3808	2400 FOXMEADOW CIR	12148	16	King Road	SOUTHEAST (6)	$ 94.99	134,400.00	F	-	$ 1,348.80	-	-
3809	2500 FOXMEADOW CIR	12149	16	King Road	SOUTHEAST (6)	$ 107.26	136,300.00	F	-	$ 1,348.80	-	-
161	640 N LEWIS RD	275	17	King Road	SOUTHEAST (6)	$ 1,932.95	306,700.00	F	-	$ 84.30	-	-
3674	7-27 W RIDGE PIKE/STRP ML	12005	18	King Road	SOUTHEAST (6)	$ 63.37	92,100.00	F	-	$ 927.30	-	-
3727	125 SUNSET RD	12065	18	King Road	282 GRATERFORD RD (20)	$ 1,198.45	193,000.00	F	-	$ 84.30	-	-
3772	15 KEYSTONE DR	12112	18	King Road	TRINLEY (5)	$ 2,452.98	387,200.00	F	-	$ 84.30	-	-
5199	256 SWAMP PIKE/SCHOOL	60965	18	Possum Hollow	RAVENS CLAW (18)	$ 2,015.24	334,400.00	F	-	$ 252.90	-	-
162	339 N LEWIS RD	276	19	King Road	SOUTHEAST (6)	$ 1,256.59	202,000.00	F	-	$ 84.30	-	-
3706	W RIDGE PIKE/STRIP/BANK	12039	19	King Road	SOUTH LIMERICK (3)	$ 1,373.73	272,500.00	F	-	$ 674.40	-	-
3745	542 N LEWIS RD	12084	19	King Road	TRINLEY (5)	$ 112.65	32,400.00	F	-	$ 168.60	-	-
3411	70 BUCKWALTER RD/1350/APPLEB	11737	20	King Road	SOUTHEAST (6)	$ 3,375.47	530,000.00	F	-	$ 84.30	-	-
5389	206 JONES BLVD/MICROCOAX	70011	20	Possum Hollow	BROOKE EVANS (16)	$ 14,938.23	2,319,900.00	F	-	$ 84.30	-	-
3445	70 BUCKWALTER RD/1250/TEXAS	11771	21	King Road	SOUTHEAST (6)	$ 2,419.39	382,000.00	F	-	$ 84.30	-	-
3707	22 ANCHOR PARKWAY	12040	23	King Road	SOUTHEAST (6)	$ 1,958.79	310,700.00	F	-	$ 84.30	-	-
3773	77 GRATERFORD RD	12113	23	King Road	282 GRATERFORD RD (20)	$ 1,208.14	194,500.00	F	-	$ 84.30	-	-
64	677 ELM ST	170	24	Royersford	ORCHARD TERRACE (OT)	-	12,000.00	F	-	$ 2,023.20	-	-
3863	430 W LINFIELD TRAPPE RD	12208	24	King Road	TRINLEY (5)	$ 4,782.46	747,800.00	F	-	$ 84.30	-	-
794	1101 ENTERPRISE DR	2573	28	King Road	TRINLEY (5)	$ 1,182.95	190,600.00	F	-	$ 84.30	-	-
2502	196 W RIDGE PK/FLEA MRKT	10679	29	King Road	RIDGE PIKE (10)	$ 629.07	247,000.00	F	-	$ 1,686.00	$ 1.80	-
3869	420 LINFIELD TRAPPE RD	12214	30	King Road	TRINLEY (5)	$ 852.20	139,400.00	F	-	$ 84.30	-	-
5410	14 W LIGHTCAP RD	70032	34	Possum Hollow	POSSUM HOLLOW (17)	$ 7,741.14	1,205,800.00	F	-	$ 84.30	-	-
3401	19 W LINFIELD TRAPPE RD	11727	36	King Road	SOUTHEAST (6)	$ 5,421.59	846,736.00	F	-	$ 84.30	-	-
107	475 N LEWIS RD	216	52	King Road	SOUTHEAST (6)	$ 3,921.34	614,500.00	F	-	$ 84.30	-	-
3761	88 ANCHOR PARKWAY	12101	52	King Road	SOUTHEAST (6)	$ 3,746.92	587,500.00	F	-	$ 84.30	-	-
2292	420 W LINFIELD TRAPPE RD	10357	59	King Road	TRINLEY (5)	$ 5,568.64	869,500.00	F	-	$ 84.30	-	-
167	350 S LEWIS RD	282	60	King Road	SOUTHEAST (6)	$ 3,791.50	594,400.00	F	-	$ 84.30	-	-
2465	827 N LEWIS RD	10630	80	King Road	SOUTH LIMERICK (3)	-	150,200.00	F	-	$ 6,744.00	-	-
3091	FOX RIDGE APTS	11378	97	King Road	SOUTH LIMERICK (3)	$ 2,050.04	1,043,000.00	F	-	$ 8,177.10	-	-
2685	165 W RIDGE PIKE/TRLR PK	10913	115	King Road	SOUTHEAST (6)	$ 6,018.69	1,792,000.00	F	-	$ 9,694.50	-	-
5397	EXELON LIM GEN STA	70019	137	Possum Hollow	POSSUM HOLLOW (17)	N	-	$ 8,659.75	1,348,000.00	$ 84.30	$ 1,041.07	-
5400	18 LIGHTCAP RD	70022	200	Possum Hollow	POSSUM HOLLOW (17)	$ 4,006.31	1,278,500.00	F	-	$ 7,418.40	-	-
		5416	**8402**			**$ 299,707.92**	**89,160,697**	**$ 25,039.14**	**7,288,556**	**$ 600,843.05**	**$ 14,296.74**	**$ 1,169.98**

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EXHIBIT 25
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ASSET PURCHASE AGREEMENT

7. Aqua and Limerick are parties to an Asset Purchase Agreement dated November 16, 2016. Aqua Exhibit 1, Application ¶ 5 and ¶ 18; *see also* Aqua Exhibit No. 1, Exhibit C.

8. The negotiated purchase price, which is based on arms' length negotiation, is Seventy-Five Million One Hundred Thousand Dollars ($75,100,000.00). Aqua and Limerick are not affiliated with each other. Aqua Exhibit No. 1, Application ¶ 18 and Aqua St. No. 1 at 6, lines 6 through 10.

9. Aqua will use short term credit lines to fund the transaction. The short term credit funding will be converted to a mix of long-term debt and equity capital shortly after closing. Aqua St. No. 1 at 7, lines 18 through 20; *see also* Aqua Exhibit No. 1, Application ¶ 18.

ASSETS BEING TRANSFERRED

10. The wastewater system assets to be transferred are the "Acquired Assets" and have the meaning specified in Section 2.01 of the Agreement. The Acquired Assets include all real property Limerick owns and uses in the operation of the wastewater system and all sanitary wastewater related treatment and conveyance facilities, including the Possum Hollow Waste Water Treatment Plant ("PHWWTP"), the King Road Waste Water Treatment Plant ("KRWWTP") and all pipes, pumping stations, manholes and pipelines and billing and collections related assets necessary to run the system. Aqua Exhibit No. 1, Application ¶ 19.

11. Acquired Assets also include the contracts identified on Schedule 4.15 of the Agreement to which Limerick is a party (the "Assigned Contracts"). Since contract parties, other than Limerick, are identified by name, Schedule 4.15 and the Assigned Contracts are considered CONFIDENTIAL. Copies of CONFIDENTIAL Schedule 4.15 and the CONFIDENTIAL Assigned Contracts were included with the Application as Confidential Exhibit F and admitted into evidence as CONFIDENTIAL Aqua Exhibit No. 4. Aqua Exhibit No. 1, Application ¶ 20 and Tr. 13 and 20.

$5,572,770. Exh. A-14-a, SWPA St. 1 at 11-12. The allocated purchase price for the water system is $4,734,800 and the wastewater system is $4,765,200. Appendix A-14, SWPA St. 2 at 4-5.

The valuation experts were paid $59,145 for the Fair Market Value Appraisal Reports for both the water and wastewater systems. Exh. A-8-a. SWPA also indicates that it will incur transaction and closing costs of approximately $1,000,000 between the Water System and the Wastewater System, which will be included in rate base. Appendix A-14, SWPA St.1 at 5-6; Appendix A-12.

OCA will examine the ratemaking rate base claims to determine if the claims are reasonable and appropriate for ratemaking purposes.

2. Proposed Rates: SWPA proposes to charge customers of the Mahoning Township system the Mahoning Township water and wastewater rates in effect at closing. Application at 6, 11; Appendix A-13. Those rates will remain in effect until SWPA's next base rate case but SWPA may impose any fee or surcharge permitted by its Commission-approved tariff. Id.

The proposed rates do not appear to match the existing Mahoning Township rates. The OCA will investigate this apparent discrepancy. The OCA will investigate the impacts on the current customers as well as on Mahoning Township customers of the various assumptions and proposals.

3. The OCA submits that additional information is necessary to determine how the transaction will substantially and affirmatively benefit Suez's existing customers.

4. Conditions: Whether any conditions should be imposed upon the proposed transfer to ensure that Suez's customers are treated in a fair and just manner in accord with Pennsylvania law and Commission rules and regulations.

MAHONING TOWNSHIP CUSTOMER LIST

Customer No	Name	Service Address	Service	SWR EDUs	EDU	Count
11470.01	T & S REALTY	304 HOLLOW DR	Sewer	1	1	1431
11471.01	T & S REALTY	306 HOLLOW DR	Sewer	1	1	1432
11472.01	T & S REALTY	308 HOLLOW DR	Sewer	1	1	1433
11473.01	T & S REALTY	310 HOLLOW DR	Sewer	1	1	1434
11474.01	T & S REALTY	312 HOLLOW DR	Sewer	1	1	1435
11475.01	DAVID & JOANNE BROOKO\	32 TERRE LANE	Sewer	1	1	1436
11476.02	JAYA SUGUNARAJ & JESSIT/	214 ABBEY RD	Sewer	1	1	1437
11478.01	DAVID BULBIN & BARBARA	74 WOODLAND DR	Sewer	1	1	1438
11479.01	JEFFREY MOLINARO	1318 BLOOM RD	Sewer	1	1	1439
11480.01	CRYSTAL DOMETITA	91 WOODLAND DR	Sewer	1	1	1440
11482.01	AYUSA SINHA	672 LOWER ST	Sewer	1	1	1441
11483.01	MADIAN YAHYA	676 LOWER ST	Sewer	1	1	1442
11484.01	JEFF WATSON	168 KASEVILLE RD	Sewer	1	1	1443
11485.01	ANWER & SARAH QURESHI	656 LOWER ST	Sewer	1	1	1444
11486.01	ROSS & ASHLEY PETERS	83 TERRE LN	Sewer	1	1	1445
11488.01	QUESHI ANWER	664 LOWER STREET	Sewer	1	1	1446
11489.01	MATHUR HERSH	660 LOWER STREET	Sewer	1	1	1447
11490.01	PRASANNA SANKEPALLI & S	668 LOWER ST	Sewer	1	1	1448
11491.01	MARK GATSKI & CATHERINI	82 DELWOOD DR	Sewer	1	1	1449
11492.01	JONATHAN & LAURA SPAHF	78 TERRE LN	Sewer	1	1	1450
11166.02	DANKO HOLDINGS LP	1301 BLOOM RD	Sewer	0	1	1451
	TOTALS				2195	1451

eport Criteria:
Customer.Final bill date = {IS NULL}

5/30/18

stomer #	Name	Service Address	Meter ID	Customer Type	Size
11104.01	ANIMAL CARE	32 ENTERPRISE DR	0049503582	Commercial	1
11107.01	EMMANUEL HOME	MONTOUR BLVD. 11107	8280982952	Commercial	1
11120.02	REDEEMER ORTHODOX PRESBYTER	1820 MONTOUR BLVD.	1540802894	Commercial	1
11121.01	FAB-TEX	29 WOODBINE LANE	0004695133	Commercial	1
11137.01	GEISINGER HEALTH SYSTEMS - MCB	MCBRIDE	1541355520	Commercial	1
11151.01	ROAT-KRINER ROAT	1133 BLOOM RD.	1541286282	Commercial	1
11157.01	TRINITY METHODIST CHURCH	84 LOMBARD AVE	1018010545	Commercial	1
11159.01	VINTAGE KNOLLS ASSISTED LIVING	9 JUSTIN DR 101	1541313242	Commercial	1
11160.01	GEISINGER COMMUNITY HEALTH - VI	44 WOODBINE LANE	0048920994	Commercial	1
11165.01	RINEHART DENTAL	20 WESNER LANE	1481726108	Commercial	1
Total 1: 10				10	10
11110.01	BUSY BEAVER	23 WESNER LN	0053635505	Commercial	1.5
11139.01	MEADOWS COMM.	77 TOWER VIEW CIRCLE	0051583844	Commercial	1.5
11148.01	SHANER HOTEL GRP	43 PINE BARN PLACE	1832339361	Commercial	1.5
11170.01	HAWKINS CHEVROLET	1856 MONTOUR BLVD.	1852732193	Commercial	1.5
11439.01	GEORGE HEIM CAR WASH	1802 MONTOUR BLVD	1541551330	Commercial	1.5
Total 1.5: 5				5	5
11102.01	ATLANTIC EQUIP	15 ENTERPRISE DR	0048304212	Commercial	2
11108.01	EMMANUEL NAZARETH	1707 MONTOUR BLVD. 11108	1007034764	Commercial	2
11117.01	T & S REALTY	1083 BLOOM RD	0046645520	Commercial	2
11126.01	GUM REALTY GROUP LLC	74 SCHOOL HOUSE RD STE 101	0022379100	Commercial	2
11134.01	MARIA JOSEPH AL CENTER	MONTOUR BLVD. 11134	1832120637	Commercial	2
11136.01	GEISINGER HEALTH SYSTEMS - HUG	HUGHES CENTER SOUTH	0052693508	Commercial	2
11146.01	SHANER HOTEL GRP	43 PINE BARN PLACE A	0043702654	Commercial	2
11166.02	DANKO HOLDINGS LP	1301 BLOOM RD	1548931502	Commercial	2
Total 2: 8				8	8
11101.01	NAILS TO TAILS GROOMING SALON	938 BLOOM RD.	1810172132	Commercial	3/4
11109.01	BROKENSHIRE JOHN	769 BLOOM RD.	1541276964	Commercial	3/4
11111.01	CERO JAMES PATRICK	795 BLOOM RD	1541282452	Commercial	3/4
11113.01	COLE'S HARDWARE	25 ENTERPRISE ROAD	1541310306	Commercial	3/4
11115.01	HAWKINS JAMES	1581 MONTOUR BLVD.	1852924202	Commercial	3/4
11116.01	HAWKINS COLLISION CENTER	MONTOUR BLVD. 11116	1541425432	Commercial	3/4

Commercial Water Meters
70

Residential Water Meters
1116

2"
+ 1 = 15 Wesner Lane added 5/24/18

Total Meters
=
1186

21. Second, Ms. Vicari used inconsistent purchase price values to calculate the average costs per customer. Id. at 21-22.

(a) Incorrect Use of Projected Customers

Ms. Vicari used an incorrect number of customers for MACM. In Appendix A-17-a, it states that MACM has 12,780 customers, yet Ms. Vicari used 21,953 customers. OCA St. 1 at 20-21. She explained that she used that number because she counted the individual connections for each bulk customer. Id. She never supplied her calculation of the individual connections for the four bulk customers. Id.

Ms. Vicari does not necessarily apply that logic to the other acquisitions in her sample group by reflecting individual connections for any bulk customers. OCA St. 1S at 16-17. By using the actual number of customers for the other systems, she achieved a higher average cost per customer. She then multiplied this overstated cost per customer times the unsupported number of bulk customers' individual connection, compounding the error. Ms. Everette was not able to confirm whether all of the customer numbers in Ms. Vicari's sample group were consistently counted. She therefore used the 21,953 customer number used by Ms. Vicari to minimize the issues in the proceeding.

(b) Inconsistent Purchase Price Values

Similar to the problem with the customer count, MACM witness Vicari did not use consistent purchase price values. OCA St. 1 at 21-22. For the comparative acquisitions, she used the purchase price plus the value of capital improvements required by the agreement of sale. For MACM, however, she uses only the purchase price and does not consider the $62.7 million of capital investments that PAWC anticipates making over the next 10 years. Including the cost

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Pittsburgh Post-Gazette

McKeesport sewer system to be sold for $156 million

September 16, 2016 12:00 AM

By Deana Carpenter

The Municipal Authority of the City of McKeesport has agreed to sell its sewer system to Pennsylvania American Water for approximately $156 million.

The sale is needed to bring the city to more stable financial ground and avoid Act 47, the program for financially distressed municipalities, or municipal bankruptcy, McKeesport Mayor Michael Cherepko said at the Sept. 7 council meeting.

“It became very clear to this administration that the only way to save our community from municipal bankruptcy, while continuing to offer the same level of services our residents deserve, would be to transfer our local sewage system to a regional or national utility company,” Mr. Cherepko said in a news release.

A purchase agreement was signed by both parties last Friday following votes by city council and the municipal authority to sell the sewer system. The sale is expected to be finalized in the second half of next year pending regulatory approvals and other closing conditions.

The system serves 22,000 customers in McKeesport and the communities of Dravosburg, Duquesne, East McKeesport, Elizabeth Township, Glassport, Liberty, Lincoln, North Versailles, Port Vue, Versailles and White Oak.

“We look forward to closing the proposed acquisition and to providing wastewater services that reflect our commitment to environmental stewardship and quality customer service,” said

Kathy L. Pape, president of Pennsylvania American Water, said that after the deal is closed, the company looks forward “to welcoming the Municipal Authority of the City of McKeesport’s employees and customers to the Pennsylvania American Water family.”

She said the company also looks forward to “providing wastewater services that reflect our commitment to environmental stewardship and quality customer service.”

The next step is approval of the acquisition by the Pennsylvania Public Utility Commission along with other approvals, such as from the state Department of Environmental Protection.

In June, state Auditor General Eugene DePasquale said McKeeesport erred when it accidentally spent $729,275 in state funds earmarked for pension costs and subsequently couldn't pay its $2.3 million annual pension obligation last year.

McKeesport officials said then they would remedy the shortfall through "the sale of an asset in the near future."

“The total proceeds of the pending sale of the Municipal Authority of the City of McKeesport will solidify the City of McKeesport’s financial position for years to come,” Mr. Cherepko said this week. “The down payment associated with this

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sale will generate enough revenue to cover all of the city's outstanding financial obligations, including the minimum municipal obligations associated with the city's pension funds."

Deana Carpenter, freelance writer: suburbanliving@post-gazette.com.

EAST END SEWER ACCOUNTS

Type	2015-4	2015-3	2015-2	2015-1	2014-4	2014-3	2014-2	2014-1
CO1	2,070,000	2,060,000	1,831,000	2,284,000	2,971,000	2,665,000	1,498,000	1,278,000
CO2	739,000	1,050,000	885,000	793,000	1,028,000	1,061,000	873,000	873,000
IND								
MIX	15,000	9,000	10,000	4,000	17,000	14,000	12,000	18,000
RES	13,780,000	13,367,000	12,924,000	13,280,000	12,700,000	14,137,000	14,241,000	12,874,000
Grand Total	**16,604,000**	**16,486,000**	**15,650,000**	**16,361,000**	**16,716,000**	**17,877,000**	**16,624,000**	**15,043,000**
# DAYS	94	90	89	91	87	94	93	91

Type	2015-4 GPD	2015-3 GPD	2015-2 GPD	2015-1 GPD	2014-4 GPD	2014-3 GPD	2014-2 GPD	2014-1 GPD
CO1	22,021	22,889	20,573	25,099	34,149	28,351	16,108	14,044
CO2	7,862	11,667	9,944	8,714	11,816	11,287	9,387	9,593
IND								
MIX	160	100	112	44	195	149	129	198
RES	146,596	148,522	145,213	145,934	145,977	150,394	153,129	141,473
Grand Total	**176,638**	**183,178**	**175,843**	**179,791**	**192,138**	**190,181**	**178,753**	**165,308**

Type	Total Units	Total Active Units	Total Accounts
CO1	145	109	65
CO2	40	16	13
IND			
MIX	8	7	3
RES	1,043	1012	823
Grand Total	**1,236**	**1,144**	**904**

Type	2015 Total	2014 Total
CO1	8,245,000	8,412,000
CO2	3,467,000	3,835,000
IND		
MIX	38,000	61,000
RES	53,351,000	53,952,000
Grand Total	**65,101,000**	**66,260,000**

Service Area	Total Units	Total Active Units	Total Accounts
BP	290	282	107
BR	52	51	52
BW	99	90	56
CR	5	4	5
CW	110	109	110
EE	1		1
GL	132	110	70
HD	127	110	112
PD	31	31	31
PM	48	47	48
PS	66	66	66
SC	65	37	40
SH	132	132	132
SRO	2	2	2
WB	76	73	72
Grand Total	**1,236**	**1,144**	**904**

SOUTH END SEWER ACCOUNTS

Type	2015-4	2015-3	2015-2	2015-1	2014-4	2014-3	2014-2	2014-1
CO1	163,000	68,000	33,000	27,000	277,000	265,000	28,000	25,000
RES	7,444,000	7,494,000	7,172,000	7,565,000	7,109,000	7,576,000	7,233,000	7,750,000
Grand Total	**7,607,000**	**7,562,000**	**7,205,000**	**7,592,000**	**7,386,000**	**7,841,000**	**7,261,000**	**7,775,000**
# DAYS	94	90	89	91	87	94	93	91

Type	2015-4 GPD	2015-3 GPD	)15-2 GPD	2015-1 GPD	2014-4 GPD	2014-3 GPD	2014-2 GPD	2014-1 GPD
CO1	1,734	756	371	297	3,184	2,819	301	275
RES	79,191	83,267	80,584	83,132	81,713	80,596	77,774	85,165
Grand Total	**80,926**	**84,022**	**80,955**	**83,429**	**84,897**	**83,415**	**78,075**	**85,440**

Type	Total Units	Total Active Units	Total Accounts
CO1	6	2	2
RES	611	605	607
Grand Total	**617**	**607**	**609**

Type	2015 Total	2014 Total
CO1	291,000	595,000
RES	29,675,000	29,668,000
Grand Total	**29,966,000**	**30,263,000**

Service Area	Total Units	Total Active Units	Total Accounts
ES	178	174	174
HGN	129	125	125
HGS	30	29	30
MG	21	21	21
WS	259	258	259
Grand Total	**617**	**607**	**609**

AVONDALE SEWER ACCOUNTS SEWER ACCOUNTS

Type	2015-4	2015-3	2015-2	2015-1	2014-4	2014-3	2014-2	20144
CO1	2,833,000	3,044,000	2,895,000	3,014,000	2,844,000	2,681,000	2,598,000	2,992,000
CO2	191,000	208,000	235,000	228,000	224,000	195,000	192,000	179,000
MIX	301,000	312,000	255,000	273,000	227,000	258,000	276,000	332,000
RES	4,090,000	3,750,000	3,588,000	4,089,000	3,506,000	4,183,000	4,716,000	3,705,000
TWP	31,000	24,000	20,000	19,000	21,000	22,000	19,000	74,000
Grand Total	**7,446,000**	**7,338,000**	**6,993,000**	**7,623,000**	**6,822,000**	**7,339,000**	**7,801,000**	**7,282,000**
# DAYS	94	90	89	91	87	94	93	91

Type	2015-4 GPD	2015-3 GPD	)15-2 GPD	2015-1 GPD	2014-4 GPD	2014-3 GPD	2014-2 GPD	2014-1 GPD
CO1	30,138	33,822	32,528	33,121	32,690	28,521	27,935	32,879
CO2	2,032	2,311	2,640	2,505	2,575	2,074	2,065	1,967
MIX	3,202	3,467	2,865	3,000	2,609	2,745	2,968	3,648
RES	43,511	41,667	40,315	44,934	40,299	44,500	50,710	40,714
TWP	330	267	225	209	241	234	204	813
Grand Total	**79,213**	**81,533**	**78,573**	**83,769**	**78,414**	**78,074**	**83,882**	**80,022**

Type	Total Units	Total Active Units	Total Accounts
CO1	397	48	38
CO2	4	4	4
MIX	8	22	8
RES	306	282	230
TWP	3	3	3
Grand Total	**718**	**359**	**283**

Type	2015 Total	2014 Total
CO1	11,786,000	11,115,000
CO2	862,000	790,000
MIX	1,141,000	1,093,000
RES	15,517,000	16,110,000
TWP	94,000	136,000
Grand Total	**29,400,000**	**29,244,000**

Service Area	Total Units	Total Active Units	Total Accounts
41	308	76	46
BH	123	120	121
BH2	6	6	6
RR	130	119	79
TK	151	38	31
Grand Total	**718**	**359**	**283**

Dilworth Paxson LLP

The PA PUC Approves First Wastewater Sale Under New Act 12

06/14/2017

June 14, 2017 (Philadelphia, PA) - On June 14, 2017, the Pennsylvania Public Utility Commission approved, in a four-to-one vote, Aqua Pennsylvania Wastewater, Inc.'s application to acquire the wastewater system of New Garden Township and its Sewer Authority, and to begin providing wastewater service to the residents of New Garden and Kennett Townships in Chester County. The transaction is the first to be approved using the fair market valuation approach established by the Pennsylvania State Legislature and Governor Tom Wolf with Act 12 of 2016 (Act of Apr. 14, 2016, P.L. 76, No. 12, 66 Pa. C.S. § 1329).

Act 12 is changing the landscape for municipal sales of water and wastewater systems to PUC-regulated public utility companies. The new law allows the parties to the transaction to opt in to a new method of valuation, which takes the value of the system for ratemaking purposes as either the lower of the average of two independent fair market value appraisals—one obtained by the utility buyer and one by the municipal seller—or by the negotiated purchase price. Prior to Act 12, system value for ratemaking was based on depreciated original cost, which would likely always result in a lower sale price than fair market value. In addition, the new law requires the PUC to act within six months of the acceptance of the application.

Act 12 became effective mid-June 2016, and the PUC issued its final implementation order in October 2016. The New Garden transaction was the first Act 12 application, submitted for approval in December 2016. Aqua, New Garden, and the Authority agreed to a negotiated purchase price of $29,500,000, which turned out to be less than the average of the two appraisals commissioned by Aqua and New Garden. The valuation for ratemaking purposes was therefore set at $29,500,000.

A protest to Aqua's application for PUC approval pursuant to Act 12 in the New Garden transaction was filed by the Bureau of Investigation and Enforcement, which sought a review of both of the fair market appraisals used, additional information about the proposed rate freeze agreed to by the parties, and a determination of whether the transaction was in the public interest under Section 1102 of the Public Utility Code.

An additional protest was filed by the Office of Consumer Advocates requesting further information to determine whether supplementary conditions should be imposed on the transaction to ensure that Aqua's existing customers are treated in a fair and just manner; how the transaction will substantially and affirmatively benefit Aqua's existing customers; and whether the agreement sufficiently provides for safe, adequate, and reasonable service at just and reasonable rates.

An evidentiary hearing was held before an administrative law judge on February 16, 2017. After the hearing, the judge recommended the denial of Aqua's application, concluding that Aqua had failed to demonstrate by a preponderance of the evidence that the acquisition was in the public interest because it failed to demonstrate that the transaction will result in affirmative public benefits to its existing customers. The judge also concluded that Aqua had failed to support its rate stabilization plan with evidence to show its basis and impact. The judge did

Related Lawyers

Skye C.A. Nickalls

Marc A. Feller

Related Practices

Corporate and Business

Related Offices

Philadelphia, PA

invest in necessary capital improvements and resources, and experienced managerial and operating personnel necessary to provide safe and reliable sewer services to the residents of the TOS and surrounding areas. PAWC is currently the water provider within TOS and is the operator of TOS's System pump station.

Q. PLEASE DESCRIBE PAWC'S HISTORICAL RELATIONSHIP WITH TOS.

A. Since PAWC's acquisition of the water and wastewater assets of the City of Coatesville Authority ("CCA") in March 2001, PAWC has been the regional wastewater (and water) provider in the City of Coatesville and surrounding communities. . PAWC's treats the wastewater from the communities of Sadsbury Township, City of Coatesville, East Fallowfield Township, Caln Township, West Caln Township, Valley Township, West Sadsbury Township, Highland Township, West Brandywine Township and Parksburg Borough. TOS has been a bulk wastewater customer of PAWC since PAWC's acquisition of CCA's water and wastewater system assets. We maintain a relationship with TOS and other local municipalities by participating in local events, providing environmental and firefighting grants, offering the "H2O Assistance Program," and supporting economic growth through infrastructure improvements in the communities we serve.

Q. HOW MANY CUSTOMERS DOES THE TOS SYSTEM CURRENTLY SERVE AND HOW MANY CUSTOMERS DOES PAWC CURRENTLY SERVE?

A. As of December 31, 2016, TOS furnished wastewater services to 998 customers. This number includes 950 residential and 48 commercial customer connections. Of these

interest in discussing the potential acquisition of the System and the use of Section 1329, the fair market value approach. TOS's representatives executed the Letter of Interest on December 6 and 7, 2016 and returned it to PAWC. This "Letter of Interest" was extended through amendments on March 9, 2017, May 2, 2017, June 6, 2017, and July 5, 2017 to allow the parties to enter into a definitive agreement. Through these extensions, PAWC and TOS jointly retained the services of Herbert E. MacCombie, Jr., P.E., of Media Pennsylvania to complete the Engineer's Assessment of Tangible Assets pursuant to Section 1329. The Engineer's Assessment of Tangible Assets is included as **Schedule 1.1** of the APA and included with the UVE fair market valuation reports at **Appendix A-5**. PAWC, pursuant to Section 1329, retained the services of AUS Consultants of Greenfield Wisconsin to complete an appraisal of the System. TOS retained the services of Herbert, Rowland & Grubic, Inc. of Harrisburg, Pennsylvania to also complete an appraisal of the System. These appraisals accompany the Application at **Appendix A-5** (together with electronic working documents at **Appendix A-4**) and are included as **Schedule 2.2** of the APA. After receipt of the two appraisals and subsequent arms-length negotiations, on May 1, 2018 TOS's Board of Supervisors approved the APA, which was subsequently executed by PAWC and TOS that day too. This APA includes a negotiated purchase price of $9,250,000.

Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF THE APA?

A. Yes. The APA is attached as **Appendix A-24-a** to the Application **(PAWC Exhibit KEG-1)**. The APA sets forth the terms and conditions pursuant to which the TOS will sell, and PAWC will purchase, the System, as well as substantially all assets, properties and rights

Elizabeth Rose Triscari, Esquire
Pennsylvania-American Water Company
800 West Hersheypark Drive
Hershey, PA 17033
(717) 520-4606
elizabeth.triscari@amwater.com

The Applicant's attorneys are authorized to receive all notices and communications regarding this Application.

6. PAWC is a regulated public utility corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania, and is engaged in the business of collecting, treating, storing, supplying, distributing and selling water to the public, and collecting, treating, transporting and disposing of wastewater for the public. Water and wastewater services are furnished by PAWC to the public in a service territory encompassing more than 400 communities across the Commonwealth with a combined population of over 2,400,000. A description of PAWC's existing certificated water and wastewater service territory is found in **Appendix B**, along with a detailed corporate history, outlining all of the mergers, acquisitions and consolidations, which have created PAWC as it exists on the date of this Application.

7. Steelton is a municipal water authority, organized by the Borough of Steelton in accordance with the Municipality Authorities Act, 53 Pa. C.S. §5601, et seq., with its offices located at 123 North Front Street, Steelton, Pennsylvania. Steelton owns and operates the Steelton System, providing water service to the public in the Borough of Steelton and a portion of Swatara Township (the "Service Area"), in Dauphin County, Pennsylvania.

8. As of November 30, 2018, Steelton furnishes water service to 2,472 customers including 2,289 residential, 124 commercial, 13 industrial, 34 institutional, 11 municipal, and one bulk sales customer connection.

PENNSYLVANIA REAL-TIME NEWS

Steelton water sale closer to completion as Pa. American Water signs $22.5 million agreement

Updated Nov 15, 2018;
Posted Nov 15, 2018

Pennsylvania American Water announced today it signed an agreement to acquire the water assets of the Steelton Borough Authority. Pending regulatory approvals, the sale should be complete by the third quarter of 2019.

1
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By Steve Marroni | smarroni@pennlive.com

The sale of Steelton's water system is one step closer to completion.

Pennsylvania American Water announced today it has signed an agreement to acquire the water assets of the Steelton Borough Authority for $22.5 million.

The two will next seek approval of the acquisition from the Pennsylvania Public Utility Commission and other necessary approvals from the Pennsylvania Department of Environmental Protection, according to the company.

Subscribe

Cust No	Name	Customer Type	Group Code	Service No	Description	Unit/Share
)33438358	Morath, Christina	Commercial	None	1	SEWER	1
)33453937	Baeder, William	Commercial	None	1	SEWER	1
)33521786	Sanders, Debra	Commercial	None	1	SEWER	1
)33757653	Advanced Auto Parts	Commercial	None	1	SEWER	1
)34016546	Nelson's Ice Cream	Commercial	None	1	SEWER	1
)34030702	Pitcher, Paul	Commercial	None	1	SEWER	1
)34083232	Beck, Katharine G	Commercial	None	1	SEWER	1
)34862572	LK Miller Properties LLC	Commercial	None	1	SEWER	1
)02939458	Fuhrman, Steve	Commercial	None	1	SEWER	1
)03198199	Sarangpur Realty LLC	Commercial	None	1	SEWER	1
)03373167	Wilhelm, Rosemarie	Commercial	None	1	SEWER	1
)04397982	Pragi Enterprises LLC	Commercial	None	1	SEWER	1
)06085025	Plank Jr, Robert E	Commercial	None	1	SEWER	1
)06197065	LD Hedge Associates LLC	Commercial	None	1	SEWER	1
)06197096	LD Hedge Associates LLC	Commercial	None	1	SEWER	1
)07394708	Fissinger, Matthew	Commercial	None	1	SEWER	1
)07425268	Snyder, Joseph	Commercial	None	1	SEWER	1
)07461417	Varlotta, Michael	Commercial	None	1	SEWER	1
)07487679	CG Complex LLC	Commercial	None	1	SEWER	1
)07519040	Bristol Road Partners Inc.	Commercial	None	1	SEWER	1
)08908308	Superior Credit Union	Commercial	None	1	SEWER	1
)09217890	Hoff Properties LLC	Commercial	None	1	SEWER	1
)10722804	AMA Realty Properties LLC	Commercial	None	1	SEWER	1
)11184863	Attilio, Thomas	Commercial	None	1	SEWER	1
)12032330	310 Chestnut Street LLC	Commercial	None	1	SEWER	1
)13068080	Branch Banking & Trust Company	Commercial	None	1	SEWER	1
)13286185	White, Elaine & Bruce	Commercial	None	1	SEWER	1
)15089717	C&R Property Management LLC	Commercial	None	1	SEWER	1
)15089748	C&R Property Management LLC	Commercial	None	1	SEWER	1
)15292810	Preston, Aaron	Commercial	None	1	SEWER	1
)16240812	Shalom, Jan	Commercial	None	1	SEWER	1
)16276750	Copenhafer, Fay	Commercial	None	1	SEWER	1
)16612479	Donohue, Patrick R	Commercial	None	1	SEWER	1
)17470098	Lewis Group Ltd Partnership	Commercial	None	1	SEWER	1
)17961983	Qawasmy, John	Commercial	None	1	SEWER	1
)18085592	Christman, Lewis	Commercial	None	1	SEWER	1
)18305104	Tarquini Herrera, Rachel	Commercial	None	1	SEWER	1
)18888302	Florence Attilio Rental Acct.	Commercial	None	1	SEWER	1
)18888319	Attilio, Thomas	Commercial	None	1	SEWER	1
)19364687	Conigliaro, Vito	Commercial	None	1	SEWER	1
)21630875	Chesterview Apartments	Commercial	None	1	SEWER	1
)22621041	Main Street Royersford LLC	Commercial	None	1	SEWER	1
)22621096	Spring Mountain Brewing Co	Commercial	None	1	SEWER	1
)23796115	Kassam, Tashir	Commercial	None	1	SEWER	1
)26295581	JD Arnold LLC	Commercial	None	1	SEWER	1
)26393133	Ostebo, Kurt	Commercial	None	1	SEWER	1
		158				

Report Criteria:
Billing.Service No = 1
Customer.Customer Type = Commercial, Industrial, Residential

Report Criteria:
Billing.Service No = 1
Customer.Customer Type = Industrial, Residential

Cust No	Name	Customer Type	Group Code	Service No	Description	Unit/Share
)28611137	Lewis Group Ltd. Partnership	Industrial	None	1	SEWER	1
)28619292	Giftwares Co Inc	Industrial	None	1	SEWER	1
)28619407	Specialty Chemical Systems Inc	Industrial	None	1	SEWER	1
)28619759	Accumetrics Limited	Industrial	None	1	SEWER	1
)28619773	Accumetrics Limited	Industrial	None	1	SEWER	1
)28620339	Nelson's Ice Cream Inc.	Industrial	None	1	SEWER	1
)28620858	American Machine & Tool Co.	Industrial	None	1	SEWER	1
)29486532	A.C. Miller Concrete Company	Industrial	None	1	SEWER	1
)29651213	Borough of Royersford	Industrial	None	1	SEWER	1
)29709754	Royersford Spring Company	Industrial	None	1	SEWER	1
)29784885	Advanced Fluid Systems Inc	Industrial	None	1	SEWER	1
		11				

Cust No	Name	Customer Type	Group Code	Service No	Description	Unit/Share
)25581487	Sakal, Brian J	Residential	None	1	SEWER	1
)25581852	Barbara Berman Ricci	Residential	None	1	SEWER	1
)25590276	Tallman, William	Residential	None	1	SEWER	1
)25596441	Tarantino, Joseph	Residential	None	1	SEWER	1
)25635087	Benson, Merrill G	Residential	None	1	SEWER	1
)25760044	Blamey, Chad & Katrin	Residential	None	1	SEWER	1
)25762972	Whitmore, Andrew	Residential	None	1	SEWER	1
)25807684	Mecca, Jessica	Residential	None	1	SEWER	1
)25824139	Gerber, Jenna	Residential	None	1	SEWER	1
)25859012	Creciun, Peter	Residential	None	1	SEWER	1
)25869156	Seiders, Lester & Monica	Residential	None	1	SEWER	1
)25879108	Chesterview Apartments	Residential	None	1	SEWER	1
)25930898	US Bank NA	Residential	None	1	SEWER	1
)25948684	Findley, Nicole M	Residential	None	1	SEWER	1
)25987108	Craft, Elena	Residential	None	1	SEWER	1
)26021179	John McDonald & Karlyn Eyre	Residential	None	1	SEWER	1
)26043841	Blanche, Camile	Residential	None	1	SEWER	1
)26160869	Hirst, Sharon A	Residential	None	1	SEWER	1
)26161459	John Marlatt & Rebecca Gardner	Residential	None	1	SEWER	1
)26204967	Niemczuk, Joseph W	Residential	None	1	SEWER	1
)26223333	Weiss, Joseph	Residential	None	1	SEWER	1
)26239376	C&R Property Management LLC	Residential	None	1	SEWER	1
)26300278	Millard, Barry & Sheryl	Residential	None	1	SEWER	1
)26310954	Nevin, Sean	Residential	None	1	SEWER	1
)26326843	Davis, Jeff	Residential	None	1	SEWER	1
)26340238	Jacobs, Jamie	Residential	None	1	SEWER	1
)26352002	Slifer, Richard	Residential	None	1	SEWER	1
)26353432	Lynch, Heather	Residential	None	1	SEWER	1
)26380250	Tallman, William	Residential	None	1	SEWER	1
)26381130	Stem, Matt & Heather	Residential	None	1	SEWER	1
)26403078	Petaccio, Andrea	Residential	None	1	SEWER	1
)26630702	O'Donnell, Kaitlyn	Residential	None	1	SEWER	1
)26660253	Ilyas, Asif	Residential	None	1	SEWER	1
)26713911	Hernandez, S & Murphy, M	Residential	None	1	SEWER	1
)26746591	Gieske and Niemann LLC	Residential	None	1	SEWER	1
)26875659	Speck, Erin	Residential	None	1	SEWER	1
)26880804	Raser, Randy	Residential	None	1	SEWER	1
)26909682	Perez, Waldemar & Aracelis	Residential	None	1	SEWER	1
)26969219	Macelwee-Todd, Lisa	Residential	None	1	SEWER	1
		1427				

Report Criteria:
Billing.Service No = 1
Customer.Customer Type = Residential

permitted under Law and the terms of any applicable contract that is a Nonassignable Asset, as agent or subcontractor for Seller, pay, perform and discharge the liabilities and obligations of Seller thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would be Assumed Liabilities if the applicable consent or approval had been obtained on or before the Closing Date and such Nonassignable Asset had been assigned to Buyer at Closing. To the extent permitted under Law, Seller shall hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Asset and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset in connection with the arrangements under this Article II.

(c) If, following the Effective Date and before the Closing, Buyer identifies any contract to which Seller is a party which is not set forth on Schedule 4.15, and Buyer reasonably determines such contract is necessary or useful to the operation of the System, Buyer shall notify Seller of such determination and Seller shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.15 reflecting the addition of such contract, and such contract will be an "Assigned Contract" for all purposes hereunder.

(d) If during the twelve (12) month period following the Closing, Buyer identifies any contract to which Seller was a party as of the Closing and which (i) was not set forth on Schedule 4.15 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary or useful to the operation of the System, Seller shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such contract to Buyer for no additional consideration, and upon such assignment, such contract is deemed an Assigned Contract for all purposes hereunder.

ARTICLE III.

PURCHASE PRICE

Section 3.01. Purchase Price. The purchase price for the Acquired Assets is Thirteen Million Dollars ($13,000,000) (the "Purchase Price") which Buyer shall pay as follows at Closing:

(a) Buyer shall provide for payment in full of the total amount of Outstanding Indebtedness directly to Seller's obligees on account of the Purchase Price;

(b) Buyer shall pay, subject to any adjustment pursuant to Section 3.01(c), to Seller by wire transfer of immediately available funds the balance of the Purchase Price (remaining after the debt repayment pursuant to Section 3.01(a)) to one or more accounts that Seller designates and provides to Buyer at least three (3) Business Days before the Closing Date; and

(c) Final Billing: The Buyer is entitled to all customer billings with respect to sanitary wastewater customers services for the period on or after the Closing Effective Time, and Seller is entitled to all such billings for the period before the Closing Effective Time. The Parties

Report Criteria:
Service.Service number = 10,16
Group Code.Group code = "A","B","C"
Customer.Final bill date = {IS NULL}
Billing.Temporary disconnect date = {IS NULL}
Billing.Final disconnect date = {IS NULL}

Customer Number	Customer Name	Service Address	Customer Type	Units
10				
UP Commercial				
18011257.01	POTTSTOWN 1257 INC	1257 N CHARLOTTE ST	UP Commercial	2
18011277.01	CONIGLIARO, VITO	1277 N CHARLOTTE ST	UP Commercial	1
18011293.01	BURGER KING #4651	1293 N CHARLOTTE ST	UP Commercial	8
24010861.02	DCM PROPERTY INVESTMENTS LLC	861 WILLOW ST	UP Commercial	1
24010929.01	CREATIVE HEALTH SERVICES	929 WILLOW ST	UP Commercial	4
25100799.01	FULTON FINANCIAL CORP	799 STATE ST - FULTON BANK	UP Commercial	1
41020175.02	POTTSTOWN PLAZA ASSOC C/O COTSWOLD GRO	RENT-A-CENTER #50	UP Commercial	2
41020177.02	POTTSTOWN PLAZA ASSOC C/O COTSWOLD GRO	DOLLAR ADVANTAGE	UP Commercial	2
41020178.02	POTTSTOWN PLAZA ASSOC C/O COTSWOLD GRO	RADIO SHACK #60	UP Commercial	2
41021066.01	GEORGE EVANS	1066 FARMINGTON AVE	UP Commercial	1
41021173.01	SHUKOWITSH, STEVEN & JESSICA	1173 FARMINGTON AVE	UP Commercial	1
41021189.01	ARTIM, ROBERT	1189 FARMINGTON AVE	UP Commercial	1
41021320.01	STROGUS, BARRY	1320 FARMINGTON AVE	UP Commercial	1
41021346.01	AMERICAN METAL FINISHERS	1346 FARMINGTON AVE	UP Commercial	1
41021359.02	BOWERS, TODD	1359 FARMINGTON AVE	UP Commercial	1
41021391.01	MCGINNIS, DENNIS	1361 FARMINGTON AVE	UP Commercial	1
41021393.01	SDM INVESTMENTS LLC	1393 FARMINGTON AVE	UP Commercial	1
41021403.01	ARTIMS AUTOMOTIVE INC	1403 FARMINGTON AVE	UP Commercial	2
41021446.02	1446 FARMINGTON AVE LLC	1446 FARMINGTON AVE	UP Commercial	4
41021507.01	RICHARDSON, GLORIA MAUGER & THOMAS	1507 FARMINGTON AVE	UP Commercial	1
41021525.01	YOUNG, SHANE & KATHY	1525 FARMINGTON AVE	UP Commercial	1
41021587.01	BURGYONE, BARRY	1587 FARMINGTON AVE	UP Commercial	1
Total UP Commercial:				
22				40
UP Mixed Use				
20010875.01	SJW PROPERTIES LLC	875 N HANOVER ST -salon & apts	UP Mixed Use	2
20010933.02	MCGONIGLE, MICHAEL	933 N HANOVER ST	UP Mixed Use	2
20010943.01	STRAUSS, PAUL	943 N HANOVER ST	UP Mixed Use	3
20010955.01	BRODI, GERALD & ELAINE	955 N HANOVER ST	UP Mixed Use	11
21070842.01	DAVIDHEISER, ALLEN & BEVERLY	842 FARMINGTON AVE	UP Mixed Use	1
24010940.01	TOLENTINO, ROBERT & ASUNCION	940 WILLOW ST	UP Mixed Use	3
41050013.01	OLOCK, ANDREW	941 N HANOVER ST	UP Mixed Use	4
Total UP Mixed Use:				
7				26
UP Public				
16030233.01	HOLY TRINITY ORTHODOX CHURCH	1256 JUNIPER ST	UP Public	1
20011351.01	POTTSGROVE SCHOOL DISTRICT - ADMIN BLDG	1351 N HANOVER ST - MULTI	UP Public	30
41230093.01	CHURCH OF LATTER - DAY SAINTS	93 MAUGERS MILL RD	UP Public	1
Total UP Public:				
3				32
UP Residential				
10140863.02	MILLS, LUCAS	863 FARMINGTON AVE	UP Residential	1
10140871.01	POLLOCK, ANTHONY FILLMAN & BRENDA	871 FARMINGTON AVE	UP Residential	1

Customer Number	Customer Name	Service Address	Customer Type	Units
42061525.02	HUTELMYER, JULIA & GREG	1525 CLOVERHILL RD	UP Residential	1
42071000.01	HEATH, TERENCE M & CATHERINE	1000 FALLBROOK LN	UP Residential	1
42071002.02	DAVIS, STEPHEN & KATHRYN	1002 FALLBROOK LN	UP Residential	1
42071004.02	GALLINA, GAETANO	1004 FALLBROOK LN	UP Residential	1
42071006.02	LIANG, JIE LIN & XIUYAN	1006 FALLBROOK LN	UP Residential	1
42071007.01	STEELE, CORTNEY & DANIEL	1007 FALLBROOK LN	UP Residential	1
42071008.02	FENOGLIO, CASEY & RICHARD	1008 FALLBROOK LN	UP Residential	1
42071009.02	SHAW, SCOTT & THERESA	1009 FALLBROOK LN	UP Residential	1
42071010.02	JOHNSON, FRANKLIN & KIMBERLY	1010 FALLBROOK LN	UP Residential	1
42071011.01	HUBBARD, ANNA	1011 FALLBROOK LN	UP Residential	1
42071012.02	DIXON, JULIAN & ERICA	1012 FALLBROOK LN	UP Residential	1
42071013.01	HARISH, BIDADI & LAKSHMI	1013 FALLBROOK LN	UP Residential	1
42071014.02	RICHARDSON, KATRINA	1014 FALLBROOK LN	UP Residential	1
42071015.02	DZIUNYCZ, MATTHEW & EMILY	1015 FALLBROOK LN	UP Residential	1
42071016.02	ISHLER, KARI KLAUS & MICHAEL	1016 FALLBROOK LN	UP Residential	1
42071017.03	CONNER IV, SAMUEL	1017 FALLBROOK LN	UP Residential	1
42071018.01	SHORT, CHRISTOPHER & RONNA	1018 FALLBROOK LN	UP Residential	1
42071019.01	MCPHILLIMEY, MARK & ANN KOREEN	1019 FALLBROOK LN	UP Residential	1
42071020.01	MCWILLIAMS, DAVID & LAURI	1020 FALLBROOK LN	UP Residential	1
42071021.01	RIZZETTO, NINA	1021 FALLBROOK LN	UP Residential	1
42071022.02	PASQUAL, MICHAEL & MARIA	1022 FALLBROOK LN	UP Residential	1
42071024.01	COLLINGS, MARK	1024 FALLBROOK LN	UP Residential	1
42071026.01	GAINES, NICOLE	1026 FALLBROOK LN	UP Residential	1
42071028.02	SPRING HILL REALTY	1028 FALLBROOK LN	UP Residential	1
42071030.03	HOUSEAL JR, JOSEPH & CARA	1030 FALLBROOK LN	UP Residential	1
42071032.03	DAILY, ALBERT & REGINA	1032 FALLBROOK LN	UP Residential	1
42071034.01	FELTENBERGER, CHAD & HEATHER	1034 FALLBROOK LN	UP Residential	1
42071036.02	SOLIVAN, GINA & ADRIAN	1036 FALLBROOK LN	UP Residential	1
42071038.03	THAO, DAVID	1038 FALLBROOK LN	UP Residential	1
42071040.01	JORGENSON, TRISHA & ERICK	1040 FALLBROOK LN	UP Residential	1
42071042.01	KROENING, TERRY	1042 FALLBROOK LN	UP Residential	1
42071044.01	SCHURR, JEFFREY KENT	1044 FALLBROOK LN	UP Residential	1
42071045.01	PURKAYASTHA, DEBASHISH & SUDDATTA	1045 FALLBROOK LN	UP Residential	1
42071046.03	WILLIS, FRANK & FAITH	1046 FALLBROOK LN	UP Residential	1
42071047.02	CONG, MY	1047 FALLBROOK LN	UP Residential	1
42071048.01	HAINES, LARRY & DONNA	1048 FALLBROOK LN	UP Residential	1
42071050.02	MIDDLETON, JAMES	1050 FALLBROOK LN	UP Residential	1
42071052.01	SEMETER, DANIEL	1052 FALLBROOK LN	UP Residential	1
42071513.04	ROMANO, DANIEL & SARA	1513 CLOVER HILL RD	UP Residential	1
42081600.02	GOMEZ, ODETTE	1600 APPLEGATE LN	UP Residential	1
42081601.01	RODRIGUEZ, RUTH & JUAN	1601 APPLEGATE LN	UP Residential	1
42081602.02	EGARIAN, CHRISTOPHER	1602 APPLEGATE LN	UP Residential	1
42081604.01	LAWLOR, CARL & LORETTA	1604 APPLEGATE LN	UP Residential	1
42081606.01	COHEN, SIDNEY & RUTH	1606 APPLEGATE LN	UP Residential	1
42081608.01	ROCHA, WILL & CARMEN	1608 APPLEGATE LN	UP Residential	1
42081609.01	EVANS, GARETH	1609 APPLEGATE LN	UP Residential	1
42081610.01	DUNKEL, CAROL	1610 APPLEGATE LN	UP Residential	1
42081611.02	SORG, GREGORY & TRICIA	1611 APPLEGATE LN	UP Residential	1
42081612.01	MANCINI, MICHAEL & AMIE	1612 APPLEGATE LN	UP Residential	1
42091501.02	HULL, KEVIN & AMY	1501 MAYWOOD LN	UP Residential	1
42091503.02	EPSTEIN, CARL & LINDA	1503 MAYWOOD LN	UP Residential	1
410512005.01	CUTLER, ROBERT & ELIZABETH	2005 PROUT FARM RD	UP Residential	
4102152012.01	SCHAEFFER, JACK & AUDREY	1520 FARMINGTON AVE	UP Residential	1
4152006901.01	BUCK, WILLIAM	69 MICKLITZ DR	UP Residential	1
Total UP Residential: 1,390				1429

Customer Number	Customer Name	Service Address	Customer Type	Units
Total 10:				
1,422				1527
16				
UP Commercial				
10140882.01	DICKENSON, CHARLES	882 FARMINGTON AVE	UP Commercial	2
10140902.01	CMD SERVICES INC	902 FARMINGTON AVE	UP Commercial	3
18011263.02	H & E PALERMO REAL ESTATE	1263 N CHARLOTTE ST	UP Commercial	2
20010863.01	SJW PROPERTIES LLC	871 N HANOVER ST -comm.bldg	UP Commercial	6
41020179.01	APPLEBEES RESTAURANT - ROSE CAS DIN LP	815 STATE ST	UP Commercial	30
41021495.01	KIM, JONG Y & YUN K	1495 FARMINGTON AVE	UP Commercial	3
Total UP Commercial:				
6				46
Total 16:				
6				46
Grand Totals:				
1,428				1573

Report Criteria:
Service.Service number = 10,16
Group Code.Group code = "A","B","C"
Customer.Final bill date = {IS NULL}
Billing.Temporary disconnect date = {IS NULL}
Billing.Final disconnect date = {IS NULL}

https://www.pottsmerc.com/news/upper-pottsgrove-votes-4-1-to-sell-sewer-system-for-13-7m/article_f8f493d8-8408-11ea-8425-07388a90f968.html

FEATURED

Upper Pottsgrove votes 4-1 to sell sewer system for $13.7M

Evan Brandt ebrandt@21st-centurymedia.com @PottstownNews on Twitter
Apr 22, 2020

Upper Pottsgrove Township Commissioner Martin Schreiber, framed in yellow, outlines his objections to the sale of the township's sewer collection system during Monday's online meeting.

Photo from Screenshot

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UPPER POTTSGROVE — Township Commissioners voted 4-1 Monday night to sell the township's sewer collection system for $13.75 million to Pennsylvania American Water.

Commissioners Martin Schreiber cast the lone vote against the sale.

As The Mercury reported on April 8, the presentation provided at four online informational sessions earlier in the month forecast that sewer rates would drop by about 9.6 percent under Pennsylvania American Water ownership.

However, the decrease — from the current $71.87 per month to $65 per month — would be short-lived, according to Bernie Grundusky, senior director for business development for the water company.

A chart he shared as part of the online meetings showed rates would return to the current rate in three or four years after the sale, and then increase annually by an average of 4.5 to 5.2 percent.

By comparison, the township's sewer rates, which have increased in a more haphazard fashion, average out to between 4.6 to 6 percent a year, according to the presentation.

Now that the sale has been approved, the average homeowner will save $1,260 between the time rates were dropped to when they return to their current level, according to the presentation.

The deal must still be approved by the Pennsylvania Public Utility Commission, a process that could take longer than a year to be finalized.

As a result of the vote, PFM Financial Advisors LLC will be paid more than $250,000.

As noted by Commissioners' Chairman Trace Slinkerd, who, prior to the vote, praised the consultants for taking a risk, if the commissioners had voted against the sale, PFM would have been paid only its $7,500 fee for preliminary work.

Scott Shearer, managing director of PFM, insisted during Monday's meeting that the firm "did not make a recommendation. We're not trying to sell this system."

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During the four public information sessions the township staged online, not one negative aspect of the sale was identified. Township Manager Michelle Reddick said the presentations were put together by PFM and the staff.

During those meetings, Slinkerd restricted all interaction to questions from residents, which were mostly answered by the consultants or township staff. He said public comments would be accepted at the April 20 meeting.

When that happened Monday night, the online meeting was attended by more than 50 people.

Eight residents spoke. All but one asked the commissioners to vote against the sale or, even more frequently, delay the vote until next month or later.

Many cited the fact that the Pennsylvania American Water's bid does not expire until June 30, and there is still time to answer residents' questions.

Don Read, a former member of the Pottstown Borough Authority and a current member of the township's sewer committee, was the only person to speak fully in favor of the sale.

As he did at the April 16 meeting, Read said the best reason to sell the system is the risk inherent in running it.

He said the potential capital costs of problems with sewer lines and pump stations, as well as capital costs imposed by the Pottstown Borough Authority, which runs the plant that receives and treats Upper Pottsgrove's sewage, are too big a financial risk for a four-person staff.

"The price is on the high side of what we projected," he said of the winning bid. The other bidder was Aqua America.

"What's another month going to do? It's frustrating to watch people come in at the last hour and ask for a delay," said Read.

He was referring, presumably, to other speakers who said they were unaware of the potential sale of the system until they received a township letter in the mail, a letter which arrived after the first two public information sessions had already occurred.

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"I am imploring you all to take an opportunity to table the vote until the May 20 meeting," said Turnberry Farms resident Stephanie Rowe.

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"This is beneficial in several ways, the first being it allows all residents to be able to digest and question this decision that seems to be on a fast track for a reason that has not been satisfied by any of the presentations that you allowed to happen with little or no response from the board — almost every question was deferred to either PFM or PA American Water," Rowe said.

Darryle Tillman, who appeared in scrubs while caring "for 104 patients, one third to one half of which have COVID-19," also urged a delay.

"This plan has its good points and its bad points, but it is ridiculous to do this in a Zoom meeting in the middle of a pandemic," he said in reference to the on-line platform used for the meeting.

Al Leach, who is also the vice president of the Pottsgrove School Board, also urged a pause.

"I'm sure you've all done your due diligence, but a lot of residents are just finding out about this and would like to see if they can get more involved," Leach said.

"There are a lot of questions that need to get answered, like how the board intends to spend the proceeds, and the open space question," he said.

Although the presentation has identified the proceeds as paying down the sewer system debt; making the pension system whole and paying off general fund and road fund debt, two other proposed uses have raised questions.

One is paying off debt undertaken by the open space fund, which is paid off with a voter-approved earned income tax; and infrastructure improvements to the police station and township offices in the firehouse.

No specific plan for those improvements has been presented as part of the sewer system sale proposal, said resident Doug Kern.

"We have no access to the paperwork, no ability to examine this ourselves," said Kern, who said he did not find out about the proposal until two of the public information sessions had already passed.

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"All I have is a bunch of slides, which changed after almost every meeting, and a lot of 'take-my-word-for-it-answers. It sounds like you have a 90-day window to make a decision," said Kern, urging a delay or a no vote.

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Dustin Schreiber said his research indicates American Water, the parent company of the high bidder, "is owned by a German conglomerate called RFWAG. I'd prefer we support an American company if we sell, and I'm not convinced we should sell."

Hanover Drive resident Keith Plumadore said he sees the sale as a short-term fix for the township's finances. "It's a temporary reprieve from amateur fiscal management. The township did a good job with the (request for proposals) but I see no evidence the township will execute and bring better fiscal governance with the proceeds."

"When I moved here in 2000, the commissioners and the people all worked together," said Leach. "I implore you to at least consider the idea of tabling this motion, It would be so easy to delay this vote so we can get all our ducks in a row and demonstrate transparency we always used to have in this community."

Slinkerd closed public comment and then called on Schreiber to outline the objections he has been posting on his Facebook page and the Turnberry Farms Facebook page.

However, as Schreiber spoke, Slinkerd repeatedly interrupted him, talked over him and told him his points were not relevant to the subject at hand.

"The sewer customers paid for the sewer, if they were stockholders, they should be getting a bonus check, they're getting the short end of the stick," said Schreiber.

"What about people who pay school taxes but don't have any children in the system," Slinkerd interjected. "Should they not be taxed?"

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The areas in green on this map of Upper Pottsgrove show the areas served by the township sewer system.

Official township sewer map

"Everyone has a chance to send to send students to school," Schreiber replied. "What about open space, Martin?" Slinkerd interrupted again. "That's paid with earned income tax, but seniors don't pay that. Should we put signs up telling them they can't use the open space?" Slinkerd asked.

"We taxed ourselves for that," Schreiber started to reply and Slinkerd pressed on. "We don't separate our residents into septic or sewer residents. Are you saying that's the way we should go?"

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As Schreiber tried to raise further points, Slinkerd continued to interrupt him. "That's what you've been doing, going down this rabbit hole trying to dislodge what we're talking about," Slinkerd said.

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"You keep trying to throw things at the wall at the 11th hour to see what sticks to make it seem like you did research," he continued. "You've had a year to think about this stuff."

"Are you going to let me finish?" Schreiber finally asked. "I never stopped you," Slinkerd replied, finally allowing Schreiber to speak uninterrupted.

The other commissioners, Dave Waldt, Cathy Paretti and Renee Spaide all were permitted to speak uninterrupted, except when Schrieber spoke, thinking Paretti was finished with her point.

He apologized for interrupting her and urged her to go on.

The other commissioners joined in disputing Schreiber's points.

Spaide, who has served on the board for many years with Schreiber, read from a prepared statement that noted, in part, "all the commissioners have been involved."

She said she agrees with Read that running the sewer system is a risk. "We have a road crew, not a sewer crew and Pennsylvania American Water does this for a living," said Spaide.

Waldt said he and Paretti "ran on concern about the township's finances. People were very unhappy." He disputed Schreiber's characterization that he was left out of discussions. "We've spent hours on the budget and I never see you. You never participate," said Waldt.

"Dave and I started to get to get acquainted with this while we were running," said Paretti. "We don't have any business running a sewer business. If we keep it, our taxes would rise and the rates would be higher than if we didn't own it."

She added, "I don't wait to be invited into things, I ask for the information I need."

When Schreiber tried to point out he had asked Reddick for information and it took two days to get an answer, the other commissioners leaped to her defense. "Michelle has a lot on her plate," said Paretti.

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"Michelle has done an outstanding job," said Slinkerd.

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Paretti pointed out that while people last night were complaining about having the meeting over Zoom, it had more participants than most in-person township meetings.

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"It's great to see so many people participate. This is not as many as we get at regular meetings. I've had people tell me they like this better," said Paretti. "You're never going to make everyone happy."

But even in a pandemic, "the one thing that can't stop is your government," Paretti said.

After the vote, Slinkerd said the next steps would be discussed at a future meeting.

This article first appeared as a post in The Digital Notebook blog.

> "All I have is a bunch of slides, which changed after almost every meeting, and a lot of 'take-my-word-for-it-answers."
>
> — Doug Kern, Upper Pottsgrove resident

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> — Don Read, Upper Pottsgrove Sewer Committee

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> "I am imploring you all to take an opportunity to table the vote until the May 20 meeting."
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> — Trace Slinkerd, Upper Pottsgrove Commissioners chairman

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Evan Brandt has been a staff reporter for The Mercury for more than 20 years. He covers municipal, school district, political, state government, federal government and environmental news.

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Va Township

Bill ID: 20-3-30 Bill Date: 03/30/2020 Due Date: 04/30/2020

Service	Charge	Rate	Current Charge	Prior Due	Total Billed	w\Penalty

Billing Summary By Class

Class	# of Units	# of Accounts	Consumption charges	Fixed charges	Special charges	Unit charges	Taxes	Prior Due	Total	Consumption
CH	0.00	6	$1,903.57	$0.00	$0.00	$0.00	$0.00	$588.17	$2,491.74	0.00
COM	0.00	119	$57,834.48	$0.00	$0.00	$0.00	$0.00	$4,543.43	$62,377.91	1,636.00
DAY	0.00	2	$2,006.87	$0.00	$0.00	$0.00	$0.00	$0.00	$2,006.87	0.00
IND	0.00	13	$11,785.09	$0.00	$0.00	$0.00	$0.00	-$967.10	$10,817.99	27.00
MH	0.00	4	$1,087.76	$0.00	$0.00	$0.00	$0.00	$1,003.61	$2,091.37	0.00
RES	1.00	3,022	$943,941.94	$0.00	$0.00	$0.00	$0.00	$224,214.75	$1,168,156.69	31,458.00
SCH	0.00	3	$4,074.10	$0.00	$0.00	$0.00	$0.00	$0.00	$4,074.10	338.00
Grand Totals	1.00		$1,022,633.81	$0.00	$0.00	$0.00	$0.00	$229,382.86	$1,252,016.67	33,459.00

	Metered Sewer	Sewer	Trash	Water	Total
CH	0.00 0 $0.00 0.00	0.00 6 $1463.00 0.00	0.00 6 $440.57 0.00	0.00 0 $0.00 0.00	0.00 6 $1903.57 0.00
COM	0.00 26 $9447.60 555.00	0.00 90 $41339.82 526.00	0.00 17 $1258.76 0.00	0.00 27 $5788.30 555.00	0.00 119 $57834.48 1,636.00
DAY	0.00 0 $0.00 0.00	0.00 2 $1881.00 0.00	0.00 1 $125.87 0.00	0.00 0 $0.00 0.00	0.00 2 $2006.87 0.00
IND	0.00 0 $0.00 0.00	0.00 12 $11495.00 0.00	0.00 1 $62.94 0.00	0.00 1 $227.15 27.00	0.00 13 $11785.09 27.00
MH	0.00 0 $0.00 0.00	0.00 4 $836.00 0.00	0.00 4 $251.76 0.00	0.00 0 $0.00 0.00	0.00 4 $1087.76 0.00

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Bill ID: 20-3-30 Bill Date: 03/30/2020 Due Date: 04/30/2020

Service Charge Rate Current Charge Prior Due Total Billed w\Penalty

	Metered Sewer	Sewer	Trash	Water	Total
RES	0.00 1,638 $326585.47 15,718.00	0.00 1,344 $274835.00 0.00	1.00 2,741 $178743.69 0.00	0.00 1,641 $163777.78 15,740.00	1.00 3,022 $943941.94 31,458.00
SCH	0.00 2 $2026.80 169.00	0.00 1 $627.00 0.00	0.00 0 $0.00 0.00	0.00 2 $1420.30 169.00	0.00 3 $4074.10 338.00
Total	0.00 1,666 $338059.87 16,442.00	0.00 1,459 $332476.82 526.00	1.00 2,770 $180883.59 0.00	0.00 1,671 $171213.53 16,491.00	1.00 3,169 $1022633.81 33,459.00

Billing Summary By District

District	Accounts	Consumption charges	Fixed charges	Special charges	Unit charges	Total Taxes	Prior Due	Total	Consumption
	98	$31,793.07	$0.00	$0.00	$0.00	$0.00	$7,493.77	$39,286.84	1,308.00
01	227	$89,098.00	$0.00	$0.00	$0.00	$0.00	$11,780.00	$100,878.00	5,375.00
02	180	$66,337.00	$0.00	$0.00	$0.00	$0.00	$7,045.26	$73,382.26	3,734.00
03	373	$140,804.30	$0.00	$0.00	$0.00	$0.00	$12,388.59	$153,192.89	8,152.00
04	128	$45,371.52	$0.00	$0.00	$0.00	$0.00	$3,462.92	$48,834.44	2,402.00
05	79	$29,618.51	$0.00	$0.00	$0.00	$0.00	$1,527.02	$31,145.53	1,676.00
06	507	$168,878.38	$0.00	$0.00	$0.00	$0.00	-$1,009.62	$167,868.76	7,332.00
A	522	$156,120.45	$0.00	$0.00	$0.00	$0.00	$53,216.98	$209,337.43	1,346.00
B	662	$191,212.44	$0.00	$0.00	$0.00	$0.00	$96,144.83	$287,357.27	1,172.00
C	364	$92,570.36	$0.00	$0.00	$0.00	$0.00	$36,930.04	$129,500.40	436.00
EF	9	$3,446.52	$0.00	$0.00	$0.00	$0.00	$91.36	$3,537.88	218.00
WC	20	$7,383.26	$0.00	$0.00	$0.00	$0.00	$311.71	$7,694.97	308.00
Grand Totals		$1,022,633.81	$0.00	$0.00	$0.00	$0.00	$229,382.86	$1,252,016.67	33,459.00

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(b) Until such time as a Nonassignable Asset is transferred to Buyer pursuant to this Article II, Buyer and Seller shall cooperate in any commercially reasonable and economically feasible arrangements (such as subleasing, sublicensing or subcontracting) to provide to the Parties the economic and, to the extent permitted under Law, operational equivalent of the transfer of such Nonassignable Asset to Buyer at the Closing and the performance by Buyer of its obligations with respect thereto, and so long as Seller transfers and turns over all economic and beneficial rights with respect to each such Nonassignable Asset, Buyer shall, to the extent permitted under Law and the terms of any applicable contract that is a Nonassignable Asset, as agent or subcontractor for Seller, pay, perform and discharge the liabilities and obligations of Seller thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would be Assumed Liabilities if the applicable consent or approval had been obtained on or before the Closing Date and such Nonassignable Asset had been assigned to Buyer at Closing. To the extent permitted under Law, Seller shall hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Asset and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset in connection with the arrangements under this Article II.

(c) If, following the Effective Date and before the Closing, Buyer identifies any contract to which Seller is a party which is not set forth on Schedule 4.13, and Buyer reasonably determines such contract is necessary or useful to the operation of the System, Buyer shall notify Seller of such determination and Seller shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.13 reflecting the addition of such contract, and such contract will be an "Assigned Contract" for all purposes hereunder.

(d) If during the twelve (12) month period following the Closing, Buyer identifies any contract to which Seller was a party as of the Closing and which (i) was not set forth on Schedule 4.13 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary or useful to the operation of the System, Seller shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such contract to Buyer for no additional consideration, and upon such assignment, such contract is deemed an Assigned Contract for all purposes hereunder.

ARTICLE III.

PURCHASE PRICE AND ADDITIONAL PURCHASE PRICE

Section 3.01. Purchase Price.
The purchase price for the Acquired Assets is Thirteen Million Nine Hundred Fifty Thousand Dollars ($13,950,000) (the "Purchase Price") which Buyer shall pay as follows at Closing:

(a) Buyer shall pay, subject to any adjustment pursuant to Section 3.01(b), to Seller by wire transfer of immediately available funds the Purchase Price (remaining after the payments required in Section 3.01(a)) to one or more accounts that Seller designates and provides to Buyer at least three (3) Business Days before the Closing Date; and

Va Township

Bill ID: 20-3-30 Bill Date: 03/30/2020 Due Date: 04/30/2020

Service	Charge	Rate	Current Charge	Prior Due	Total Billed	w\Penalty

Billing Summary By Class

Class	# of Units	# of Accounts	Consumption charges	Fixed charges	Special charges	Unit charges	Taxes	Prior Due	Total	Consumption
CH	0.00	6	$1,903.57	$0.00	$0.00	$0.00	$0.00	$588.17	$2,491.74	0.00
COM	0.00	119	$57,834.48	$0.00	$0.00	$0.00	$0.00	$4,543.43	$62,377.91	1,636.00
DAY	0.00	2	$2,006.87	$0.00	$0.00	$0.00	$0.00	$0.00	$2,006.87	0.00
IND	0.00	13	$11,785.09	$0.00	$0.00	$0.00	$0.00	-$967.10	$10,817.99	27.00
MH	0.00	4	$1,087.76	$0.00	$0.00	$0.00	$0.00	$1,003.61	$2,091.37	0.00
RES	1.00	3,022	$943,941.94	$0.00	$0.00	$0.00	$0.00	$224,214.75	$1,168,156.69	31,458.00
SCH	0.00	3	$4,074.10	$0.00	$0.00	$0.00	$0.00	$0.00	$4,074.10	338.00
Grand Totals	1.00		$1,022,633.81	$0.00	$0.00	$0.00	$0.00	$229,382.86	$1,252,016.67	33,459.00

	Metered Sewer	Sewer	Trash	Water	Total
CH	0.00 0 $0.00 0.00	0.00 6 $1463.00 0.00	0.00 6 $440.57 0.00	0.00 0 $0.00 0.00	0.00 6 $1903.57 0.00
COM	0.00 26 $9447.60 555.00	0.00 90 $41339.82 526.00	0.00 17 $1258.76 0.00	0.00 27 $5788.30 555.00	0.00 119 $57834.48 1,636.00
DAY	0.00 0 $0.00 0.00	0.00 2 $1881.00 0.00	0.00 1 $125.87 0.00	0.00 0 $0.00 0.00	0.00 2 $2006.87 0.00
IND	0.00 0 $0.00 0.00	0.00 12 $11495.00 0.00	0.00 1 $62.94 0.00	0.00 1 $227.15 27.00	0.00 13 $11785.09 27.00
MH	0.00 0 $0.00 0.00	0.00 4 $836.00 0.00	0.00 4 $251.76 0.00	0.00 0 $0.00 0.00	0.00 4 $1087.76 0.00

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Bill ID: 20-3-30 Bill Date: 03/30/2020 Due Date: 04/30/2020

Service Charge Rate Current Charge Prior Due Total Billed w\Penalty

	Metered Sewer	Sewer	Trash	Water	Total
RES	0.00 1,638 $326585.47 15,718.00	0.00 1,344 $274835.00 0.00	1.00 2,741 $178743.69 0.00	0.00 1,641 $163777.78 15,740.00	1.00 3,022 $943941.94 31,458.00
SCH	0.00 2 $2026.80 169.00	0.00 1 $627.00 0.00	0.00 0 $0.00 0.00	0.00 2 $1420.30 169.00	0.00 3 $4074.10 338.00
Total	0.00 1,666 $338059.87 16,442.00	0.00 1,459 $332476.82 526.00	1.00 2,770 $180883.59 0.00	0.00 1,671 $171213.53 16,491.00	1.00 3,169 $1022633.81 33,459.00

Billing Summary By District

District	Accounts	Consumption charges	Fixed charges	Special charges	Unit charges	Total Taxes	Prior Due	Total	Consumption
	98	$31,793.07	$0.00	$0.00	$0.00	$0.00	$7,493.77	$39,286.84	1,308.00
01	227	$89,098.00	$0.00	$0.00	$0.00	$0.00	$11,780.00	$100,878.00	5,375.00
02	180	$66,337.00	$0.00	$0.00	$0.00	$0.00	$7,045.26	$73,382.26	3,734.00
03	373	$140,804.30	$0.00	$0.00	$0.00	$0.00	$12,388.59	$153,192.89	8,152.00
04	128	$45,371.52	$0.00	$0.00	$0.00	$0.00	$3,462.92	$48,834.44	2,402.00
05	79	$29,618.51	$0.00	$0.00	$0.00	$0.00	$1,527.02	$31,145.53	1,676.00
06	507	$168,878.38	$0.00	$0.00	$0.00	$0.00	-$1,009.62	$167,868.76	7,332.00
A	522	$156,120.45	$0.00	$0.00	$0.00	$0.00	$53,216.98	$209,337.43	1,346.00
B	662	$191,212.44	$0.00	$0.00	$0.00	$0.00	$96,144.83	$287,357.27	1,172.00
C	364	$92,570.36	$0.00	$0.00	$0.00	$0.00	$36,930.04	$129,500.40	436.00
EF	9	$3,446.52	$0.00	$0.00	$0.00	$0.00	$91.36	$3,537.88	218.00
WC	20	$7,383.26	$0.00	$0.00	$0.00	$0.00	$311.71	$7,694.97	308.00
Grand Totals		$1,022,633.81	$0.00	$0.00	$0.00	$0.00	$229,382.86	$1,252,016.67	33,459.00

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and beneficial rights with respect to each such Nonassignable Asset, Buyer shall, to the extent permitted under Law and the terms of any applicable contract that is a Nonassignable Asset, as agent or subcontractor for Seller, pay, perform and discharge the liabilities and obligations of Seller thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would be Assumed Liabilities if the applicable consent or approval had been obtained on or before the Closing Date and such Nonassignable Asset had been assigned to Buyer at Closing. To the extent permitted under Law, Seller shall hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Asset and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset in connection with the arrangements under this Article II.

(c) If, following the Effective Date and before the Closing, Buyer identifies any contract to which Seller is a party which is not set forth on Schedule 4.13, and Buyer reasonably determines such contract is necessary or useful to the operation of the System, Buyer shall notify Seller of such determination and Seller shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.13 reflecting the addition of such contract, and such contract will be an "Assigned Contract" for all purposes hereunder.

(d) If during the twelve (12) month period following the Closing, Buyer identifies any contract to which Seller was a party as of the Closing and which (i) was not set forth on Schedule 4.13 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary or useful to the operation of the System, Seller shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such contract to Buyer for no additional consideration, and upon such assignment, such contract is deemed an Assigned Contract for all purposes hereunder.

ARTICLE III.

PURCHASE PRICE AND ADDITIONAL PURCHASE PRICE

Section 3.01. Purchase Price.

The purchase price for the Acquired Assets is Seven Million Three Hundred Twenty-Five Thousand Dollars ($7,325,000) (the "Purchase Price") which Buyer shall pay as follows at Closing:

(a) Buyer shall pay, subject to any adjustment pursuant to Section 3.01(b) and to release Liens, to Seller by wire transfer of immediately available funds the Purchase Price to one or more accounts that Seller designates and provides to Buyer at least three (3) Business Days before the Closing Date; and

(b) Final Billing: The Buyer is entitled to all customer billings with respect to drinking water customers services for the period on or after the Closing Effective Time, and Seller is entitled to all such billings for the period before the Closing Effective Time. The Parties

respect thereto, and so long as Seller or the City transfers and turns over all economic and beneficial rights with respect to each such Nonassignable Asset, Buyer shall, to the extent permitted under applicable Law and the terms of any applicable contract that constitutes a Nonassignable Asset, as agent or subcontractor for Seller or the City, pay, perform and discharge the Liabilities and obligations of Seller thereunder from and after the Closing Date, but only to the extent that such liabilities and obligations would constitute Assumed Liabilities if the applicable consent or approval had been obtained on or prior to the Closing Date and such Nonassignable Asset had been assigned to Buyer at Closing. To the extent permitted under applicable Law, Seller or the City shall, at Seller's or the City's expense, hold in trust for and pay to Buyer promptly upon receipt thereof, such Nonassignable Asset and all income, proceeds and other monies received by Seller with respect to such Nonassignable Asset in connection with the arrangements under this Article II.

(c) If, following the Effective Date and prior to the Closing, Buyer identifies any contract to which Seller or the City is a party which is not identified on Schedule 4.15 as an Assigned Contract as of the Effective Date, and Buyer reasonably determines such contract is necessary to the operation of the System, Buyer shall give notice of such determination to Seller or the City and Seller or the City shall, promptly following receipt of such notice, deliver to Buyer an updated Schedule 4.15 identifying such contract, and such contract shall thereafter constitute and be deemed an Assigned Contract for all purposes hereunder.

(d) In the event that, during the twelve (12) month period following the Closing, Buyer identifies any contract to which Seller or the City was a party as of the Closing and which (i) was not set forth on or properly identified on Schedule 4.15 (as may be updated pursuant to (c)) and (ii) Buyer reasonably believes is necessary to the operation of the System, Seller or the City shall, promptly following Buyer's written request therefor, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such other instruments of conveyance and transfer and other documents, and perform or cause to be performed such further acts, as may be reasonably required to evidence or effectuate, or more fully evidence or effectuate the assignment of such contract to Buyer for no additional consideration, and upon such assignment, such contract shall be deemed an Assigned Contract for all purposes hereunder.

ARTICLE III.

PURCHASE PRICE

Section 3.01 Purchase Price; Agreement Proposal Security.

(a) **Purchase Price for the Assets; Adjustment for City Deposit.** Subject to the terms and conditions of this Agreement, the purchase price ("**Purchase Price**") for the Acquired Assets shall be (i) $235,000,000, *plus* (ii) the Average Daily AR Payment. The Purchase Price shall be delivered as follows:

(i) Within 60 days of the Effective Date, Buyer shall deposit Twenty Million Dollars ($20,000,000) of the Purchase Price, payable to the City in immediately available funds ("**City Deposit**"), subject to Sections 4.03, 6.06, 9.05 and 13.02 and secured by the City with a tax and revenue anticipation note (the "**Deposit Note**") substantially in the form attached hereto as Exhibit A; and

Application of Pennsylvania-American Water Company for the Acquisition of the Wastewater Collection and Treatment System Owned by the York City Sewer Authority (the "Authority") and Operated by the City of York (the "City") (collectively "York")

66 Pa. C.S. § 1329
Application Filing Checklist – Water/Wastewater
Docket No. A-2021-3024681

17. Customers.

a. State the seller's actual number of customers by class and quantify the related consumption or gallons treated in the current calendar year and future number of connections anticipated for the next 10 years.

RESPONSE:

a. As of April 2021, York provided direct wastewater service to approximately 13,747 customers and seven bulk customers:

1. Manchester Township
2. West Manchester Township
3. York Township
4. North York Borough
5. The York Water Company (owner of the West York Borough Collection System)
6. Spring Garden Township
7. Springettsbury Township

The York does not differentiate by customer class.

Consumption (annual):

Based on 2020 monthly average flow data from the 2020 Chapter 94 Report, the annual gallon treated is 3,341,575,000 gallons, inclusive of the seven bulk customers' sewage.

Please refer to **Appendix A-20-c,** Chapter 94 Report for future EDU projections.

Appendix A-17-a

system at an agreed-upon price of $53,000,000.[9] Thereafter, Aqua and the Township agreed to use the process presented in Section 1329 of the Code to determine the FMV of the wastewater system assets and the ratemaking rate base. As required by Section 1329, Aqua and LMT jointly retained the services of Ebert Engineering, Inc., Consulting Engineers (Ebert) to complete the engineering assessment and original cost estimate of the wastewater system (Assessment of Tangible Property). Aqua St. 1 at 20; Application at ¶ 11. Aqua selected Gannett Fleming, and the Township selected AUS, as their respective UVEs to prepare FMV appraisals of the wastewater system. Application at ¶ 53. Gannett Fleming's FMV report concluded that the value of the wastewater system was $55,505,000; AUS' FMV was $54,430,591. Application Exhs. Q and R. Both appraisals were prepared in compliance with the USPAP standards. Application at ¶ 61; Application Exhs. T1 and T2.

In its Application, Aqua proposed a ratemaking rate base of $53,000,000 based on the agreed-to purchase price of $53,000,000. This amount is less than the average of the two UVE appraisals for the wastewater system (($55,505,000 + $54,430,591)/2 = $54,967,796). OCA M.B. at 6; *See* 66 Pa. C.S. § 1329(c)(2).

In addition, Aqua is seeking approval of the APA with LMT. Application Exh. B. The APA requires Aqua to implement rates that are no higher than the Township's rates in effect at closing. Application Exh. B at Section 7.04. The APA also provides that Aqua intends to bill customers on a monthly basis instead of an annual basis. *Id*. Moreover, in accordance with Section 1102 of the Code, Aqua is requesting a Certificate in order to provide wastewater services to the Township customers. Application at ¶ 5. Separate customer notices were sent to the Township customers and

[9] All assets are located in the Township except for a portion of a main that collects wastewater from a small segment of residents in Yardley Borough. The main is located on University Blvd. and is owned by LMT which loops into, then out of, Yardley Borough. The residents in Yardley Borough that are connected to this main are billed by Yardley Borough. Application at 3.

adopted without comment unless they are either expressly or by necessary implication rejected or modified by this Opinion and Order.

As we proceed in our review of the various positions of the Parties in this proceeding, we are reminded that the Commission is not required to consider expressly or at length each contention or argument raised by the parties. *Consolidated Rail Corp. v. Pa. PUC*, 625 A.2d 741 (Pa. Cmwlth. 1993); *also see, generally, University of Pennsylvania v. Pa. PUC*, 485 A.2d 1217 (Pa. Cmwlth. 1984). Exceptions that we do not specifically address shall be deemed to have been duly considered and denied without further discussion.

III. Transaction Overview

Aqua is a certificated provider of wastewater service, duly organized and existing under the laws of the Commonwealth of Pennsylvania. Aqua provides wastewater service to approximately 45,000 customer accounts in various counties throughout Pennsylvania including parts of Bucks County. Application at ¶ 7.

LMT owns a sanitary wastewater collection system operated by the Municipal Sewer Authority of the Township of Lower Makefield, which provides direct wastewater service to 11,151 customers in the Township. Application at ¶ 8; Aqua St. 2 at 10. LMT does not own a wastewater treatment plant. Wastewater treatment is mainly provided by the Municipal Authority of the Borough of Morrisville and also by Yardley Borough Sewer Authority. Application at ¶ 15.

On September 17, 2020, Aqua and LMT entered into an APA for the sale of substantially all of the assets, properties, and rights related to the Township's wastewater

II. Transaction Overview

Aqua is a certificated provider of wastewater service, duly organized and existing under the laws of the Commonwealth of Pennsylvania. Aqua provides wastewater service to approximately 45,000 customer accounts in various counties throughout Pennsylvania, including parts of Chester County and within the Township itself, and currently operates thirty-nine wastewater treatment plants. Application at ¶ 7; Aqua St. 1 at 8-9.

EWT is a Pennsylvania Second Class township, which owns the sanitary wastewater collection system (the System) providing sanitary wastewater service to approximately 3,895 customers in EWT. Application at ¶ 8. Although EWT owns the Malvern Hunt Wastewater Treatment Plant (WWTP), wastewater treatment is mainly provided by the Valley Forge Sewer Authority (VFSA).[3] Application at ¶ 15.

On January 8, 2021, Aqua and EWT entered into an APA for the sale of the assets, properties, and rights related to the Township's System at an agreed-upon price of $54,930,000. Thereafter, Aqua and the Township agreed to use the process presented in Section 1329 of the Code to determine the fair market value (FMV) of the System assets and the ratemaking rate base. As required by Section 1329, Aqua and EWT jointly retained the services of Pennoni Associates, Inc. (Pennoni) to complete the engineering assessment and original cost estimate of the System (Engineering Assessment).

[3] In the Application, Aqua stated that Malvern Hunt WWTP was in the process of being decommissioned and converted to a pump station. Following the decommissioning, all wastewater flows will be treated at the VFSA WWTP. EWT, in addition, collects/conveys flow to/from its system from the Borough of Malvern, Tredyffrin Township, Charlestown Township, and Willistown Township, which then flows for treatment at the VFSA. EWT also has several areas of its system that are on the border between EWT and East Goshen Township. While EWT owns the facilities within its borders, flows from these customers are sent to the East Goshen Municipal Authority (EGMA) WWTP. Aqua St. 2 at 5-6.

Willistown is a Pennsylvania Second Class township, which owns the sanitary wastewater collection and treatment system (the System) providing sanitary wastewater service to approximately 2,294 customers in Willistown. Application at ¶ 8. Although Willistown owns one wastewater treatment plant (WWTP), Penn's Preserve, which treats wastewater to a small community system, wastewater treatment is mainly provided by the Valley Forge Sewer Authority (VFSA).[5] Application at ¶ 15.

On January 20, 2021, Aqua and Willistown entered into an APA for the sale of the assets, properties, and rights related to the Township's wastewater system at an agreed-upon price of $17,500,000. Thereafter, Aqua and the Township agreed to use the process presented in Section 1329 of the Code to determine the FMV of the wastewater system assets and the ratemaking rate base. As required by Section 1329, Aqua and Willistown jointly retained the services of Pennoni Associates, Inc. (Pennoni) to complete the engineering assessment and original cost estimate of the System (Engineering Assessment). Aqua St. 1 at 19; Application at ¶ 11. Aqua selected Gannett Fleming, and the Township selected AUS, as their respective Utility Valuation Engineers (UVEs) to prepare FMV appraisals of the System. Application at ¶ 53. Gannett Fleming's FMV report concluded that the value of the System was $25,612,805; AUS' FMV was $19,113,140. Application Exhs. Q and R, respectively.[6, 7] Both appraisals were prepared in compliance with the Uniform Standards of Professional Appraisal Practice (USPAP) standards. Application at ¶ 61; Application Exhs. T1 and T2.

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[5] Willistown accepts flows into the System from users on the borders of Willistown, including from neighboring municipalities: Borough of Malvern (Malvern), East Goshen Township (East Goshen), and East Whiteland Township (EWT). While most flows from these users flow to the VFSA WWTP for treatment, some flows sent to East Goshen are treated at the East Goshen Municipal Authority (EGMA) Ridley Creek WWTP or the West Goshen Sewer Authority (WGSA) WWTP. Aqua St. 2 at 5-6.

[6] Application Exhibit Q, Gannett Fleming Fair Market Value Appraisal Report (hereinafter "Application Exh. Q" or "Gannett Fleming FMV Appraisal").

[7] Aqua Application, Exhibit R, AUS Fair Market Value Appraisal Report (hereinafter "Application Exh. R" or "AUS FMV Appraisal").

TOWAMENCIN TOWNSHIP
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
DECEMBER 31, 2018

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
ASSETS			
Cash and cash equivalents	$ 1,713,149	$ 2,617,984	$ 4,331,133
Investments	245,000	-	245,000
Accounts receivable	513,604	-	513,604
Due from other funds	-	56,226	56,226
Capital assets	36,372	823,864	860,236
Accumulated depreciation	(36,372)	(72,087)	(108,459)
TOTAL ASSETS	$ 2,471,753	$ 3,425,987	$ 5,897,740
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable and accrued expenses	$ 17,795	$ 997	$ 18,792
Current portion of note payable	112,000	-	112,000
TOTAL CURRENT LIABILITIES	129,795	997	130,792
NONCURRENT LIABILITIES			
Long-term note payable	1,970,000	-	1,970,000
TOTAL LIABILITIES	2,099,795	997	2,100,792
NET POSITION			
Net investment in capital assets	-	751,777	751,777
Unrestricted	371,958	2,673,213	3,045,171
TOTAL NET POSITION	371,958	3,424,990	3,796,948
TOTAL LIABILITIES AND NET POSITION	$ 2,471,753	$ 3,425,987	$ 5,897,740

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2018

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
OPERATING REVENUES			
Sewer rents	$ 5,150,424	$ -	$ 5,150,424
Connection fees	-	6,993	6,993
Other	916	-	916
TOTAL OPERATING REVENUES	5,151,340	6,993	5,158,333
OPERATING EXPENSES			
Sewage disposal	3,385,615	143,204	3,528,819
Administration	12,922	23,990	36,912
Repairs and maintenance	786	-	786
TOTAL OPERATING EXPENSES	3,399,323	167,194	3,566,517
OPERATING INCOME (LOSS) BEFORE DEPRECIATION	1,752,017	(160,201)	1,591,816
DEPRECIATION	-	20,596	20,596
OPERATING INCOME (LOSS)	1,752,017	(180,797)	1,571,220
NONOPERATING REVENUES (EXPENSES)			
Investment income	35,740	1,242	36,982
Interest expense	(45,220)	-	(45,220)
TOTAL NONOPERATING REVENUES (EXPENSES)	(9,480)	1,242	(8,238)
OTHER FINANCING SOURCES (USES)			
Operating transfers out	(2,072,200)	(176,000)	(2,248,200)
Operating transfers in	-	1,000,000	1,000,000
TOTAL OTHER FINANCING SOURCES (USES)	(2,072,200)	824,000	(1,248,200)
CHANGE IN NET POSITION	(329,663)	644,445	314,782
NET POSITION AT BEGINNING OF YEAR	701,621	2,780,545	3,482,166
NET POSITION AT END OF YEAR	$ 371,958	$ 3,424,990	$ 3,796,948

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2018

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
CASH FLOWS FROM OPERATING ACTIVITIES			
Receipts from customers	$ 5,424,898	$ 6,993	$ 5,431,891
Payments to suppliers and others	(3,391,346)	(173,369)	(3,564,715)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	2,033,552	(166,376)	1,867,176
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES			
Transfers (to)/from other funds	(2,072,200)	824,000	(1,248,200)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES			
Principal paid on note payable	(109,000)	-	(109,000)
Interest paid on note payable	(45,220)	-	(45,220)
NET CASH USED BY CAPITAL AND RELATED FINANCING ACTIVITIES	(154,220)	-	(154,220)
CASH FLOWS FROM INVESTING ACTIVITIES			
Investment income	35,740	1,242	36,982
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(157,128)	658,866	501,738
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	1,870,277	1,959,118	3,829,395
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 1,713,149	$ 2,617,984	$ 4,331,133
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES			
Operating income (loss)	$ 1,752,017	$ (180,797)	$ 1,571,220
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities			
Depreciation	-	20,596	20,596
Change in assets and liabilities			
Accounts receivable	273,558	-	273,558
Accounts payable and accrued expenses	7,977	(6,175)	1,802
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ 2,033,552	$ (166,376)	$ 1,867,176

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
DECEMBER 31, 2019

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
ASSETS			
Cash and cash equivalents	$ 1,540,895	$ 3,318,470	$ 4,859,365
Investments	245,000	-	245,000
Accounts receivable	539,951	20,163	560,114
Due from other funds	-	56,226	56,226
Capital assets	36,372	823,864	860,236
Accumulated depreciation	(36,372)	(92,683)	(129,055)
TOTAL ASSETS	$ 2,325,846	$ 4,126,040	$ 6,451,886
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable and accrued expenses	$ 29,997	$ 87,826	$ 117,823
Current portion of note payable	115,000	-	115,000
TOTAL CURRENT LIABILITIES	144,997	87,826	232,823
NONCURRENT LIABILITIES			
Long-term note payable	1,855,000	-	1,855,000
TOTAL LIABILITIES	1,999,997	87,826	2,087,823
NET POSITION			
Net investment in capital assets	-	731,181	731,181
Unrestricted	325,849	3,307,033	3,632,882
TOTAL NET POSITION	325,849	4,038,214	4,364,063
TOTAL LIABILITIES AND NET POSITION	$ 2,325,846	$ 4,126,040	$ 6,451,886

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2019

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
OPERATING REVENUES			
Sewer rents	$ 5,503,864	$ -	$ 5,503,864
Connection fees	-	21,068	21,068
Operating grants and contributions	-	15,177	15,177
Other	4,792	-	4,792
TOTAL OPERATING REVENUES	5,508,656	36,245	5,544,901
OPERATING EXPENSES			
Sewage disposal	3,438,146	156,077	3,594,223
Administration	18,253	6,869	25,122
Repairs and maintenance	-	-	-
TOTAL OPERATING EXPENSES	3,456,399	162,946	3,619,345
OPERATING INCOME (LOSS) BEFORE DEPRECIATION	2,052,257	(126,701)	1,925,556
DEPRECIATION	-	20,596	20,596
OPERATING INCOME (LOSS)	2,052,257	(147,297)	1,904,960
NONOPERATING REVENUES (EXPENSES)			
Investment income	47,331	1,521	48,852
Interest expense	(45,697)	-	(45,697)
TOTAL NONOPERATING REVENUES (EXPENSES)	1,634	1,521	3,155
OTHER FINANCING SOURCES (USES)			
Operating transfers out	(2,100,000)	(176,000)	(2,276,000)
Operating transfers in	-	935,000	935,000
TOTAL OTHER FINANCING SOURCES (USES)	(2,100,000)	759,000	(1,341,000)
CHANGE IN NET POSITION	(46,109)	613,224	567,115
NET POSITION AT BEGINNING OF YEAR	371,958	3,424,990	3,796,948
NET POSITION AT END OF YEAR	$ 325,849	$ 4,038,214	$ 4,364,063

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2019

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
CASH FLOWS FROM OPERATING ACTIVITIES			
Receipts from customers	$ 5,482,309	$ 16,082	$ 5,498,391
Payments to suppliers and others	(3,444,197)	(76,117)	(3,520,314)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	2,038,112	(60,035)	1,978,077
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES			
Transfers (to)/from other funds	(2,100,000)	759,000	(1,341,000)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES			
Principal paid on note payable	(112,000)	-	(112,000)
Interest paid on note payable	(45,697)	-	(45,697)
NET CASH USED BY CAPITAL AND RELATED FINANCING ACTIVITIES	(157,697)	-	(157,697)
CASH FLOWS FROM INVESTING ACTIVITIES			
Investment income	47,331	1,521	48,852
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(172,254)	700,486	528,232
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	1,713,149	2,617,984	4,331,133
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 1,540,895	$ 3,318,470	$ 4,859,365
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES			
Operating income (loss)	$ 2,052,257	$ (147,297)	$ 1,904,960
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities			
Depreciation	-	20,596	20,596
Change in assets and liabilities			
Accounts receivable	(26,347)	(20,163)	(46,510)
Accounts payable and accrued expenses	12,202	86,829	99,031
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ 2,038,112	$ (60,035)	$ 1,978,077

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
DECEMBER 31, 2020

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
ASSETS			
Cash and cash equivalents	$ 2,387,575	$ 1,933,494	$ 4,321,069
Accounts receivable	626,020	58,558	684,578
Due from other funds	-	39,358	39,358
Capital assets	36,372	823,864	860,236
Accumulated depreciation	(36,372)	(113,279)	(149,651)
TOTAL ASSETS	$ 3,013,595	$ 2,741,995	$ 5,755,590
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable and accrued expenses	$ 3,200	$ 15,437	$ 18,637
Current portion of note payable	132,000	-	132,000
TOTAL CURRENT LIABILITIES	135,200	15,437	150,637
NONCURRENT LIABILITIES			
Long-term note payable	1,708,000	-	1,708,000
TOTAL LIABILITIES	1,843,200	15,437	1,858,637
NET POSITION			
Net investment in capital assets	-	710,585	710,585
Unrestricted	1,170,395	2,015,973	3,186,368
TOTAL NET POSITION	1,170,395	2,726,558	3,896,953
TOTAL LIABILITIES AND NET POSITION	$ 3,013,595	$ 2,741,995	$ 5,755,590

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN NET POSITION
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2020

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
OPERATING REVENUES			
Sewer rents	$ 5,631,315	$ -	$ 5,631,315
Connection fees	-	72,494	72,494
Operating grants and contributions	-	43,381	43,381
TOTAL OPERATING REVENUES	5,631,315	115,875	5,747,190
OPERATING EXPENSES			
Sewage disposal	3,653,723	109,259	3,762,982
Administration	28,000	33,091	61,091
TOTAL OPERATING EXPENSES	3,681,723	142,350	3,824,073
OPERATING INCOME (LOSS) BEFORE DEPRECIATION	1,949,592	(26,475)	1,923,117
DEPRECIATION	-	20,596	20,596
OPERATING INCOME (LOSS)	1,949,592	(47,071)	1,902,521
NONOPERATING REVENUES (EXPENSES)			
Investment income	15,041	3,913	18,954
Interest expense	(26,268)	-	(26,268)
TOTAL NONOPERATING REVENUES (EXPENSES)	(11,227)	3,913	(7,314)
OTHER FINANCING SOURCES (USES)			
Operating transfers out	(1,093,819)	(1,268,498)	(2,362,317)
CHANGE IN NET POSITION	844,546	(1,311,656)	(467,110)
NET POSITION AT BEGINNING OF YEAR	325,849	4,038,214	4,364,063
NET POSITION AT END OF YEAR	$ 1,170,395	$ 2,726,558	$ 3,896,953

See accompanying notes to the basic financial statements.

TOWAMENCIN TOWNSHIP
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
YEAR ENDED DECEMBER 31, 2020

	Sewer Fund	Sewer Capital Fund	Total Proprietary Funds
CASH FLOWS FROM OPERATING ACTIVITIES			
Receipts from customers	$ 5,545,246	$ 94,348	$ 5,639,594
Payments to suppliers and others	(3,708,520)	(214,739)	(3,923,259)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	1,836,726	(120,391)	1,716,335
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES			
Transfers (to)/from other funds	(1,093,819)	(1,268,498)	(2,362,317)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES			
Principal paid on note payable	(130,000)	-	(130,000)
Interest paid on note payable	(26,268)	-	(26,268)
NET CASH USED BY CAPITAL AND RELATED FINANCING ACTIVITIES	(156,268)	-	(156,268)
CASH FLOWS FROM INVESTING ACTIVITIES			
Sale of investments	245,000	-	245,000
Investment income	15,041	3,913	18,954
NET CASH PROVIDED BY INVESTING ACTIVITIES	260,041	3,913	263,954
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	846,680	(1,384,976)	(538,296)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	1,540,895	3,318,470	4,859,365
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 2,387,575	$ 1,933,494	$ 4,321,069
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES			
Operating income (loss)	$ 1,949,592	$ (47,071)	$ 1,902,521
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities			
Depreciation	-	20,596	20,596
Change in assets and liabilities			
Accounts receivable	(86,069)	(38,395)	(124,464)
Due from other funds	-	16,868	16,868
Accounts payable and accrued expenses	(26,797)	(72,389)	(99,186)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ 1,836,726	$ (120,391)	$ 1,716,335

See accompanying notes to the basic financial statements.

The annual debt service requirements to maturity, including principal and interest, for long-term debt, as of December 31, 2020, are as follows:

Year Ending December 31,	Governmental Activities		
	Principal	Interest	Totals
2021	$ 1,543,000	$ 191,839	$ 1,734,839
2022	1,570,000	165,471	1,735,471
2023	1,596,000	138,630	1,734,630
2024	1,624,000	111,330	1,735,330
2025	1,651,000	83,538	1,734,538
2026-2030	3,160,000	218,637	3,378,637
2031-2034	946,000	32,749	978,749
	$ 12,090,000	$ 942,194	$ 13,032,194

Year Ending December 31,	Business-Type Activities		
	Principal	Interest	Totals
2021	$ 132,000	$ 21,289	$ 153,289
2022	133,000	19,762	152,762
2023	135,000	18,223	153,223
2024	136,000	16,661	152,661
2025	138,000	15,087	153,087
2026-2030	716,000	51,093	767,093
2031-2034	450,000	10,460	460,460
	$ 1,840,000	$ 152,575	$ 1,992,575

NOTE G - LONG-TERM DEBT (Continued)

Year	Component Unit - Towamencin Municipal Authority		
	Principal	Interest	Totals
2021	$ 436,000	$ 154,091	$ 590,091
2022	445,000	144,834	589,834
2023	455,000	135,375	590,375
2024	464,000	125,719	589,719

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF NET POSITION
DECEMBER 31, 2018 AND 2017

	2018	2017
ASSETS		
Cash	$ 519,027	$ 580,881
Cash restricted for capital improvements	1,951,477	126,324
Accounts receivable	13,755	6,949
Property, plant and equipment, net of accumulated depreciation of $33,319,398 (2018) and $32,020,778 (2017)	24,790,287	25,030,038
TOTAL ASSETS	$ 27,274,546	$ 25,744,192
LIABILITIES AND NET POSITION		
LIABILITIES		
Note payable	$ 8,431,000	$ 5,997,523
Accounts payable	24,477	44,450
Accrued expenses	21,798	21,973
Accrued operating service charge adjustment	83,081	119,013
Developers' escrow	4,517	4,581
TOTAL LIABILITIES	8,564,873	6,187,540
NET POSITION		
Net investment in capital assets	16,359,287	19,032,515
Restricted for capital expenditures	1,951,477	126,324
Unrestricted	398,909	397,813
TOTAL NET POSITION	18,709,673	19,556,652
TOTAL LIABILITIES AND NET POSITION	$ 27,274,546	$ 25,744,192

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
OPERATING REVENUES		
Operating service charges		
Towamencin Township	$ 2,638,285	$ 2,388,445
Sludge removal reimbursements	228,250	-
Annual year-end adjustment	35,932	136,334
TOTAL OPERATING REVENUES	2,902,467	2,524,779
OPERATING EXPENSES		
Administration	285,628	219,306
Physical plant/general	516,538	498,823
Operations	1,246,350	1,063,693
Maintenance	871,727	743,598
TOTAL OPERATING EXPENSES	2,920,243	2,525,420
OPERATING LOSS BEFORE DEPRECIATION	(17,776)	(641)
DEPRECIATION	1,298,621	1,273,567
OPERATING LOSS	(1,316,397)	(1,274,208)
NONOPERATING REVENUES (EXPENSES)		
Capital service charges	578,301	522,921
Interest income	17,777	641
Interest expense	(139,301)	(92,921)
TOTAL NONOPERATING REVENUES (EXPENSES)	456,777	430,641
LOSS BEFORE CAPITAL CONTRIBUTIONS	(859,620)	(843,567)
CAPITAL CONTRIBUTIONS	12,640	218,887
CHANGE IN NET POSITION	(846,980)	(624,680)
NET POSITION AT BEGINNING OF YEAR	19,556,653	20,181,333
NET POSITION AT END OF YEAR	$ 18,709,673	$ 19,556,653

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers and users	$ 2,859,729	$ 2,396,562
Payments to suppliers	(1,257,999)	(1,190,109)
Payments to employees, including fringe benefits and payroll taxes	(1,682,455)	(1,393,295)
NET CASH USED BY OPERATING ACTIVITIES	(80,725)	(186,842)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Borrowings on infrastructure note	2,872,477	1,868,320
Capital service charges	578,301	522,921
Capital contributions	12,640	218,887
Purchases of capital assets	(1,058,870)	(2,534,002)
Principal paid on debt	(439,000)	(430,000)
Interest paid on debt	(139,301)	(92,921)
NET CASH PROVIDED (USED) BY CAPITAL AND RELATED FINANCING ACTIVITIES	1,826,247	(446,795)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest received	17,777	641
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	1,763,299	(632,996)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	707,205	1,340,201
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 2,470,504	$ 707,205
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES		
Operating loss	$ (1,316,397)	$ (1,274,208)
Adjustments to reconcile operating loss to net cash used by operating activities		
Depreciation	1,298,621	1,273,567
(Increase) decrease in accounts receivable	(6,806)	8,117
Increase (decrease) in		
Accounts payable	(19,972)	(55,329)
Accrued expenses	(175)	(3,365)
Accrued operating service charge adjustment	(35,932)	(117,906)
Developers' escrow	(64)	710
NET CASH USED BY OPERATING ACTIVITIES	$ (80,725)	$ (168,414)

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018

	2019	2018
ASSETS		
Cash	$ 511,798	$ 519,027
Cash restricted for capital improvements	1,610,953	1,951,477
Accounts receivable	23,590	13,755
Property, plant and equipment, net of accumulated depreciation of $34,630,765 (2019) and $33,319,398 (2018)	24,010,273	24,790,287
TOTAL ASSETS	$ 26,156,614	$ 27,274,546
LIABILITIES AND NET POSITION		
LIABILITIES		
Current liabilities		
Note payable	$ 427,000	$ 447,000
Accounts payable	183,296	24,477
Accrued expenses	22,209	21,798
Accrued operating service charge adjustment	86,506	83,081
Developers' escrow	4,517	4,517
Noncurrent liabilities		
Note payable	7,599,000	7,984,000
TOTAL LIABILITIES	8,322,528	8,564,873
NET POSITION		
Net investment in capital assets	15,984,273	16,359,287
Restricted for capital expenditures	1,610,953	1,951,477
Unrestricted	238,860	398,909
TOTAL NET POSITION	17,834,086	18,709,673
TOTAL LIABILITIES AND NET POSITION	$ 26,156,614	$ 27,274,546

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
OPERATING REVENUES		
Operating service charges		
Towamencin Township	$ 2,681,254	$ 2,638,285
Sludge removal reimbursements	217,143	228,250
Annual year-end adjustment	(3,425)	35,932
TOTAL OPERATING REVENUES	2,894,972	2,902,467
OPERATING EXPENSES		
Administration	318,012	285,628
Physical plant/general	475,829	516,538
Operations	1,274,397	1,246,350
Maintenance	854,626	871,727
TOTAL OPERATING EXPENSES	2,922,864	2,920,243
OPERATING LOSS BEFORE DEPRECIATION	(27,892)	(17,776)
DEPRECIATION	1,311,367	1,298,621
OPERATING LOSS	(1,339,259)	(1,316,397)
NONOPERATING REVENUES (EXPENSES)		
Capital service charges	621,330	578,301
Interest income	27,892	17,777
Interest expense	(174,330)	(139,301)
Issuance costs	(42,000)	-
TOTAL NONOPERATING REVENUES (EXPENSES)	432,892	456,777
LOSS BEFORE CAPITAL CONTRIBUTIONS	(906,367)	(859,620)
CAPITAL CONTRIBUTIONS	30,780	12,640
CHANGE IN NET POSITION	(875,587)	(846,980)
NET POSITION AT BEGINNING OF YEAR	18,709,673	19,556,653
NET POSITION AT END OF YEAR	$ 17,834,086	$ 18,709,673

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers and users	$ 2,888,561	$ 2,859,729
Payments to suppliers	(1,234,049)	(1,257,999)
Payments to employees, including fringe benefits and payroll taxes	(1,529,584)	(1,682,455)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	124,928	(80,725)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Borrowings on infrastructure note	-	2,872,477
Capital service charges	621,330	578,301
Capital contributions	30,780	12,640
Purchases of capital assets	(531,353)	(1,058,870)
Principal paid on debt	(447,000)	(439,000)
Interest paid on debt	(174,330)	(139,301)
NET CASH PROVIDED (USED) BY CAPITAL AND RELATED FINANCING ACTIVITIES	(500,573)	1,826,247
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest received	27,892	17,777
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(347,753)	1,763,299
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	2,470,504	707,205
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 2,122,751	$ 2,470,504
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Operating loss	$ (1,339,259)	$ (1,316,397)
Adjustments to reconcile operating loss to net cash used by operating activities		
Depreciation	1,311,367	1,298,621
Increase in accounts receivable	(9,836)	(6,806)
Increase (decrease) in		
Accounts payable	158,820	(19,972)
Accrued expenses	411	(175)
Accrued operating service charge adjustment	3,425	(35,932)
Developers' escrow	-	(64)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ 124,928	$ (80,725)

During 2019, the Authority refinanced the Guaranteed Revenue Note, Series of 2015 with the issuance of the Guaranteed Sewer Revenue Notes, 2019 series in the aggregate par amount of $8,026,000.

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF NET POSITION
DECEMBER 31, 2020 AND 2019

	2020	2019
ASSETS		
Cash	$ 439,939	$ 511,798
Cash restricted for capital improvements	1,108,751	1,610,953
Accounts receivable	267,768	23,590
Property, plant and equipment, net of accumulated depreciation of $35,954,479 (2020) and $34,630,765 (2019)	23,156,023	24,010,273
TOTAL ASSETS	$ 24,972,481	$ 26,156,614
LIABILITIES AND NET POSITION		
LIABILITIES		
Current liabilities		
Note payable	$ 436,000	$ 427,000
Accounts payable	214,347	183,295
Accrued expenses	19,429	22,209
Accrued operating service charge adjustment	21,699	86,506
Developers' escrow	6,516	4,518
Noncurrent liabilities		
Note payable	7,163,000	7,599,000
TOTAL LIABILITIES	7,860,991	8,322,528
NET POSITION		
Net investment in capital assets	15,557,023	15,984,273
Restricted for capital expenditures	1,108,751	1,610,953
Unrestricted	445,716	238,860
TOTAL NET POSITION	17,111,490	17,834,086
TOTAL LIABILITIES AND NET POSITION	$ 24,972,481	$ 26,156,614

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
OPERATING REVENUES		
Operating service charges		
Towamencin Township	$ 2,902,098	$ 2,681,254
Sludge removal reimbursements	348,326	217,143
Pump station reimbursement	142,724	-
Tapping fees	102,342	-
Grant Income	71,776	-
Miscellaneous income	103,902	-
Annual year-end adjustment	64,807	(3,425)
TOTAL OPERATING REVENUES	3,735,975	2,894,972
OPERATING EXPENSES		
Administration	446,530	318,012
Physical plant/general	518,536	475,829
Operations	1,691,400	1,274,397
Maintenance	912,978	854,626
TOTAL OPERATING EXPENSES	3,569,444	2,922,864
OPERATING GAIN (LOSS) BEFORE DEPRECIATION	166,531	(27,892)
DEPRECIATION	1,323,714	1,311,367
OPERATING LOSS	(1,157,183)	(1,339,259)
NONOPERATING REVENUES (EXPENSES)		
Capital service charges	590,035	621,330
Interest income	7,587	27,892
Interest expense	(163,035)	(174,330)
Issuance costs	-	(42,000)
TOTAL NONOPERATING REVENUES (EXPENSES)	434,587	432,892
LOSS BEFORE CAPITAL CONTRIBUTIONS	(722,596)	(906,367)
CAPITAL CONTRIBUTIONS	-	30,780
CHANGE IN NET POSITION	(722,596)	(875,587)
NET POSITION AT BEGINNING OF YEAR	17,834,086	18,709,673
NET POSITION AT END OF YEAR	$ 17,111,490	$ 17,834,086

See accompanying notes to the basic financial statements.

TOWAMENCIN MUNICIPAL AUTHORITY
(A Component Unit of Towamencin Township)
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers and users	$ 3,426,990	$ 2,888,561
Payments to suppliers	(1,500,709)	(1,234,049)
Payments to employees, including fringe benefits and payroll taxes	(2,038,464)	(1,529,584)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	(112,183)	124,928
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital service charges	590,035	621,330
Capital contributions	-	30,780
Purchases of capital assets	(469,464)	(531,353)
Principal paid on debt	(427,000)	(447,000)
Interest paid on debt	(163,036)	(174,330)
NET CASH USED BY CAPITAL AND RELATED FINANCING ACTIVITIES	(469,465)	(500,573)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest received	7,587	27,892
NET DECREASE IN CASH AND CASH EQUIVALENTS	(574,061)	(347,753)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	2,122,751	2,470,504
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 1,548,690	$ 2,122,751
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Operating loss	$ (1,157,183)	$ (1,339,259)
Adjustments to reconcile operating loss to net cash used by operating activities		
Depreciation	1,323,714	1,311,367
Increase in accounts receivable	(244,178)	(9,836)
Increase (decrease) in		
Accounts payable	31,051	158,820
Accrued expenses	(2,780)	411
Accrued operating service charge adjustment	(64,807)	3,425
Developers' escrow	2,000	-
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ (112,183)	$ 124,928

See accompanying notes to the basic financial statements.

Account Number	Account Title	2021 Budget	2021 Amended Budget	2021 Projected	2022 Future year Budget
TOWAMENCIN MUNICIPAL AUTHORITY					
Administration					
70-300-410.00	Interest Income - Operating	.00	.00	674	675
70-300-585.00	Pump Station Reimbursement	213,738	213,738	167,225	176,965
70-300-641.00	Operating S/C - Towamencin	3,084,268	3,084,268	3,084,268	2,962,677
70-300-643.00	YEAR END ADJUSTMENT	.00	.00	.00	.00
70-300-800.00	Miscellaneous Income	.00	.00	5,189	.00
Total Administration:		3,298,006	3,298,006	3,257,356	3,140,317
Operations					
70-329-364.00	Sludge Removal Reimbursements	310,000	310,000	435,472	500,000
70-329-365.00	Surcharge Revenue	.00	.00	6,464	4,500
Total Operations:		310,000	310,000	441,936	504,500
Capital					
70-380-010.00	Grant Income	.00	.00	.00	.00
70-380-110.00	Tapping Fees	.00	.00	61,752	.00
70-380-410.00	Interest Income - Capital	.00	.00	1,539	1,540
Total Capital:		.00	.00	63,291	1,540
Trust Accounts					
70-391-881.00	Capital S/C - Towamencin	.00	.00	.00	.00
Total Trust Accounts:		.00	.00	.00	.00
Administration					
70-400-110.00	Salaries and Wages	120,545	120,545	50,918	75,000
70-400-150.00	Employer Benefits	13,810	13,810	1,557	.00
70-400-160.00	Employer-Pension	556	556	.00	.00
70-400-161.00	Employer Taxes	9,179	9,179	4,286	5,775
70-400-210.00	Office Supplies	8,500	8,500	8,406	30,000
70-400-311.00	Accounting & Auditing Svcs.	34,500	34,500	34,500	34,500
70-400-312.00	Computer Services	7,000	7,000	11,356	20,000
70-400-313.00	Consulting Engineer Svcs.	97,500	97,500	85,718	90,000
70-400-314.00	Legal Services	20,000	20,000	21,175	30,000
70-400-321.00	Telephone	22,000	22,000	11,499	12,000
70-400-325.00	Postage	800	800	382	500
70-400-340.00	Advertising and Printing	2,000	2,000	2,565	3,000
70-400-450.00	Contracted Services	2,000	2,000	75,607	70,000
70-400-480.00	Administrative Expenses	17,000	17,000	10,889	17,000
70-400-900.00	Depreciation Expense	.00	.00	.00	.00
Total Administration:		355,390	355,390	318,858	387,775
Physical Plant/General					
70-409-230.00	Diesel Fuel - Heating	5,000	5,000	4,931	5,000
70-409-231.00	Vehicle Fuel	3,500	3,500	2,346	3,000
70-409-237.00	Safety Equipment	10,000	10,000	13,433	10,000
70-409-242.00	Security	4,500	4,500	1,286	3,000
70-409-351.00	General Liability	85,000	85,000	86,771	80,500
70-409-354.00	Worker's Compensation	40,000	40,000	43,383	43,000
70-409-361.00	Electricity	310,000	310,000	278,190	300,000

Account Number	Account Title	2021 Budget	2021 Amended Budget	2021 Projected	2022 Future year Budget
70-409-362.00	Natural Gas	18,000	18,000	11,559	18,000
70-409-365.00	Trash Removal	4,800	4,800	4,145	4,800
70-409-366.00	Water	1,500	1,500	502	1,000
70-409-440.00	Cleaning & Uniform Srvcs.	7,500	7,500	7,583	7,500
70-409-750.00	Equipment Replacement	15,000	15,000	25,541	15,000
70-409-760.00	Insurance Costs	.00	.00	400	400
	Total Physical Plant/General:	504,800	504,800	480,070	491,200
Operations					
70-429-110.00	Salaries and Wages	457,257	457,257	515,779	492,024
70-429-118.00	Overtime	43,000	43,000	26,924	62,513
70-429-150.00	Employer-Benefits	125,000	125,000	95,598	95,000
70-429-160.00	Employer-Pension	17,509	17,509	4,420	19,410
70-429-161.00	Employer-Taxes	38,094	38,094	42,740	42,230
70-429-221.00	Lime	32,000	32,000	51,996	60,000
70-429-222.00	Polymer	180,000	180,000	149,861	180,000
70-429-222.02	Poly Aluminum Chloride	160,000	160,000	99,969	65,000
70-429-223.00	Disinfection	80,000	80,000	73,605	65,000
70-429-224.00	Ferric Chloride	.00	.00	.00	65,000
70-429-225.00	Lab Supplies	17,000	17,000	16,967	17,000
70-429-250.00	Repair & Maintenance Supplies	.00	.00	3,391	5,000
70-429-255.00	Meals	.00	.00	2,846	3,200
70-429-312.00	Computer Services	17,000	17,000	5,379	5,000
70-429-313.00	Consulting Engineer Svcs.	.00	.00	13,912	15,000
70-429-314.00	Legal Services	.00	.00	288	1,000
70-429-316.00	Lab Services	53,000	53,000	64,920	60,000
70-429-364.00	Sludge Removal Expense	210,000	210,000	323,185	300,000
70-429-365.00	Screenings Removal	36,000	36,000	35,597	35,000
70-429-460.00	Educ./Training Expenses	2,500	2,500	3,097	3,000
	Total Operations:	1,468,360	1,468,360	1,530,474	1,590,377
Maintenance					
70-437-110.00	Salaries and Wages	497,845	497,845	499,060	462,000
70-437-118.00	Overtime	56,104	56,104	26,322	59,200
70-437-150.00	Employer-Benefits	130,000	130,000	103,482	95,000
70-437-160.00	Employer-Pension	19,388	19,388	3,693	18,240
70-437-161.00	Employer-Taxes	42,182	42,182	39,632	39,700
70-437-220.00	Grounds	10,000	10,000	2,796	10,000
70-437-226.00	Cleaning Supplies	8,700	8,700	4,116	8,700
70-437-250.00	Repair & Maint. Supplies	120,000	120,000	93,778	120,000
70-437-251.00	Vehicle Expenses	10,000	10,000	7,428	10,000
70-437-255.00	Meals	.00	.00	2,427	3,200
70-437-260.00	Small Tools/Minor Equipment	.00	.00	1,805	2,000
70-437-370.00	Major Repairs	12,000	12,000	12,169	12,000
70-437-450.00	Contracted Services	115,000	115,000	47,067	115,000
70-437-460.00	Educ./Training Expenses	2,500	2,500	1,790	3,000
70-437-750.00	Equipment Replacement	42,000	42,000	62,528	42,000
	Total Maintenance:	1,065,719	1,065,719	908,093	1,000,040
Rittenhouse Road Pump					
70-438-110.00	Salaries and Wages	40,000	40,000	15,986	18,000
70-438-118.00	Overtime	10,000	10,000	2,208	2,000
70-438-150.00	Employer-Benefits	5,600	5,600	3,503	3,800

Account Number	Account Title	2021 Budget	2021 Amended Budget	2021 Projected	2022 Future year Budget
70-438-160.00	Employer-Pension	1,750	1,750	135	700
70-438-161.00	Employer-Taxes	3,807	3,807	1,428	1,530
70-438-230.00	Diesel Fuel	1,300	1,300	600	1,300
70-438-250.00	Repair & Maint. Supplies	2,000	2,000	1,192	2,000
70-438-251.00	Vehicle Expenses	850	850	500	850
70-438-313.00	Consulting Engineer Svcs.	1,500	1,500	.00	.00
70-438-321.00	Telephone	1,500	1,500	1,328	1,500
70-438-351.00	Insurances, Fees	300	300	300	300
70-438-361.00	Electricity	40,000	40,000	32,568	40,000
70-438-366.00	Water	300	300	56	100
70-438-450.00	Contracted Services	6,000	6,000	5,710	6,000
70-438-750.00	Equipment Replacement	35,000	35,000	68,274	40,000
	Total Rittenhouse Road Pump:	149,907	149,907	133,788	118,080
Hollis Hills Pump					
70-440-110.00	Salaries and Wages	12,500	12,500	5,855	10,600
70-440-118.00	Hollis - Overtime	.00	.00	.00	.00
70-440-150.00	Employer-Benefits	1,400	1,400	1,064	1,100
70-440-160.00	Employer-Pension	438	438	45	410
70-440-161.00	Employer-Taxes	952	952	564	890
70-440-230.00	Diesel Fuel	350	350	350	350
70-440-250.00	Repair & Maint. Supplies	1,500	1,500	1,000	1,500
70-440-251.00	Vehicle Expenses	500	500	500	500
70-440-313.00	Consulting Engineer Svcs.	350	350	.00	.00
70-440-321.00	Telephone	500	500	500	500
70-440-351.00	Insurances	100	100	100	100
70-440-361.00	Electricity	1,750	1,750	1,161	1,750
70-440-366.00	Water	75	75	87	75
70-440-450.00	Contracted Services	1,500	1,500	860	1,500
70-440-750.00	Equipment Replacement	10,000	10,000	.00	10,000
	Total Hollis Hills Pump:	31,915	31,915	12,086	29,275
Milestone Pump					
70-445-110.00	Salaries and Wages	12,500	12,500	12,239	10,600
70-445-118.00	Milestone OT	.00	.00	291	300
70-445-150.00	Employer-Benefits	1,400	1,400	1,141	1,100
70-445-160.00	Employer-Pension	438	438	95	380
70-445-161.00	Employer-Taxes	952	952	1,257	830
70-445-230.00	Diesel Fuel	350	350	350	350
70-445-250.00	Repair & Maint. Supplies	1,500	1,500	1,492	1,500
70-445-251.00	Vehicle Expenses	500	500	500	500
70-445-313.00	Consultibg Engineer Svcs.	350	350	.00	.00
70-445-321.00	Telephone	500	500	500	500
70-445-351.00	Insurances	100	100	100	100
70-445-361.00	Electricity	1,750	1,750	1,275	1,750
70-445-366.00	Water	75	75	75	200
70-445-450.00	Contracted Services	1,500	1,500	1,523	1,500
70-445-750.00	Equipment Replacement	10,000	10,000	2,603	10,000
	Total Milestone Pump:	31,915	31,915	23,441	29,610
Trust Accounts					
70-491-020.00	Interest-Capital Apprec. Bds	.00	.00	.00	.00

Account Number	Account Title	2021 Budget	2021 Amended Budget	2021 Projected	2022 Future year Budget
	Total Trust Accounts:	.00	.00	.00	.00
	TOWAMENCIN MUNICIPAL AUTHORITY Revenue Total:	3,608,006	3,608,006	3,762,583	3,646,357
	TOWAMENCIN MUNICIPAL AUTHORITY Expenditure Total:	3,608,006	3,608,006	3,406,810	3,646,357
	Net Total TOWAMENCIN MUNICIPAL AUTHORITY:	.00	.00	355,773	.00
	Net Grand Totals:	.00	.00	355,773	.00

Account Number	Account Title	2021 Budget	2021 Actual Projected	2022 Future year Budget
Sewer Fund				
INTEREST ON EARNINGS				
08-341-100.00	INTEREST ON EARNINGS	15,400	380	380
Total INTEREST ON EARNINGS:		15,400	380	380
OTHER REVENUE				
08-357-010.00	REIMBURSEMENT - UGTMA	.00	.00	.00
Total OTHER REVENUE:		.00	.00	.00
Sewer Charges				
08-364-120.00	S/R RESIDENTIAL-CURRENT	2,823,800	2,809,274	3,380,525
08-364-121.00	SEWER DISCOUNT	50,000-	.00	.00
08-364-122.00	INTEREST & PENALTIES	41,200	36,117	36,150
08-364-123.00	SEWER- Upper Gwynedd Twp	283,149	896,203	94,500
08-364-125.00	S/R COM/IND-CURRENT	1,475,000	1,473,345	1,768,015
08-364-900.00	SEWER CERTIFICATES	8,700	10,175	10,175
Total Sewer Charges:		4,581,849	5,225,113	5,289,365
MISCELLANEOUS REVENUE				
08-380-010.00	MISCELLANEOUS RECEIPTS	.00	.00	.00
08-380-020.00	Transfer from 2013 Sewer Note	.00	.00	.00
Total MISCELLANEOUS REVENUE:		.00	.00	.00
General Govt - Staff				
08-406-210.00	OFFICE SUPPLIES	350	89	100
08-406-310.00	OTHER CONTRACTED SERVICES	500	25	200
08-406-311.00	ACCOUNTING SERVICES	.00	3,765	3,765
08-406-314.00	LEGAL SERVICES	15,000	14,783	15,000
08-406-325.00	POSTAGE	3,000	4,248	4,300
08-406-342.00	PRINTING	4,800	4,879	5,000
08-406-440.00	Credit Card Fees	.00	.00	.00
08-406-450.00	MAINTENANCE AGREEMENTS	9,270	6,220	6,515
Total General Govt - Staff:		32,920	34,009	34,880
OPERATIONS				
08-429-130.00	PERSONNEL - Public Works	.00	.00	.00
08-429-249.00	OPERATION EXPENSES	3,084,268	3,084,268	2,962,677
08-429-313.00	ENGINEERING	5,000	989	1,000
08-429-368.00	PUMPING STATION FEES	158,735	94,290	116,965
08-429-372.00	REPAIR & MAINT. OF FACIL.	.00	.00	.00
08-429-374.00	REPAIR & MAINT. OF EQUPMT	.00	.00	.00
08-429-384.00	EQUIPMENT RENTAL	.00	.00	.00
08-429-385.00	ANNUAL RENTAL CHARGE	.00	.00	.00
08-429-470.00	CAPITAL SERVICE	590,091	590,091	589,834
08-429-670.00	I/I PROGRAM	.00	.00	.00
Total OPERATIONS:		3,838,094	3,769,637	3,670,476
OTHER EXPENSES				
08-482-330.00	Note Issuance Expenses	.00	.00	.00

Account Number	Account Title	2021 Budget	2021 Actual Projected	2022 Future year Budget
08-482-340.00	Principal - 2013 Sewer Note	132,000	132,000	133,000
08-482-341.00	Interest Exp - 2013 Sewer Note	21,300	21,300	19,800
08-482-900.00	Bad Debt Expense	.00	.00	.00
Total OTHER EXPENSES:		153,300	153,300	152,800
Interfund Transfers				
08-492-010.00	TRNSFR TO GENERAL FUND	1,175,439	1,175,439	1,107,403
08-492-090.00	TRNSFR TO SEWER CAPTL FD.	.00	.00	200,000
08-492-230.00	TRNSFR TO DEBT FUND	.00	.00	.00
Total Interfund Transfers:		1,175,439	1,175,439	1,307,403
Unemncumbered Reserve				
08-493-100.00	Unencumbered Reserve	.00	.00	.00
Total Unemncumbered Reserve:		.00	.00	.00
Sewer Fund Revenue Total:		4,597,249	5,225,493	5,289,745
Sewer Fund Expenditure Total:		5,199,753	5,132,386	5,165,559
Net Total Sewer Fund:		602,505-	93,107	124,186

Account Number	Account Title	2021 Budget	2021 Actual Projected	2022 Future year Budget
Sewer Capital Fund				
INTEREST ON EARNINGS				
09-341-100.00	INTEREST ON EARNINGS	1,900	2,696	2,670
Total INTEREST ON EARNINGS:		1,900	2,696	2,670
STATE & COUNTY GRANTS				
09-350-100.00	PA Local Share Acct Grant -75%	.00	.00	.00
09-350-101.00	PA Small Water & Sewer Grant	484,260	136,949	388,050
09-350-102.00	MONTCO-Kriebel Connector Trail	.00	.00	.00
Total STATE & COUNTY GRANTS:		484,260	136,949	388,050
SEWER TAPPING FEES				
09-364-110.00	TAPPING FEES	.00	32,554	.00
09-364-115.00	UG Twp Capacity Purchase	.00	.00	.00
Total SEWER TAPPING FEES:		.00	32,554	.00
INTERFUND TRANSFERS				
09-392-080.00	TRANSFERS FROM SEWER FUND	.00	.00	200,000
09-392-081.00	Transfers from Sewer Note	.00	.00	.00
09-392-090.00	Transfer from HVAC Fund	1,093,000	1,126,736	.00
Total INTERFUND TRANSFERS:		1,093,000	1,126,736	200,000
CAPITAL OUTLAY				
09-429-313.00	ENGINEERING	31,000	39,535	40,000
09-429-670.00	I/I PROGRAM	30,000	59,984	100,000
09-429-675.00	SCI Grant Work	500,000	36,949	463,050
09-429-680.00	KRI Grant Work	76,910	64,778	.00
09-429-720.00	Pump. Station Capital Charges	55,000	85,413	60,000
09-429-725.00	Lateral Replacement Reimbursed	.00	.00	.00
09-429-726.00	Towamencin Interceptor	.00	.00	.00
09-429-727.00	Inglewood Sewer Rehab Slipline	.00	.00	.00
09-429-728.00	Manhole Castings	.00	.00	.00
09-429-750.00	Transf to TMA Capital Acct	.00	.00	.00
09-429-800.00	AMORTIZATION EXPENSE	20,597	20,597	20,597
Total CAPITAL OUTLAY:		713,507	307,256	683,647
OTHER EXPENSES				
09-482-300.00	Legal & Engineering - DEP	25,000	8,472	8,500
09-482-320.00	Legal & Engineering - TMA	25,000	31,488	40,000
09-482-325.00	Fines - DEP	.00	.00	.00
09-482-900.00	Bad Debt Expense	.00	.00	.00
Total OTHER EXPENSES:		50,000	39,960	48,500
Interfund Transfers				
09-492-010.00	TRNSFR TO GENERAL FUND	.00	.00	.00
09-492-180.00	TRNSFR TO PRK&REC CPTL FD	.00	.00	.00
09-492-230.00	TRNSFR TO DEBT FUND	176,000	176,000	176,000
09-492-660.00	Transfer to Tow Authority	.00	.00	.00
09-492-950.00	TRANS. TO HVAC FUND	.00	.00	.00

Account Number	Account Title	2021 Budget	2021 Actual Projected	2022 Future year Budget
Total Interfund Transfers:		176,000	176,000	176,000
Unencumbered Reserve				
09-493-100.00	Unencumbered Reserve	.00	.00	.00
Total Unencumbered Reserve:		.00	.00	.00
Sewer Capital Fund Revenue Total:		1,579,160	1,298,935	590,720
Sewer Capital Fund Expenditure Total:		939,507	523,216	908,147
Net Total Sewer Capital Fund:		639,653	775,720	317,427-

1-Apr-2022

TOWAMENCIN MUNICIPAL AUTHORITY
10-YEAR CAPITAL PLAN 2022 - 2032
2022 Capital Plan

BURSICH ASSOCIATES

Project Name	Note	2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032	
		Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost	Budgeted Const Cost	Budgeted Engr. Cost
NPDES Renewal Year	*	YES										YES										YES	
Emergency Generator Replacement			35,000	650,000	55,000																		
Hauled-in Waste Facilities - Loading & Delivery Improvements		275,000	45,000	375,000	35,000																		
Stage I Influent Pump Replacment & Discharge Manifold		175,000	12,000																				
Stage II Influent Raw Wastewater Pump Rebuild								450,000	45,000														
Biosolids Planning Study			156,000																				
Biosolids Processing Upgrades - Thickener					100,000	1,200,000	100,000	550,000	50,000														
Stage II Recirculation Pump Rebuild										450,000	45,000												
Major Biosolids Project							250,000				275,000	1,000,000	325,000	3,800,000	450,000	1,500,000	350,000						
Influent Chamber Reconstruction to improve flow characteristics																		1,000,000	85,000				
Workshop Relocation												500,000	85,000										
Headworks Junction Box reconstruction																			80,000	850,000	75,000		
Stage II Influent Pump Discharge Valves & Manifold Replacement					6,000				28,000	350,000	35,000												
Nutrient Removal process modifications concept investigation																							500,000
Disinfection Upgrade - UV Installation & chlorination syst removal							185,000	1,800,000	180,000	800,000	100,000												
Various Building Structural, Roof & Maintenance Repairs		150,000	28,000	225,000	45,000	180,000	12,000	150,000	12,000	150,000	12,000	160,000	13,000	160,000	13,000	165,000	13,000	165,000	13,000	170,000	14,000	170,000	14,000
Valve Replacement - misc valves throughout the plant		42,000	4,000	45,000	4,000	45,000	4,000	50,000	4,000	50,000	4,000	50,000	4,000	55,000	4,000	55,000	4,000	55,000	4,000	60,000	4,000	60,000	4,000
Scada Improvements & Updates		85,000	12,000	85,000	12,000	85,000	12,000																
Miscellaneous Electrical Upgrades & Maint.		50,000	10,000	60,000	10,000	60,000	2,000																
Miscellanous Emergency / Unplanned Projects		100,000	8,000	150,000	12,000	150,000	12,000	150,000	12,000	150,000	12,000	160,000	12,000	165,000	12,500	170,000	13,000	175,000	13,000	175,000	13,500	175,000	14,000
Chemical Storage Upgrades		28,000	4,000																				
Conveyor Replacement		70,000	6,000																				
MCC Repairs & Obsolete Equipment Replacement		30,000	10,000	125,000	12,000	150,000	15,000	150,000	10,000														
New Scada System																	45,000	380,000	30,000				
Sampling Station improvements		30,000	4,000																				
Conductivity Meter (TDS - Influent)		12,000	1,000																				
Stage I & II Influent Screens & Grinder		15,000		15,000		15,000		15,000		17,000		17,000		17,000			15,000	250,000	15,000				
Stage II Influent Wetwell Coating & Sparge Piping Rebuild				185,000	15,000																		
TOTAL		1,062,000	335,000	1,915,000	306,000	1,885,000	592,000	3,315,000	341,000	1,967,000	483,000	1,887,000	439,000	4,197,000	479,500	1,890,000	440,000	2,025,000	240,000	1,255,000	106,500	405,000	532,000

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Gilmore & Associates, Inc.
Engineering and Consulting Services

Date: June 7, 2021
Last Revised: July 2, 2021

TOWAMENCIN TOWNSHIP
TEN-YEAR CAPITAL IMPROVEMENT PLAN - SANITARY SEWER CONVEYANCE SYSTEM

PROJECT NUMBER	DESCRIPTION	1 Estimated Cost May-21	2 2021 Spending	2 2022 Spending	3 2023 Spending	4 2024 Spending	5 2025 Spending	6 2026 Spending	7 2027 Spending	8 2028 Spending	9 2029 Spending	10 2030 Spending	TOTAL SPENDING 2021-2030
1	**Inglewood Area Sanitary Sewer Replacement**	**$ 8,210,000**											
	Survey	$ 200,000			$ 100,000			$ 50,000		$ 50,000			$ 200,000
	Design / Permitting	$ 600,000			$ 200,000			$ 200,000		$ 200,000			$ 600,000
	Bidding	$ 60,000			$ 20,000			$ 20,000		$ 20,000			$ 60,000
	Construction	$ 7,000,000				$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 7,000,000
	Inspection	$ 350,000				$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 350,000
2	**SCI Repair & Rehabilitation Project**	**$ 500,000**											
	Bidding	$ 15,000	$ 15,000										$ 15,000
	Construction	$ 460,000	$ 150,000	$ 310,000									$ 460,000
	Inspection	$ 25,000	$ 5,000	$ 20,000									$ 25,000
3	**TCI Replacement Project (MH 117A to 116)**	**$ 320,000**											
	Engineering	$ 60,000				$ 60,000							$ 60,000
	Construction	$ 230,000					$ 100,000	$ 130,000					$ 230,000
	Inspection	$ 30,000					$ 15,000	$ 15,000					$ 30,000
4	**I/I Maintenance**	**$ 1,510,000**											
	Bidding	$ 30,000	$ 10,000			$ 10,000			$ 10,000				$ 30,000
	Construction	$ 1,300,000	$ 20,000	$ 80,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 150,000	$ 1,300,000
	Inspection	$ 180,000	$ -	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 180,000
5	**Pump Station Maintenance**	**$ 360,000**											
	Rittenhouse Road	$ 300,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 300,000
	Hollis Hills	$ 20,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 20,000
	Milestone	$ 40,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 40,000
	TOTAL	**$ 10,900,000**	**$ 236,000**	**$ 466,000**	**$ 526,000**	**$ 1,326,000**	**$ 1,371,000**	**$ 1,671,000**	**$ 1,266,000**	**$ 1,526,000**	**$ 1,256,000**	**$ 1,256,000**	**$ 10,900,000**

Notes:
a) All estimates are subject to inflation/deflation
b) All estimates are based on 2021 costs

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Towamencin Township
Wastewater System
Site Visit - 10/14/2022

Towamencin WWTP Pump Station Pictures

Towamencin WWTP - Picture 1

Towamencin WWTP - Picture 2

Towamencin Township
Wastewater System
Site Visit - 10/14/2022

Hollis Hill Pump Station Pictures

Hollis Hill Pump Station - Picture 1

Hollis Hill Pump Station - Picture 2

Towamencin Township
Wastewater System
Site Visit - 10/14/2022

Milestone Pump Station Pictures

Milestone Pump Station - Picture 1

Milestone Pump Station - Picture 2

Milestone Pump Station Pictures

Milestone Pump Station - Picture 3

Milestone Pump Station - Picture 4

Rittenhouse Pump Station Pictures

Rittenhouse Pump Station - Picture 1

Rittenhouse Pump Station - Picture 2

RESOLUTION 21 - 39

TOWAMENCIN TOWNSHIP

ESTABLISHMENT OF BASIC SEWER RENTAL

WHEREAS, pursuant to the Pennsylvania Second Class Township Code, Section 2511, the Board of Supervisors of Towamencin Township is empowered to establish the charge for sewer rental; and

WHEREAS, the Board of Supervisors of Towamencin Township deems it to be in the best interest of the Township to hereby establish the rental charge.

NOW, THEREFORE, LET IT BE RESOLVED by the Board of Supervisors of Towamencin Township that the annual sewer rental charge for each EDU shall be in the amount of $450.00 payable pursuant to Ordinance 98-02 of the Towamencin Township Code as amended.

RESOLVED this 22nd day of December 2021.

TOWAMENCIN TOWNSHIP
BOARD OF SUPERVISORS

ATTEST:

H. Charles Wilson, III, Chairman

Richard Marino, Secretary

Towamencin Municipal Authority
Residential EDU/Customer Breakdown by Locality

	# of EDUs	# of Cust
Towamencin Township	7,378	5,345
Worcester (Hollis Hills)	30	30
Worcester (Milestone)	278	278
Lower Salford	16	14
Hatfield	194	1
Lansdale	41	1
Estimated for Upper Gwynedd Post Diversion Project	280	1
	8,217	**5,670**

Towamencin Municipal Authority Commercial Billing Information

2020 Gallons Billed	**96,069,521**	
2020 EDUs	**3,955**	
# of Customers	**177**	160 billed on consumption & 17 flat rate
# of Customers by Locality	**3**	Worcester
	1	Franconia
	6	Lower Salford
	2	Hatfield
	165	Towmencin
	177	Total Comm Customers

Table 4
East Norriton-Plymouth-Whitpain Joint Sewer Authority
2018 Annual Chapter 94 Report

EDU CONNECTION SUMMARY
2014 - 2018

	Equivalent Dwelling Units (EDU)			
Year	**ENPWJSA (Total)**	**East Norriton**	**Whitpain**	**Plymouth**
2014	30,788	10,963	9,239	10,586
2015	30,897	10,968	9,264	10,665
2016	30,992	10,982	9,307	10,703
2017	31,020	10,982	9,334	10,704
2018	31,189	11,048	9,346	10,795

This table is a summary of actual connections from municipal systems to the Authority system. Since July 1, 2005 one Equivalent Dwelling Unit (1 EDU) has been set at 230 GPD.

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an annual basis. Aqua will convert to monthly billing after closing. A schedule of rates tariff page implementing monthly rates for Township customers post-closing is attached hereto as **Exhibit G**.

35. As presented in Schedule 7.04(a) of the Agreement, Cheltenham Township's current sewer user rates are comprised of two components: an annual sewer service charge and a usage charge. The annual charge assessed upon each residential unit (an EDU) is $250.68. Usage is charged at $3.91 for each 1,000 gallons. Non-residential EDUs are calculated using 219.6 gallons per day/EDU from the actual or projected annual water usage. A copy of Cheltenham Township's currently effective Sewer Ordinance is attached hereto as **Exhibit H**.

36. Upon Commission approval of this Application and completion of the proposed transaction, Aqua will begin to provide wastewater service in its name to the customers in the Requested Territory. It will implement its *Rules and Regulations* to govern the provision of wastewater service in the Requested Territory, as those *Rules and Regulations* are in effect from time to time for Aqua.

37. Copies of the notices that will be sent to customers of Aqua and to customers of Cheltenham Township describing the filing and the anticipated effect on rates are attached hereto as **Exhibit I1** and **Exhibit I2**.

VII. COST OF SERVICE

38. Copies of Cheltenham Township's Annual Financial Report for 2016 and 2017 are attached hereto as **Exhibit J1** and **Exhibit J2**. For the year ended December 31, 2017, the Township had approximately $30 million of long-term debt attributable to the wastewater system.

39. Copies of Cheltenham Township's Adopted Annual Budgets for 2017 and 2018 are attached hereto as **Exhibit J3** and **Exhibit J4**.

40. A copy of Cheltenham Township's most recent annual report filed with the Department of Community and Economic Development is attached hereto as **Exhibit K**.

41. Aqua projects annual revenue of $7,321,878 from the Cheltenham Township customers based on Cheltenham Township's current rate schedule, calculated as follows:

Cheltenham Billable EDU's:	$	17,105
Fixed Charge Per EDU Annual:	$	250.68
Total Annual Fixed Revenue:	**$**	**4,287,881**
Cheltenham Billable Gallons (000's):	$	775,958
Volumetric Rate per 1,000 gallons	$	3.91
Total Annual Volumetric Revenue:	**$**	**3,033,997**
Total Annual Revenue:	**$**	**7,321,878**

42. Aqua estimates annual operating and maintenance expenses of $3,048,700 based on Cheltenham Township's operating expenses presented in the 2017 financial statements, adjusted by the Company.

VIII. PROOF OF COMPLIANCE

43. Aqua will operate and manage the Cheltenham Township wastewater system as a standalone collection system, but within Aqua's footprint, from its Southeastern Division Office in Bryn Mawr, Pennsylvania. The system is approximately 11 miles from the Division Office. Mr. Thomas A. Cicala will be the assigned Certified Wastewater Operator for the system. Mr. Cicala's currently effective Wastewater Operator's License is attached hereto as **Exhibit L**.

44. Copies of the following are attached hereto as **Exhibit M1** and **Exhibit M2**:

DEP Water Quality Management for Sanitary Collection System, No. 4614407

Customer No	Name	Service Address	Service	SWR EDUs	Service	WTR EDUs
11475.01	DAVID & JOANNE BROOKOVER	32 TERRE LANE	Sewer	1	Water	1
11476.02	JAYA SUGUNARAJ & JESSITA	214 ABBEY RD	Sewer	1	Water	1
11478.01	DAVID BULBIN & BARBARA GR	74 WOODLAND DR	Sewer	1	Water	1
11479.01	JEFFREY MOLINARO	1318 BLOOM RD	Sewer	1	Water	1
11480.01	CRYSTAL DOMETITA	91 WOODLAND DR	Sewer	1	Water	1
11482.01	AYUSA SINHA	672 LOWER ST	Sewer	1		
11483.01	MADIAN YAHYA	676 LOWER ST	Sewer	1		
11484.01	JEFF WATSON	168 KASEVILLE RD	Sewer	1		
11485.01	ANWER & SARAH QURESHI	656 LOWER ST	Sewer	1		
11486.01	ROSS & ASHLEY PETERS	83 TERRE LN	Sewer	1	Water	1
11488.01	QUESHI ANWER	664 LOWER STREET	Sewer	1		
11489.01	MATHUR HERSH	660 LOWER STREET	Sewer	1		
11490.01	PRASANNA SANKEPALLI & SU	668 LOWER ST	Sewer	1		
11491.01	MARK GATSKI & CATHERINE N	82 DELWOOD DR	Sewer	1	Water	1
11492.01	JONATHAN & LAURA SPAHR	78 TERRE LN	Sewer	1	Water	1
Grand Totals			**1451**	**2195**	**1186**	**1370**

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2018 Chapter 94 Report for Valley Township
Chester County, Pennsylvania

1.0 INTRODUCTION

In February 2011, the Pennsylvania Department of Environmental Protection (PADEP) developed and issued a Chapter 94 Municipal Wasteload Management Annual Report Template. The template was offered as an organization tool for the content required in the Chapter 94 Report. This report has been prepared in accordance with the Chapter 94 Report Template.

This report is provided to comply with the Title 25, Chapter 94 Municipal Wasteload Management regulations of the Pennsylvania Department of Environmental Protection (PADEP) concerning wastewater facilities. The subject of this report is the sanitary sewer collection and conveyance system owned by Valley Township (Township). The Township maintains the sewer system and contracts with M&B Environmental Inc. to provide licensed operations of the five Township-owned pump stations.

Valley Township's sewer system is comprised of approximately sixteen miles of interceptors, force mains, and tributary collection sewers divided into three drainage basins as identified below. Each basin discharges wastewater into Pennsylvania-American Water Company's (PAWC) Coatesville District sanitary sewer system with treatment at PAWC's Coatesville District Wastewater Treatment Plant.

The Township's collection and conveyance system consists primarily of PVC, asbestos cement, and vitrified clay sewers; and precast concrete manholes. There are nine sewage pump stations, five of which are currently owned and operated by the Township. The other four pump stations in the Township are currently the responsibility of developers, but most are intended to be dedicated to the Township upon build-out of the respective developments. The original portion of the Township's sewer system was constructed in approximately 1970, and sewer extensions are built with approved new developments.

There are approximately 3,271 EDUs connected to the Township's sewer system within the municipal boundaries as direct customers of Valley Township. There are also three intermunicipal connections in which wastewater is conveyed through the Township's sewer system via conveyance agreements with PAWC.

The Rock Run Basin covers roughly the northern third of the Township. Three Township-owned pump stations – Rock Run Pump Station, Highlands Corporate Center Pump Station #1, and Country Ridge Pump Station – are located in this basin. Two of the intermunicipal connections are also located within the Rock Run Basin – the Coatesville Country Club and the Marriott (aka OTP Corporation) Hotel & Restaurant. All of the basin's wastewater flows are conveyed into the Rock Run Pump Station, where they are metered and then pumped into PAWC's system.

The Hayti Basin covers roughly the central third of the Township. The two Township-owned Round Hill Pump Stations (North and South) are located in this basin. All flows are conveyed through a gravity interceptor along W. Lincoln Hwy to the Charles Street Meter Pit, where flows are metered prior to flowing into PAWC's system.

The Westwood Basin covers roughly the southern third of the Township. All flows are conveyed through a gravity interceptor along Valley Road to the Valley Road Meter Pit, where flows are

Lower Makefield Township Falls Township Meter Readings 2020							
Monthly Flow Meter Reading		Monthly Flow Meter Reading		Monthly Water Meter Reading		Monthly Water Meter Reading	
Derbyshire		Big Oak		D.P. 9*		D.P.9A*	
Date	Monthly Average Flow (MGD)	Date	Monthly Average Flow (MGD)	Date	Monthly Average Flow (MGD)	Date	Monthly Average Flow (MGD)
JANUARY	0.160582	JANUARY	0.023241	JANUARY	-	JANUARY	-
FEBRUARY	0.227192	FEBRUARY	0.025580	FEBRUARY	-	FEBRUARY	-
MARCH	0.211018	MARCH	0.026170	MARCH	0.00744	MARCH	0.005574
APRIL	0.229453	APRIL	0.029733	APRIL	-	APRIL	-
MAY	0.174209	MAY	0.022774	MAY	-	MAY	-
JUNE	0.108615	JUNE	0.013062	JUNE	0.006622	JUNE	0.005457
JULY	0.099577	JULY	0.011453	JULY	-	JULY	-
AUGUST	0.089918	AUGUST	0.009544	AUGUST	-	AUGUST	-
SEPTEMBER	0.080126	SEPTEMBER	0.009411	SEPTEMBER	0.01037	SEPTEMBER	0.00678
OCTOBER	0.132982	OCTOBER	0.013386	OCTOBER	-	OCTOBER	-
NOVEMBER	0.175743	NOVEMBER	0.015865	NOVEMBER	-	NOVEMBER	-
DECEMBER	0.220264	DECEMBER	0.024418	DECEMBER	0.008131	DECEMBER	0.005864
Monthly Annual Ave Flow	**0.15914**	**Monthly Annual Ave Flow**	**0.01872**	**Monthly Annual Ave Flow**	**0.00814**	**Monthly Annual Ave Flow**	**0.00592**

* D.P. 9 and D.P. 9A use water meter readings for billling purposes to Falls Township.

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Population Projections for the Morrisville						
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
Populations	24,767	24,809	25,057	25,353	25,517	25,640
EDUs	8,877	8,892	8,981	9,087	9,146	9,190

*Population projections based on 2019 EDU Audit x 2.79 persons/edu

Population Projections for the Neshaminy Interceptor Service Area						
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
Populations	7,594	7,594	7,594	7,594	7,594	7,594
EDUs	2,791	2,879	3,407	3,700	3,725	3,750

*Population projections based on 2019 EDU Audit x 2.79 persons/edu

Population Projections for the Yardley Borough						
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
Populatio	7,527	7,533	7,600	7,692	7,726	7,759
EDUs	2,698	2,700	2,724	2,757	2,769	2,781

*Population projections based on 2019 EDU Audit x 2.79 persons/edu

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2020

Facility Name: Penn's Preserve Wastewater Treatment Plant
Permit No.: 1596405
Persons/EDU: 3.5

Existing Hydraulic Design Capacity: 0.045 MGD
Upgrade Planned in Next 5 Years? NO **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 84 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2016	2017	2018	2019	2020
January	0.031	0.029	0.029	0.05	0.045
February	0.037	0.027	0.034	0.047	0.02299
March	0.032	0.028	0.038	0.049	0.02923
April	0.031	0.032	0.036	0.041	0.02951
May	0.032	0.03	0.037	0.041	0.02855
June	0.03	0.028	0.036	0.032	0.02939
July	0.027	0.025	0.031	0.031	0.02938
August	0.026	0.027	0.036	0.028	0.03814
September	0.025	0.026	0.041	0.026	0.0322
October	0.025	0.027	0.039	0.024	0.0312
November	0.027	0.028	0.047	0.026	0.0342
December	0.029	0.029	0.049	0.028	0.04191
Annual Avg	0.029	0.028	0.038	0.035	0.032641
Max 3-Mo Avg	0.033	0.03	0.045	0.049	0.03577
Max : Avg Ratio	1.14	1.07	1.18	1.40	1.10
Existing EDUs	194.0	194.0	194.0	194.0	194.0
Flow/EDU (GPD)	149.5	144.3	195.9	180.4	168.3
Flow/Capita (GPD)	42.7	41.2	56.0	51.5	48.1
Exist. Overload?	**NO**	**NO**	**NO**	**YES**	**NO**

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2016	2017	2018	2019	2020
January	100	76	29	67	115
February	94	63	76	71	33
March	53	36	81	93	70
April	56	91	58	88	81
May	110	65	65	59	76
June	71	60	77	94	84
July	50	93	66	62	68
August	48	80	66	42	109
September	67	53	70	52	116
October	52	48	80	61	77
November	46	58	67	86	93
December	74	124	67	46	124
Annual Avg	68	71	67	68	87
Max Mo Avg	110	124	81	94	124
Max : Avg Ratio	1.61	1.76	1.21	1.37	1.43
Existing EDUs	194	194	194	194	194
Load/EDU	0.353	0.364	0.345	0.353	0.449
Load/Capita	0.101	0.104	0.098	0.101	0.128
Exist. Overload?	**YES**	**YES**	**NO**	**YES**	**YES**

Projected Flows for Next Five Years (MGD)

	2021	2022	2023	2024	2025
New EDUs	0.0	0.0	0.0	0.0	0.0
New EDU Flow	0	0	0	0	0
Proj. Annual Avg	0.03253	0.03253	0.03253	0.03253	0.03253
Proj. Max 3-Mo Avg	0.03831	0.03831	0.03831	0.03831	0.03831
Proj. Overload?	**NO**	**NO**	**NO**	**NO**	**NO**

Projected BOD5 Loads for Next Five Years (lbs/day)

	2021	2022	2023	2024	2025
New EDUs	0	0	0	0	0
New EDU Load	0.000	0.000	0.000	0.000	0.000
Proj. Annual Avg	72	72	72	72	72
Proj. Max Avg	107	107	107	107	107
Proj. Overload?	**YES**	**YES**	**YES**	**YES**	**YES**

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2016	2017	2018	2019	2020
January	2.64	2.91	2.85	3.92	2.6
February	4.36	1.3	6.02	3.27	2.5
March	2.01	4.26	4.74	3.85	3.94
April	1.75	3.15	3.94	3.06	3.41
May	6.65	6.33	5.21	5.22	2.54
June	1.87	4.94	3.34	7.94	3.21
July	3.88	5.35	3.06	6.03	5.53
August	1.7	6.05	4.11	2.78	8.52
September	3.52	3.86	9.76	1.16	4.25
October	2.06	3.66	3.08	3.87	4.1
November	2.17	1.3	9.03	1.16	3.87
December	2.72	1.31	6.38	5.31	5.26

Table No. 1
Willistown Township
Valley Forge Sewer Authority Service Area
2020 Monthly Flow Summary

	Metered Flow								Un-Metered Flow							
	Metered Flows			Wheeled Flows												
Month	Cedar Hollow Flow (GPD)	Pheasant Run Flow (GPD)	Total Flow (GPD)	Woodview Flow (GPD)	Tidewater Flow (GPD)	Malvern Prep Flow (GPD)	Total Flow GPD	Net Metered Flow (GPD)	Cedar Hollow Flow (MGD)	Flow Analysis z-scale	Flow Analysis Corres. Flow	Peaking Factor ADF= 1.052	Total Un-metered EDU's	Base EDU Flow 275 Gal/EDU (GPD)	Corrected Un-metered Flow (GPD)	Total Willistown Flow (GPD)
January	1,174,735	96,014	1,270,749	6,888	9,503	8,810	25,201	1,245,548	1.175	0.322	1.127	1.042	73	20,075	20,921	1,266,469
February	1,234,623	73,089	1,307,713	6,818	10,241	8,810	25,869	1,281,844	1.235	0.533	1.214	1.123	73	20,075	22,541	1,304,385
March	1,224,793	81,871	1,306,664	7,197	10,135	8,810	26,142	1,280,522	1.225	0.499	1.193	1.103	73	20,075	22,149	1,302,671
April	1,458,294	91,861	1,550,155	7,947	10,977	7,014	25,938	1,524,217	1.458	1.240	1.506	1.393	73	20,075	27,957	1,552,174
May	1,370,957	95,685	1,466,642	7,768	10,658	7,014	25,440	1,441,201	1.371	0.978	1.406	1.301	73	20,075	26,112	1,467,314
June	1,221,635	91,040	1,312,675	7,920	9,745	7,014	24,679	1,287,996	1.222	0.488	1.192	1.102	73	20,075	22,127	1,310,123
July	1,148,937	85,604	1,234,541	7,970	12,139	12,287	32,396	1,202,145	1.149	0.227	1.106	1.023	73	20,075	20,534	1,222,679
August	1,036,251	71,068	1,107,318	8,648	12,139	12,287	33,074	1,074,244	1.036	-0.211	1.008	0.932	73	20,075	18,717	1,092,962
September	1,260,503	86,381	1,346,884	10,477	12,673	12,287	35,437	1,311,448	1.261	0.621	1.254	1.160	73	20,075	23,279	1,334,727
October	995,847	86,381	1,082,228	9,734	13,542	8,717	31,993	1,050,236	0.996	-0.380	0.974	0.901	73	20,075	18,080	1,068,316
November	1,129,241	86,381	1,215,622	13,162	12,663	8,717	34,542	1,181,080	1.129	0.154	1.094	1.011	73	20,075	20,305	1,201,386
December	1,452,196	86,381	1,538,577	7,600	11,926	8,717	28,243	1,510,334	1.452	1.222	1.495	1.382	73	20,075	27,749	1,538,084
Average																1,305,107

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EXHIBIT 25
Page 128 of 390

ITEM 1 - EXECUTIVE SUMMARY

Flow from Willistown Township is conveyed to the East Goshen Township sanitary sewer system at three (3) locations. This flow is ultimately treated at the Ridley Creek Wastewater Treatment Plant. The three locations are Line Road north of Paoli Pike, Willow Pond Road, and Wyllpen Place west of Dutton Mill Road. Four (4) homes are connected on Line Road; fourteen (14) homes are connected on Willow Pond Road; and two (2) homes are connected on Wyllpen Place. The maps included in Appendix A show the locations of the properties providing flow to East Goshen Township.

The total number of Equivalent Dwelling Units (EDUs) Connected at the end of 2018 was twenty (21). At 262.5 gallons per day (GPD) per EDU, the estimated average flow for the twenty-one (21) homes is 5,250 GPD.

The homes along Line Road and Wyllpen Place are connected to sanitary sewers owned and operated by East Goshen Township.

The sanitary sewer in Willow Pond Road is owned and operated by Willistown Township. The flow is conveyed to sewer in Pond View Lane, which is owned and operated by East Goshen Township.

ITEM 2 - SEWER EXTENSIONS

There were no sewer extensions during 2018. Willistown Township is not currently planning any further sewer connections to East Goshen Township.

ITEM 3 - SEWER SYTEM MAINTENANCE

Willistown Township performs basic monitoring and maintenance on the sewer in Willow Pond Road. This sewer is in good condition with no sign of inflow/infiltration. Due to the low number of homes connected to the system, the flows are not metered or sampled. Flows can be estimated from water meter readings.

Willistown Township is not responsible for maintenance of the sewer connections on Line Road or Wyllpen Place.

ITEM 4 - OVERALL SEWER SYSTEM CONDITION

The system is in good condition. There are no portions of the system where rehabilitation or cleaning is needed, or where conveyance capacity will be exceeded in the next five (5) years.

3/23/2015

SEWAGE TREATMENT DISTRIBUTION
BETWEEN
WEST CHESTER BOROUGH AND EAST BRADFORD TOWNSHIP

	EDU'S	Assigned Capacity	1990 Flow	1995 Flow	2000 Flow	2005 Flow	2010 Flow	2015 Flow
CONNECTIONS TO TAYLOR RUN								
Bradford Square	267	66,750	66,750	66,750	66,750	66,750	66,750	66,750
Bradford Plaza	56	14,000	14,000	14,000	14,000	14,000	14,000	14,000
Dean Court (Bradwyn, Hunter's Run)	15	3,000	3,000	3,750	3,750	3,750	3,750	3,750
Brookmeade	32	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Courtfield Spring	36	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Daily Local News	9	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Hillsdale School	7	1,750	1,750	1,750	1,750	1,750	1,750	1,750
Kenmara	65	16,250	0	0	16,250	16,250	16,250	16,250
Miscellaneous	40	10,000	2,000	3,500	3,500	8,000	8,717	8,717
O'remead	8	2,000	0	0	2,000	2,000	2,000	2,000
Price Street	11	2,500	2,500	2,500	2,500	2,750	2,750	2,750
Windon	198	49,500	22,860	49,500	49,500	49,500	49,500	49,500
Park Place	72	18,000	0	0	0	18,000	18,000	18,000
Brookworth Plaza	28	7,000	0	0	0	7,000	7,000	7,000
Bradford Plaza Expansion (Giant)	11	2,750	0	0	0	2,750	2,750	2,750
Robal (Bradford Historic)	4	1,000	0	0	0	1,000	1,000	1,000
Mercer's Mill	27	6,750	0	0	0	6,750	6,750	6,750
Hogan Property - 892 Hillsdale Road	1	239	0	0	0	239	239	239
Bradford Plaza Expansion (Walgreens)	11	2,629	0	0	0	0	0	478
John Cope House	1	239	0	0	0	0	0	239
491 Gregory Lane	1	239	0	0	0	0	0	239
Chem Services	1	239	0	0	0	0	0	239
Chester County Art Association	2	478	0	0	0	0	0	478
TOTAL CONECTIONS TO TAYLOR RUN	903	224,563	132,110	161,000	179,250	219,739	220,456	222,129
CONNECTIONS TO GOOSE CREEK								
Radley Run IV (B&B)	25	6,250	0	6,250	6,250	6,250	6,250	6,250
Birmingham Township	25	6,250	0	1,000	4,750	4,750	4,750	4,750
Genesis Health Care	120	30,000	26,750	30,000	30,000	30,000	30,000	30,000
Miscellaneous	8	2,000	0	0	250	1,000	1,000	1,000
Plum Tree (Sconnelltown IV)	164	41,000	0	23,500	41,000	41,000	41,000	41,000
Sagamore (Sconnelltown V)	70	17,500	0	0	17,500	17,500	17,500	17,500
Sconnelltown Farm	136	34,000	0	34,000	34,000	34,000	34,000	34,000
Tigue Road Lots	2	500	0	0	500	500	500	500
Turnbrae	11	2,750	0	2,750	2,750	2,750	2,750	2,750
West Chester University	120	30,000	0	30,000	30,000	30,000	30,000	30,000
West Chester University	77	19,250	0	19,250	19,250	19,250	19,250	19,250
East Bradford Shops	9	2,250	0	0	0	2,250	2,250	2,250
Buckelew	1	250	0	0	0	250	250	250
Sunoco	1	250	0	0	0	250	250	250
Laurier	20	5,000	0	0	0	5,000	5,000	5,000
Hazely Property - 690 Birmingham Rd	1	239	0	0	0	239	239	239
American Ice Museum	1	239	0	0	0	0	0	239
Wilson 4-lot Subdivision	4	956	0	0	0	0	0	956
West Chester University	26	6,214	0	0	0	0	0	6,214
993 Riflery Drive	1	239	0	0	0	0	0	239
TOTAL CONNECTIONS-GOOSE CREEK	822	205,137	26,750	146,750	186,250	194,989	194,989	202,637

		Customers		*Gallons*	*EDU's*	*Revenue*
	Current Rates	*2020*	*Method*	*2020*	*2020*	*2020*
Service Charges:						
Sewer District A & B	$400.00	3,053	per EDU annually		6,566	$2,626,400
Sewer District C	$542.00	28	per EDU annually		28	$15,176
Sewer District D	$600.00	279	per EDU annually		279	$167,400
Sewer District E	$480.00	522	per EDU annually		772	$370,560
High Volume Customers	$6.20 per 1,000 gallons	13	per 1,000 Gallons	58,064,516	13	$360,000
Other Charges:						$230,000
Total Revenue at Present Rates		**3,895**		**58,064,516**	**7,658**	**$3,769,536**

41. Aqua estimates annual operating and maintenance expenses of $1,965,601 based on EWT's operating expenses presented in the 2019 financial statements, adjusted by the Company.

VIII. PROOF OF COMPLIANCE

42. Aqua will operate and manage the EWT wastewater system as a standalone collection system, but within Aqua's footprint, from its Southeastern Division Office in Bryn Mawr, Pennsylvania. The system is approximately 11 miles from the Company's Southeastern Division Office. Mr. John M. Bright will be the assigned Certified Wastewater Operator for the system. Mr. Bright's currently effective Wastewater Operator's License is attached hereto as **Exhibit L**.

43. The Water Quality Management ("WQM") Permit for the Malvern Hunt WWTP issued in 2016 and the WQM Permit Application for the Pump Station are attached as **Exhibit M1**.[10] A WQM permit for the VFSA WWTP is attached as **Exhibit M2**. A WQM permit for the EGMA WWTP is

[10] As noted above, the Malvern Hunt WWTP is expected to be decommissioned prior to closing. If decommission of the Malvern Hunt WWTP occurs before closing, the 2016 WQM Permit for the WWTP will not be transferred.

LIMERICK TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA
2015 CHAPTER 94 REPORT

King Road WWTP	
Existing Connections:	6,442
New Connections:	220
Total Connections:	6,662

Possum Hollow WWTP	
Existing Connections:	1,573
New Connections:	33
Total Connections:	1,606

Total Township Connections: 8,268

2.0 HYDRAULIC & ORGANIC LOADINGS [§ 94.12.Sec. (a) (1), (2), (3)]

2.1 Historical & Present Loadings

A. Hydraulic Loading

The permitted hydraulic capacity of the WWTP is 1.7 million gallons per day (MGD). Table 2.1-A shows monthly average wastewater flows for the WWTP during 2015.

Table 2.1-A

King Road Hydraulic Loading (MGD)						Rainfall (in)
Month	**2011**	**2012**	**2013**	**2014**	**2015**	**2015**
January	0.841	0.807	0.805	0.811	0.816	3.54
February	0.967	0.745	0.796	0.969	0.783	1.76
March	0.975	0.759	0.793	0.884	0.993	5.55
April	0.944	0.729	0.798	0.937	0.815	2.32
May	0.823	0.773	0.776	0.949	0.762	1.86
June	0.821	0.705	0.916	0.825	0.831	7.12
July	0.723	0.694	0.758	0.718	0.808	4.27
August	0.909	0.751	0.754	0.744	0.74	2.65
September	1.107	0.774	0.735	0.734	0.742	5.51
October	0.848	0.795	0.714	0.714	0.795	4.43
November	0.895	0.737	0.708	0.774	0.752	1.81
December	0.879	0.802	0.835	0.841	0.846	4.99
Annual Average (AA)	0.894	0.756	0.782	0.825	0.807	3.82
3 Month Max Avg	0.962	0.778	0.830	0.930	0.864	
Ratio Max/AA	1.08	1.03	1.06	1.13	1.07	
5-year Avg Hydraulic Ratio					1.07	

The monthly average flows ranged from 0.740 MGD in August to 0.993 MGD in February. The annual average flow of 0.807 MGD was generated by approximately 6,662 connections which results in a calculated unit flow of 121 gallons per equivalent dwelling unit (EDU) which is lower than the average flow

ratio of the max 3-month average flow to the annual average flow for 2017 was 1.18. The West WWTP current 8.43 MGD maximum month permitted hydraulic capacity was not exceeded as a monthly average in 2017. The WWTP effluent flow meter is calibrated once per year and copies of the 2017 flow meter calibration certifications are included in Attachment E.

Organic loadings from 2013-2017 are summarized in the DEP spreadsheet found in Attachment A. The total combined annual average organic loading to the WWTP in 2017 was 8,098 lbs. BOD_5/day which is a combination of the loadings from the collection system and the hauled waste program as shown in the DEP spreadsheet found in Attachment A. The maximum monthly average BOD_5/day was 10,055lbs. The ratio of the max month organic loading to the annual average organic loading was 1.24.

3. COLLECTION SYSTEM CONNECTIONS AND EXTENSIONS

There are 2 proposed/potential developments that will add 27 EDUs to Exeter Townships sewer system. Two EDUs are for a connection at the Daniel Boone Homestead and 25 EDUs are for the Windy Willows Subdivision. Both developments will add flow to Exeter Township's collection system. Windy Willows will have homes in adjacent municipalities, but do to lot sizes, these lots are anticipated to have on-lot sewage treatment. Based on the information received from the contributing municipalities, there are no proposed flows anticipated over the next five years except for the items noted above.

As indicated in the 2016 Chapter 94 Report, Exeter Township had 106 potential new connections in approved subdivisions. Of these 106 potential connections, 12 new connections for 12 EDUs were connected in 2017. There was one other residential connection added in 2017 for a total of 13 residential connections/EDUs. This leaves 94 potential EDUs (24,534 gpd) remaining to be connected without including the Windy Willows Subdivision or the Daniel Boone Homestead.

The Exeter Township flow/EDU was calculated based on the 2010 Census figure of 2.61 persons per occupied dwelling and 100 gallons per capita per day.

The DEP Ch. 94 Spreadsheet was used to determine hydraulic and organic loading projections for the 5-year projection period (2018-2022). The figures show that the 5-year projected loads are well below the West WWTP's maximum monthly hydraulic and organic capacities.

Contributing Municipality worksheets were sent to the Borough of St. Lawrence, Lower Alsace Township and Alsace Township for completion. Completed worksheets can be found in Attachment F.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2017

Facility Name: Exeter Township

Permit No.: PA0026972

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: 8.73 MGD
Upgrade Planned in Next 5 Years? NO **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 17,739 lbs BOD5/day
Upgrade Planned In Next 5 Years? NO **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2013	2014	2015	2016	2017
January	3.5	4.216	2.922	3.061	3.467
February	3.904	4.599	2.937	5.2	2.83
March	3.716	4.486	5.498	3.173	3.893
April	3.564	4.72	3.406	2.768	4.41
May	3.862	4.894	2.673	3.383	3.546
June	3.589	3.202	3.416	2.705	3.159
July	3.287	2.963	3.309	2.814	3.848
August	2.947	2.639	2.545	2.574	3.492
September	2.412	2.717	2.48	2.503	3.313
October	3.096	2.624	2.758	2.433	2.749
November	2.634	2.652	2.448	2.413	2.82
December	4.015	3.502	3.193	3.072	2.69
Annual Avg	3.377	3.601	3.132	3.008	3.351
Max 3-Mo Avg	3.728	4.7	3.947	3.818	3.95
Max : Avg Ratio	1.10	1.31	1.26	1.27	1.18
Existing EDUs	856.0	885.0	919.0	949.0	962.0
Flow/EDU (GPD)	3945.1	4068.9	3408.1	3169.7	3483.4
Flow/Capita (GPD)	1127.2	1162.6	973.7	905.6	995.2
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2013	2014	2015	2016	2017
January	6,099	6,597	6,112	9,011	8,711
February	6,362	7,325	6,750	10,576	7,616
March	7,284	7,099	10,096	9,172	8,555
April	8,109	8,243	7,415	8,289	7,902
May	6,203	7,509	8,281	7,542	7,614
June	6,336	6,853	9,353	7,380	6,884
July	6,092	6,204	8,489	6,846	7,114
August	6,412	6,621	8,435	7,014	7,665
September	6,892	7,650	6,986	6,585	10,055
October	6,934	6,369	7,087	7,938	7,563
November	6,628	7,806	6,743	7,837	8,348
December	6,345	7,317	10,012	7,778	9,149
Annual Avg	6,641	7,133	7,980	7,997	8,098
Max Mo Avg	8,109	8,243	10,096	10,576	10,055
Max : Avg Ratio	1.22	1.16	1.27	1.32	1.24
Existing EDUs	856	885	919	949	962
Load/EDU	7.759	8.060	8.683	8.427	8.418
Load/Capita	2.217	2.303	2.481	2.408	2.405
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2018	2019	2020	2021	2022
New EDUs	20.0	20.0	20.0	20.0	20.0
New EDU Flow	0.0723	0.0723	0.0723	0.0723	0.0723
Proj. Annual Avg	3.366	3.4383	3.5106	3.5829	3.6552
Proj. Max 3-Mo Avg	4.118	4.207	4.295	4.384	4.472
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2018	2019	2020	2021	2022
New EDUs	20	20	20	20	20
New EDU Load	165.386	165.386	165.386	165.386	165.386
Proj. Annual Avg	8,263	8,429	8,594	8,760	8,925
Proj. Max Avg	10,256	10,462	10,667	10,872	11,077
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2013	2014	2015	2016	2017
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

EXETER TOWNSHIP
WASTEWATER TREATMENT FACILITIES

MUNICIPAL WASTELOAD MANAGEMENT (CHAPTER 94) REPORT
CONTRIBUTING MUNICIPALITY WORKSHEET

Municipality	Borough of St. Lawrence
Mailing Address	3540 St. Lawrence Ave.
	Reading, PA 19606
Contact Person	Ms. Allison Leinbach
Telephone Number	(610) 779-1430

1. LOADING INFORMATION

a. The total number of *Borough of St. Lawrence* Equivalent Dwelling Units (EDUs) connected to the *Township's* collection system at the end of **2017** was **857***. This equates to a flow of approximately **0.221**** million gallons per day (MGD).

***This represents the total number of connections to the collection system.**

****Based on flow data provided by Exeter Township. Please note that the 4th Qtr 2017 flow readings were not received in time to be included in this report. The 4th Qtr flows were calculated using the average flows from the 1st through the 3rd Qtrs of 2017.**

b. Please complete the following table, which summarizes the projected number of EDUs to increase over the next five (5) years. All residential developments should be listed, as well as individual commercial/industrial/institutional facilities and a "Miscellaneous Connections" row.

Development	Total EDUs Planned	Actual EDUs Connected in 2017	Total EDUs Connected To Date	Projected EDUs To Be Connected Each Year				
				2018	2019	2020	2021	2022
33 N. Bingaman St.		1	1					
11 Ranor Ct.				1				
Total	0	1	1	1	0	0	0	0

c. The increases in the number of connections (from Section 1b) will result in the following projected Borough flows to the Township:

2018: .221* MGD

2019: .221* MGD

2020: .221* MGD

2021: .221* MGD

2022: .221* MGD

***Based on using the 2017 average daily flow as reported by the Township.**

d. The projected increase in flows (from Section 1c) was derived in the following manner:

Based on the Average Daily Flow and the number of EDU's connected at the end of 2017, the gallons per day per EDU is 258 gpd/EDU. There is currently only 1 EDU planned over the next 5 years.

e. The approximate organic loading (in lbs. BOD5/day) of the municipal wastewater discharged to the Township's collection system during **2017** is estimated to be **344.09** lbs/day, which was calculated by using a factor of 0.19 lbs/day per capita multiplied by the estimated number of persons (**1,811**):

2. PLAN TO REDUCE OVERLOAD (IF APPLICABLE)

a. The following is a plan and schedule for reducing present or anticipated hydraulic or organic overload conditions within the municipal sewer system.

EXETER TOWNSHIP
WASTEWATER TREATMENT FACILITIES

MUNICIPAL WASTELOAD MANAGEMENT (CHAPTER 94) REPORT
CONTRIBUTING MUNICIPALITY WORKSHEET

Municipality Lower Alsace Township

Mailing Address 1200 Carsonia Avenue

Reading, PA 19606

Contact Person Terry L. Styer, Manager

Telephone Number 610-779-6400

1. LOADING INFORMATION

a. The total number of *Lower Alsace Township* Equivalent Dwelling Units (EDUs) connected to the *Township's* collection system at the end of 2017 was 27. This equates to a flow of approximately 0.006183 million gallons per day (MGD).

b. Please complete the following table, which summarizes the projected number of EDUs to increase over the next five (5) years. All residential developments should be listed, as well as individual commercial/industrial/institutional facilities and a "Miscellaneous Connections" row.

				Projected EDUs To Be Connected Each Year				
Development	**Total EDUs Planned**	**Actual EDUs connected In 2017**	**Total EDUs connected To Date**	2018	2019	2020	2021	2022
Windy Willows	2	0	0	0	2	2	0	0
Total	2	0	0	0	2	2	0	0

1

EXETER TOWNSHIP
WASTEWATER TREATMENT FACILITIES

MUNICIPAL WASTELOAD MANAGEMENT (CHAPTER 94) REPORT
CONTRIBUTING MUNICIPALITY WORKSHEET

c. The increases in the number of connections (from Section lb) will result in the following projected Township flows to the (**Exeter**) Township:

2018: 0.006183 MGD
2019: 0.006641 MGD
2020: 0.006641 MGD
2021: 0.006641 MGD
2022: 0.006641 MGD

d. The projected increase in flows (from Section c) was derived in the following manner:

Total # of EDU's x (229 Gal / EDU) = Flow MGD

e. The approximate organic loading (in lbs. BODs/day) of the municipal wastewater discharged to the Township's collection system during 2017 is estimated to be **11.78** lbs/day, which was calculated by using a factor of 0.19 lbs/day per capita multiplied by the estimated number of persons (**62**) or:

2. PLAN TO REDUCE OVERLOAD (IF APPLICABLE)

a. The following is a plan and schedule for reducing present or anticipated hydraulic or organic overload conditions within the municipal sewer system.

Task To Be Completed	**By Year**	**Resulting Overload Reduction (in mgd or lbs BOD/day)**
N/A	N/A	N/A

b. Attach, as a supplement, your detailed plan of action and schedule to locate and remove excessive inflow/infiltration from your sewer system.

EXETER TOWNSHIP
WASTEWATER TREATMENT FACILITIES

MUNICIPAL WASTELOAD MANAGEMENT (CHAPTER 94) REPORT
CONTRIBUTING MUNICIPALITY WORKSHEET

Municipality Alsace Township

Mailing Address 65 Woodside Ave
Temple, PA 19560

Contact Person Kimberly Mallatratt

Telephone Number 610-929-5324

1. LOADING INFORMATION

a. The total number of *Alsace Township* Equivalent Dwelling Units (EDUs) connected to the *Township's* collection system at the end of 2017 was 34. This equates to a flow of approximately 865,600 0.00786* million gallons per day (MGD).

This is the recorded yearly flow in gallons.

* This number is calculated using 229 gal/day per EDU

b. Please complete the following table, which summarizes the projected number of EDUs to increase over the next five (5) years. All residential developments should be listed, as well as individual commercial/industrial/institutional facilities and a "Miscellaneous Connections" row. n/a

				Projected EDUs To Be Connected Each Year				
Development	Total EDUs Planned	Actual EDUs connected In 2017	Total EDUs connected To Date	2018	2019	2020	2021	2022
Total								

* - This was revised by Eric D. McCracken, PE based on a discussion with Kimberly Mallatratt.

PROTECTION

Sewage Treatment Pl Reporting Year: 2016

Facility Name: Kinzua Road Wastewater Treatment Plant

Permit No.: PA0023175 **Persons/EDU:** 3.5

Existing Hydraulic Design Capacity: 1.5 MGD
Upgrade Planned in Next 5 Years? Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 2,189 lbs BOD5/day
Upgrade Planned in Next 5 Years? Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2012	2013	2014	2015	2016
January	0.778	0.69755	0.66	0.486	0.559
February	0.515	0.44271	0.42	0.35	0.835
March	0.618	0.62184	0.69	0.905	0.642
April	0.344	0.739	0.87	1.15	0.713
May	0.568	0.46319	0.86	0.444	0.455
June	0.374	0.61417	0.79	0.616	0.458
July	0.344	0.459	0.56	0.637	0.283
August	0.374	0.41761	0.8	0.438	0.392
September	0.367	0.37467	0.42	0.444	0.301
October	0.45	0.44945	0.49	0.521	0.528
November	0.411	0.60657	0.52	0.545	0.41
December	0.736	0.74661	0.68	0.831	0.644
Annual Avg	0.49	0.5526977	0.65	0.614	0.518
Max 3-Mo Avg	0.637	0.62542089	0.84	0.833	0.742
Max : Avg Ratio	1.30	1.13	1.29	1.36	1.43
Existing EDUs	1,225.0	1,225.0	1,233.0	1,233.0	1,233.0
Flow/EDU (GPD)	400.0	451.2	527.2	498.0	420.1
Flow/Capita (GPD)	114.3	128.9	150.6	142.3	120.0
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2012	2013	2014	2015	2016
January	939	1,287	1,030	1,009	776
February	1,383	776	941	1,160	980
March	1,327	1,137	1,767	1,595	960
April	804	673	1,900	3,638	715
May	999	687	1,334	1,098	821
June	1,069	1,040	1,017	1,087	802
July	1,196	1,687	1,392	1,118	847
August	1,131	1,597	2,354	1,369	872
September	1,070	2,147	985	706	1,365
October	1,122	2,199	1,128	770	1,067
November	1,366	1,442	1,412	797	1,049
December	1,653	1,345	1,463	1,142	2,093
Annual Avg	1,171	1,335	1,394	1,291	1,029
Max Mo Avg	1,653	2,199	2,354	3,638	2,093
Max : Avg Ratio	1.41	1.65	1.69	2.82	2.03
Existing EDUs	1,225	1,225	1,233	1,233	1,233
Load/EDU	0.956	1.090	1.130	1.047	0.834
Load/Capita	0.273	0.311	0.323	0.299	0.238
Exist. Overload?	NO	YES	YES	YES	NO

Projected Flows for Next Five Years (MGD)

	2017	2018	2019	2020	2021
New EDUs	10.0	10.0	10.0	10.0	10.0
New EDU Flow	0.0046	0.0046	0.0046	0.0046	0.0046
Proj. Annual Avg	0.56954	0.57414	0.57874	0.58334	0.58794
Proj. Max 3-Mo Avg	0.74188	0.74787	0.75387	0.75986	0.76585
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2017	2018	2019	2020	2021
New EDUs	10	10	10	10	10
New EDU Load	10.115	10.115	10.115	10.115	10.115
Proj. Annual Avg	1,254	1,264	1,274	1,284	1,294
Proj. Max Avg	2,408	2,427	2,447	2,466	2,485
Proj. Overload?	YES	YES	YES	YES	YES

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2012	2013	2014	2015	2016
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spread: Sewage Treatment Pl

Reporting Year: 2016

Facility Name: Pine Street Wastewater Treatment Plant

Permit No.: PA0023167

Persons/EDU:

Existing Hydraulic Design Capacity:	1.5	MGD		**Existing Organic Design Capacity:**	2,502	lbs BOD5/day
Upgrade Planned in Next 5 Years?	NO		**Year:**	**Upgrade Planned in Next 5 Years?**	NO	**Year:**
Future Hydraulic Design Capacity:		MGD		**Future Organic Design Capacity:**		lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2012	2013	2014	2015	2016
January	0.851	0.71471	0.62	0.383	0.508
February	0.562	0.48429	0.37	0.246	0.705
March	0.637	0.65419	0.61	0.779	0.562
April	0.344	0.69583	0.76	1.013	0.667
May	0.575	0.41739	0.84	0.348	0.412
June	0.343	0.54463	0.72	0.512	0.409
July	0.293	0.3801	0.42	0.473	0.202
August	0.341	0.2209	0.61	0.204	0.286
September	0.322	0.2069	0.29	0.216	0.222
October	0.433	0.249	0.4	0.411	0.445
November	0.425	0.4711	0.39	0.495	0.36
December	0.795	0.72461	0.59	0.789	0.609
Annual Avg	0.493	0.48030463	0.55	0.489	0.449
Max 3-Mo Avg	0.683	0.66466513	0.77	0.713	0.667
Max : Avg Ratio	1.39	1.38	1.40	1.46	1.49
Existing EDUs	1,210.0	1,210.0	1,214.0	1,214.0	1,214.0
Flow/EDU (GPD)	407.4	396.9	453.0	402.8	369.9
Flow/Capita (GPD)					
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2012	2013	2014	2015	2016
January	1,149	771	966	509	588
February	970	756	702	237	805
March	878	1,036	1,001	621	448
April	1,009	591	944	522	746
May	1,102	542	1,055	501	447
June	745	1,020	553	457	476
July	985	627	1,096	402	655
August	927	957	984	655	734
September	980	1,222	883	467	607
October	1,223	1,205	1,191	791	479
November	1,008	1,063	1,188	867	668
December	1,174	990	1,017	1,224	845
Annual Avg	1,012	898	965	604	625
Max Mo Avg	1,223	1,222	1,191	1,224	845
Max : Avg Ratio	1.21	1.36	1.23	2.03	1.35
Existing EDUs	1,210	1,210	1,214	1,214	1,214
Load/EDU	0.837	0.742	0.795	0.498	0.515
Load/Capita					
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2017	2018	2019	2020	2021
New EDUs	10.0	10.0	10.0	10.0	10.0
New EDU Flow	0.0041	0.0041	0.0041	0.0041	0.0041
Proj. Annual Avg	0.49636	0.50046	0.50456	0.50866	0.51276
Proj. Max 3-Mo Avg	0.70611	0.71194	0.71777	0.7236	0.72944
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2017	2018	2019	2020	2021
New EDUs	10	10	10	10	10
New EDU Load	6.773	6.773	6.773	6.773	6.773
Proj. Annual Avg	828	835	841	848	855
Proj. Max Avg	1,189	1,198	1,208	1,218	1,228
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2012	2013	2014	2015	2016
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

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						Connected		Not Connected	
SCC/Other	Area or Development/EA	Phase / Paid	Units	EDUs	Type	Units	EDUs	Units	EDUs
SSC	Pomeroy Area	Phase 1A / YES	123	123	Single	123	123	-	-
SSC	Pomeroy Area	Phase 1B / YES	19	19	Single	19	19	-	-
SSC	Sadsburyville Area	Phase 2A / YES	48	48	Mixed	48	48	-	-
SSC	Sadsburyville Area	Phase 2B / YES	22	22	Mixed	22	22	-	-
SSC	Pomeroy Heights Area	Phase 3A / YES	142	142	Single	142	142	-	-
SSC	Pomeroy Heights Area	Phase 3B / YES	24	24	Single	24	24	-	-
SSC	Area West of Pomeroy	Phase 4 / YES	28	28	Single	28	28	-	-
Other	Lincoln Crest	All Phases / Partial	150	150	MHP Units	125	125	25	25
SSC	Quarry Ridge	All Phases / YES	158	158	Single	158	158	-	-
SSC	Sadsbury Village	All Phases / YES	146	146	Twnhse	146	146	-	-
SSC	Octorara Glen	All Phases / YES	43	43	Single	43	43	-	-
SSC	Sadsbury Park	All Phases / Partial	461	461	Single & Twnhse	85	85	376	376
Other	Sadsbury Crossing	All Phases / YES	19	19	Single	19	19	-	-
SSC	Bellaire Industrial Park	All Phases / YES	17	139	Commercial	10	56	7	83
SSC	Morris Farm Industrial Park	All Phases / YES	7	34	Commercial	5	22	2	12
SSC	Cowan Estates	All Phases / YES	20	20	Single	-	-	20	20
SSC	Lyn Hanway & Randy White	All Phases / YES	16	16	Twnhse	-	-	16	16
SSC	Sadsbury Twp Existing Residents	All Phases / YES	85	85	Single	21	21	64	64
SSC	Lafayette Square	All Phases / YES	125	125	Condominiums	40	40	85	85
SSC	Valley View Business Center	All Phases / YES	3	3	Commercial	3	3	-	-
SSC	Art Herling (Maple Avenue)	All Phases / YES	3	3	Single	3	3	-	-
		Totals	1,659	1,808	Totals	1,064	1,127	595	681

they owe for 25 more EDUs

they owe for 39 more EDU's

SSC Agreement Capacity/ Protocol	1,080	1,643
EDUs associated with July 7, 1997 Agreement btwn CCA and Sadsbury	563	
TOTAL EDUs	1,643	

SSC Capacity	270,000	410,750
Capacity under original Agreement - paid in full, less SSC Capacity	140,750	
TOTAL CAPACITY	410,750	

EDU = X GPD
250.00

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2017

Facility Name: Exeter Township | **Permit No.:** PA0026972 | **Persons/EDU:** 3.5

Existing Hydraulic Design Capacity:	8.73	MGD	**Existing Organic Design Capacity:**	17,739	lbs BOD5/day
Upgrade Planned in Next 5 Years?	NO	**Year:**	**Upgrade Planned in Next 5 Years?**	NO	**Year:**
Future Hydraulic Design Capacity:		MGD	**Future Organic Design Capacity:**		lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2013	2014	2015	2016	2017
January	3.5	4.216	2.922	3.061	3.467
February	3.904	4.599	2.937	5.2	2.83
March	3.716	4.486	5.498	3.173	3.893
April	3.564	4.72	3.406	2.768	4.41
May	3.862	4.894	2.673	3.383	3.546
June	3.589	3.202	3.416	2.705	3.159
July	3.287	2.963	3.309	2.814	3.648
August	2.947	2.639	2.545	2.574	3.492
September	2.412	2.717	2.48	2.503	3.313
October	3.096	2.624	2.758	2.433	2.749
November	2.634	2.652	2.448	2.413	2.82
December	4.015	3.502	3.193	3.072	2.69
Annual Avg	3.377	3.601	3.132	3.008	3.351
Max 3-Mo Avg	3.728	4.7	3.947	3.818	3.95
Max : Avg Ratio	1.10	1.31	1.26	1.27	1.18
Existing EDUs	856.0	885.0	919.0	949.0	962.0
Flow/EDU (GPD)	3945.1	4068.9	3408.1	3169.7	3483.4
Flow/Capita (GPD)	1127.2	1162.6	973.7	905.6	995.2
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2013	2014	2015	2016	2017
January	6,099	6,597	6,112	9,011	8,711
February	6,362	7,325	6,750	10,576	7,616
March	7,284	7,099	10,096	9,172	8,555
April	8,109	8,243	7,415	8,289	7,902
May	6,203	7,509	8,281	7,542	7,614
June	6,336	6,853	9,353	7,380	6,884
July	6,092	6,204	8,489	6,846	7,114
August	6,412	6,621	8,435	7,014	7,665
September	6,892	7,650	6,986	6,585	10,055
October	6,934	6,369	7,087	7,938	7,563
November	6,628	7,806	6,743	7,837	8,348
December	6,345	7,317	10,012	7,778	9,149
Annual Avg	6,641	7,133	7,980	7,997	8,098
Max Mo Avg	8,109	8,243	10,096	10,576	10,055
Max : Avg Ratio	1.22	1.16	1.27	1.32	1.24
Existing EDUs	856	885	919	949	962
Load/EDU	7.759	8.060	8.683	8.427	8.418
Load/Capita	2.217	2.303	2.481	2.408	2.405
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2018	2019	2020	2021	2022
New EDUs	20.0	20.0	20.0	20.0	20.0
New EDU Flow	0.0723	0.0723	0.0723	0.0723	0.0723
Proj. Annual Avg	3.366	3.4383	3.5106	3.5829	3.6552
Proj. Max 3-Mo Avg	4.118	4.207	4.295	4.384	4.472
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2018	2019	2020	2021	2022
New EDUs	20	20	20	20	20
New EDU Load	165.386	165.386	165.386	165.386	165.386
Proj. Annual Avg	8,263	8,429	8,594	8,760	8,925
Proj. Max Avg	10,256	10,462	10,667	10,872	11,077
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2013	2014	2015	2016	2017
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2015

Facility Name: Dravosburg Wastewater Treatment Plant

Permit No.: PA0028401

Persons/EDU:

Existing Hydraulic Design Capacity: 0.48 MGD
Upgrade Planned in Next 5 Years? No Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 2,780 lbs BOD5/day
Upgrade Planned in Next 5 Years? No Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2011	2012	2013	2014	2015
January	0.312	0.383	0.24536	0.31465	0.24365
February	0.566	0.245	0.24436	0.34396	0.24079
March	0.441	0.321	0.23639	0.245	0.41465
April	0.469	0.182	0.20837	0.287	0.31703
May	0.296	0.174	0.14923	0.3039	0.17975
June	0.181	0.141	0.24287	0.2557	0.3164
July	0.17	0.169	0.36639	0.16597	0.22126
August	0.181	0.118	0.16439	0.19568	0.09226
September	0.217	0.147	0.12443	0.10973	0.09226
October	0.281	0.14	0.14697	0.12442	0.14816
November	0.291	0.164	0.1954	0.19	0.1274
December	0.339	0.305	0.39874	0.23355	0.193
Annual Avg	0.312	0.207	0.226906	0.23079671	0.215551
Max 3-Mo Avg	0.492	0.338	0.264904	0.35245048	0.324157
Max : Avg Ratio	1.58	1.63	1.17	1.53	1.50
Existing EDUs	850.0	850.0	850.0	852.0	854.0
Flow/EDU (GPD)	367.1	243.5	266.9	270.9	252.4
Flow/Capita (GPD)					
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2011	2012	2013	2014	2015
January	126	150	91	68	142
February	69	94	101	105	183
March	201	134	105	73	263
April	235	111	111	78	238
May	197	122	49	68	114
June	162	111	31	42	148
July	88	94	49	49	42
August	51	46	45	66	29
September	60	49	28	40	16
October	70	74	52	55	23
November	64	111	71	72	28
December	194	94	115	105	27
Annual Avg	126	99	71	68	104
Max Mo Avg	235	150	115	105	263
Max : Avg Ratio	1.86	1.51	1.63	1.54	2.52
Existing EDUs	850	850	850	852	854
Load/EDU	0.149	0.117	0.083	0.080	0.122
Load/Capita					
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2016	2017	2018	2019	2020
New EDUs	2.0	2.0	2.0	2.0	2.0
New EDU Flow	0.0006	0.0006	0.0006	0.0006	0.0006
Proj. Annual Avg	0.23905	0.23965	0.24025	0.24085	0.24145
Proj. Max 3-Mo Avg	0.35419	0.35508	0.35596	0.35685	0.35774
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2016	2017	2018	2019	2020
New EDUs	2	2	2	2	2
New EDU Load	0.220	0.220	0.220	0.220	0.220
Proj. Annual Avg	94	94	94	95	95
Proj. Max Avg	170	171	171	171	172
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2011	2012	2013	2014	2015
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2015

Facility Name: City of Duquesne Wastewater Treatment Plant

Permit No.: PA0026981

Persons/EDU:

Existing Hydraulic Design Capacity: 5 MGD
Upgrade Planned in Next 5 Years? NO **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 2,780 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2011	2012	2013	2014	2015
January	0.43	1.28	0.975	0.79871	0.9368
February	0.841	0.83	1.006	1.01607	0.705
March	0.691	1.048	1.094	0.726	1.359
April	0.842	0.803	0.943	0.971	1.1473
May	0.637	0.98	0.79	1.12065	0.5731
June	0.975	0.739	1.281	1.05183	1.3447
July	0.733	1.098	1.412	0.87587	1.3479
August	0.566	0.839	0.895	1.07919	0.71839
September	1.003	1.0	0.739	0.56217	0.65517
October	1.132	1.08	0.744	0.59663	0.69052
November	1.036	0.525	0.767	0.592	0.65887
December	1.199	1.091	0.981	0.65403	0.805
Annual Avg	0.84	0.943	0.969	0.83701215	0.911812
Max 3-Mo Avg	1.122	1.172	1.196	1.04782616	1.136997
Max : Avg Ratio	1.34	1.24	1.23	1.25	1.25
Existing EDUs	3,179.0	3,179.0	3,179.0	3,179.0	3,179.0
Flow/EDU (GPD)	264.2	296.6	304.8	263.3	286.8
Flow/Capita (GPD)					
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2011	2012	2013	2014	2015
January	429	758	418	371	461
February	104	575	436	316	276
March	98	533	393	291	306
April	440	583	493	432	287
May	642	719	345	472	182
June	470	678	348	453	325
July	933	806	290	393	371
August	390	707	246	576	246
September	515	467	295	296	202
October	849	612	377	244	219
November	276	324	315	277	225
December	694	346	254	257	233
Annual Avg	487	592	351	365	278
Max Mo Avg	933	806	493	576	461
Max : Avg Ratio	1.92	1.36	1.41	1.58	1.66
Existing EDUs	3,179	3,179	3,179	3,179	3,179
Load/EDU	0.153	0.186	0.110	0.115	0.087
Load/Capita					
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2016	2017	2018	2019	2020
New EDUs	2.0	2.0	2.0	2.0	2.0
New EDU Flow	0.0006	0.0006	0.0006	0.0006	0.0006
Proj. Annual Avg	0.90076	0.90136	0.90196	0.90256	0.90316
Proj. Max 3-Mo Avg	1.13706	1.13782	1.13858	1.13933	1.14009
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2016	2017	2018	2019	2020
New EDUs	2	2	2	2	2
New EDU Load	0.261	0.261	0.261	0.261	0.261
Proj. Annual Avg	415	415	415	416	416
Proj. Max Avg	657	657	658	658	659
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2011	2012	2013	2014	2015
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants

Reporting Year: 2015

Facility Name: City of McKeesport Water Pollution Control

Permit No.: PA0026913

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: 11.5 MGD
Upgrade Planned in Next 5 Years? YES **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 19,950 lbs BOD5/day
Upgrade Planned in Next 5 Years? YES **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2011	2012	2013	2014	2015
January	10.25806	13.4	11.61	11.0	10.1
February	13.70357	11.1	11.71	12.1	11.0
March	14.85484	13.3	11.08	10.4	15.8
April	15.84667	9.8	10.55	11.2	13.0
May	12.26129	10.0	8.9	11.6	8.0
June	9.64	8.6	10.33	11.3	12.7
July	9.51613	9.9	12.27	9.0	12.0
August	9.65161	8.9	8.61	9.9	8.5
September	10.53333	8.4	8.14	8.0	9.9
October	11.54839	8.5	8.33	8.1	12.35
November	12.16667	8.7	9.15	8.8	11.51
December	12.97419	12.1	11.91	10.0	15.4
Annual Avg	11.9128962	10.2	10.22	10.1	11.69
Max 3-Mo Avg	14.8016923	12.8	11.81	11.7	13.27
Max : Avg Ratio	1.24	1.25	1.16	1.16	1.14
Existing EDUs	19,225.0	20,206.0	20,206.0	20,208.0	20,229.0
Flow/EDU (GPD)	619.7	504.8	505.8	499.8	577.9
Flow/Capita (GPD)	177.0	144.2	144.5	142.8	165.1
Exist. Overload?	YES	YES	YES	NO	YES

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2011	2012	2013	2014	2015
January	6,877	5,179	3,995	4,134	4,130
February	7,063	5,979	4,125	3,993	3,738
March	5,339	5,422	3,651	3,779	3,480
April	5,940	5,787	3,566	3,183	3,285
May	5,130	5,667	3,921	3,500	2,522
June	5,622	4,694	3,388	3,311	2,069
July	4,369	4,415	2,826	3,850	2,502
August	3,351	3,993	2,691	4,414	1,996
September	3,050	3,585	3,476	3,219	2,188
October	3,516	3,651	4,143	3,070	3,008
November	3,491	4,452	4,036	3,387	3,638
December	4,824	3,905	3,883	3,480	4,239
Annual Avg	4,881	4,727	3,642	3,610	3,066
Max Mo Avg	7,063	5,979	4,143	4,414	4,239
Max : Avg Ratio	1.45	1.26	1.14	1.22	1.38
Existing EDUs	19,225	20,206	20,206	20,208	20,229
Load/EDU	0.254	0.234	0.180	0.179	0.152
Load/Capita	0.073	0.067	0.051	0.051	0.043
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2016	2017	2018	2019	2020
New EDUs	11.0	11.0	11.0	11.0	11.0
New EDU Flow	0.006	0.006	0.006	0.006	0.006
Proj. Annual Avg	10.83058	10.83658	10.84258	10.84858	10.85458
Proj. Max 3-Mo Avg	12.88091	12.88804	12.89518	12.90232	12.90945
Proj. Overload?	YES	YES	YES	YES	YES

Projected BOD5 Loads for Next Five Years (lbs/day)

	2016	2017	2018	2019	2020
New EDUs	11	11	11	11	11
New EDU Load	2.196	2.196	2.196	2.196	2.196
Proj. Annual Avg	3,988	3,990	3,992	3,994	3,996
Proj. Max Avg	5,148	5,150	5,153	5,156	5,159
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2011	2012	2013	2014	2015
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

APPENDIX 6

EAST END WWTF
NEW GARDEN TOWNSHIP CHESTER COUNTY, PA

WATER QUALITY MANAGEMENT PERMIT NO. 1596417
PERMIT RENEWAL AND AMENDMENT FEBRUARY 25, 2008

HISTORICAL ORGANIC & HYDRAULIC LOAD SUMMARY

YEAR	2011	2012	2013	2014	2015	5-Year Average
Total EDUs Connected	1,109	1,110	1,112	1,143	1,143	
Annual Average Organic Load (total lbs/day)	423	507	518	486	543	495
Load Per EDU (lbs/day)	0.3814	0.4568	0.4658	0.4252	0.4751	0.4409
Annual Average Flow (MGD)	0.2043	0.1990	0.2240	0.2122	0.1749	0.2029
Flow Per EDU (GPD)	184	179	201	186	153	181

A Notice of Violation dated November 9, 2015 was received by the New Garden Township Sewer Authority; a copy is included as **Appendix 16**. The main focus of the NOV was that the method of disposal of treated effluent from the South End WWTF, due to Spray Zones 3 and 4 being out of service, was not a permitted activity and should cease. Upon receipt of the NOV the land application approach noted in the NOV ceased. The current method of disposal of the treated effluent from the South End WWTF is hauling the effluent to a DEP permitted treated facility

There were no exceedances during the 2015 calendar year.

In 2015, the spray fields were fertilized and treated following the recommendations in the Crop Management Plan. Also in 2015, both treated effluent spray pumps were examined and tested by an outside firm and were found to be in good operating condition.

The spray fields are maintained regularly. The grass is harvested and removed regularly throughout the growing season and weeds are controlled using broad leaf herbicides. Occasionally, there are minor problems with soil erosion.

Sampling and monitoring of four groundwater wells [MW-7, MW-8, MW-9 and MW-10] that are part of the South End Waste Water Treatment Facility is a requirement included in the Water Quality Management Permit. In order to effectively monitor the impact, if any, on groundwater in the immediate area of the South End Waste Water Treatment Facility, the four wells are sampled quarterly. The parameters that are sampled and monitored are: Ammonia-nitrogen, Nitrate-nitrogen, Nitrite-nitrogen, Chloride, Total Phosphorus, Total Dissolved Solids, Fecal Coliform, Turbidity, pH and Alkalinity. Field measurements include: Static Water Level and Sampling Depth. Monitoring Wells MW-11 and M-12 are not required to be sampled. *No significant deviations from prior readings were noted.*

In August of 2015 the annual Groundwater Report was submitted.

The South End WWTF currently serves the area generally south of Route 41, west of Route 7, east of Sunny Dell Road and Newark Road and north of Broad Run Road in New Garden Township; see the sewer service area map at **Appendix 2**.

The total present customer base is comprised of 605 residential and 2 commercial customers. This equates to 607 EDUs or 1,942 persons as explained in **Appendix 3**.

New Garden Township does not accept sewage from other municipalities for treatment at the South End WWTF.

No hauled-in septage is processed at the South End WWTF.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreadsh
Sewage Treatment Plan

Reporting Year: 2018

Facility Name: Royersford Borough WWTP

Permit No.: PA0021512

Persons/EDU: 2.54

Existing Hydraulic Design Capacity: 1 MGD
Upgrade Planned in Next 5 Years? NO Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 1,751 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.622	0.447	0.455	0.406	0.445
February	0.761	0.439	0.646	0.331	0.568
March	0.593	0.533	0.339	0.365	0.493
April	0.651	0.434	0.294	0.348	0.341
May	0.777	0.390	0.310	0.280	0.345
June	0.509	0.435	0.235	0.273	0.341
July	0.440	0.452	0.250	0.283	0.353
August	0.413	0.370	0.223	0.274	0.436
September	0.420	0.331	0.238	0.234	0.419
October	0.439	0.412	0.251	0.247	0.321
November	0.511	0.394	0.258	0.303	0.572
December	0.628	0.381	0.388	0.354	0.522
Annual Avg	0.564	0.418	0.324	0.308	0.430
Max 3-Mo Avg	0.674	0.529	0.494	0.375	0.502
Max : Avg Ratio	1.20	1.27	1.52	1.22	1.17
Existing EDUs	1,712.0	1,714.0	1,714.0	1,716.0	1,716.0
Flow/EDU (GPD)	329.4	243.9	189.0	179.5	250.6
Flow/Capita (GPD)	129.7	96.0	74.4	70.7	98.7
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2014	2015	2016	2017	2018
January	916	521	819	677	521
February	1,189	835	725	638	438
March	988	557	782	695	348
April	656	670	574	435	653
May	823	866	602	420	328
June	711	498	478	447	354
July	870	640	445	321	364
August	624	644	364	467	342
September	542	549	310	346	465
October	566	732	438	700	435
November	810	766	515	468	587
December	928	613	648	509	416
Annual Avg	802	658	558	510	438
Max Mo Avg	1,189	866	819	700	653
Max : Avg Ratio	1.48	1.32	1.47	1.37	1.49
Existing EDUs	1,712	1,714	1,714	1,716	1,716
Load/EDU	0.468	0.384	0.326	0.297	0.255
Load/Capita	0.184	0.151	0.128	0.117	0.100
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	1.0	3.0	3.0	1.0	1.0
New EDU Flow	0.0002	0.0007	0.0007	0.0002	0.0002
Proj. Annual Avg	0.409	0.4097	0.4104	0.4106	0.4108
Proj. Max 3-Mo Avg	0.521	0.522	0.523	0.523	0.523
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2019	2020	2021	2022	2023
New EDUs	1	3	3	1	1
New EDU Load	0.346	1.038	1.038	0.346	0.346
Proj. Annual Avg	593	595	596	596	596
Proj. Max Avg	846	848	849	850	850
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January		3.15	25.55	5.2	2.8
February		1.43	9.13	3.6	6.35
March		8.05	156.0	2.95	2.3
April		1.95	1.78	2.96	2.0
May		0.1	3.64	5.75	6.39
June		7.6	1.7	5.2	6.41
July		5.4	5.2	7.6	10.11
August		2.5	1.7	6.45	8.67
September		3.6	4.35	2.85	8.21
October		4.6	1.42	5.45	2.87
November		1.61	3.25	2.2	13.05
December		4.81	3.15	2.45	5.25

Customer Number	Customer Name	Service Address	Customer Type	Units
Total 10:				
1,422				1527
16				
UP Commercial				
10140882.01	DICKENSON, CHARLES	882 FARMINGTON AVE	UP Commercial	2
10140902.01	CMD SERVICES INC	902 FARMINGTON AVE	UP Commercial	3
18011263.02	H & E PALERMO REAL ESTATE	1263 N CHARLOTTE ST	UP Commercial	2
20010863.01	SJW PROPERTIES LLC	871 N HANOVER ST -comm.bldg	UP Commercial	6
41020179.01	APPLEBEES RESTAURANT - ROSE CAS DIN LP	815 STATE ST	UP Commercial	30
41021495.01	KIM, JONG Y & YUN K	1495 FARMINGTON AVE	UP Commercial	3
Total UP Commercial:				
6				46
Total 16:				
6				46
Grand Totals:				
1,428				1573

Report Criteria:
Service.Service number = 10,16
Group Code.Group code = "A","B","C"
Customer.Final bill date = {IS NULL}
Billing.Temporary disconnect date = {IS NULL}
Billing.Final disconnect date = {IS NULL}

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreads
Sewage Treatment Pl

Reporting Year: 2020

Facility Name: YORK CITY WWTP

Permit No.: PA0026263

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: 26 MGD
Upgrade Planned in Next 5 Years? NO **Year:**
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: 62,884 lbs BOD5/day
Upgrade Planned in Next 5 Years? NO **Year:**
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2016	2017	2018	2019	2020
January	10.479	8.999	8.921	14.69	11.349
February	18.736	8.57	14.585	13.7	10.496
March	11.506	10.679	12.268	16.675	8.643
April	9.743	12.132	12.13	11.495	9.651
May	12.032	9.759	13.199	14.572	9.682
June	10.618	8.376	14.067	9.466	8.653
July	8.478	10.074	16.747	8.368	7.503
August	8.595	10.999	16.741	8.527	10.273
September	8.268	9.65	15.092	7.675	7.823
October	7.845	8.671	9.515	8.956	7.579
November	7.364	8.931	18.25	9.376	7.901
December	8.166	7.726	14.495	10.658	10.306
Annual Avg	10.153	9.547	13.834	11.18	9.155
Max 3-Mo Avg	13.574	10.857	16.193	15.812	10.834
Max : Avg Ratio	1.34	1.14	1.17	1.41	1.18
Existing EDUs	29,008.0	27,277.0	39,526.0	31,942.0	26,157.0
Flow/EDU (GPD)	350.0	350.0	350.0	350.0	350.0
Flow/Capita (GPD)	100.0	100.0	100.0	100.0	100.0
Exist. Overload?	**NO**	**NO**	**NO**	**NO**	**NO**

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2016	2017	2018	2019	2020
January	20,960	23,625	21,515	21,097	19,682
February	23,249	21,977	20,999	20,749	21,460
March	21,045	21,341	20,660	25,450	19,238
April	22,580	19,392	22,070	22,455	18,387
May	23,824	21,230	21,584	20,056	15,381
June	24,460	21,351	20,517	18,956	15,719
July	20,470	19,104	19,875	18,564	14,427
August	20,837	19,298	17,777	21,670	18,038
September	20,862	21,051	17,565	21,941	15,578
October	20,228	20,175	17,197	21,890	17,344
November	22,165	19,737	20,154	20,639	18,108
December	22,699	20,017	20,359	19,721	19,365
Annual Avg	21,948	20,692	20,023	21,099	17,727
Max Mo Avg	24,460	23,625	22,070	25,450	21,460
Max : Avg Ratio	1.11	1.14	1.10	1.21	1.21
Existing EDUs	29,008	27,277	39,526	31,942	26,157
Load/EDU	0.757	0.759	0.507	0.661	0.678
Load/Capita	0.216	0.217	0.145	0.189	0.194
Exist. Overload?	**NO**	**NO**	**NO**	**NO**	**NO**

Projected Flows for Next Five Years (MGD)

	2021	2022	2023	2024	2025
New EDUs	423.3	632.4	633.8	500.9	603.4
New EDU Flow	0.14817	0.221325	0.22183	0.1753	0.2212
Proj. Annual Avg	10.922	11.14333	11.36516	11.54046	11.76166
Proj. Max 3-Mo Avg	13.636	13.912	14.189	14.408	14.684
Proj. Overload?	**NO**	**NO**	**NO**	**NO**	**NO**

Projected BOD5 Loads for Next Five Years (lbs/day)

	2021	2022	2023	2024	2025
New EDUs	423.3	632.4	633.8	500.9	603.4
New EDU Load	284.460	424.977	425.918	336.608	405.489
Proj. Annual Avg	20,582	21,007	21,433	21,770	22,175
Proj. Max Avg	23,773	24,264	24,756	25,145	25,613
Proj. Overload?	**NO**	**NO**	**NO**	**NO**	**NO**

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2016	2017	2018	2019	2020
January	1.44		2.12	3.11	2.84
February	4.28		4.76	2.86	2.21
March	1.52	2.97	2.06	5.15	3.0
April	2.21	4.6	3.88	2.5	
May	4.98	3.55	4.68	6.0	2.14
June	3.08	2.08	5.25		4.17
July			11.59	3.29	2.71
August	3.25	3.83	5.74	2.73	7.1
September	4.22	2.29	7.16		1.96
October	0.81	3.74	2.0	5.93	2.66
November		2.25	7.77	1.42	2.67
December	1.96	0.81	4.12	3.7	2.65

Consensus Forecast of U.S. Interest Rates and Key Assumptions

	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			Latest Qtr	2Q	3Q	4Q	1Q	2Q	3Q
Interest Rates	May 20	May 13	May 6	Apr 29	Apr	Mar	Feb	1Q 2022	**2022**	**2022**	**2022**	**2023**	**2023**	**2023**
Federal Funds Rate	0.83	0.83	0.33	0.33	0.33	0.20	0.08	0.12	**1.0**	**1.9**	**2.4**	**2.8**	**3.0**	**3.1**
Prime Rate	4.00	4.00	3.50	3.50	3.50	3.37	3.25	3.29	**4.0**	**5.0**	**5.5**	**5.9**	**6.1**	**6.2**
SOFR	0.79	0.78	0.49	0.28	0.29	0.16	0.05	0.09	**0.9**	**1.8**	**2.3**	**2.7**	**2.9**	**3.0**
Commercial Paper, 1-mo.	0.83	0.82	0.71	0.55	0.44	0.32	0.16	0.18	**0.9**	**1.8**	**2.4**	**2.8**	**3.0**	**3.0**
Treasury bill, 3-mo.	1.05	0.94	0.88	0.85	0.76	0.45	0.31	0.30	**1.1**	**1.9**	**2.4**	**2.7**	**2.9**	**3.0**
Treasury bill, 6-mo.	1.54	1.44	1.43	1.40	1.26	0.86	0.64	0.61	**1.5**	**2.2**	**2.6**	**2.9**	**3.1**	**3.1**
Treasury bill, 1 yr.	2.11	2.00	2.10	2.03	1.89	1.34	1.00	0.96	**2.0**	**2.6**	**2.9**	**3.1**	**3.2**	**3.2**
Treasury note, 2 yr.	2.64	2.61	2.72	2.62	2.54	1.91	1.44	1.44	**2.6**	**2.9**	**3.1**	**3.2**	**3.3**	**3.2**
Treasury note, 5 yr.	2.86	2.89	3.00	2.84	2.78	2.11	1.81	1.82	**2.8**	**3.1**	**3.2**	**3.3**	**3.4**	**3.4**
Treasury note, 10 yr.	2.87	2.94	3.01	2.83	2.75	2.13	1.93	1.94	**2.9**	**3.1**	**3.2**	**3.3**	**3.4**	**3.4**
Treasury bond, 30 yr.	3.07	3.09	3.10	2.91	2.81	2.41	2.25	2.25	**3.0**	**3.3**	**3.4**	**3.5**	**3.6**	**3.6**
Corporate Aaa bond	4.43	4.42	4.40	4.19	4.01	3.63	3.36	3.35	**4.1**	**4.5**	**4.7**	**4.8**	**4.9**	**4.9**
Corporate Baa bond	5.13	5.10	5.06	4.84	4.63	4.23	3.92	3.90	**5.0**	**5.4**	**5.6**	**5.7**	**5.8**	**5.8**
State & Local bonds	4.09	4.03	3.93	3.84	3.70	3.30	3.01	3.02	**3.5**	**3.8**	**4.0**	**4.1**	**4.2**	**4.2**
Home mortgage rate	5.25	5.30	5.27	5.10	4.98	4.17	3.76	3.79	**5.1**	**5.3**	**5.5**	**5.6**	**5.6**	**5.5**
	History								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	**2Q**	**3Q**	**4Q**	**1Q**	**2Q**	**3Q**
Key Assumptions	2020	2020	2020	2021	2021	2021	2021	2022	**2022**	**2022**	**2022**	**2023**	**2023**	**2023**
Fed's AFE Index	112.4	107.2	105.1	103.4	102.9	105.0	107.0	108.4	**112.7**	**113.9**	**114.1**	**114.0**	**113.6**	**112.9**
Real GDP	-31.2	33.8	4.5	6.3	6.7	2.3	6.9	-1.5	**2.9**	**2.5**	**2.2**	**1.8**	**1.6**	**1.6**
GDP Price Index	-1.5	3.6	2.2	4.3	6.1	6.0	7.1	8.1	**5.9**	**4.6**	**3.5**	**3.1**	**2.8**	**2.7**
Consumer Price Index	-3.4	4.8	2.2	4.1	8.2	6.7	7.9	9.2	**7.6**	**4.8**	**3.4**	**3.0**	**2.6**	**2.6**
PCE Price Index	-1.6	3.7	1.5	3.8	6.5	5.3	6.4	7.0	**5.8**	**4.3**	**3.2**	**2.8**	**2.6**	**2.5**

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6/30/2022

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Month

Company Name	Enterprise value to Net PPE	Month End 6/30/2022 0	Month End 5/31/2022 -1	Month End 4/30/2022 -2	Month End 3/31/2022 -3	Month End 2/28/2022 -4	Month End 1/31/2022 -5	Month End 12/31/2021 -6	Month End 11/30/2021 -7	Month End 10/31/2021 -8	Month End 9/30/2021 -9	Month End 8/31/2021 -10	Month End 7/31/2021 -11	Month End 6/30/2021 -12	Month End 5/31/2021 -13	Month End 4/30/2021 -14	Month End 3/31/2021 -15	Month End 2/28/2021 -16	Month End 1/31/2021 -17	Month End 12/31/2020 -18	Month End 11/30/2020 -19	Month End 10/31/2020 -20	Month End 9/30/2020 -21	Month End 8/31/2020 -22
AMERICAN STATES WATER COMP	2.185	2.166	2.146	2.378	2.312	2.486	2.742	2.569	2.489	2.366	2.567	2.454	2.247	2.249	2.229	2.144	2.165	2.259	2.314	2.207	2.228	2.235	2.299
AMERICAN WATER WORKS COMP	1.757	1.804	1.828	1.938	1.857	1.948	2.194	2.053	2.099	2.053	2.204	2.081	1.936	1.964	1.958	1.903	1.871	2.016	1.964	1.996	1.962	1.909	1.910
ESSENTIAL UTILITIES, INC.	1.718	1.752	1.692	1.848	1.786	1.807	1.932	1.814	1.784	1.760	1.875	1.850	1.762	1.826	1.812	1.751	1.715	1.806	1.832	1.820	1.725	1.699	1.793
ARTESIAN RESOURCES CORPORA	1.013	1.060	1.025	1.056	1.039	1.065	1.037	0.991	0.946	0.911	0.945	0.933	0.899	0.981	0.972	0.960	0.925	0.982	0.923	0.936	0.890	0.878	0.902
CALIFORNIA WATER SERVICE GR	1.397	1.381	1.347	1.482	1.465	1.543	1.727	1.589	1.548	1.524	1.648	1.631	1.475	1.517	1.554	1.494	1.500	1.461	1.449	1.393	1.288	1.267	1.352
MIDDLESEX WATER COMPANY	2.142	2.071	2.148	2.467	2.401	2.421	2.807	2.499	2.643	2.478	2.678	2.515	2.075	2.213	2.115	2.050	1.899	2.137	1.978	1.938	1.838	1.788	1.882
SJW GROUP	1.359	1.373	1.339	1.464	1.430	1.451	1.503	1.461	1.443	1.427	1.492	1.487	1.407	1.446	1.460	1.443	1.429	1.451	1.491	1.471	1.399	1.401	1.431
THE YORK WATER COMPANY	1.866	1.921	1.823	1.925	1.962	1.981	2.136	2.080	2.103	1.949	2.290	2.150	2.040	2.271	2.326	2.224	1.968	2.040	2.165	2.160	2.036	2.037	2.205

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMP	2.738	2.710	2.685	2.975	2.887	3.104	3.424	3.202	3.103	2.949	3.260	3.116	2.854	2.853	2.828	2.719	2.754	2.874	2.944	2.805	2.832	2.841	2.955
AMERICAN WATER WORKS COMP	2.067	2.079	2.107	2.233	2.129	2.233	2.515	2.345	2.397	2.344	2.529	2.388	2.222	2.225	2.219	2.156	2.094	2.256	2.198	2.234	2.196	2.136	2.143
ESSENTIAL UTILITIES, INC.	1.576	1.597	1.543	1.685	1.640	1.658	1.773	1.655	1.628	1.605	1.708	1.685	1.606	1.671	1.658	1.602	1.578	1.663	1.687	1.660	1.574	1.550	1.622
ARTESIAN RESOURCES CORPORA	1.787	1.800	1.741	1.795	1.748	1.792	1.746	1.677	1.602	1.543	1.596	1.575	1.517	1.623	1.608	1.588	1.542	1.636	1.539	1.589	1.511	1.490	1.542
CALIFORNIA WATER SERVICE GR	1.769	1.715	1.672	1.840	1.777	1.872	2.095	1.973	1.922	1.892	2.057	2.036	1.841	1.923	1.970	1.894	1.879	1.830	1.815	1.800	1.665	1.636	1.742
MIDDLESEX WATER COMPANY	2.624	2.603	2.700	3.101	3.001	3.026	3.507	3.159	3.342	3.132	3.429	3.220	2.657	2.829	2.704	2.621	2.364	2.660	2.462	2.366	2.244	2.183	2.287
SJW GROUP	1.319	1.315	1.283	1.403	1.384	1.404	1.455	1.410	1.393	1.377	1.443	1.438	1.361	1.388	1.401	1.384	1.374	1.395	1.433	1.411	1.342	1.344	1.379
THE YORK WATER COMPANY	2.371	2.447	2.322	2.452	2.534	2.559	2.760	2.702	2.732	2.531	2.987	2.804	2.660	2.902	2.971	2.842	2.496	2.587	2.745	2.847	2.685	2.686	2.912

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Company Name	Enterprise value to Net PPE	Month End 6/30/2022 0	Month End 5/31/2022 -1	Month End 4/30/2022 -2	Month End 3/31/2022 -3	Month End 2/28/2022 -4	Month End 1/31/2022 -5	Month End 12/31/2021 -6	Month End 11/30/2021 -7	Month End 10/31/2021 -8	Month End 9/30/2021 -9	Month End 8/31/2021 -10	Month End 7/31/2021 -11	Month End 6/30/2021 -12	Month End 5/31/2021 -13	Month End 4/30/2021 -14	Month End 3/31/2021 -15	Month End 2/28/2021 -16	Month End 1/31/2021 -17	Month End 12/31/2020 -18	Month End 11/30/2020 -19	Month End 10/31/2020 -20	Month End 9/30/2020 -21	Month End 8/31/2020 -22
AMERICAN STATES WATER COMP	1.000	0.991	0.982	1.088	1.058	1.138	1.255	1.176	1.139	1.083	1.175	1.123	1.028	1.029	1.020	0.981	0.991	1.034	1.059	1.010	1.020	1.023	1.052
AMERICAN WATER WORKS COMP	1.000	1.027	1.041	1.103	1.057	1.109	1.249	1.169	1.195	1.168	1.254	1.185	1.102	1.118	1.115	1.083	1.065	1.148	1.118	1.136	1.117	1.086	1.087
ESSENTIAL UTILITIES, INC.	1.000	1.020	0.985	1.076	1.040	1.052	1.124	1.056	1.039	1.024	1.092	1.077	1.026	1.063	1.055	1.019	0.998	1.052	1.067	1.060	1.004	0.989	1.044
ARTESIAN RESOURCES CORPORA	1.000	1.046	1.012	1.043	1.025	1.051	1.024	0.978	0.934	0.900	0.933	0.921	0.887	0.969	0.959	0.948	0.913	0.969	0.911	0.924	0.879	0.866	0.891
CALIFORNIA WATER SERVICE GR	1.000	0.988	0.964	1.061	1.048	1.104	1.236	1.137	1.108	1.091	1.179	1.167	1.055	1.086	1.112	1.069	1.073	1.045	1.037	0.997	0.922	0.906	0.967
MIDDLESEX WATER COMPANY	1.000	0.967	1.003	1.152	1.121	1.130	1.310	1.167	1.234	1.157	1.250	1.174	0.968	1.033	0.987	0.957	0.887	0.998	0.923	0.905	0.858	0.835	0.879
SJW GROUP	1.000	1.011	0.986	1.078	1.052	1.068	1.106	1.075	1.062	1.050	1.098	1.094	1.036	1.065	1.075	1.062	1.052	1.068	1.097	1.083	1.030	1.031	1.053
THE YORK WATER COMPANY	1.000	1.029	0.977	1.031	1.051	1.061	1.145	1.114	1.127	1.044	1.227	1.152	1.093	1.217	1.246	1.192	1.054	1.093	1.160	1.157	1.091	1.092	1.182

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMP	1.000	0.990	0.981	1.087	1.054	1.134	1.251	1.170	1.133	1.077	1.191	1.138	1.042	1.042	1.033	0.993	1.006	1.050	1.075	1.025	1.035	1.038	1.079
AMERICAN WATER WORKS COMP	1.000	1.006	1.019	1.080	1.030	1.080	1.217	1.135	1.160	1.134	1.224	1.156	1.075	1.077	1.074	1.043	1.013	1.092	1.064	1.081	1.063	1.034	1.037
ESSENTIAL UTILITIES, INC.	1.000	1.013	0.979	1.069	1.041	1.052	1.125	1.051	1.033	1.019	1.084	1.070	1.019	1.060	1.052	1.017	1.002	1.055	1.070	1.054	0.999	0.984	1.029
ARTESIAN RESOURCES CORPORA	1.000	1.007	0.974	1.004	0.978	1.003	0.977	0.939	0.896	0.863	0.893	0.882	0.849	0.908	0.900	0.889	0.863	0.916	0.861	0.889	0.846	0.834	0.863
CALIFORNIA WATER SERVICE GR	1.000	0.969	0.945	1.040	1.004	1.058	1.184	1.115	1.086	1.069	1.163	1.151	1.041	1.087	1.113	1.070	1.062	1.034	1.026	1.017	0.941	0.925	0.985
MIDDLESEX WATER COMPANY	1.000	0.992	1.029	1.181	1.143	1.153	1.336	1.204	1.273	1.193	1.306	1.227	1.012	1.078	1.030	0.999	0.901	1.013	0.938	0.902	0.855	0.832	0.871
SJW GROUP	1.000	0.997	0.972	1.063	1.049	1.065	1.103	1.069	1.056	1.044	1.094	1.090	1.032	1.052	1.062	1.049	1.042	1.058	1.086	1.070	1.017	1.019	1.045
THE YORK WATER COMPANY	1.000	1.032	0.979	1.034	1.069	1.079	1.164	1.139	1.152	1.067	1.260	1.182	1.122	1.224	1.253	1.198	1.053	1.091	1.158	1.201	1.132	1.133	1.228

6/30/2022	Month End 6/30/2022	Month End 5/31/2022	Month End 4/30/2022	Month End 3/31/2022	Month End 2/28/2022	Month End 1/31/2022	Month End 12/31/2021	Month End 11/30/2021	Month End 10/31/2021	Month End 9/30/2021	Month End 8/31/2021	Month End 7/31/2021	Month End 6/30/2021	Month End 5/31/2021	Month End 4/30/2021	Month End 3/31/2021	Month End 2/28/2021	Month End 1/31/2021	Month End 12/31/2020	Month End 11/30/2020	Month End 10/31/2020	Month End 9/30/2020	Month End 8/31/2020
Enterprise value to Net PPE	100%	102%	99%	108%	105%	109%	119%	113%	112%	107%	118%	114%	103%	106%	106%	104%	103%	105%	106%	103%	101%	101%	103%
Enterprise value to Inv Cap	100%	100%	98%	107%	104%	107%	117%	112%	111%	107%	118%	114%	104%	107%	106%	103%	101%	105%	107%	104%	101%	100%	103%

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Company Name	Month End 7/31/2020 -23 Enterprise value to Net PPE	Month End 6/30/2020 -24 Enterprise value to Net PPE	Month End 5/31/2020 -25 Enterprise value to Net PPE	Month End 4/30/2020 -26 Enterprise value to Net PPE	Month End 3/31/2020 -27 Enterprise value to Net PPE	Month End 2/29/2020 -28 Enterprise value to Net PPE	Month End 1/31/2020 -29 Enterprise value to Net PPE	Month End 12/31/2019 -30 Enterprise value to Net PPE	Month End 11/30/2019 -31 Enterprise value to Net PPE	Month End 10/31/2019 -32 Enterprise value to Net PPE	Month End 9/30/2019 -33 Enterprise value to Net PPE	Month End 8/31/2019 -34 Enterprise value to Net PPE	Month End 7/31/2019 -35 Enterprise value to Net PPE	Month End 6/30/2019 -36 Enterprise value to Net PPE	Month End 5/31/2019 -37 Enterprise value to Net PPE	Month End 4/30/2019 -38 Enterprise value to Net PPE	Month End 3/31/2019 -39 Enterprise value to Net PPE	Month End 2/28/2019 -40 Enterprise value to Net PPE	Month End 1/31/2019 -41 Enterprise value to Net PPE	Month End 12/31/2018 -42 Enterprise value to Net PPE	Month End 11/30/2018 -43 Enterprise value to Net PPE	Month End 10/31/2018 -44 Enterprise value to Net PPE	Month End 9/30/2018 -45 Enterprise value to Net PPE	Month End 8/31/2018 -46 Enterprise value to Net PPE	Month End 7/31/2018 -47 Enterprise value to Net PPE
AMERICAN STATES WATER COMF	2.313	2.357	2.434	2.349	2.407	2.372	2.672	2.622	2.632	2.894	2.753	2.898	2.453	2.391	2.392	2.321	2.324	2.379	2.263	2.244	2.288	2.117	2.115	2.128	2.112
AMERICAN WATER WORKS COMP	1.954	1.773	1.791	1.719	1.698	1.744	1.849	1.717	1.732	1.755	1.762	1.810	1.682	1.683	1.684	1.610	1.569	1.574	1.500	1.448	1.522	1.448	1.441	1.462	1.436
ESSENTIAL UTILITIES, INC.	1.828	1.743	2.513	1.804	1.762	1.741	1.978	1.804	1.735	1.766	1.748	1.756	1.958	1.937	1.904	1.863	1.538	1.572	1.505	1.479	1.535	1.453	1.593	1.626	1.606
ARTESIAN RESOURCES CORPORA	0.888	0.905	0.897	0.889	0.932	0.893	0.954	0.943	0.953	0.941	0.941	0.944	0.921	0.939	0.928	0.931	0.954	0.999	0.927	0.919	0.963	0.961	0.966	0.972	0.980
CALIFORNIA WATER SERVICE GR	1.383	1.360	1.366	1.324	1.410	1.393	1.468	1.448	1.470	1.565	1.505	1.607	1.524	1.465	1.470	1.495	1.550	1.525	1.468	1.427	1.420	1.328	1.349	1.339	1.338
MIDDLESEX WATER COMPANY	1.878	1.939	2.011	1.822	1.818	1.874	2.070	2.028	2.078	2.013	1.957	1.934	1.975	1.852	1.900	1.848	1.794	1.907	1.835	1.759	1.772	1.569	1.664	1.636	1.567
SJW GROUP	1.420	1.416	1.450	1.393	1.370	2.195	1.557	1.512	1.531	1.561	1.476	1.506	1.435	1.335	1.373	1.382	1.366	1.373	1.630	1.539	1.534	1.321	1.318	1.290	1.396
THE YORK WATER COMPANY	2.227	2.294	2.174	2.000	2.131	2.091	2.302	2.250	2.221	2.191	2.175	1.931	1.862	1.852	1.810	1.790	1.802	1.900	1.745	1.709	1.773	1.687	1.655	1.657	1.688

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMF	2.972	3.030	3.224	3.110	3.188	3.061	3.448	3.382	3.426	3.766	3.582	3.881	3.285	3.203	3.201	3.106	3.109	3.200	3.044	3.017	3.044	2.818	2.814	2.834	2.812
AMERICAN WATER WORKS COMP	2.191	1.989	2.096	2.012	1.987	2.062	2.187	2.030	2.041	2.067	2.075	2.153	2.000	2.002	2.024	1.934	1.885	1.883	1.794	1.732	1.811	1.722	1.714	1.790	1.758
ESSENTIAL UTILITIES, INC.	1.653	1.576	2.289	1.643	1.605	1.552	1.763	1.608	1.555	1.582	1.567	2.227	2.483	2.456	2.435	2.383	1.968	2.026	1.940	1.905	1.969	1.864	2.043	2.128	2.102
ARTESIAN RESOURCES CORPORA	1.517	1.547	1.528	1.514	1.587	1.529	1.633	1.615	1.651	1.629	1.630	1.648	1.608	1.639	1.626	1.631	1.671	1.757	1.630	1.615	1.691	1.688	1.696	1.696	1.711
CALIFORNIA WATER SERVICE GR	1.782	1.752	1.852	1.795	1.911	1.887	1.989	1.962	1.985	2.113	2.032	2.190	2.076	1.996	2.027	2.062	2.138	2.075	1.997	1.942	1.977	1.849	1.877	1.887	1.885
MIDDLESEX WATER COMPANY	2.282	2.356	2.463	2.232	2.226	2.249	2.484	2.433	2.773	2.686	2.611	2.607	2.662	2.497	2.596	2.525	2.451	2.612	2.514	2.409	2.450	2.169	2.300	2.305	2.208
SJW GROUP	1.369	1.365	1.398	1.343	1.321	2.144	1.521	1.477	1.482	1.511	1.429	1.459	1.390	1.293	1.320	1.329	1.313	1.883	2.236	2.111	2.123	1.828	1.824	1.806	1.956
THE YORK WATER COMPANY	2.941	3.030	2.875	2.645	2.817	2.777	3.057	2.988	2.986	2.945	2.923	2.610	2.518	2.503	2.441	2.414	2.431	2.598	2.387	2.337	2.413	2.296	2.252	2.272	2.315

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Company Name	Month End 7/31/2020 -23 Enterprise value to Net PPE	Month End 6/30/2020 -24 Enterprise value to Net PPE	Month End 5/31/2020 -25 Enterprise value to Net PPE	Month End 4/30/2020 -26 Enterprise value to Net PPE	Month End 3/31/2020 -27 Enterprise value to Net PPE	Month End 2/29/2020 -28 Enterprise value to Net PPE	Month End 1/31/2020 -29 Enterprise value to Net PPE	Month End 12/31/2019 -30 Enterprise value to Net PPE	Month End 11/30/2019 -31 Enterprise value to Net PPE	Month End 10/31/2019 -32 Enterprise value to Net PPE	Month End 9/30/2019 -33 Enterprise value to Net PPE	Month End 8/31/2019 -34 Enterprise value to Net PPE	Month End 7/31/2019 -35 Enterprise value to Net PPE	Month End 6/30/2019 -36 Enterprise value to Net PPE	Month End 5/31/2019 -37 Enterprise value to Net PPE	Month End 4/30/2019 -38 Enterprise value to Net PPE	Month End 3/31/2019 -39 Enterprise value to Net PPE	Month End 2/28/2019 -40 Enterprise value to Net PPE	Month End 1/31/2019 -41 Enterprise value to Net PPE	Month End 12/31/2018 -42 Enterprise value to Net PPE	Month End 11/30/2018 -43 Enterprise value to Net PPE	Month End 10/31/2018 -44 Enterprise value to Net PPE	Month End 9/30/2018 -45 Enterprise value to Net PPE	Month End 8/31/2018 -46 Enterprise value to Net PPE	Month End 7/31/2018 -47 Enterprise value to Net PPE
AMERICAN STATES WATER COMF	1.058	1.079	1.114	1.075	1.102	1.086	1.223	1.200	1.205	1.325	1.260	1.326	1.123	1.095	1.095	1.062	1.064	1.089	1.036	1.027	1.047	0.969	0.968	0.974	0.967
AMERICAN WATER WORKS COMP	1.112	1.010	1.020	0.978	0.966	0.993	1.053	0.977	0.986	0.999	1.003	1.030	0.957	0.958	0.959	0.916	0.893	0.896	0.854	0.824	0.867	0.824	0.820	0.832	0.817
ESSENTIAL UTILITIES, INC.	1.064	1.014	1.463	1.050	1.025	1.013	1.152	1.050	1.010	1.028	1.018	1.022	1.140	1.127	1.108	1.085	0.896	0.915	0.876	0.861	0.894	0.846	0.927	0.946	0.935
ARTESIAN RESOURCES CORPORA	0.876	0.893	0.885	0.877	0.920	0.881	0.941	0.931	0.941	0.929	0.929	0.932	0.909	0.927	0.916	0.919	0.942	0.986	0.915	0.907	0.951	0.949	0.953	0.959	0.968
CALIFORNIA WATER SERVICE GR	0.989	0.973	0.978	0.948	1.009	0.997	1.051	1.036	1.052	1.120	1.077	1.150	1.090	1.049	1.052	1.070	1.109	1.091	1.050	1.021	1.016	0.951	0.965	0.958	0.957
MIDDLESEX WATER COMPANY	0.877	0.905	0.939	0.851	0.849	0.875	0.966	0.947	0.970	0.940	0.914	0.903	0.922	0.865	0.887	0.863	0.837	0.890	0.857	0.821	0.827	0.732	0.777	0.764	0.732
SJW GROUP	1.046	1.042	1.067	1.025	1.009	1.615	1.146	1.113	1.127	1.149	1.087	1.108	1.056	0.983	1.011	1.017	1.006	1.010	1.200	1.132	1.129	0.972	0.970	0.949	1.028
THE YORK WATER COMPANY	1.193	1.229	1.165	1.072	1.142	1.120	1.233	1.206	1.190	1.174	1.165	1.035	0.998	0.992	0.970	0.959	0.966	1.018	0.935	0.915	0.950	0.904	0.887	0.888	0.905

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMF	1.086	1.107	1.177	1.136	1.164	1.118	1.259	1.235	1.251	1.375	1.308	1.418	1.200	1.170	1.169	1.134	1.136	1.169	1.112	1.102	1.112	1.029	1.028	1.035	1.027
AMERICAN WATER WORKS COMP	1.060	0.962	1.014	0.973	0.961	0.998	1.058	0.982	0.987	1.000	1.004	1.042	0.968	0.968	0.979	0.936	0.912	0.911	0.868	0.838	0.876	0.833	0.829	0.866	0.851
ESSENTIAL UTILITIES, INC.	1.049	1.000	1.453	1.043	1.019	0.985	1.119	1.021	0.987	1.004	0.994	1.413	1.576	1.559	1.545	1.512	1.249	1.286	1.231	1.209	1.250	1.183	1.297	1.350	1.334
ARTESIAN RESOURCES CORPORA	0.849	0.866	0.855	0.847	0.888	0.856	0.914	0.904	0.924	0.912	0.912	0.922	0.900	0.917	0.910	0.913	0.935	0.983	0.912	0.904	0.946	0.944	0.949	0.949	0.957
CALIFORNIA WATER SERVICE GR	1.007	0.990	1.047	1.015	1.080	1.067	1.125	1.109	1.122	1.195	1.149	1.238	1.173	1.128	1.146	1.166	1.208	1.173	1.129	1.098	1.117	1.045	1.061	1.067	1.066
MIDDLESEX WATER COMPANY	0.870	0.898	0.938	0.850	0.848	0.857	0.947	0.927	1.057	1.024	0.995	0.993	1.014	0.951	0.989	0.962	0.934	0.995	0.958	0.918	0.934	0.826	0.876	0.878	0.841
SJW GROUP	1.038	1.035	1.060	1.018	1.002	1.625	1.153	1.119	1.123	1.146	1.083	1.106	1.054	0.980	1.001	1.007	0.996	1.427	1.695	1.600	1.609	1.386	1.383	1.369	1.482
THE YORK WATER COMPANY	1.240	1.278	1.212	1.115	1.188	1.171	1.289	1.260	1.259	1.242	1.233	1.101	1.062	1.056	1.029	1.018	1.025	1.096	1.007	0.985	1.018	0.968	0.950	0.958	0.976

6/30/2022	Month End 7/31/2020	Month End 6/30/2020	Month End 5/31/2020	Month End 4/30/2020	Month End 3/31/2020	Month End 2/29/2020	Month End 1/31/2020	Month End 12/31/2019	Month End 11/30/2019	Month End 10/31/2019	Month End 9/30/2019	Month End 8/31/2019	Month End 7/31/2019	Month End 6/30/2019	Month End 5/31/2019	Month End 4/30/2019	Month End 3/31/2019	Month End 2/28/2019	Month End 1/31/2019	Month End 12/31/2018	Month End 11/30/2018	Month End 10/31/2018	Month End 9/30/2018	Month End 8/31/2018	Month End 7/31/2018
Enterprise value to Net PPE	105%	101%	104%	100%	101%	101%	110%	104%	103%	107%	105%	103%	103%	99%	99%	99%	95%	100%	93%	91%	95%	93%	94%	95%	95%
Enterprise value to Inv Cap	104%	100%	105%	102%	101%	103%	112%	106%	109%	108%	104%	110%	106%	102%	102%	101%	101%	113%	106%	104%	106%	100%	99%	100%	100%

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Company Name	Month End 6/30/2018 -48 Enterprise value to Net PPE	Month End 5/31/2018 -49 Enterprise value to Net PPE	Month End 4/30/2018 -50 Enterprise value to Net PPE	Month End 3/31/2018 -51 Enterprise value to Net PPE	Month End 2/28/2018 -52 Enterprise value to Net PPE	Month End 1/31/2018 -53 Enterprise value to Net PPE	Month End 12/31/2017 -54 Enterprise value to Net PPE	Month End 11/30/2017 -55 Enterprise value to Net PPE	Month End 10/31/2017 -56 Enterprise value to Net PPE	Month End 9/30/2017 -57 Enterprise value to Net PPE	Month End 8/31/2017 -58 Enterprise value to Net PPE	Month End 7/31/2017 -59 Enterprise value to Net PPE	Month End 6/30/2017 -60 Enterprise value to Net PPE	Month End 5/31/2017 -61 Enterprise value to Net PPE	Month End 4/30/2017 -62 Enterprise value to Net PPE	Month End 3/31/2017 -63 Enterprise value to Net PPE	Month End 2/28/2017 -64 Enterprise value to Net PPE	Month End 1/31/2017 -65 Enterprise value to Net PPE	Month End 12/31/2016 -66 Enterprise value to Net PPE	Month End 11/30/2016 -67 Enterprise value to Net PPE	Month End 10/31/2016 -68 Enterprise value to Net PPE	Month End 9/30/2016 -69 Enterprise value to Net PPE	Month End 8/31/2016 -70 Enterprise value to Net PPE	Month End 7/31/2016 -71 Enterprise value to Net PPE	Month End 6/30/2016 -72 Enterprise value to Net PPE
AMERICAN STATES WATER COMF	2.024	2.021	2.000	1.919	1.958	2.005	2.088	2.128	2.004	1.863	1.894	1.944	1.879	1.805	1.760	1.752	1.800	1.756	1.813	1.744	1.651	1.653	1.659	1.778	1.799
AMERICAN WATER WORKS COMP	1.405	1.400	1.433	1.372	1.393	1.416	1.511	1.540	1.497	1.418	1.442	1.433	1.396	1.411	1.419	1.396	1.443	1.367	1.354	1.378	1.397	1.407	1.418	1.516	1.540
ESSENTIAL UTILITIES, INC.	1.549	1.550	1.555	1.519	1.558	1.609	1.710	1.707	1.621	1.536	1.574	1.556	1.553	1.549	1.553	1.519	1.535	1.479	1.465	1.478	1.509	1.501	1.521	1.670	1.708
ARTESIAN RESOURCES CORPORA	1.014	1.035	1.009	0.973	0.926	1.009	1.036	1.138	1.102	1.040	1.044	1.072	1.053	1.009	1.070	0.943	0.957	0.919	0.941	0.942	0.879	0.885	0.877	1.017	1.016
CALIFORNIA WATER SERVICE GR	1.265	1.324	1.289	1.228	1.284	1.351	1.463	1.510	1.420	1.322	1.332	1.369	1.294	1.267	1.294	1.271	1.316	1.239	1.223	1.263	1.168	1.202	1.189	1.279	1.289
MIDDLESEX WATER COMPANY	1.507	1.592	1.505	1.361	1.345	1.410	1.476	1.697	1.601	1.474	1.459	1.486	1.497	1.384	1.467	1.430	1.481	1.486	1.648	1.610	1.454	1.426	1.396	1.632	1.700
SJW GROUP	1.406	1.380	1.336	1.200	1.208	1.309	1.373	1.480	1.334	1.276	1.288	1.243	1.184	1.195	1.209	1.211	1.221	1.230	1.332	1.329	1.276	1.147	1.146	1.139	1.078
THE YORK WATER COMPANY	1.724	1.776	1.755	1.702	1.573	1.731	1.832	2.006	1.910	1.852	1.859	1.932	1.934	1.883	2.079	1.963	2.043	2.034	2.149	2.076	1.850	1.757	1.702	1.859	1.888

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMF	2.695	2.693	2.666	2.558	2.609	2.672	2.782	2.820	2.656	2.468	2.371	2.434	2.352	2.312	2.254	2.243	2.303	2.246	2.319	2.259	2.138	2.141	2.171	2.327	2.354
AMERICAN WATER WORKS COMP	1.720	1.735	1.776	1.700	1.681	1.710	1.824	1.846	1.794	1.699	1.732	1.721	1.677	1.706	1.716	1.688	1.733	1.642	1.626	1.639	1.662	1.674	1.689	1.805	1.834
ESSENTIAL UTILITIES, INC.	2.027	2.039	2.045	1.998	2.057	2.124	2.258	2.240	2.127	2.016	2.088	2.064	2.061	2.061	2.067	2.023	2.039	1.964	1.946	1.963	2.005	1.994	2.029	2.229	2.279
ARTESIAN RESOURCES CORPORA	1.770	1.824	1.778	1.714	1.613	1.757	1.805	1.961	1.899	1.792	1.794	1.842	1.809	1.734	1.838	1.620	1.657	1.592	1.630	1.603	1.496	1.507	1.468	1.703	1.700
CALIFORNIA WATER SERVICE GR	1.782	1.791	1.743	1.660	1.769	1.861	2.016	2.068	1.946	1.810	1.878	1.930	1.824	1.780	1.818	1.787	1.882	1.772	1.750	1.770	1.636	1.684	1.680	1.806	1.822
MIDDLESEX WATER COMPANY	2.123	2.224	2.103	1.903	1.882	1.974	2.066	2.395	2.260	2.081	2.054	2.093	2.108	1.953	2.069	2.017	2.060	2.067	2.292	2.252	2.034	1.996	1.975	2.309	2.405
SJW GROUP	1.969	1.918	1.857	1.668	1.714	1.857	1.948	2.116	1.907	1.825	1.825	1.761	1.678	1.623	1.642	1.645	1.686	1.700	1.841	1.836	1.764	1.585	1.606	1.597	1.512
THE YORK WATER COMPANY	2.364	2.417	2.388	2.316	2.162	2.380	2.518	2.771	2.638	2.557	2.551	2.652	2.655	2.545	2.810	2.654	2.701	2.688	2.841	2.748	2.449	2.325	2.260	2.468	2.507

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Company Name	Month End 6/30/2018 -48 Enterprise value to Net PPE	Month End 5/31/2018 -49 Enterprise value to Net PPE	Month End 4/30/2018 -50 Enterprise value to Net PPE	Month End 3/31/2018 -51 Enterprise value to Net PPE	Month End 2/28/2018 -52 Enterprise value to Net PPE	Month End 1/31/2018 -53 Enterprise value to Net PPE	Month End 12/31/2017 -54 Enterprise value to Net PPE	Month End 11/30/2017 -55 Enterprise value to Net PPE	Month End 10/31/2017 -56 Enterprise value to Net PPE	Month End 9/30/2017 -57 Enterprise value to Net PPE	Month End 8/31/2017 -58 Enterprise value to Net PPE	Month End 7/31/2017 -59 Enterprise value to Net PPE	Month End 6/30/2017 -60 Enterprise value to Net PPE	Month End 5/31/2017 -61 Enterprise value to Net PPE	Month End 4/30/2017 -62 Enterprise value to Net PPE	Month End 3/31/2017 -63 Enterprise value to Net PPE	Month End 2/28/2017 -64 Enterprise value to Net PPE	Month End 1/31/2017 -65 Enterprise value to Net PPE	Month End 12/31/2016 -66 Enterprise value to Net PPE	Month End 11/30/2016 -67 Enterprise value to Net PPE	Month End 10/31/2016 -68 Enterprise value to Net PPE	Month End 9/30/2016 -69 Enterprise value to Net PPE	Month End 8/31/2016 -70 Enterprise value to Net PPE	Month End 7/31/2016 -71 Enterprise value to Net PPE	Month End 6/30/2016 -72 Enterprise value to Net PPE
AMERICAN STATES WATER COMF	0.926	0.925	0.916	0.878	0.896	0.918	0.956	0.974	0.917	0.853	0.867	0.890	0.860	0.826	0.805	0.802	0.824	0.804	0.830	0.798	0.756	0.757	0.759	0.814	0.824
AMERICAN WATER WORKS COMP	0.800	0.797	0.816	0.781	0.793	0.806	0.860	0.877	0.852	0.807	0.821	0.816	0.794	0.803	0.808	0.795	0.821	0.778	0.771	0.785	0.795	0.801	0.807	0.863	0.877
ESSENTIAL UTILITIES, INC.	0.901	0.902	0.905	0.884	0.907	0.936	0.996	0.993	0.943	0.894	0.916	0.906	0.904	0.902	0.904	0.885	0.893	0.861	0.853	0.860	0.879	0.874	0.885	0.972	0.994
ARTESIAN RESOURCES CORPORA	1.001	1.022	0.996	0.960	0.914	0.996	1.023	1.123	1.087	1.026	1.031	1.058	1.039	0.996	1.056	0.931	0.944	0.907	0.929	0.930	0.867	0.874	0.865	1.004	1.002
CALIFORNIA WATER SERVICE GR	0.905	0.947	0.922	0.878	0.919	0.966	1.047	1.081	1.016	0.946	0.953	0.980	0.926	0.906	0.926	0.910	0.942	0.887	0.875	0.904	0.836	0.860	0.851	0.915	0.923
MIDDLESEX WATER COMPANY	0.704	0.743	0.703	0.636	0.628	0.658	0.689	0.792	0.747	0.688	0.681	0.694	0.699	0.646	0.685	0.668	0.691	0.694	0.769	0.751	0.679	0.666	0.651	0.762	0.793
SJW GROUP	1.035	1.016	0.983	0.883	0.889	0.963	1.011	1.089	0.982	0.939	0.948	0.915	0.872	0.880	0.890	0.892	0.898	0.905	0.981	0.978	0.940	0.845	0.843	0.838	0.794
THE YORK WATER COMPANY	0.923	0.952	0.940	0.912	0.843	0.928	0.981	1.075	1.024	0.992	0.996	1.035	1.036	1.009	1.114	1.052	1.095	1.090	1.152	1.112	0.991	0.941	0.912	0.996	1.012

Company Name	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap	Enterprise value to Inv Cap
AMERICAN STATES WATER COMF	0.984	0.984	0.974	0.934	0.953	0.976	1.016	1.030	0.970	0.902	0.866	0.889	0.859	0.844	0.823	0.819	0.841	0.820	0.847	0.825	0.781	0.782	0.793	0.850	0.860
AMERICAN WATER WORKS COMP	0.832	0.839	0.859	0.822	0.813	0.827	0.883	0.893	0.868	0.822	0.838	0.833	0.811	0.825	0.830	0.817	0.839	0.795	0.787	0.793	0.804	0.810	0.817	0.873	0.887
ESSENTIAL UTILITIES, INC.	1.286	1.294	1.298	1.268	1.305	1.348	1.433	1.422	1.350	1.279	1.325	1.310	1.308	1.308	1.312	1.284	1.294	1.246	1.235	1.246	1.272	1.265	1.288	1.414	1.446
ARTESIAN RESOURCES CORPORA	0.991	1.021	0.995	0.959	0.903	0.983	1.010	1.097	1.063	1.003	1.004	1.031	1.012	0.971	1.029	0.907	0.927	0.891	0.912	0.897	0.837	0.843	0.822	0.953	0.952
CALIFORNIA WATER SERVICE GR	1.008	1.012	0.985	0.939	1.000	1.052	1.140	1.169	1.100	1.023	1.062	1.091	1.031	1.006	1.028	1.010	1.064	1.002	0.989	1.001	0.925	0.952	0.950	1.021	1.030
MIDDLESEX WATER COMPANY	0.809	0.848	0.801	0.725	0.717	0.752	0.787	0.912	0.861	0.793	0.783	0.797	0.803	0.744	0.788	0.768	0.785	0.788	0.873	0.858	0.775	0.760	0.752	0.880	0.916
SJW GROUP	1.492	1.454	1.408	1.264	1.299	1.407	1.477	1.604	1.446	1.383	1.383	1.335	1.272	1.231	1.245	1.247	1.278	1.288	1.395	1.392	1.337	1.202	1.218	1.211	1.146
THE YORK WATER COMPANY	0.997	1.019	1.007	0.977	0.912	1.004	1.062	1.168	1.113	1.078	1.076	1.118	1.120	1.073	1.185	1.119	1.139	1.134	1.198	1.159	1.033	0.981	0.953	1.041	1.057

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	Month End 6/30/2018	Month End 5/31/2018	Month End 4/30/2018	Month End 3/31/2018	Month End 2/28/2018	Month End 1/31/2018	Month End 12/31/2017	Month End 11/30/2017	Month End 10/31/2017	Month End 9/30/2017	Month End 8/31/2017	Month End 7/31/2017	Month End 6/30/2017	Month End 5/31/2017	Month End 4/30/2017	Month End 3/31/2017	Month End 2/28/2017	Month End 1/31/2017	Month End 12/31/2016	Month End 11/30/2016	Month End 10/31/2016	Month End 9/30/2016	Month End 8/31/2016	Month End 7/31/2016	Month End 6/30/2016
Enterprise value to Net PPE	91%	94%	92%	88%	89%	93%	99%	103%	96%	92%	93%	91%	89%	89%	90%	89%	90%	87%	86%	88%	85%	85%	85%	89%	90%
Enterprise value to Inv Cap	99%	102%	99%	95%	93%	99%	104%	113%	108%	101%	103%	106%	102%	99%	103%	96%	100%	95%	95%	95%	88%	90%	89%	99%	99%

NetPlant Advances CIAC DefTax ITC

		2021 Net Property, Plant & Equipment	Advances for construction	Contributions in aid of construction	Deferred income taxes, net	Deferred investment tax credits	2021 Known "Cost Free" Capital	2021 Percentage of Known "Cost Free" Capital
		(Millions of $)						
	Comparable Group							
1	American States Water Co	$1,626.004	$66.727	$147.482	$140.290	$1.153	$355.652	22%
2	American Water Works Co Inc	$21,084.000	$284.000	$1,442.000	$2,421.000	$0.000	$4,147.000	20%
3	Artesian Resources -CL A	$590.431	$4.295	$176.656	$53.133	$0.456	$234.540	40%
4	California Water Service Gp	$2,846.862	$198.086	$285.665	$298.945	$0.000	$782.696	27%
5	Essential Utilities, Inc.	$10,251.866	$103.619	$596.110	$1,406.537	$0.000	$2,106.266	21%
6	Middlesex Water Co	$865.368	$23.529	$127.863	$69.500	$0.000	$220.892	26%
7	SJW Corp	$2,497.499	$130.693	$316.479	$200.451	$0.000	$647.623	26%
8	York Water Co	$383.626	$12.820	$41.876	$49.590	$0.000	$104.286	27%
	Median							26%

CONSOLIDATED BALANCE SHEETS - USD ($) $ in Thousands	Dec. 31, 2021	Dec. 31, 2020
Regulated utility plant, at cost		
Water	$1,898,817	$1,784,402
Electric	116,472	112,507
Total	2,015,289	1,896,909
Non-regulated utility property, at cost	37,064	33,315
Total utility plant, at cost	2,052,353	1,930,224
Less — accumulated depreciation	-594,264	-568,326
Utility plant before construction work in progress	1,458,089	1,361,898
Construction work in progress	167,915	150,145
Net utility plant	1,626,004	1,512,043
Other Property and Investments		
Goodwill	1,116	1,116
Other property and investments	40,806	35,318
Total other property and investments	41,922	36,434
Current Assets		
Cash and cash equivalents	4,963	36,737
Accounts receivable — customers, less allowance for doubtful accounts	34,416	29,162
Unbilled revenue — receivable (Note 2)	27,147	25,836
Receivable from U.S. government, less allowance for doubtful accounts (Note 2)	27,827	25,182
Other accounts receivable, less allowance for doubtful accounts	6,510	3,960
Income taxes receivable	236	103
Materials and supplies	12,163	8,619
Regulatory assets — current	8,897	13,088
Prepayments and other current assets	5,317	5,555
Contract assets (Note 2)	6,135	8,873
Unrealized gain on purchased power contracts	4,441	0
Total current assets	138,052	157,115
Regulatory and Other Assets		
Unbilled revenue, receivable from U.S government	9,671	9,945
Receivable from U.S. government (Note 2)	51,991	49,488
Contract assets (Note 2)	3,452	1,384
Operating lease right-of-use assets	10,479	11,146
Regulatory assets	3,182	3,451
Other	16,230	10,597
Total other assets	95,005	86,011
Total Assets	1,900,983	1,791,603
Capitalization		
Common shareholder's equity	685,947	641,673
Long-term debt	412,176	440,348
Total capitalization	1,098,123	1,082,021
Current Liabilities		
Notes payable to banks	31,000	0
Long-term debt — current	377	358
Accounts payable	65,902	63,788
Income taxes payable	4,662	6,783
Accrued other taxes	17,137	11,902
Accrued employee expenses	16,256	15,122
Accrued interest	4,545	4,832
Unrealized loss on purchased power contracts	0	1,537
Regulatory liabilities	1,896	0
Contract liabilities (Note 2)	257	1,800
Operating lease liabilities	2,044	2,013
Other	11,498	10,437
Total current liabilities	155,574	118,572
Other Credits		
Notes payable to banks	174,500	134,200
Advances for construction	66,727	63,374
Contributions in aid of construction — net	147,482	140,332
Deferred income taxes	140,290	131,172
Regulatory liabilities	32,979	0
Unamortized investment tax credits	1,153	1,224
Accrued pension and other post-retirement benefits	61,365	95,639
Operating lease liabilities	8,920	9,636
Other	13,870	15,433
Total other credits	647,286	591,010
Commitments and Contingencies		
Liabilities and Equity, Total	$1,900,983	$1,791,603

NetPlant	1,626,004	1,512,043
Advances	66,727	63,374
CIAC	147,482	140,332
DefTax	140,290	131,172
ITC	1,153	1,224

Consolidated Balance Sheets - USD ($)		Dec. 31, 2021	Dec. 31, 2020
$ in Millions			
ASSETS			
Property, plant and equipment		$27,413	$25,614
Accumulated depreciation		-6,329	-5,904
Property, plant and equipment, net		21,084	19,710
Current assets:			
Cash and cash equivalents		116	547
Restricted funds		20	29
Accounts receivable, net of allowance for uncollectible accounts of $75 and $60, respectively		271	321
Unbilled revenues		248	206
Materials and supplies		57	47
Assets held for sale		683	629
Other		159	127
Total current assets		1,554	1,906
Regulatory and other long-term assets:			
Regulatory assets		1,051	1,127
Seller promissory note from the sale of the Homeowner Services Group		720	0
Operating lease right-of-use assets		92	95
Goodwill		1,139	1,504
Postretirement benefit assets		193	173
Intangible assets		0	55
Other		242	196
Total regulatory and other long-term assets		3,437	3,150
Total assets		26,075	24,766
Capitalization:			
Common stock ($0.01 par value; 500,000,000 shares authorized; 186,880,413 and 186,466,707 sha		2	2
Paid-in-capital		6,781	6,747
Retained earnings		925	102
Accumulated other comprehensive loss		-45	-49
Treasury stock, at cost (5,269,324 and 5,168,215 shares, respectively)		-365	-348
Total common shareholders' equity		7,298	6,454
Long-term debt		10,341	9,329
Redeemable preferred stock at redemption value		3	4
Total long-term debt		10,344	9,333
Total capitalization		17,642	15,787
Current liabilities:			
Short-term debt		584	1,282
Current portion of long-term debt		57	329
Accounts payable		235	189
Accrued liabilities		701	591
Accrued taxes		176	50
Accrued interest		88	88
Liabilities related to assets held for sale		83	137
Other		217	215
Total current liabilities		2,141	2,881
Regulatory and other long-term liabilities:			
Advances for construction		284	270
Deferred income taxes and investment tax credits		2,421	2,113
Regulatory liabilities		1,600	1,770
Operating lease liabilities		80	81
Accrued pension expense		285	388
Other		180	83
Total regulatory and other long-term liabilities		4,850	4,705
Contributions in aid of construction		1,442	1,393
Commitments and contingencies			
Total capitalization and liabilities		$26,075	$24,766
	NetPlant	21,084	19,710
	Advances	284	270
	CIAC	1,442	1,393
	DefTax	2,421	2,113
	ITC	0	0

CONSOLIDATED BALANCE SHEETS - USD ($)	Dec. 31, 2021	Dec. 31, 2020
$ in Thousands		
ASSETS		
Utility plant, at original cost (less accumulated depreciation - 2021 - $159,385,; 2020 - $147,469)	$590,431	$559,561
Current assets		
Cash and cash equivalents	92	28
Accounts receivable (less allowance for doubtful accounts 2021 - $429; 2020-$862)	8,863	10,162
Income tax receivable	2,234	629
Unbilled operating revenues	1,080	1,166
Materials and supplies	1,933	1,535
Prepaid property taxes	2,306	1,891
Prepaid expenses and other	2,652	2,208
Total current assets	19,160	17,619
Other assets		
Non-utility property (less accumulated depreciation - 2021- $919; 2020 - $865)	3,751	3,796
Other deferred assets	5,097	5,309
Operating lease right of use assets	451	460
Total other assets	9,299	9,565
Regulatory assets, net	6,321	6,473
Total assets	625,211	593,218
Stockholders' equity		
Common stock	9,414	9,357
Preferred stock	0	0
Additional paid-in capital	104,989	103,463
Retained earnings	63,607	56,606
Total stockholders' equity	178,010	169,426
Long-term debt, net of current portion	143,259	142,333
Total stockholders' equity and long-term debt	321,269	311,759
Current liabilities		
Lines of credit	26,703	26,813
Current portion of long-term debt	1,591	1,757
Accounts payable	10,206	6,341
Accrued expenses	4,534	3,414
Overdraft payable	30	105
Accrued interest	917	930
Income taxes payable	0	237
Customer and other deposits	2,273	2,060
Other	1,448	2,067
Total current liabilities	47,702	43,724
Commitments and contingencies (Note 11)		
Deferred credits and other liabilities		
Net advances for construction	4,295	4,578
Operating lease liabilities	440	432
Regulatory liabilities	21,260	21,681
Deferred investment tax credits	456	473
Deferred income taxes	53,133	50,313
Total deferred credits and other liabilities	79,584	77,477
Net contributions in aid of construction	176,656	160,258
Total Liabilities and Stockholders' Equity	$625,211	$593,218

NetPlant	$590,431	$559,561
Advances	4,295	4,578
CIAC	176,656	160,258
DefTax	53,133	50,313
ITC	456	473

Consolidated Balance Sheets - USD ($)		Dec. 31, 2021	Dec. 31, 2020
$ in Thousands			
Utility plant:			
Land		$45,047	$45,672
Depreciable plant and equipment		3,899,629	3,645,770
Construction work in progress		222,713	171,414
Intangible assets		29,955	27,567
Total utility plant		4,197,344	3,890,423
Less accumulated depreciation and amortization		-1,350,482	-1,239,865
Net utility plant		2,846,862	2,650,558
Current assets:			
Cash and cash equivalents		78,380	44,555
Receivables:			
Customers, net		60,785	44,025
Regulatory balancing accounts		78,597	96,241
Other, net		18,452	20,331
Unbilled revenue, net		32,760	34,069
Materials and supplies at weighted average cost		9,511	8,831
Taxes, prepaid expenses, and other assets		21,973	17,964
Total current assets		300,458	266,016
Other assets:			
Regulatory assets		285,692	325,376
Goodwill		36,814	31,842
Other		153,445	120,456
Total other assets		475,951	477,674
TOTAL ASSETS		3,623,271	3,394,248
Capitalization:			
Common stock, $0.01 par value; 68,000 shares authorized, 53,716 and 50,334 outstanding in 2021 and 2020, respectively		537	503
Additional paid-in capital		651,121	448,632
Retained earnings		525,936	472,209
Noncontrolling interests		5,386	0
Total equity		1,182,980	921,344
Long-term debt, net		1,055,794	781,100
Total capitalization		2,238,774	1,702,444
Current liabilities:			
Current maturities of long-term debt, net		5,192	5,127
Short-term borrowings		35,000	370,000
Accounts payable		144,369	131,725
Regulatory balancing accounts		17,547	34,636
Accrued other taxes		5,379	4,477
Accrued interest		6,542	6,178
Other accrued liabilities		42,547	36,563
Total current liabilities		256,576	588,706
Deferred income taxes		298,945	276,032
Regulatory liabilities		180,428	180,718
Pension		92,287	115,581
Total refunds		198,086	195,625
Contributions in aid of construction		285,665	268,050
Other long-term liabilities		72,510	67,092
Commitments and contingencies (Note 15)			
TOTAL CAPITALIZATION AND LIABILITIES		$3,623,271	$3,394,248
	NetPlant	2,846,862	2,650,558
	Advances	198,086	195,625
	CIAC	285,665	268,050
	DefTax	298,945	276,032
	ITC	0	0

Consolidated Balance Sheets - USD ($)	Dec. 31, 2021	Dec. 31, 2020
$ in Thousands		
Assets		
Property, plant and equipment, at cost	$12,610,376	$11,620,019
Less: accumulated depreciation	2,358,510	2,107,142
Net property, plant and equipment	10,251,866	9,512,877
Current assets:		
Cash and cash equivalents	10,567	4,827
Accounts receivable, net	141,025	154,775
Unbilled revenues	119,896	118,538
Inventory - materials and supplies	33,756	21,669
Inventory - gas stored	75,804	36,732
Prepayments and other current assets	36,597	38,594
Regulatory assets	20,150	5,085
Total current assets	437,795	380,220
Regulatory assets	1,429,840	1,362,788
Deferred charges and other assets, net	141,955	56,002
Funds restricted for construction activity	1,313	1,268
Goodwill	2,340,815	2,324,547
Operating lease right-of-use assets	48,930	60,334
Intangible assets	5,764	7,241
Total assets	14,658,278	13,705,277
Essential Utilities stockholders' equity:		
Common stock at $0.50 par value, authorized 600,000,000 shares, issued 248,571,355 and 223,871,284 as of D	128,050	124,285
Capital in excess of par value	3,705,814	3,379,057
Retained earnings	1,434,201	1,261,862
Treasury stock, at cost, 3,180,887 and 3,112,565 shares as of December 31, 2020 and December 31, 2019	-83,615	-81,327
Total stockholders' equity	5,184,450	4,683,877
Long-term debt, excluding current portion	5,815,211	5,545,890
Less: debt issuance costs	35,707	38,146
Long-term debt, excluding current portion, net of debt issuance costs	5,779,504	5,507,744
Commitments and contingencies (See Note 9)		
Current liabilities:		
Current portion of long-term debt	132,146	84,353
Loans payable	65,000	78,198
Accounts payable	192,932	177,489
Book overdraft	81,722	44,003
Accrued interest	40,815	39,408
Accrued taxes	37,924	37,172
Regulatory liabilities	384	19,866
Other accrued liabilities	124,140	123,384
Total current liabilities	675,063	603,873
Deferred credits and other liabilities:		
Deferred income taxes and investment tax credits	1,406,537	1,258,098
Customers' advances for construction	103,619	99,014
Regulatory liabilities	769,617	773,310
Asset retirement obligations	1,256	1,336
Operating lease liabilities	48,230	55,642
Pension and other postretirement benefit liabilities	50,226	91,896
Other	43,666	56,713
Total deferred credits and other liabilities	2,423,151	2,336,009
Contributions in aid of construction	596,110	573,774
Total liabilities and equity	14,658,278	$ 13,705,27

NetPlant	10,251,866	9,512,877
Advances	103,619	99,014
CIAC	596,110	573,774
DefTax	1,406,537	1,258,098
ITC	0	0

CONSOLIDATED BALANCE SHEETS - USD ($)	Dec. 31, 2021	Dec. 31, 2020
$ in Thousands		
UTILITY PLANT:		
Water Production	$247,286	$168,080
Transmission and Distribution	697,200	648,763
General	95,658	85,056
Construction Work in Progress	24,947	80,055
TOTAL	1,065,091	981,954
Less Accumulated Depreciation	199,723	185,356
UTILITY PLANT - NET	865,368	796,598
CURRENT ASSETS:		
Cash and Cash Equivalents	3,533	4,491
Accounts Receivable, net of allowance for uncollectible accoun	15,311	14,569
Unbilled Revenues	7,273	7,065
Materials and Supplies (at average cost)	5,358	5,112
Prepayments	2,880	2,886
TOTAL CURRENT ASSETS	34,355	34,123
Operating Lease Right of Use Asset	4,503	5,209
Preliminary Survey and Investigation Charges	3,540	5,192
Regulatory Assets	100,738	118,144
Restricted Cash		5,913
Non-utility Assets - Net	11,428	11,207
Other	83	84
TOTAL OTHER ASSETS	120,292	145,749
TOTAL ASSETS	1,020,015	976,470
CAPITALIZATION:		
Common Stock, No Par Value	221,919	217,451
Retained Earnings	145,807	128,757
TOTAL COMMON EQUITY	367,726	346,208
Preferred Stock	2,084	2,084
Long-term Debt	306,520	273,244
TOTAL CAPITALIZATION	676,330	621,536
CURRENT LIABILITIES:		
Current Portion of Long-term Debt	6,731	7,255
Notes Payable	13,000	2,000
Accounts Payable	21,125	30,443
Accrued Taxes	8,621	10,138
Accrued Interest	1,986	2,137
Unearned Revenues and Advanced Service Fees	1,330	1,255
Other	3,826	3,620
TOTAL CURRENT LIABILITIES	56,619	56,848
COMMITMENTS AND CONTINGENT LIABILITIES (Note 4)		
OTHER LIABILITIES:		
Customer Advances for Construction	23,529	23,404
Lease Obligations	4,367	5,042
Accumulated Deferred Income Taxes	69,500	61,297
Employee Benefit Plans	11,290	34,426
Regulatory Liabilities	49,431	60,792
Other	1,086	1,135
TOTAL OTHER LIABILITIES	159,203	186,096
CONTRIBUTIONS IN AID OF CONSTRUCTION	127,863	111,990
TOTAL CAPITALIZATION AND LIABILITIES	$1,020,015	$976,470

NetPlant	865,368	796,598
Advances	23,529	23,404
CIAC	127,863	111,990
DefTax	69,500	61,297
ITC	0	0

Consolidated Balance Sheets - USD ($)	Dec. 31, 2021	Dec. 31, 2020
$ in Thousands		
Utility plant:		
Land	$39,004	$36,845
Depreciable plant and equipment	3,381,908	3,198,060
Construction in progress	176,427	109,976
Intangible assets	36,276	35,167
Property, plant, and equipment, gross	3,633,615	3,380,048
Less accumulated depreciation and amortization	1,136,116	1,045,136
Public utilities, property, plant and equipment, net	2,497,499	2,334,912
Real estate investments and nonutilty properties	57,632	58,129
Less accumulated depreciation and amortization	15,951	14,783
Real estate investments, net	41,681	43,346
Cash and cash equivalents:		
Cash	10,908	5,269
Restricted cash	1,211	4,000
Accounts receivable:		
Customers, net of allowances for uncollectible accounts of $4,600 and $3,891 in 2021 and 2020, respectively	53,699	46,832
Income tax	2,308	7,041
Other	4,735	4,269
Accrued unbilled utility revenue	44,026	44,950
Current regulatory assets, net	2,629	1,748
Prepaid expenses	9,667	8,097
Other current assets	4,902	5,125
Total current assets	134,085	127,331
Other assets:		
Net regulatory assets, less current portion	151,992	156,482
Investments	15,784	14,367
Goodwill	640,471	628,144
Other	10,883	6,883
Total other assets	819,130	805,876
Total assets	3,492,395	3,311,465
Stockholders' equity:		
Common stock, $0.001 par value; authorized 70,000,000 shares in 2021 and 2020; issued and outstanding 30,181,348 shares in 2021 and 28,556,605 shares in 2020	30	29
Additional paid-in capital	606,392	510,158
Retained earnings	428,260	408,037
Accumulated other comprehensive (loss)	-163	-1,064
Total stockholders' equity	1,034,519	917,160
Long-term debt, less current portion	1,492,935	1,287,580
Capitalization, long-term debt and equity	2,527,454	2,204,740
Current liabilities:		
Lines of credit	62,996	175,094
Current portion of long-term debt	39,106	76,241
Accrued groundwater extraction charges, purchased water and power	17,200	19,184
Accounts payable	30,391	34,200
Accrued interest	14,174	12,861
Accrued payroll	11,583	14,012
Other current liabilities	27,821	19,203
Total current liabilities	203,271	350,795
Deferred income taxes	200,451	191,415
Advances for construction	130,693	125,027
Contributions in aid of construction	316,479	296,105
Postretirement benefit plans	89,998	121,597
Other noncurrent liabilities	24,049	21,786
Total equity and liabilities	$3,492,395	$3,311,465
NetPlant	2,497,499	2,334,912
Advances	130,693	125,027
CIAC	316,479	296,105
DefTax	200,451	191,415
ITC	0	0

Balance Sheets - USD ($)	Dec. 31, 2021	Dec. 31, 2020
$ in Thousands		
ASSETS		
UTILITY PLANT, at original cost	$485,750	$438,670
Plant acquisition adjustments	-3,637	-3,707
Accumulated depreciation	-99,204	-91,340
Net utility plant	382,909	343,623
OTHER PHYSICAL PROPERTY, net of accumulated depreciation of $483 in 2021 and $458 in 2020	717	742
CURRENT ASSETS:		
Cash and cash equivalents	1	2
Restricted cash	0	5,000
Accounts receivable, net of reserves of $855 in 2021 and $655 in 2020	4,634	5,184
Unbilled revenues	2,784	2,847
Recoverable income taxes	894	721
Materials and supplies inventories, at cost	1,917	1,010
Prepaid expenses	1,032	1,526
Total current assets	11,262	16,290
OTHER LONG-TERM ASSETS:		
Prepaid pension cost	14,054	2,209
Note receivable	255	255
Deferred regulatory assets	45,280	39,893
Other assets	4,376	3,945
Total other long-term assets	63,965	46,302
Total Assets	458,853	406,957
COMMON STOCKHOLDERS' EQUITY:		
Common stock, no par value, authorized 46,500,000 shares, issued and outstanding 13,112,948 shares in 2021 and 13,060,817 shares in 2020	88,230	85,935
Retained earnings	64,392	57,317
Total common stockholders' equity	152,622	143,252
PREFERRED STOCK, authorized 500,000 shares, no shares issued	0	0
LONG-TERM DEBT, excluding current portion	138,869	123,573
COMMITMENTS		
CURRENT LIABILITIES:		
Current portion of long-term debt	7,500	0
Accounts payable	6,712	6,540
Dividends payable	2,293	2,192
Accrued compensation and benefits	1,575	1,417
Accrued interest	959	959
Deferred regulatory liabilities	607	525
Other accrued expenses	440	360
Total current liabilities	20,086	11,993
DEFERRED CREDITS:		
Customers' advances for construction	12,820	10,326
Deferred income taxes	49,590	43,538
Deferred employee benefits	4,530	4,793
Deferred regulatory liabilities	36,374	25,444
Other deferred credits	2,086	2,731
Total deferred credits	105,400	86,832
Contributions in aid of construction	41,876	41,307
Total Stockholders' Equity and Liabilities	$458,853	$406,957
NetPlant	383,626	344,365
Advances	12,820	10,326
CIAC	41,876	41,307
DefTax	49,590	43,538
ITC	0	0

Series Id: CUUR0000SA0,CUUS0000SA0
Not Seasonally Adjusted
Series Title: All items in U.S. city average, all urban consumers, not seasonally adjusted
Area: U.S. city average
Item: All items
Base Period: 1982-84=100

Download:

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	HALF1	HALF2
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174	174.1	174	170.8	173.6
2001	175.1	175.8	176.2	176.9	177.7	178	177.5	177.5	178.3	177.7	177.4	176.7	176.6	177.5
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181	181.3	181.3	180.9	178.9	180.9
2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185	184.5	184.3	183.3	184.6
2004	185.2	186.2	187.4	188	189.1	189.7	189.4	189.5	189.9	190.9	191	190.3	187.6	190.2
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6	196.8	193.2	197.4
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5	201.8	200.6	202.6
2007	202.416	203.499	205.352	206.686	207.949	208.352	208.299	207.917	208.49	208.936	210.177	210.036	205.709	208.976
2008	211.08	211.693	213.528	214.823	216.632	218.815	219.964	219.086	218.783	216.573	212.425	210.228	214.429	216.177
2009	211.143	212.193	212.709	213.24	213.856	215.693	215.351	215.834	215.969	216.177	216.33	215.949	213.139	215.935
2010	216.687	216.741	217.631	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803	219.179	217.535	218.576
2011	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.23	225.672	223.598	226.28
2012	226.665	227.663	229.392	230.085	229.815	229.478	229.104	230.379	231.407	231.317	230.221	229.601	228.85	230.338
2013	230.28	232.166	232.773	232.531	232.945	233.504	233.596	233.877	234.149	233.546	233.069	233.049	232.366	233.548
2014	233.916	234.781	236.293	237.072	237.9	238.343	238.25	237.852	238.031	237.433	236.151	234.812	236.384	237.088
2015	233.707	234.722	236.119	236.599	237.805	238.638	238.654	238.316	237.945	237.838	237.336	236.525	236.265	237.769
2016	236.916	237.111	238.132	239.261	240.229	241.018	240.628	240.849	241.428	241.729	241.353	241.432	238.778	241.237
2017	242.839	243.603	243.801	244.524	244.733	244.955	244.786	245.519	246.819	246.663	246.669	246.524	244.076	246.163
2018	247.867	248.991	249.554	250.546	251.588	251.989	252.006	252.146	252.439	252.885	252.038	251.233	250.089	252.125
2019	251.712	252.776	254.202	255.548	256.092	256.143	256.571	256.558	256.759	257.346	257.208	256.974	254.412	256.903
2020	257.971	258.678	258.115	256.389	256.394	257.797	259.101	259.918	260.28	260.388	260.229	260.474	257.557	260.065
2021	261.582	263.014	264.877	267.054	269.195	271.696	273.003	273.567	274.31	276.589	277.948	278.802	266.236	275.703
2022	281.148	283.716	287.504	289.109	292.296	296.311							288.347	

	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman
	Line #	Line #	Line #	Line #	Line #	Line #	Line #
	2	**8**	**9**	**16**	**34**	**39**	**40**
1912	**0**	**0**	**0**	**0**	**9**	**6**	**0**
1913	**0**	**0**	**0**	**0**	**10**	**6**	**0**
1914	**0**	**0**	**0**	**0**	**8**	**5**	**0**
1915	**0**	**0**	**0**	**0**	**9**	**6**	**0**
1916	**0**	**0**	**0**	**0**	**11**	**6**	**0**
1917	**0**	**0**	**0**	**0**	**16**	**9**	**0**
1918	**0**	**0**	**0**	**0**	**19**	**10**	**0**
1919	**0**	**0**	**0**	**0**	**20**	**11**	**0**
1920	**0**	**0**	**0**	**0**	**22**	**12**	**0**
1921	**0**	**0**	**0**	**0**	**22**	**13**	**0**
1922	**0**	**0**	**0**	**0**	**20**	**12**	**0**
1923	**0**	**0**	**0**	**0**	**21**	**12**	**0**
1924	**0**	**0**	**0**	**0**	**22**	**13**	**0**
1925	**0**	**18**	**0**	**20**	**21**	**13**	**0**
1926	**0**	**19**	**0**	**0**	**21**	**13**	**0**
1927	**0**	**18**	**0**	**0**	**21**	**13**	**0**
1928	**0**	**18**	**0**	**0**	**20**	**13**	**0**
1929	**0**	**18**	**0**	**0**	**20**	**14**	**0**
1930	**0**	**17**	**0**	**0**	**20**	**14**	**0**
1931	**0**	**16**	**0**	**0**	**20**	**14**	**0**
1932	**0**	**15**	**0**	**0**	**18**	**13**	**0**
1933	**0**	**15**	**0**	**0**	**18**	**11**	**0**
1934	**0**	**16**	**0**	**0**	**19**	**12**	**0**
1935	**0**	**16**	**0**	**0**	**19**	**13**	**0**
1936	**0**	**16**	**0**	**0**	**20**	**13**	**0**
1937	**0**	**18**	**0**	**0**	**21**	**14**	**0**
1938	**0**	**18**	**0**	**0**	**22**	**14**	**0**
1939	**0**	**18**	**0**	**20**	**22**	**14**	**0**
1940	**0**	**20**	**0**	**0**	**24**	**14**	**0**
1941	**0**	**0**	**0**	**0**	**0**	**15**	**0**
1942	**0**	**0**	**0**	**0**	**0**	**16**	**0**
1943	**0**	**0**	**0**	**0**	**0**	**16**	**0**
1944	**0**	**21**	**0**	**0**	**25**	**17**	**0**
1945	**0**	**22**	**0**	**0**	**26**	**17**	**0**
1946	**0**	**24**	**0**	**0**	**29**	**19**	**0**
1947	**0**	**28**	**0**	**32**	**35**	**22**	**0**

Series Id: PCU3372--3372--
Series Title: PPI industry group data for Office furniture (including fixtures) mfg, not seasonally adjusted
Industry: Office furniture (including fixtures) mfg
Product: Office furniture (including fixtures) mfg
Base Date: 200312

Series Id: PCU336110336110
Series Title: PPI industry data for Automobile, light truck and utility vehicle mfg, not seasonally adjusted
Industry: Automobile, light truck and utility vehicle mfg
Product: Automobile, light truck and utility vehicle mfg
Base Date: 198206

	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman
	Line #	Line #	Line #	Line #	Line #	Line #	Line #
	2	**8**	**9**	**16**	**34**	**39**	**40**
1948	**0**	**32**	**0**	**35**	**41**	**25**	**0**
1949	**0**	**35**	**0**	**36**	**42**	**27**	**52**
1950	**0**	**36**	**0**	**38**	**43**	**28**	**59**
1951	**0**	**38**	**0**	**40**	**45**	**29**	**61**
1952	**0**	**38**	**0**	**41**	**47**	**31**	**61**
1953	**0**	**39**	**0**	**42**	**48**	**33**	**65**
1954	**0**	**41**	**0**	**0**	**48**	**0**	**67**
1955	**0**	**43**	**0**	**0**	**53**	**36**	**70**
1956	**0**	**46**	**0**	**0**	**57**	**0**	**77**
1957	**0**	**49**	**0**	**0**	**60**	**41**	**78**
1958	**0**	**50**	**0**	**0**	**63**	**44**	**78**
1959	**0**	**52**	**74**	**54**	**65**	**46**	**78**
1960	**0**	**53**	**74**	**55**	**68**	**48**	**78**
1961	**0**	**53**	**71**	**56**	**69**	**50**	**78**
1962	**0**	**54**	**71**	**58**	**71**	**51**	**84**
1963	**0**	**55**	**71**	**59**	**72**	**53**	**87**
1964	**0**	**56**	**73**	**60**	**73**	**55**	**87**
1965	**0**	**57**	**74**	**62**	**74**	**58**	**93**
1966	**0**	**56**	**78**	**64**	**75**	**60**	**101**
1967	**64**	**61**	**81**	**67**	**76**	**63**	**101**
1968	**0**	**64**	**81**	**69**	**77**	**66**	**101**
1969	**0**	**69**	**84**	**73**	**80**	**72**	**106**
1970	**0**	**75**	**89**	**79**	**84**	**79**	**108**
1971	**0**	**84**	**93**	**89**	**94**	**89**	**108**
1972	**0**	**92**	**96**	**96**	**98**	**96**	**106**
1973	**0**	**100**	**100**	**100**	**100**	**100**	**100**
1974	**0**	**117**	**122**	**118**	**110**	**115**	**93**
1975	**0**	**127**	**155**	**134**	**146**	**123**	**93**
1976	**0**	**130**	**174**	**144**	**154**	**130**	**98**
1977	**0**	**137**	**184**	**152**	**162**	**139**	**101**
1978	**0**	**148**	**192**	**162**	**173**	**145**	**105**
1979	**0**	**163**	**205**	**175**	**185**	**160**	**108**
1980	**0**	**181**	**222**	**191**	**202**	**175**	**122**
1981	**196**	**191**	**245**	**208**	**219**	**184**	**127**
1982	**197**	**198**	**260**	**227**	**231**	**198**	**128**
1983	**206**	**206**	**271**	**242**	**239**	**207**	**141**
1984	**217**	**218**	**277**	**251**	**244**	**215**	**148**
1985	**227**	**225**	**282**	**262**	**254**	**221**	**135**
1986	**234**	**233**	**284**	**269**	**255**	**226**	**135**

Series Id: PCU3372--3372--

Series Title: PPI industry group data for Office furniture (including fixtures) mfg, not seasonally adjusted

Industry: Office furniture (including fixtures) mfg

Product: Office furniture (including fixtures) mfg

Base Date: 200312

Series Id: PCU336110336110

Series Title: PPI industry data for Automobile, light truck and utility vehicle mfg, not seasonally adjusted

Industry: Automobile, light truck and utility vehicle mfg

Product: Automobile, light truck and utility vehicle mfg

Base Date: 198206

1975	62.900
1976	64.025
1977	68.192
1978	72.892
1979	78.667
1980	85.983
1981	94.533
1982	99.567
1983	102.108
1984	104.625
1985	107.208
1986	111.008

	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman	Handy-Whitman
	Line #	Line #	Line #	Line #	Line #	Line #	Line #
	2	8	9	16	34	39	40
1987	238	239	299	276	263	230	137
1988	248	251	311	286	280	245	140
1989	255	265	330	301	295	258	150
1990	258	271	349	313	301	262	159
1991	262	274	355	322	307	272	162
1992	270	281	368	332	311	283	196
1993	282	294	386	342	321	292	195
1994	295	308	428	348	327	300	175
1995	302	316	442	357	332	307	200
1996	309	321	450	367	339	321	207
1997	317	331	473	380	347	323	197
1998	318	337	489	391	355	330	197
1999	318	343	505	401	361	334	198
2000	326	362	530	413	377	348	205
2001	336	378	527	428	391	354	206
2002	344	389	529	443	404	360	207
2003	350	394	543	452	407	368	207
2004	276	421	572	466	432	388	207
2005	0	448	612	486	469	410	214
2006	0	466	624	504	499	454	248
2007	0	496	634	537	530	485	289
2008	465	538	663	586	588	514	373
2009	469	544	691	619	614	537	373
2010	0	560	704	637	624	555	376
2011	0	584	752	654	648	576	379
2012	503	604	788	680	687	598	379
2013	0	614	836	699	701	602	381
2014	0	631	896	725	731	608	386
2015	0	647	945	741	740	618	402
2016	0	661	1017	761	755	624	403
2017	0	675	1117	785	777	650	419
2018	0	704	1210	813	803	668	436
2019	578	716	1332	847	830	688	447
2020	589	735	1430	893	858	705	466
2021	649	818	1490	957	922	743	565
2022	693	881	1593	1012	984	782	803
SPOT	693	881	1593	1012	984	782	803

Series Id: PCU3372--3372--

Series Title: PPI industry group data for Office furniture (including fixtures) mfg, not seasonally adjusted

Industry: Office furniture (including fixtures) mfg

Product: Office furniture (including fixtures) mfg

Base Date: 200312

	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
	100.000
2003	100.000
2004	105.142
2005	111.458
2006	113.817
2007	116.675
2008	121.225
2009	124.625
2010	125.642
2011	128.900
2012	131.367
2013	132.208
2014	135.617
2015	136.658
2016	137.150
2017	139.367
2018	145.058
2019	151.150
2020	155.075
2021	166.692
2022	183.628
SPOT	189.776

Series Id: PCU336110336110

Series Title: PPI industry data for Automobile, light truck and utility vehicle mfg, not seasonally adjusted

Industry: Automobile, light truck and utility vehicle mfg

Product: Automobile, light truck and utility vehicle mfg

Base Date: 198206

1987	112.967
1988	114.117
1989	117.358
1990	119.850
1991	125.292
1992	129.108
1993	133.167
1994	137.950
1995	139.100
1996	140.433
1997	138.700
1998	136.842
1999	137.642
2000	138.767
2001	137.542
2002	134.892
2003	135.083
2004	136.475
2005	135.067
2006	130.817
2007	131.117
2008	132.892
2009	136.742
2010	136.783
2011	137.683
2012	141.250
2013	142.733
2014	145.333
2015	148.883
2016	150.108
2017	152.067
2018	153.250
2019	153.592
2020	153.108
2021	157.532
2022	162.156
SPOT	164.069

State-Level Census Counts, 1900 to 2020

State	1900	1910	1920	1980	1990	2000	2010	2020
United States	76,212,168	92,228,496	106,021,537	226,545,805	248,709,873	281,421,906	308,745,538	331,449,281
Alabama	1,828,697	2,138,093	2,348,174	3,893,888	4,040,587	4,447,100	4,779,736	5,024,279
Alaska	63,592	64,356	55,036	401,851	550,043	626,932	710,231	733,391
Arizona	122,931	204,354	334,162	2,718,215	3,665,228	5,130,632	6,392,017	7,151,502
Arkansas	1,311,564	1,574,449	1,752,204	2,286,435	2,350,725	2,673,400	2,915,918	3,011,524
California	1,485,053	2,377,549	3,426,861	23,667,902	29,760,021	33,871,648	37,253,956	39,538,223
Colorado	539,700	799,024	939,629	2,889,964	3,294,394	4,301,261	5,029,196	5,773,714
Connecticut	908,420	1,114,756	1,380,631	3,107,576	3,287,116	3,405,565	3,574,097	3,605,944
Delaware	184,735	202,322	223,003	594,338	666,168	783,600	897,934	989,948
District of Columbia	278,718	331,069	437,571	638,333	606,900	572,059	601,723	689,545
Florida	528,542	752,619	968,470	9,746,324	12,937,926	15,982,378	18,801,310	21,538,187
Georgia	2,216,331	2,609,121	2,895,832	5,463,105	6,478,216	8,186,453	9,687,653	10,711,908
Hawaii	154,001	191,874	255,881	964,691	1,108,229	1,211,537	1,360,301	1,455,271
Idaho	161,772	325,594	431,866	943,935	1,006,749	1,293,953	1,567,582	1,839,106
Illinois	4,821,550	5,638,591	6,485,280	11,426,518	11,430,602	12,419,293	12,830,632	12,812,508
Indiana	2,516,462	2,700,876	2,930,390	5,490,224	5,544,159	6,080,485	6,483,802	6,785,528
Iowa	2,231,853	2,224,771	2,404,021	2,913,808	2,776,755	2,926,324	3,046,355	3,190,369
Kansas	1,470,495	1,690,949	1,769,257	2,363,679	2,477,574	2,688,418	2,853,118	2,937,880
Kentucky	2,147,174	2,289,905	2,416,630	3,660,777	3,685,296	4,041,769	4,339,367	4,505,836
Louisiana	1,381,625	1,656,388	1,798,509	4,205,900	4,219,973	4,468,976	4,533,372	4,657,757
Maine	694,466	742,371	768,014	1,124,660	1,227,928	1,274,923	1,328,361	1,362,359
Maryland	1,188,044	1,295,346	1,449,661	4,216,975	4,781,468	5,296,486	5,773,552	6,177,224
Massachusetts	2,805,346	3,366,416	3,852,356	5,737,037	6,016,425	6,349,097	6,547,629	7,029,917
Michigan	2,420,982	2,810,173	3,668,412	9,262,078	9,295,297	9,938,444	9,883,640	10,077,331
Minnesota	1,751,394	2,075,708	2,387,125	4,075,970	4,375,099	4,919,479	5,303,925	5,706,494
Mississippi	1,551,270	1,797,114	1,790,618	2,520,638	2,573,216	2,844,658	2,967,297	2,961,279
Missouri	3,106,665	3,293,335	3,404,055	4,916,686	5,117,073	5,595,211	5,988,927	6,154,913
Montana	243,329	376,053	548,889	786,690	799,065	902,195	989,415	1,084,225
Nebraska	1,066,300	1,192,214	1,296,372	1,569,825	1,578,385	1,711,263	1,826,341	1,961,504
Nevada	42,335	81,875	77,407	800,493	1,201,833	1,998,257	2,700,551	3,104,614
New Hampshire	411,588	430,572	443,083	920,610	1,109,252	1,235,786	1,316,470	1,377,529
New Jersey	1,883,669	2,537,167	3,155,900	7,364,823	7,730,188	8,414,350	8,791,894	9,288,994
New Mexico	195,310	327,301	360,350	1,302,894	1,515,069	1,819,046	2,059,179	2,117,522
New York	7,268,894	9,113,614	10,385,227	17,558,072	17,990,455	18,976,457	19,378,102	20,201,249
North Carolina	1,893,810	2,206,287	2,559,123	5,881,766	6,628,637	8,049,313	9,535,483	10,439,388
North Dakota	319,146	577,056	646,872	652,717	638,800	642,200	672,591	779,094
Ohio	4,157,545	4,767,121	5,759,394	10,797,630	10,847,115	11,353,140	11,536,504	11,799,448
Oklahoma	790,391	1,657,155	2,028,283	3,025,290	3,145,585	3,450,654	3,751,351	3,959,353
Oregon	413,536	672,765	783,389	2,633,105	2,842,321	3,421,399	3,831,074	4,237,256
Pennsylvania	6,302,115	7,665,111	8,720,017	11,863,895	11,881,643	12,281,054	12,702,379	13,002,700
Rhode Island	428,556	542,610	604,397	947,154	1,003,464	1,048,319	1,052,567	1,097,379
South Carolina	1,340,316	1,515,400	1,683,724	3,121,820	3,486,703	4,012,012	4,625,364	5,118,425
South Dakota	401,570	583,888	636,547	690,768	696,004	754,844	814,180	886,667
Tennessee	2,020,616	2,184,789	2,337,885	4,591,120	4,877,185	5,689,283	6,346,105	6,910,840
Texas	3,048,710	3,896,542	4,663,228	14,229,191	16,986,510	20,851,820	25,145,561	29,145,505
Utah	276,749	373,351	449,396	1,461,037	1,722,850	2,233,169	2,763,885	3,271,616
Vermont	343,641	355,956	352,428	511,456	562,758	608,827	625,741	643,077
Virginia	1,854,184	2,061,612	2,309,187	5,346,818	6,187,358	7,078,515	8,001,024	8,631,393
Washington	518,103	1,141,990	1,356,621	4,132,156	4,866,692	5,894,121	6,724,540	7,705,281
West Virginia	958,800	1,221,119	1,463,701	1,949,644	1,793,477	1,808,344	1,852,994	1,793,716
Wisconsin	2,069,042	2,333,860	2,632,067	4,705,767	4,891,769	5,363,675	5,686,986	5,893,718
Wyoming	92,531	145,965	194,402	469,557	453,588	493,782	563,626	576,851

Source: STATS Indiana, using U.S. Census Bureau data

	Township Of Towamencin Data & Demographics	*Township Of Hatfield Data & Demographics (As of July 1,*	*Lansdale, PA Data & Demographics (As of July 1,*	*Township Of Lower Salford Data & Demographics*	*Township Of Upper Gwynedd Data & Demographics*	*Township Of Worcester Data & Demographics (As of July 1,*
POPULATION						
Total Population	17,915 (100%)	18,743 (100%)	18,841 (100%)	16,070 (100%)	17,107 (100%)	10,652 (100%)
Population in Households	17,817 (99.5%)	18,644 (99.5%)	17,900 (95.0%)	15,697 (97.7%)	16,859 (98.6%)	10,585 (99.4%)
Population in Families	14,519 (81.0%)	15,645 (83.5%)	13,376 (71.0%)	13,722 (85.4%)	14,063 (82.2%)	9,265 (87.0%)
Population in Group Quarters[1]	98 (0.5%)	99 (0.5%)	941 (5.0%)	373 (2.3%)	248 (1.4%)	67 (0.6%)
Population Density	1,850	1,886	6,296	1,111	2,106	657
Diversity Index[2]	45	59	61	32	47	41
INCOME						
Median Household Income	$100,665	$88,005	$74,081	$120,134	$103,346	$149,133
Average Household Income	$141,955	$120,396	$96,464	$158,294	$146,094	$198,150
% of Income for Mortgage[4]	19%	20%	19%	18%	20%	19%
Per Capita Income	$59,165	$46,412	$36,808	$56,711	$60,525	$73,618
Wealth Index[5]	165	128	74	188	174	261
HOUSING						
Total HU (Housing Units)	7,746 (100%)	7,508 (100%)	7,657 (100%)	5,970 (100%)	7,351 (100%)	4,126 (100%)
Owner Occupied HU	5,184 (66.9%)	4,722 (62.9%)	3,808 (49.7%)	4,349 (72.8%)	4,985 (67.8%)	3,271 (79.3%)
Renter Occupied HU	2,281 (29.4%)	2,502 (33.3%)	3,361 (43.9%)	1,405 (23.5%)	2,101 (28.6%)	686 (16.6%)
Vacant Housing Units	281 (3.6%)	284 (3.8%)	488 (6.4%)	216 (3.6%)	265 (3.6%)	169 (4.1%)
Median Home Value	$370,794	$336,334	$266,932	$413,812	$387,592	$523,311
Average Home Value	$378,646	$345,209	$295,897	$449,672	$411,695	$603,141
Housing Affordability Index[3]	115	112	116	116	115	115
HOUSEHOLDS						
Total Households	7,465	7,224	7,169	5,754	7,086	3,957
Average Household Size	2.39	2.58	2.5	2.73	2.38	2.68
Family Households	4,736	5,010	4,026	4,235	4,829	2,903
Average Family Size	3	3	3	3	3	3

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Public Meeting held June 16, 2022

Docket Number: M-2022-3032405

BUREAU OF TECHNICAL UTILITY SERVICES

REPORT ON THE QUARTERLY EARNINGS

OF JURISDICTIONAL UTILITIES

FOR THE YEAR ENDED

December 31, 2021

Gladys Brown Dutrieuille, Chairman
John F. Coleman, Jr., Commissioner
Ralph V. Yanora, Commissioner

The market indicated common equity cost rate range consists of data used from the barometer groups and is based on a series of calculations to average the DCF methods.

Market Based Returns on Common Equity [1]	
May 10, 2022	
Water Company Barometer Group	
	Cost Rates %
(1) Current DCF	8.63
(2) 52-Week Average DCF	8.30
(3) Average DCF	8.46
(4) Market Indicated Common Equity Cost Rate Range @ 1 standard deviation around the mean.[2]	6.74-10.19
(5) CAPM Check of DCF Reasonableness	9.88
(6) Recent Commission Approved ROEs[3]: *Aqua Pennsylvania, Inc., R-2021-3027385, does not include 0.25% management effectiveness adjustment	9.75*
(7) Distribution System Improvement Charge (DSIC) Return[4]:	**9.80%**

[1] As calculated by the Bureau of Technical Utility Services
[2] Standard Deviation of 14 DCF observations
[3] ROEs from base rate cases within last two years, fully litigated or stipulated for DSIC purposes
[4] Commission authorized Return on Equity (ROE) for DSIC purposes

Any questions concerning DSIC should be directed to Marc Hoffer of the Bureau of Technical Utility Services at (717) 787-1869.

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

ADR 022 | July 2016

Analytical Data Report

County- and Municipal-Level Population Forecasts, 2015–2045

DELAWARE VALLEY li..data

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources, including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA); the Pennsylvania and New Jersey departments of transportation; and DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

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As the region's metropolitan planning organization, DVRPC provides technical assistance and services to its member state and local governments. *Delaware Valley Data* is our periodic series of free data bulletins, analytical data reports, data reference guides, and data snapshots.

Background

Population and employment forecasts are a critical component of long-range land use and transportation planning. As a part of the Delaware Valley Regional Planning Commission's (DVRPC's) long-range planning activities, the Commission is required to maintain forecasts with at least a 20-year horizon, or to the horizon year of the long-range plan. DVRPC last adopted forecasts through the year 2040 in January 2012. Since that time, the Census Bureau has released 2015 population estimates, and both the nation and the region have continued to recover from the significant economic recession that officially began in December 2007 and ended in June 2009.

In order to incorporate the 2015 Census estimates and maintain a 30-year planning horizon, DVRPC has prepared 2045 population forecasts for its member counties and municipalities. These forecasts were formally adopted by the DVRPC Board on July 28, 2016, and serve as the basis for DVRPC planning and modeling activities. Employment forecasts in five-year increments through 2045 are scheduled to be adopted in October 2016.

Three alternative sets of county- and municipal-level 2045 population forecasts were developed based on the method described below, and sent to the county planning staffs for review and comment. Agreement was first reached on the county- and municipal-level 2045 population forecasts; forecasts for 2020, 2025, 2030, 2035, and 2040 were then calculated by DVRPC, based on the population growth rate predicted over each five-year increment by the Commission's age-cohort survival model. These mid-cycle forecasts were again sent to the counties for review, and their suggested revisions were incorporated to produce the final set of 2045 forecasts.

Method for Calculating County-Level 2045 Population Forecasts

Three alternative 2045 population forecasts were calculated for each county based on three separate methods, the results of which define a reasonable range of values within which each county's 2045 population total is expected to fall. This process replicates the process employed in 2007 and again in 2011, to develop the Commission's adopted 2035 and 2040 population forecasts. The three alternative methods are as follows:

- An initial set of draft county-level 2045 forecasts was obtained by running the traditional age-cohort survival model used in the previously forecasted round, but updating the model to incorporate 2000, 2005, 2010, and 2015 population data in five-year age/sex cohorts. When the analysis for this report was conducted, the Census Bureau had released 2015 estimates of the total population in each county, but had not yet released 2015 estimates by age/sex cohorts. The percentage of the population in each age/sex cohort in 2014 was therefore applied to the 2015 county estimates, to approximate 2015 age/sex breakdowns. The model incorporates birth, death, survival, and migration rates as follows:

- **Birth rate**: The model uses the number of live births per 1,000 women by five-year age cohort in New Jersey in 2013, assuming that New Jersey state-wide data is a better proxy for the Greater Philadelphia region's fertility rate than state-wide data from Pennsylvania (which has many non-metropolitan counties).

- **Survival rate**: Survival rate data (and, conversely, mortality rate data) was obtained from the National Vital Statistics System of the Center for Disease Control and Prevention (CDC). Future survival rates were adjusted to account for expected improvements in mortality related to medical advances and lifestyle changes, based on average increases in life expectancy over the past 20 years.

- **Migration**: The model assumes that migration (the change in the population that cannot be accounted for through births and deaths) in future years will be the same as the average migration rate experienced by each five-year age/sex cohort in each county between 2000 and 2015. Using the average migration rates between 2000 and 2015 accounts for changes in migration experienced prior to the economic recession, during the recession, and post-recession.

This age-cohort model replicates the model used in 2007 and again in 2011, but incorporates recent data to more accurately portray recent demographic trends. These trends include higher in-migration of seniors to certain areas of the region, declining overall fertility rates but higher fertility rates among women over age 35, and in-migration to Philadelphia and some of the region's older suburbs.

- A second set of county-level forecasts was developed utilizing the region-wide 2045 population forecast from the age-cohort model described above, but redistributing the total 2045 regional population to each of the nine counties based on the county percentages from the adopted 2040 forecasts. This alternative acknowledges that the longer-term development trends agreed upon during the process of developing the 2040 forecasts may be more important in some counties than the age-cohort births/deaths and shorter-term migration trends reflected in the county-level age-cohort method described above. It therefore continues those longer-term growth trends by reassigning the 2045 regional population among the nine counties, essentially adjusting migration rates to compensate for birth-death effects.

- A third alternative set of county-level forecasts was developed by applying the growth rates between each five-year time period from DVRPC's adopted 2040 forecasts to the previous five-year total, but using 2015 American Community Survey data as the base. The expected growth rate between 2040 and 2045 was based on the average change in the forecasted growth rate for each five-year increment between 2015 and 2040.

  This alternative ignores the results of the most recent age-cohort model and simply extends to 2045 the growth rates agreed upon during the process of developing the 2040 forecasts, as applied to the new 2015 base. This method assumes future population growth will follow previously adopted trends but adjusts for the differences in growth that actually occurred between 2010 and 2015.

The two alternatives to the age-cohort model incorporate the value of local planning knowledge and recognize that the adopted 2040 forecasts did not simply reflect the age-cohort results, but included significant input from the county planning staffs. Based on the above steps, three alternative sets of 2045 forecasts were developed for each of the nine counties, creating expected minimum and maximum 2045 county-level forecasts.

Method for Calculating Municipal-Level 2045 Population Forecasts

Each set of alternative county-level 2045 forecasts was disaggregated to the municipal level using the following method:

- The difference between the municipal-level 2015 Census population estimate and DVRPC's 2015 population forecast was calculated for each municipality.
- These differences were added or subtracted as appropriate from the adopted municipal-level 2040 forecasts. These adjusted 2040 forecasts were then used as a base for the calculation of the 2045 municipal forecasts.
- The adjusted 2040 population forecasts were summed and, for each set of alternatives, the percentage of the population forecasted to live in each municipality in 2040 (based on the adjusted 2040 forecasts) was applied to each of the 2045 county-level alternatives to create preliminary 2045 municipal forecasts, with the sum of all municipalities within each county matching the county-level 2045 forecast for each of the three alternatives.

This method assumes that the proportion of the county's population living in each municipality in 2040 will remain the same in 2045 and, when applied to the three alternative county-level forecasts, produced three alternative sets of municipal-level 2045 forecasts. These alternatives were sent to DVRPC's member counties' planning staff for review and comment, and consensus was reached on a full set of 2045 county and municipal forecasts.

Method for Developing Mid-Year Population Forecasts

Once agreement was reached on the county- and municipal-level 2045 population forecasts, forecasts for 2020, 2025, 2030, 2035, and 2040 were developed by DVRPC, based on the population growth predicted for each mid-year increment by the regional age-cohort survival model. The age-cohort model predicted a slight curve (rather than a straight line), with slightly more growth in the early years and a slight slowing near the end.

Obviously, the population of every municipality is not going to increase at exactly the same rate during each five-year interval. These mid-year numbers were simply intended to provide a logical starting point for discussion, and were sent to the county planning staffs for final review, based on their local knowledge of pending and approved development proposals and population growth trends. Their suggested revisions were incorporated to produce the final set of 2045 forecasts. Table 1 summarizes DVRPC's adopted regional and county forecasts in five-year increments through 2045, and municipal-level forecasts are provided in Appendix A.

Table 1: Forecasted Population by County, 2015-2045

County	2010 Census	2015 Census Estimate	2020 Forecast	2025 Forecast	2030 Forecast	2035 Forecast	2040 Forecast	2045 Forecast	2015-2045 Absolute Change	2015-2045 Percentage Change
Bucks County	625,249	627,367	640,495	654,792	669,299	681,273	691,111	699,498	72,131	11.5%
Chester County	498,886	515,939	543,702	571,641	599,932	624,832	645,562	662,283	146,344	28.4%
Delaware County	558,979	563,894	568,337	572,758	577,248	581,136	584,329	587,037	23,143	4.1%
Montgomery County	799,874	819,264	840,934	863,327	884,387	903,114	918,918	932,820	113,556	13.9%
Philadelphia County	1,526,006	1,567,443	1,594,787	1,616,816	1,643,971	1,667,290	1,683,402	1,696,133	128,690	8.2%
Five Pennsylvania Counties	**4,008,994**	**4,093,907**	**4,188,255**	**4,279,333**	**4,374,837**	**4,457,645**	**4,523,322**	**4,577,771**	**483,864**	**11.8%**
Burlington County	448,734	450,226	459,344	468,428	475,978	482,560	488,026	492,709	42,483	9.4%
Camden County	513,657	510,923	514,006	517,073	520,189	522,886	525,101	526,997	16,074	3.1%
Gloucester County	288,288	291,479	307,766	323,969	340,425	354,677	366,383	376,308	84,829	29.1%
Mercer County	367,511	371,398	377,328	383,227	389,219	394,407	398,669	402,283	30,885	8.3%
Four New Jersey Counties	**1,618,190**	**1,624,026**	**1,658,444**	**1,692,697**	**1,725,811**	**1,754,530**	**1,778,179**	**1,798,296**	**174,270**	**10.7%**
Nine-County DVRPC Region	**5,627,184**	**5,717,933**	**5,846,699**	**5,972,030**	**6,100,648**	**6,212,175**	**6,301,501**	**6,376,067**	**658,134**	**11.5%**

Source: Delaware Valley Regional Planning Commission, July 2016.

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Table 2 identifies the 20 municipalities expected to gain the most residents between 2015 and 2045, and Table 3 identifies municipalities with the highest forecasted percentage change in population. Figure 1 illustrates the 2040 population forecasts by municipality, with concentrations of population seen in Philadelphia and the region's mature suburbs and along major highway corridors, including Route 422, Route 30, Mercer County's Route 1 corridor, and the Route 55 in Gloucester County and southern Camden County. Figures 2 and 3 illustrate absolute and percent change in population by municipality between 2015 and 2045, respectively.

Figure 4 illustrates the absolute increase in population per square mile in each of the region's 352 municipalities. This map illustrates not just where the population is increasing, but also the impact of relatively small population increases on the population density in specific municipalities. Significant increases in density are forecast not just in the City of Philadelphia, but also in many of the region's smaller boroughs, including Phoenixville, Atglen, Parkesburg, Oxford, Avondale, West Grove, and Kennett Square in Chester County; Bridgeport and Conshohocken in Montgomery County; and Riverside and Beverly in Burlington County.

Highlights

- The DVRPC region is forecast to gain over 658,000 residents between 2015 and 2045 (an 11.5 percent increase).
- As it has since the mid-2000s, the population of the City of Philadelphia increased between 2010 and 2015, with the city adding more than 41,000 residents. This trend is forecast to continue, with the city's population expected to increase by over 8 percent by 2045, adding over 128,000 residents. The share of the region's population living in the city is expected to increase slightly by 2045, from 26 percent, in 2015, to 27 percent.
- The population of the region's five southeastern Pennsylvania counties is forecast to increase by 11.8 percent between 2015 and 2045, while the population of the four New Jersey counties is expected to increase by 10.7 percent.
- The largest percentage increases in population are expected in municipalities in Gloucester County, New Jersey (where the county's population is forecast to increase by over 29 percent) and Chester County, Pennsylvania (where the population is forecast to increase by more than 28 percent).

- The largest absolute increase in population is forecast for Chester County, which is expected to gain over 146,000 residents and surpass Delaware County to become the region's fourth most populous county by 2045. Other counties forecast to see a significant number of additional residents include Philadelphia (as mentioned above), Montgomery County (with a forecasted increase of over 113,000 people), and Gloucester County, New Jersey (forecast to add almost 85,000 residents).

Table 2: Municipalities with the Greatest Forecasted Absolute Change in Population, 2015–2045

Rank	Municipality or City Planning Area	County	Absolute Change	Rank	Municipality or City Planning Area	County	Absolute Change
1	Central	Philadelphia	30,406	11	Harrison Township	Gloucester	7,666
2	Lower North	Philadelphia	16,360	12	Washington Township	Gloucester	7,504
3	University/Southwest	Philadelphia	14,586	13	Bristol Township	Bucks	6,766
4	Monroe Township	Gloucester	13,519	14	Mantua Township	Gloucester	6,667
5	Woolwich Township	Gloucester	12,362	15	River Wards	Philadelphia	6,566
6	Phoenixville Borough	Chester	9,052	16	East Whiteland Township	Chester	6,250
7	North	Philadelphia	8,607	17	Glassboro Borough	Gloucester	6,063
8	West	Philadelphia	8,278	18	Lower Merion Township	Montgomery	6,054
9	Bensalem Township	Bucks	7,838	19	Upper Providence Township	Montgomery	6,050
10	South	Philadelphia	7,767	20	Horsham Township	Montgomery	5,954

Source: Delaware Valley Regional Planning Commission, July 2016.

Table 3: Municipalities with the Greatest Forecasted Percentage Change in Population, 2015–2045

Rank	Municipality or City Planning Area	County	Absolute Change	Rank	Municipality or City Planning Area	County	Absolute Change
1	Woolwich Township	Gloucester	100.5%	11	London Grove Township	Chester	52.4%
2	Elk Township	Gloucester	70.3%	12	South Coatesville Borough	Chester	50.5%
3	Atglen Borough	Chester	63.9%	13	West Brandywine Township	Chester	48.2%
4	Elverson Borough	Chester	62.6%	14	East Vincent Township	Chester	47.6%
5	Modena Borough	Chester	62.5%	15	East Brandywine Township	Chester	47.0%
6	Sadsbury Township	Chester	62.3%	16	Penn Township	Chester	46.5%
7	Harrison Township	Gloucester	59.0%	17	Charlestown Township	Chester	46.5%
8	East Whiteland Township	Chester	58.4%	18	New Hanover Township	Montgomery	46.3%
9	West Sadsbury Township	Chester	54.5%	19	Hainesport Township	Burlington	45.5%
10	Phoenixville Borough	Chester	54.3%	20	Mantua Township	Gloucester	44.3%

Source: Delaware Valley Regional Planning Commission, July 2016.

Figure 1:

2045 Municipal Population Forecast

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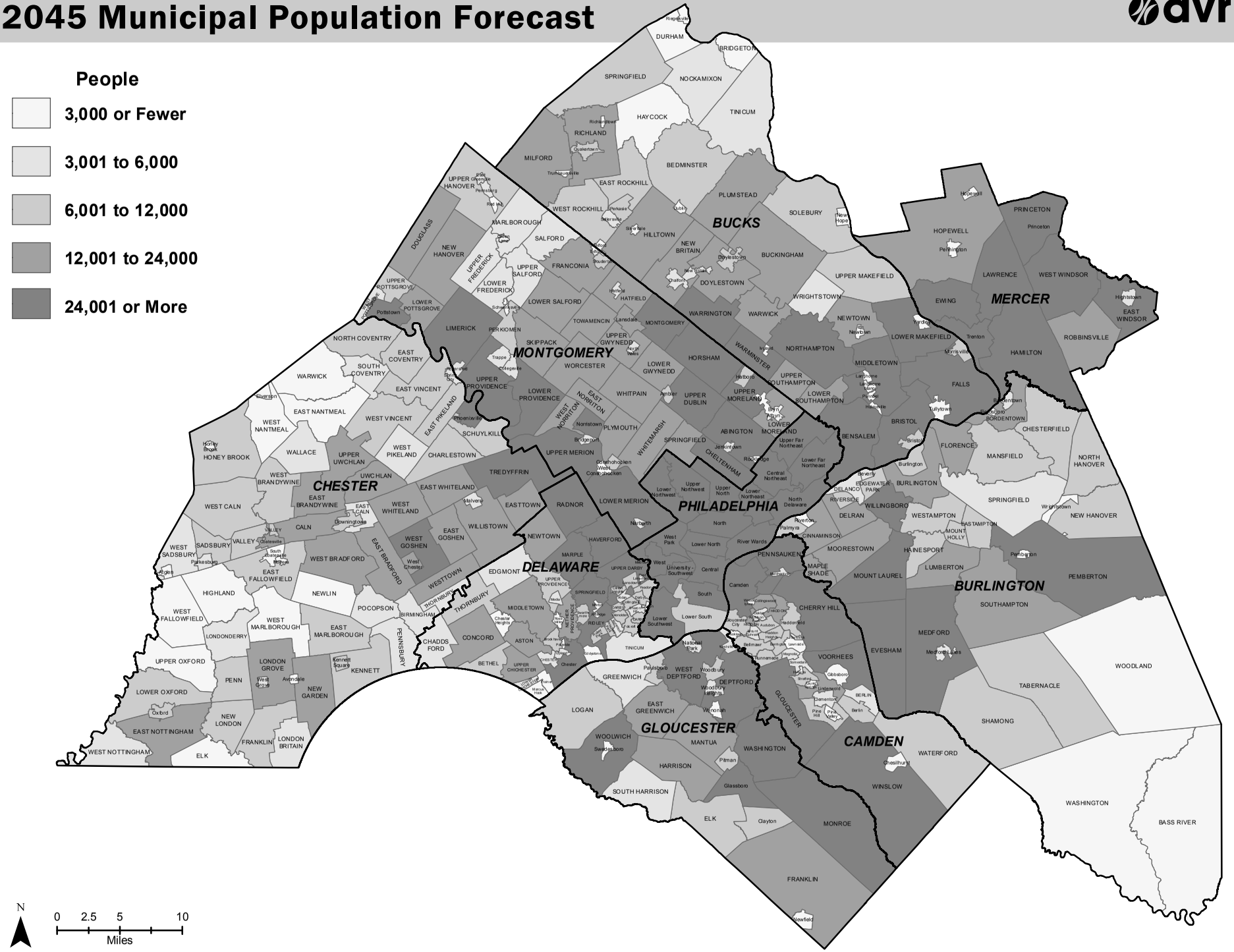

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Figure 2:

2045 Municipal Population Forecast

Absolute Change: 2015—2045

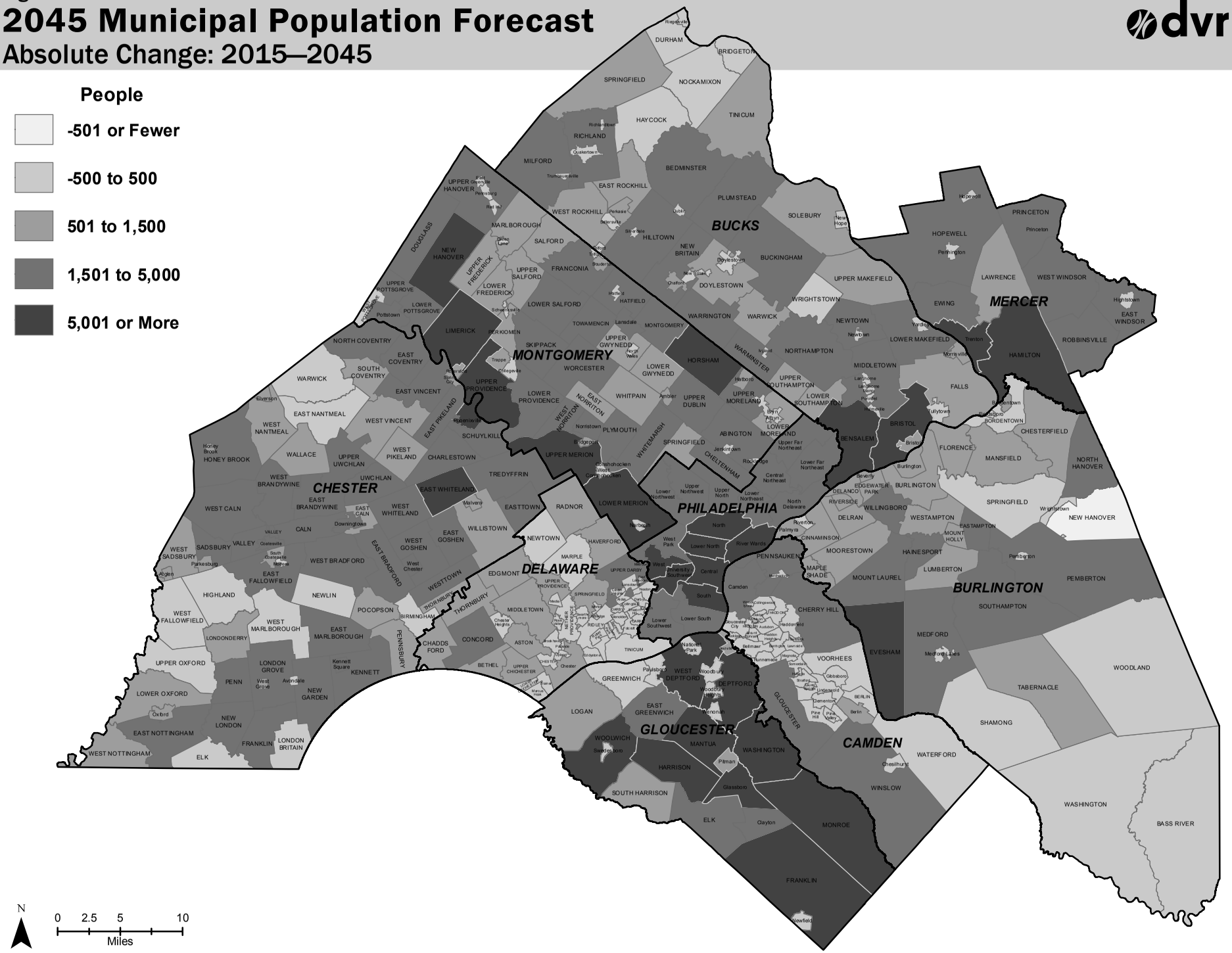

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Figure 3:

2045 Municipal Population Forecast

Percentage Change: 2015—2045

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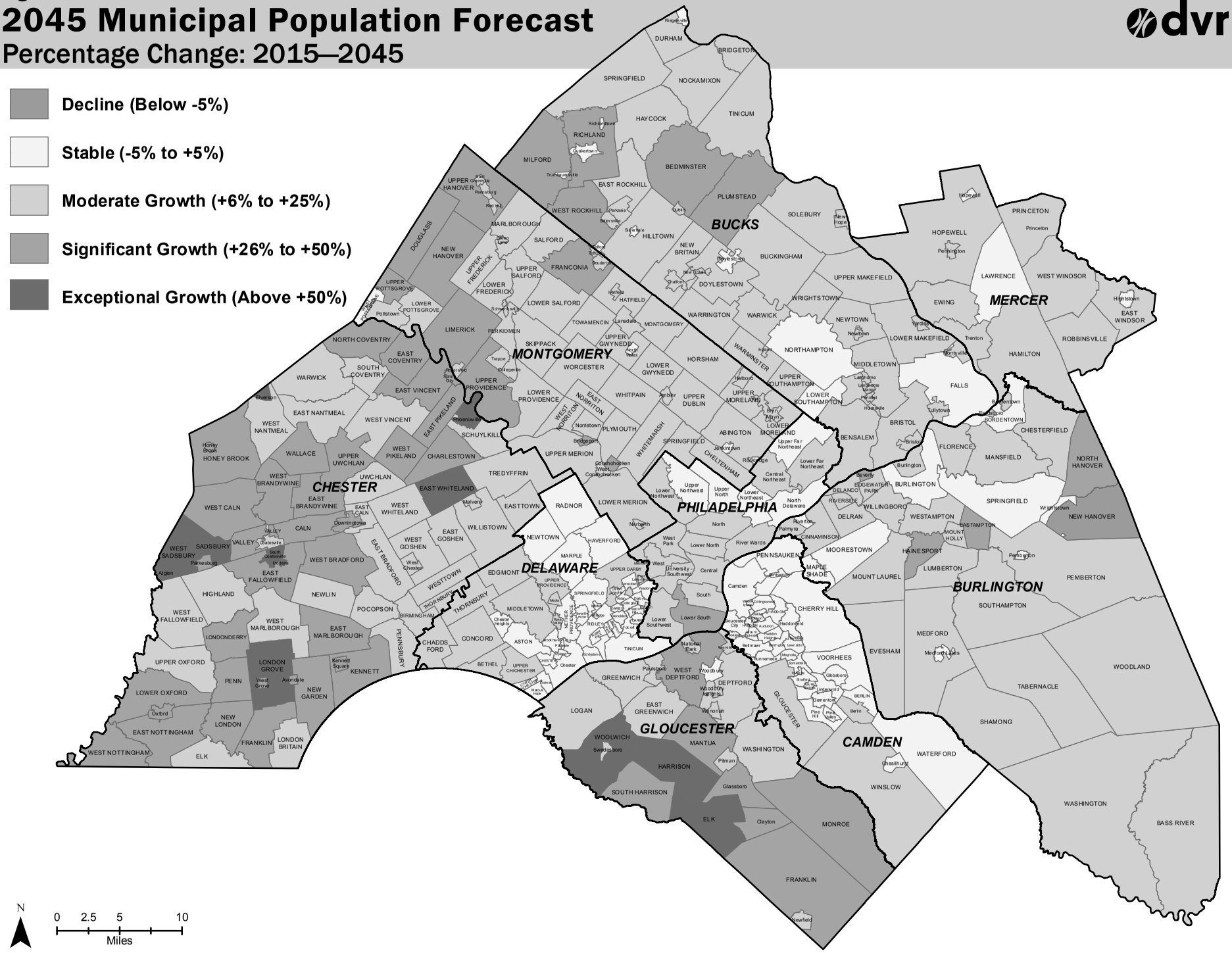

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Figure 4:

2045 Municipal Population Forecast

Absolute Change per Square Mile by Municipality: 2015—2045

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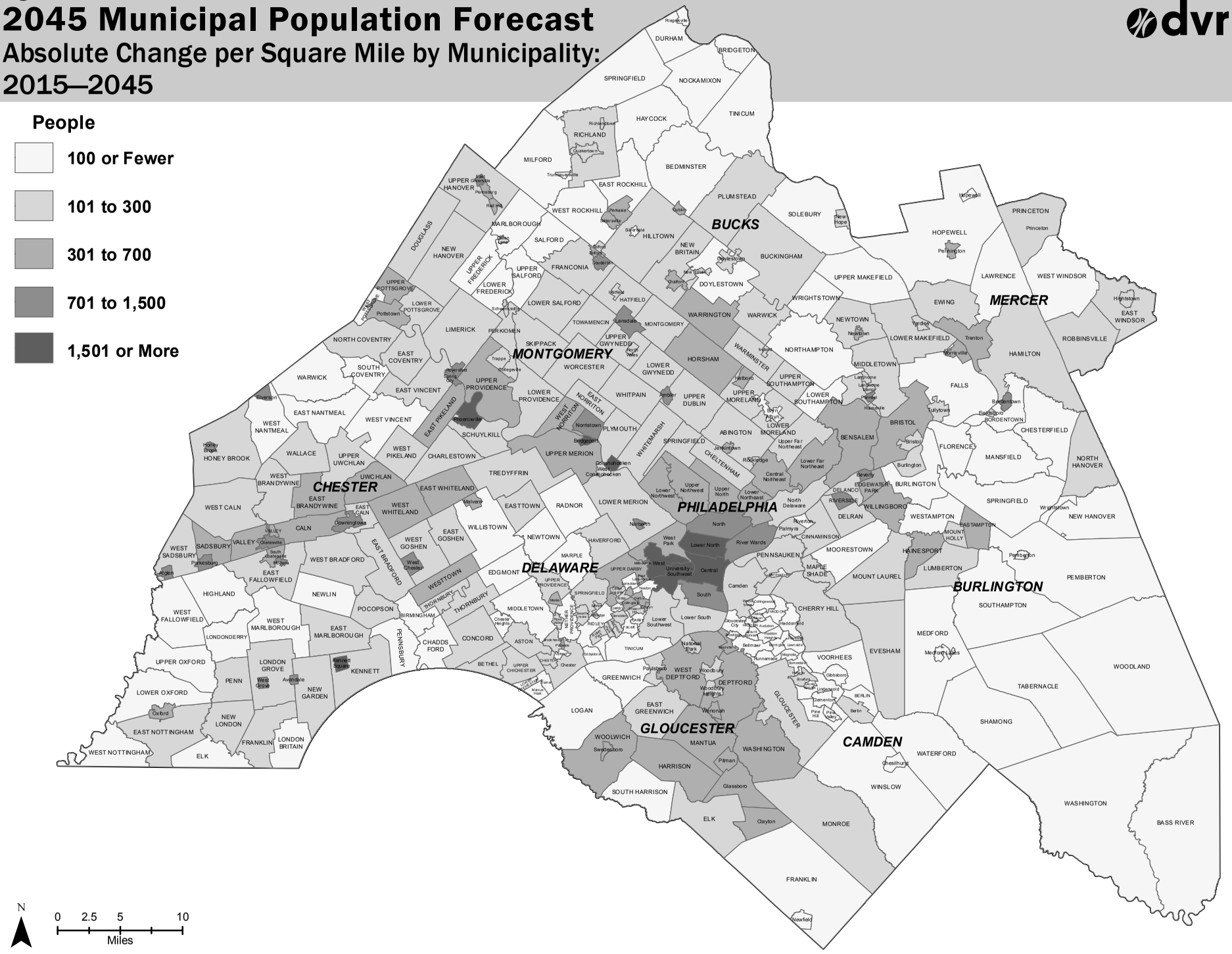

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Summary

This report summarizes the method used to develop 2045 and interim-year population forecasts, which were adopted by the DVRPC Board on July 28, 2016. The population of the nine-county DVRPC region is forecast to increase by 11.5 percent between 2015 and 2045, with much of this growth concentrated in the suburbs, particularly in Chester County, Pennsylvania, and Gloucester County, New Jersey. The population of the City of Philadelphia is expected to increase by over 8 percent by 2045, and the share of the region's population living in the city is expected to increase slightly, from 26 percent in 2015 to 27 percent in 2045.

Population and employment forecasts are a critical component of long-range land use and transportation planning. The adopted population forecasts provided in this report will serve as the basis for DVRPC's planning and modeling activities. Employment forecasts in five-year increments through 2045 will be prepared and adopted in October 2016. The population and employment forecasts will be included in and support *Connections 2045*, the region's long-range plan update, scheduled for adoption in July 2017.

Appendix A: Forecasted Population by County and Municipality, 2015-2045

County / Municipality	2000 Census	2010 Census	2015 Census Estimate	2020 Forecast	2025 Forecast	2030 Forecast	2035 Forecast	2040 Forecast	2045 Forecast	2015-2045 Absolute Change	2015-2045 Percentage Change
Bucks County	**597,636**	**625,249**	**627,367**	**640,495**	**654,792**	**669,299**	**681,273**	**691,111**	**699,498**	**72,131**	**11.5%**
Bedminster Township	4,800	6,574	7,037	7,407	7,775	8,149	8,473	8,739	8,965	1,928	27.4%
Bensalem Township	58,435	60,427	60,374	61,878	63,377	64,898	66,212	67,296	68,212	7,838	13.0%
Bridgeton Township	1,410	1,277	1,283	1,309	1,335	1,361	1,384	1,402	1,418	135	10.5%
Bristol Borough	9,923	9,726	9,569	9,674	9,778	9,884	9,976	10,051	10,115	546	5.7%
Bristol Township	55,521	54,582	54,086	54,360	56,166	57,990	59,127	60,060	60,852	6,766	12.5%
Buckingham Township	16,440	20,075	20,385	21,079	21,770	22,471	23,078	23,577	24,000	3,615	17.7%
Chalfont Borough	3,900	4,009	4,069	4,496	4,559	4,625	4,672	4,699	4,726	657	16.1%
Doylestown Borough	8,230	8,380	8,301	8,368	8,435	8,502	8,561	8,609	8,650	349	4.2%
Doylestown Township	18,387	17,565	17,563	17,806	18,048	18,293	18,506	18,681	18,829	1,266	7.2%
Dublin Borough	2,085	2,158	2,169	2,221	2,273	2,325	2,371	2,408	2,440	271	12.5%
Durham Township	1,313	1,144	1,144	1,175	1,206	1,238	1,265	1,288	1,307	163	14.2%
East Rockhill Township	5,200	5,706	5,742	5,924	6,106	6,290	6,450	6,581	6,692	950	16.5%
Falls Township	34,865	34,300	33,901	34,074	34,245	34,420	34,571	34,695	34,800	899	2.7%
Haycock Township	2,190	2,225	2,218	2,266	2,315	2,363	2,406	2,441	2,470	252	11.4%
Hilltown Township	12,100	15,029	15,262	15,807	16,349	16,900	17,376	17,768	18,100	2,838	18.6%
Hulmeville Borough	895	1,003	996	1,007	1,017	1,028	1,037	1,045	1,051	55	5.5%
Ivyland Borough	492	1,041	1,053	1,071	1,089	1,108	1,124	1,137	1,148	95	9.0%
Langhorne Borough	1,980	1,622	1,599	1,618	1,638	1,657	1,674	1,688	1,700	101	6.3%
Langhorne Manor Borough	925	1,442	1,431	1,449	1,467	1,485	1,501	1,514	1,525	94	6.6%
Lower Makefield Township	32,691	32,559	32,755	33,683	34,074	34,474	34,855	35,181	35,500	2,745	8.4%
Lower Southampton Township	19,275	18,909	19,142	19,266	19,389	19,515	19,623	19,712	19,788	646	3.4%
Middletown Township	44,140	45,436	45,407	46,097	46,784	47,480	48,084	48,580	49,000	3,593	7.9%
Milford Township	8,810	9,902	10,053	10,555	11,055	11,562	12,002	12,363	12,669	2,616	26.0%
Morrisville Borough	10,020	8,728	8,605	8,623	8,796	8,968	9,074	9,160	9,234	629	7.3%
New Britain Borough	2,358	3,152	3,017	3,080	3,143	3,207	3,263	3,308	3,347	330	10.9%
New Britain Township	10,695	11,070	11,236	11,653	12,068	12,489	12,854	13,154	13,408	2,172	19.3%
New Hope Borough	2,250	2,528	2,510	2,550	2,590	2,631	2,666	2,695	2,719	209	8.3%
Newtown Borough	2,310	2,248	2,222	2,284	2,345	2,407	2,461	2,505	2,543	321	14.4%
Newtown Township	18,206	19,299	19,704	20,059	20,412	20,770	21,081	21,336	21,552	1,848	9.4%
Nockamixon Township	3,520	3,441	3,413	3,491	3,568	3,647	3,715	3,771	3,818	405	11.9%
Northampton Township	39,384	39,726	39,587	39,841	40,262	40,691	41,012	41,276	41,500	1,913	4.8%
Penndel Borough	2,420	2,328	2,221	2,283	2,345	2,408	2,462	2,507	2,545	324	14.6%
Perkasie Borough	8,830	8,511	8,471	8,671	8,869	9,071	9,246	9,389	9,511	1,040	12.3%
Plumstead Township	11,410	12,442	13,511	14,417	15,318	16,233	17,025	17,676	18,228	4,717	34.9%
Quakertown Borough	8,935	8,979	8,855	8,912	8,968	9,025	9,075	9,115	9,150	295	3.3%
Richland Township	9,920	13,052	13,155	13,855	14,551	15,258	15,871	16,374	16,800	3,645	27.7%

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County / Municipality	2000 Census	2010 Census	2015 Census Estimate	2020 Forecast	2025 Forecast	2030 Forecast	2035 Forecast	2040 Forecast	2045 Forecast	2015-2045 Absolute Change	2015-2045 Percentage Change
Richlandtown Borough	1,285	1,327	1,312	1,319	1,327	1,334	1,340	1,346	1,350	38	2.9%
Riegelsville Borough	863	868	858	865	873	880	886	892	896	38	4.4%
Sellersville Borough	4,564	4,249	4,212	4,297	4,382	4,469	4,544	4,605	4,657	445	10.6%
Silverdale Borough	1,000	871	856	863	869	876	881	886	890	34	4.0%
Solebury Township	7,740	8,692	8,639	8,766	8,892	9,020	9,131	9,223	9,300	661	7.7%
Springfield Township	4,965	5,035	5,036	5,239	5,440	5,645	5,823	5,968	6,092	1,056	21.0%
Telford Borough (part)	2,201	2,207	2,193	2,214	2,234	2,255	2,273	2,287	2,300	107	4.9%
Tinicum Township	4,205	3,995	3,963	4,136	4,307	4,482	4,633	4,757	4,862	899	22.7%
Trumbauersville Borough	1,060	974	959	967	975	983	990	995	1,000	41	4.3%
Tullytown Borough	2,035	1,872	1,859	1,906	1,953	2,000	2,042	2,075	2,104	245	13.2%
Upper Makefield Township	7,180	8,190	8,255	8,477	8,697	8,921	9,115	9,275	9,410	1,155	14.0%
Upper Southampton Township	15,765	15,152	15,121	15,271	15,419	15,570	15,701	15,809	15,900	779	5.2%
Warminster Township	31,383	32,682	32,594	33,035	33,473	33,918	34,304	34,620	34,889	2,295	7.0%
Warrington Township	17,580	23,418	23,942	24,796	25,646	26,510	27,257	27,871	28,392	4,450	18.6%
Warwick Township	11,975	14,437	14,694	14,972	15,249	15,531	15,774	15,974	16,144	1,450	9.9%
West Rockhill Township	4,230	5,256	5,277	5,369	5,733	6,098	6,337	6,534	6,700	1,423	27.0%
Wrightstown Township	2,840	2,995	3,110	3,197	3,284	3,373	3,449	3,512	3,565	455	14.6%
Yardley Borough	2,500	2,434	2,441	2,497	2,554	2,611	2,660	2,701	2,735	294	12.0%
Chester County	**433,512**	**498,886**	**515,939**	**543,702**	**571,641**	**599,932**	**624,832**	**645,562**	**662,283**	**146,344**	**28.4%**
Atglen Borough	1,215	1,406	1,408	1,532	1,683	1,858	2,030	2,203	2,308	900	63.9%
Avondale Borough	1,110	1,265	1,399	1,490	1,581	1,672	1,752	1,818	1,873	474	33.9%
Birmingham Township	4,220	4,208	4,262	4,320	4,377	4,435	4,486	4,527	4,562	300	7.0%
Caln Township	11,916	13,817	14,115	15,025	15,929	16,848	17,644	18,299	18,852	4,737	33.6%
Charlestown Township	4,050	5,671	5,690	6,198	6,703	7,217	7,661	8,026	8,336	2,646	46.5%
Coatesville City	10,838	13,100	13,148	13,666	14,182	14,706	15,160	15,532	15,848	2,700	20.5%
Downingtown Borough	7,590	7,891	7,946	8,508	9,068	9,636	10,128	10,532	10,875	2,929	36.9%
East Bradford Township	9,405	9,942	10,038	10,470	10,900	11,336	11,714	12,025	12,288	2,250	22.4%
East Brandywine Township	5,825	6,742	8,295	9,044	9,789	10,545	11,201	11,739	12,195	3,900	47.0%
East Caln Township	2,855	4,838	4,873	5,073	5,273	5,475	5,651	5,795	5,917	1,044	21.4%
East Coventry Township	4,565	6,636	6,753	7,173	7,592	8,017	8,385	8,687	8,943	2,190	32.4%
East Fallowfield Township	5,160	7,449	7,570	7,992	8,412	8,839	9,208	9,512	9,769	2,199	29.0%
East Goshen Township	16,825	18,026	18,339	18,685	19,028	19,378	19,680	19,928	20,139	1,800	9.8%
East Marlborough Township	6,315	7,026	7,283	7,850	8,414	8,986	9,482	9,890	10,235	2,952	40.5%
East Nantmeal Township	1,785	1,803	1,842	1,871	1,899	1,929	1,954	1,974	1,992	150	8.1%
East Nottingham Township	5,515	8,650	8,930	9,571	10,208	10,855	11,415	11,876	12,266	3,336	37.4%
East Pikeland Township	6,550	7,079	7,359	7,932	8,502	9,081	9,583	9,995	10,344	2,985	40.6%
East Vincent Township	5,493	6,821	6,920	7,552	8,182	8,821	9,374	9,829	10,214	3,294	47.6%
East Whiteland Township	9,335	10,650	10,702	12,002	13,196	14,309	15,358	16,221	16,952	6,250	58.4%

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Easttown Township	10,265	10,477	10,620	10,966	11,309	11,659	11,961	12,209	12,420	1,800	16.9%
Elk Township	1,490	1,681	1,695	1,753	1,810	1,868	1,919	1,960	1,995	300	17.7%
Elverson Borough	960	1,225	1,314	1,472	1,629	1,788	1,926	2,040	2,136	822	62.6%
Franklin Township	3,850	4,352	4,518	4,861	5,202	5,548	5,848	6,094	6,303	1,785	39.5%
Highland Township	1,125	1,272	1,289	1,332	1,375	1,419	1,457	1,488	1,514	225	17.5%
Honey Brook Borough	1,285	1,713	1,758	1,873	1,988	2,104	2,205	2,288	2,358	600	34.1%
Honey Brook Township	6,280	7,647	8,124	8,510	8,980	9,523	10,058	10,596	10,924	2,800	34.5%
Kennett Square Borough	5,275	6,072	6,167	6,666	7,163	7,667	8,104	8,463	8,767	2,600	42.2%
Kennett Township	6,450	7,565	8,172	8,690	9,206	9,730	10,184	10,556	10,872	2,700	33.0%
London Britain Township	2,795	3,139	3,268	3,314	3,360	3,406	3,447	3,480	3,508	240	7.3%
London Grove Township	5,265	7,475	8,592	9,213	9,969	10,842	11,702	12,566	13,092	4,500	52.4%
Londonderry Township	1,630	2,149	2,400	2,553	2,706	2,860	2,995	3,105	3,198	798	33.3%
Lower Oxford Township	4,320	5,200	5,001	5,289	5,576	5,867	6,119	6,326	6,501	1,500	30.0%
Malvern Borough	3,060	2,998	3,430	3,557	3,684	3,813	3,924	4,015	4,093	663	19.3%
Modena Borough	610	535	528	591	654	718	774	819	858	330	62.5%
New Garden Township	9,080	11,984	12,096	12,730	13,360	14,000	14,555	15,010	15,396	3,300	27.3%
New London Township	4,585	5,631	5,944	6,438	6,930	7,429	7,862	8,217	8,518	2,574	43.3%
Newlin Township	1,150	1,285	1,356	1,415	1,474	1,534	1,586	1,629	1,665	309	22.8%
North Coventry Township	7,380	7,866	8,024	8,397	8,851	9,375	9,891	10,409	10,724	2,700	33.6%
Oxford Borough	4,315	5,077	5,385	5,571	5,798	6,060	6,318	6,577	6,735	1,350	25.1%
Parkesburg Borough	3,375	3,593	3,687	3,974	4,260	4,551	4,802	5,009	5,184	1,497	40.6%
Penn Township	2,810	5,364	5,475	5,964	6,451	6,945	7,373	7,724	8,022	2,547	46.5%
Pennsbury Township	3,505	3,604	3,659	3,763	3,867	3,972	4,064	4,138	4,202	543	14.8%
Phoenixville Borough	14,795	16,440	16,658	18,696	20,725	22,481	24,002	25,051	25,710	9,052	54.3%
Pocopson Township	3,350	4,582	4,856	5,060	5,264	5,471	5,649	5,796	5,921	1,065	21.9%
Sadsbury Township	2,580	3,570	3,850	4,311	4,769	5,235	5,638	5,969	6,250	2,400	62.3%
Schuylkill Township	6,965	8,516	8,576	8,922	9,265	9,615	9,917	10,165	10,376	1,800	21.0%
South Coatesville Borough	995	1,303	1,435	1,574	1,713	1,853	1,975	2,075	2,160	725	50.5%
South Coventry Township	1,895	2,604	2,616	2,721	2,825	2,931	3,023	3,098	3,162	546	20.9%
Spring City Borough	3,305	3,323	3,322	3,514	3,705	3,898	4,066	4,204	4,321	999	30.1%
Thornbury Township	2,678	3,017	3,343	3,503	3,662	3,824	3,964	4,079	4,177	834	24.9%
Tredyffrin Township	29,065	29,332	29,559	30,232	30,900	31,578	32,165	32,648	33,059	3,500	11.8%
Upper Oxford Township	2,095	2,484	2,504	2,594	2,684	2,776	2,855	2,920	2,975	471	18.8%
Upper Uwchlan Township	6,850	11,227	11,545	12,179	12,809	13,449	14,004	14,459	14,845	3,300	28.6%
Uwchlan Township	16,575	18,088	19,072	19,763	20,451	21,149	21,754	22,251	22,672	3,600	18.9%
Valley Township	5,115	6,794	7,632	8,187	8,740	9,301	9,787	10,186	10,524	2,892	37.9%
Wallace Township	3,240	3,458	3,698	3,985	4,270	4,560	4,811	5,017	5,192	1,494	40.4%
Warwick Township	2,555	2,507	2,550	2,610	2,671	2,732	2,785	2,828	2,865	315	12.4%
West Bradford Township	10,775	12,223	12,779	13,519	14,255	15,003	15,651	16,183	16,634	3,855	30.2%

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West Brandywine Township	7,160	7,394	7,468	8,159	8,847	9,545	10,150	10,647	11,068	3,600	48.2%
West Caln Township	7,055	9,014	9,085	9,539	9,990	10,449	10,846	11,172	11,449	2,364	26.0%
West Chester Borough	17,861	18,461	19,842	20,361	20,876	21,400	21,853	22,225	22,542	2,700	13.6%
West Fallowfield Township	2,485	2,566	2,596	2,625	2,653	2,683	2,708	2,728	2,746	150	5.8%
West Goshen Township	20,495	21,866	23,137	23,713	24,284	24,868	25,369	25,786	26,137	3,000	13.0%
West Grove Borough	2,650	2,854	2,859	3,002	3,144	3,288	3,413	3,516	3,603	744	26.0%
West Marlborough Township	855	814	821	830	838	847	855	861	866	45	5.5%
West Nantmeal Township	2,030	2,170	2,190	2,294	2,397	2,502	2,592	2,667	2,730	540	24.7%
West Nottingham Township	2,634	2,722	2,706	2,879	3,051	3,225	3,377	3,501	3,606	900	33.3%
West Pikeland Township	3,550	4,024	4,085	4,324	4,562	4,803	5,013	5,184	5,330	1,245	30.5%
West Sadsbury Township	2,440	2,444	2,475	2,661	2,888	3,150	3,408	3,667	3,825	1,350	54.5%
West Vincent Township	3,170	4,567	5,038	5,230	5,422	5,616	5,784	5,923	6,040	1,002	19.9%
West Whiteland Township	16,500	18,274	18,450	19,266	20,077	20,901	21,614	22,201	22,698	4,248	23.0%
Westtown Township	10,352	10,827	10,913	11,426	11,936	12,454	12,902	13,271	13,583	2,670	24.5%
Willistown Township	10,015	10,497	10,905	11,177	11,448	11,724	11,962	12,158	12,324	1,419	13.0%
Delaware County	**551,989**	**558,979**	**563,894**	**568,337**	**572,758**	**577,248**	**581,136**	**584,329**	**587,037**	**23,143**	**4.1%**
Aldan Borough	4,315	4,152	4,165	4,186	4,208	4,230	4,248	4,264	4,277	112	2.7%
Aston Township	16,205	16,592	16,799	16,942	17,083	17,227	17,352	17,455	17,541	742	4.4%
Bethel Township	6,420	8,791	9,166	9,359	9,550	9,745	9,914	10,052	10,170	1,004	11.0%
Brookhaven Borough	7,985	8,006	8,078	8,138	8,198	8,259	8,311	8,355	8,391	313	3.9%
Chadds Ford Township	3,170	3,640	3,740	3,848	3,955	4,064	4,159	4,237	4,302	562	15.0%
Chester City	36,855	33,972	34,092	34,281	34,468	34,659	34,824	34,960	35,075	983	2.9%
Chester Heights Borough	2,481	2,531	2,626	2,647	2,667	2,688	2,706	2,721	2,733	107	4.1%
Chester Township	4,605	3,940	4,103	4,140	4,178	4,216	4,248	4,275	4,298	195	4.8%
Clifton Heights Borough	6,780	6,652	6,684	6,709	6,733	6,758	6,780	6,798	6,813	129	1.9%
Collingdale Borough	8,665	8,786	8,792	8,866	8,939	9,014	9,079	9,132	9,177	385	4.4%
Colwyn Borough	2,455	2,546	2,553	2,584	2,615	2,646	2,673	2,695	2,714	161	6.3%
Concord Township	11,235	17,231	17,663	18,150	18,635	19,127	19,554	19,904	20,201	2,538	14.4%
Darby Borough	10,300	10,687	10,687	10,756	10,825	10,896	10,956	11,006	11,049	362	3.4%
Darby Township	9,625	9,264	9,318	9,322	9,326	9,330	9,333	9,336	9,338	20	0.2%
East Lansdowne Borough	2,585	2,668	2,665	2,673	2,682	2,690	2,697	2,703	2,709	44	1.7%
Eddystone Borough	2,440	2,410	2,407	2,414	2,420	2,427	2,433	2,438	2,442	35	1.5%
Edgmont Township	3,915	3,987	4,069	4,214	4,358	4,504	4,631	4,735	4,823	754	18.5%
Folcroft Borough	6,980	6,606	6,637	6,631	6,625	6,619	6,614	6,610	6,606	-31	-0.5%
Glenolden Borough	7,475	7,153	7,173	7,194	7,215	7,236	7,255	7,270	7,283	110	1.5%
Haverford Township	49,608	48,491	49,057	49,279	49,500	49,724	49,918	50,078	50,213	1,156	2.4%
Lansdowne Borough	11,044	10,620	10,639	10,655	10,671	10,688	10,702	10,714	10,724	85	0.8%
Lower Chichester Township	3,590	3,469	3,477	3,488	3,499	3,510	3,519	3,527	3,534	57	1.6%

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Marcus Hook Borough	2,315	2,397	2,397	2,415	2,433	2,451	2,466	2,479	2,490	93	3.9%
Marple Township	23,735	23,428	23,743	23,794	23,846	23,898	23,942	23,979	24,011	268	1.1%
Media Borough	5,530	5,327	5,363	5,445	5,526	5,608	5,679	5,738	5,788	425	7.9%
Middletown Township	16,065	15,807	15,998	16,185	16,371	16,560	16,724	16,858	16,972	974	6.1%
Millbourne Borough	945	1,159	1,162	1,178	1,194	1,210	1,223	1,235	1,244	82	7.1%
Morton Borough	2,715	2,669	2,695	2,707	2,720	2,732	2,743	2,752	2,760	65	2.4%
Nether Providence Township	13,456	13,706	13,808	13,893	13,977	14,063	14,138	14,199	14,251	443	3.2%
Newtown Township	11,705	12,216	12,754	12,849	12,943	13,038	13,121	13,189	13,246	492	3.9%
Norwood Borough	5,985	5,890	5,898	5,917	5,935	5,954	5,970	5,984	5,995	97	1.6%
Parkside Borough	2,265	2,328	2,334	2,349	2,365	2,380	2,394	2,405	2,414	80	3.4%
Prospect Park Borough	6,595	6,454	6,481	6,515	6,548	6,582	6,612	6,636	6,656	175	2.7%
Radnor Township	30,880	31,531	31,612	31,808	32,003	32,201	32,373	32,513	32,633	1,021	3.2%
Ridley Park Borough	7,195	7,002	7,035	7,071	7,106	7,143	7,174	7,200	7,221	186	2.6%
Ridley Township	30,790	30,768	31,053	31,129	31,205	31,281	31,348	31,402	31,449	396	1.3%
Rose Valley Borough	945	913	949	970	991	1,012	1,031	1,046	1,058	109	11.5%
Rutledge Borough	860	784	795	798	801	804	807	809	811	16	2.0%
Sharon Hill Borough	5,465	5,697	5,702	5,733	5,764	5,795	5,822	5,845	5,863	161	2.8%
Springfield Township	23,675	24,211	24,401	24,612	24,822	25,035	25,220	25,372	25,500	1,099	4.5%
Swarthmore Borough	6,170	6,194	6,211	6,249	6,287	6,325	6,359	6,386	6,409	198	3.2%
Thornbury Township	5,787	8,028	7,857	8,039	8,219	8,403	8,562	8,692	8,803	946	12.0%
Tinicum Township	4,355	4,091	4,109	4,113	4,117	4,120	4,124	4,126	4,129	20	0.5%
Trainer Borough	1,905	1,828	1,844	1,833	1,822	1,810	1,801	1,793	1,786	-58	-3.1%
Upland Borough	2,980	3,239	3,251	3,263	3,274	3,286	3,296	3,304	3,311	60	1.8%
Upper Chichester Township	16,845	16,738	17,003	17,177	17,350	17,526	17,678	17,803	17,909	906	5.3%
Upper Darby Township	81,821	82,795	82,878	83,699	84,521	85,354	86,073	86,662	87,167	4,289	5.2%
Upper Providence Township	10,510	10,142	10,448	10,592	10,735	10,881	11,007	11,110	11,198	750	7.2%
Yeadon Borough	11,762	11,443	11,523	11,528	11,533	11,539	11,543	11,547	11,550	27	0.2%
Montgomery County	**748,978**	**799,874**	**819,264**	**840,934**	**863,327**	**884,387**	**903,114**	**918,918**	**932,820**	**113,556**	**13.9%**
Abington Township	56,105	55,310	55,590	56,172	56,754	57,336	57,918	58,500	59,083	3,493	6.3%
Ambler Borough	6,425	6,417	6,505	6,657	6,810	6,963	7,116	7,269	7,422	917	14.1%
Bridgeport Borough	4,370	4,554	4,564	4,964	5,464	5,533	5,602	5,671	5,740	1,176	25.8%
Bryn Athyn Borough	1,350	1,375	1,392	1,408	1,423	1,439	1,453	1,464	1,474	82	5.9%
Cheltenham Township	36,880	36,793	37,014	37,364	37,714	38,146	38,578	39,092	39,607	2,593	7.0%
Collegeville Borough	4,930	5,089	5,287	5,360	5,432	5,506	5,569	5,622	5,666	379	7.2%
Conshohocken Borough	7,590	7,833	7,956	8,706	9,456	9,877	10,297	10,567	10,837	2,881	36.2%
Douglass Township	9,104	10,195	10,432	10,950	11,464	11,987	12,440	12,812	13,128	2,696	25.8%
East Greenville Borough	3,105	2,951	2,985	3,047	3,109	3,171	3,233	3,295	3,358	373	12.5%
East Norriton Township	13,211	13,590	14,082	14,256	14,430	14,606	14,759	14,884	14,990	908	6.4%

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Franconia Township	11,525	13,064	13,241	13,798	14,355	14,912	15,469	16,026	16,584	3,343	25.2%
Green Lane Borough	580	508	500	508	515	523	530	535	540	40	8.0%
Hatboro Borough	7,390	7,360	7,411	7,591	7,770	7,952	8,110	8,240	8,349	938	12.7%
Hatfield Borough	2,605	3,290	3,306	3,342	3,378	3,415	3,447	3,473	3,495	189	5.7%
Hatfield Township	16,712	17,249	17,558	18,057	18,553	19,057	19,493	19,851	20,155	2,597	14.8%
Horsham Township	24,234	26,147	26,587	26,987	28,319	29,668	31,023	31,845	32,541	5,954	22.4%
Jenkintown Borough	4,475	4,422	4,431	4,467	4,504	4,541	4,572	4,599	4,621	190	4.3%
Lansdale Borough	16,070	16,269	16,512	17,019	17,523	18,035	18,479	18,843	19,152	2,640	16.0%
Limerick Township	13,535	18,074	18,798	19,854	20,904	21,970	22,894	23,653	24,296	5,498	29.2%
Lower Frederick Township	4,795	4,840	4,892	4,985	5,078	5,171	5,263	5,355	5,447	555	11.3%
Lower Gwynedd Township	10,420	11,405	11,548	11,732	11,916	12,100	12,284	12,468	12,651	1,103	9.6%
Lower Merion Township	58,740	57,825	58,177	59,676	61,027	62,135	62,983	63,732	64,231	6,054	10.4%
Lower Moreland Township	11,280	12,982	13,220	13,426	13,631	13,839	14,020	14,168	14,294	1,074	8.1%
Lower Pottsgrove Township	11,213	12,059	12,174	12,565	12,954	13,350	13,692	13,973	14,212	2,038	16.7%
Lower Providence Township	22,390	25,436	26,187	26,679	27,168	27,664	28,094	28,448	28,747	2,560	9.8%
Lower Salford Township	12,895	14,959	15,344	15,922	16,497	17,081	17,587	18,002	18,355	3,011	19.6%
Marlborough Township	3,110	3,178	3,308	3,405	3,501	3,599	3,683	3,753	3,812	504	15.2%
Montgomery Township	22,025	24,790	26,025	26,545	27,063	27,588	28,044	28,418	28,735	2,710	10.4%
Narberth Borough	4,235	4,282	4,309	4,378	4,447	4,517	4,578	4,627	4,669	360	8.4%
New Hanover Township	7,365	10,939	12,495	13,605	14,708	15,829	16,800	17,598	18,274	5,779	46.3%
Norristown Borough	31,280	34,324	34,412	34,777	35,212	35,737	36,344	36,942	37,543	3,131	9.1%
North Wales Borough	3,340	3,229	3,250	3,277	3,304	3,332	3,356	3,375	3,392	142	4.4%
Pennsburg Borough	2,730	3,843	3,873	3,942	4,010	4,080	4,140	4,190	4,232	359	9.3%
Perkiomen Township	7,095	9,139	9,245	9,486	9,726	9,969	10,180	10,354	10,501	1,256	13.6%
Plymouth Township	16,045	16,525	17,653	18,091	18,527	18,969	19,353	19,668	19,934	2,281	12.9%
Pottstown Borough	21,859	22,377	22,664	22,959	23,253	23,551	23,809	24,021	24,201	1,537	6.8%
Red Hill Borough	2,195	2,383	2,383	2,441	2,498	2,557	2,607	2,649	2,684	301	12.6%
Rockledge Borough	2,575	2,543	2,541	2,553	2,565	2,577	2,588	2,596	2,604	63	2.5%
Royersford Borough	4,245	4,752	4,771	4,893	5,014	5,136	5,243	5,330	5,404	633	13.3%
Salford Township	2,365	2,504	2,954	3,088	3,222	3,358	3,475	3,572	3,654	700	23.7%
Schwenksville Borough	1,395	1,385	1,398	1,422	1,445	1,469	1,489	1,506	1,521	123	8.8%
Skippack Township	9,915	13,715	14,992	15,475	15,958	16,441	16,924	17,407	17,891	2,899	19.3%
Souderton Borough	6,725	6,618	6,747	6,917	7,086	7,258	7,406	7,528	7,632	885	13.1%
Springfield Township	19,530	19,418	19,574	19,766	19,957	20,151	20,319	20,457	20,574	1,000	5.1%
Telford Borough (pt.)	2,474	2,665	2,668	2,720	2,771	2,823	2,868	2,905	2,937	269	10.1%
Towamencin Township	17,600	17,578	18,272	18,755	19,235	19,723	20,146	20,493	20,787	2,515	13.8%
Trappe Borough	3,210	3,509	3,553	3,656	3,758	3,862	3,952	4,026	4,089	536	15.1%
Upper Dublin Township	25,875	25,569	26,211	26,890	27,715	28,501	28,995	29,383	29,745	3,534	13.5%
Upper Frederick Township	3,140	3,523	3,564	3,662	3,760	3,860	3,946	4,016	4,076	512	14.4%

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Upper Gwynedd Township	14,245	15,552	15,928	16,116	16,304	16,492	16,679	16,866	17,053	1,125	7.1%
Upper Hanover Township	4,885	6,464	7,287	7,696	8,103	8,516	8,874	9,168	9,417	2,130	29.2%
Upper Merion Township	26,863	28,395	28,620	30,147	31,668	32,607	33,393	34,003	34,491	5,871	20.5%
Upper Moreland Township	24,990	24,015	24,231	24,522	24,812	25,107	25,362	25,572	25,749	1,518	6.3%
Upper Pottsgrove Township	4,105	5,315	5,483	5,774	6,065	6,357	6,649	6,941	7,233	1,750	31.9%
Upper Providence Township	15,395	21,219	23,460	24,622	25,777	26,951	27,967	28,802	29,510	6,050	25.8%
Upper Salford Township	3,025	3,299	3,378	3,507	3,636	3,765	3,894	4,024	4,154	776	23.0%
West Conshohocken Borough	1,445	1,320	1,381	1,411	1,442	1,472	1,499	1,521	1,539	158	11.4%
West Norriton Township	14,900	15,663	15,779	16,145	16,509	16,878	17,198	17,461	17,684	1,905	12.1%
West Pottsgrove Township	3,815	3,874	3,884	3,915	3,945	3,976	4,003	4,025	4,044	160	4.1%
Whitemarsh Township	16,702	17,349	17,663	18,503	19,040	19,486	19,859	20,197	20,476	2,813	15.9%
Whitpain Township	18,562	18,875	19,180	19,464	19,747	20,034	20,283	20,487	20,661	1,481	7.7%
Worcester Township	7,789	9,750	10,435	10,917	11,396	11,882	12,304	12,650	12,943	2,508	24.0%
Philadelphia County	**1,517,550**	**1,526,006**	**1,567,443**	**1,594,787**	**1,616,816**	**1,643,971**	**1,667,290**	**1,683,402**	**1,696,133**	**128,690**	**8.2%**
Central	100,188	117,132	126,629	132,848	137,233	143,015	148,841	153,321	157,035	30,406	24.0%
Central Northeast	72,179	78,266	79,870	81,333	82,568	83,813	84,123	84,490	84,713	4,843	6.1%
Lower Far Northeast	71,657	70,340	70,596	71,526	72,319	73,060	73,588	74,087	74,502	3,906	5.5%
Lower North	95,139	95,176	101,692	105,069	108,227	111,507	114,601	116,878	118,052	16,360	16.1%
Lower Northeast	93,471	100,232	102,654	103,621	104,301	104,837	105,110	105,080	105,424	2,770	2.7%
Lower Northwest	51,869	50,799	52,319	53,241	54,072	54,730	55,162	55,406	55,811	3,492	6.7%
Lower South	4,318	5,150	5,499	5,747	5,998	6,501	6,749	7,001	7,335	1,836	33.4%
Lower Southwest	41,642	42,117	42,462	43,288	43,711	44,054	44,854	45,183	45,439	2,977	7.0%
North	141,061	137,849	138,049	138,663	140,022	142,561	144,724	145,520	146,656	8,607	6.2%
North Delaware	96,005	100,631	101,251	102,210	102,553	102,944	102,909	103,041	103,280	2,029	2.0%
River Wards	66,321	68,489	70,385	72,380	73,004	74,203	75,613	76,270	76,951	6,566	9.3%
South	131,616	132,904	137,110	138,842	140,432	141,898	143,712	144,223	144,877	7,767	5.7%
University/Southwest	83,639	81,746	87,719	92,546	94,735	97,599	99,607	101,667	102,305	14,586	16.6%
Upper Far Northeast	64,469	66,605	67,986	68,387	69,071	69,893	69,943	70,370	70,660	2,674	3.9%
Upper North	154,560	144,381	145,913	146,533	147,898	149,046	149,501	150,207	150,422	4,509	3.1%
Upper Northwest	89,851	85,093	85,633	86,048	87,079	88,209	89,309	89,432	89,915	4,282	5.0%
West	111,973	105,642	106,922	107,403	108,060	109,844	112,163	114,009	115,200	8,278	7.7%
West Park	47,592	43,454	44,754	45,102	45,533	46,257	46,781	47,217	47,556	2,802	6.3%
Burlington County	**423,397**	**448,734**	**450,226**	**459,344**	**468,428**	**475,978**	**482,560**	**488,026**	**492,709**	**42,483**	**9.4%**
Bass River Township	1,510	1,443	1,449	1,483	1,516	1,550	1,580	1,604	1,624	175	12.1%
Beverly City	2,660	2,577	2,559	2,710	2,859	3,011	3,143	3,251	3,343	784	30.6%
Bordentown City	3,970	3,924	3,882	4,012	4,141	4,273	4,387	4,480	4,559	677	17.4%
Bordentown Township	8,375	11,367	11,935	11,965	11,996	12,027	12,053	12,075	12,094	159	1.3%

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Burlington City	9,740	9,920	9,808	10,010	10,210	10,414	10,590	10,735	10,858	1,050	10.7%
Burlington Township	20,190	22,594	22,826	22,936	23,045	23,156	23,252	23,331	23,398	572	2.5%
Chesterfield Township	5,955	7,699	7,572	7,715	7,857	8,002	8,127	8,230	8,317	745	9.8%
Cinnaminson Township	14,595	15,569	16,651	16,880	17,108	17,339	17,540	17,704	17,844	1,193	7.2%
Delanco Township	3,335	4,283	4,541	4,644	4,746	4,849	4,939	5,013	5,075	534	11.8%
Delran Township	15,535	16,896	16,767	16,959	17,150	17,343	17,511	17,649	17,766	999	6.0%
Eastampton Township	6,205	6,069	6,011	6,450	6,887	7,331	7,715	8,031	8,298	2,287	38.0%
Edgewater Park Township	7,865	8,881	8,788	8,995	9,200	9,409	9,590	9,738	9,864	1,076	12.2%
Evesham Township	42,275	45,538	45,577	47,546	49,519	49,847	50,175	50,504	50,831	5,254	11.5%
Fieldsboro Borough	522	540	532	539	547	554	560	565	570	38	7.1%
Florence Township	10,745	12,109	12,688	12,864	13,038	13,216	13,369	13,495	13,602	914	7.2%
Hainesport Township	4,125	6,110	6,053	6,582	7,108	7,643	8,105	8,486	8,808	2,755	45.5%
Lumberton Township	10,455	12,559	12,428	12,712	12,995	13,281	13,530	13,734	13,907	1,479	11.9%
Mansfield Township	5,090	8,544	8,574	8,735	8,896	9,058	9,200	9,315	9,414	840	9.8%
Maple Shade Township	19,080	19,131	18,963	19,071	19,178	19,287	19,381	19,459	19,524	561	3.0%
Medford Lakes Borough	4,175	4,146	4,085	4,097	4,109	4,122	4,132	4,141	4,149	64	1.6%
Medford Township	22,250	23,033	23,414	23,916	24,415	24,922	25,361	25,721	26,027	2,613	11.2%
Moorestown Township	19,020	20,726	20,564	20,745	20,925	21,107	21,265	21,395	21,505	941	4.6%
Mount Holly Township	10,728	9,536	9,493	9,620	9,747	9,875	9,987	10,078	10,156	663	7.0%
Mount Laurel Township	40,225	41,864	41,842	42,342	42,839	43,346	43,784	44,146	44,449	2,607	6.2%
New Hanover Township	9,744	7,385	8,078	7,927	7,777	7,625	7,493	7,384	7,292	-786	-9.7%
North Hanover Township	7,347	7,678	7,609	8,049	8,486	8,930	9,315	9,630	9,898	2,289	30.1%
Palmyra Borough	7,090	7,398	7,314	7,420	7,525	7,632	7,725	7,801	7,865	551	7.5%
Pemberton Borough	1,210	1,409	1,383	1,390	1,397	1,404	1,410	1,415	1,419	36	2.6%
Pemberton Township	28,575	27,912	27,771	28,279	28,784	29,297	29,741	30,106	30,416	2,645	9.5%
Riverside Township	7,910	8,079	7,997	8,254	8,511	8,771	8,996	9,181	9,338	1,341	16.8%
Riverton Borough	2,760	2,779	2,748	2,753	2,758	2,763	2,768	2,771	2,774	26	0.9%
Shamong Township	6,465	6,490	6,419	6,494	6,568	6,644	6,709	6,763	6,809	390	6.1%
Southampton Township	10,388	10,464	10,337	10,735	11,131	11,533	11,881	12,167	12,409	2,072	20.0%
Springfield Township	3,225	3,414	3,355	3,386	3,417	3,448	3,475	3,498	3,517	162	4.8%
Tabernacle Township	7,170	6,949	6,954	7,051	7,147	7,244	7,329	7,398	7,457	503	7.2%
Washington Township	621	687	674	681	689	697	703	708	713	39	5.8%
Westampton Township	7,217	8,813	8,726	8,932	9,137	9,345	9,525	9,673	9,799	1,073	12.3%
Willingboro Township	33,010	31,629	31,270	31,831	32,391	32,959	33,451	33,855	34,198	2,928	9.4%
Woodland Township	1,290	1,788	1,793	1,833	1,873	1,913	1,948	1,977	2,001	208	11.6%
Wrightstown Borough	750	802	796	801	806	811	815	819	822	26	3.3%
Camden County	**508,929**	**513,657**	**510,923**	**514,006**	**517,073**	**520,189**	**522,886**	**525,101**	**526,997**	**16,074**	**3.1%**
Audubon Borough	9,180	8,819	8,730	8,699	8,668	8,637	8,609	8,587	8,568	-162	-1.9%

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Audubon Park Borough	1,100	1,023	1,011	1,008	1,006	1,003	1,001	999	997	-14	-1.4%
Barrington Borough	7,084	6,983	6,817	6,816	6,815	6,814	6,813	6,812	6,811	-6	-0.1%
Bellmawr Borough	11,265	11,583	11,462	11,464	11,467	11,469	11,470	11,471	11,472	10	0.1%
Berlin Borough	6,150	7,588	7,590	7,688	7,785	7,884	7,970	8,040	8,100	510	6.7%
Berlin Township	5,290	5,357	5,434	5,439	5,444	5,448	5,453	5,456	5,459	25	0.5%
Brooklawn Borough	2,355	1,955	1,933	1,939	1,945	1,951	1,956	1,960	1,964	31	1.6%
Camden City	79,905	77,344	76,119	76,512	76,904	77,302	77,643	77,929	78,169	2,050	2.7%
Cherry Hill Township	69,960	71,045	71,340	71,903	72,462	73,031	73,523	73,927	74,270	2,930	4.1%
Chesilhurst Borough	1,520	1,634	1,634	1,632	1,631	1,629	1,628	1,627	1,626	-8	-0.5%
Clementon Borough	4,985	5,000	4,947	4,981	5,014	5,048	5,077	5,102	5,122	175	3.5%
Collingswood Borough	14,326	13,926	14,000	13,997	13,994	13,991	13,988	13,986	13,984	-16	-0.1%
Gibbsboro Borough	2,435	2,274	2,244	2,242	2,239	2,236	2,234	2,233	2,231	-13	-0.6%
Gloucester City	11,484	11,456	11,329	11,326	11,323	11,320	11,318	11,316	11,314	-15	-0.1%
Gloucester Township	64,350	64,634	63,939	64,859	65,777	66,707	67,514	68,176	68,737	4,798	7.5%
Haddon Heights Borough	7,545	7,473	7,514	7,474	7,434	7,393	7,358	7,329	7,305	-209	-2.8%
Haddon Township	14,651	14,707	14,543	14,580	14,617	14,655	14,688	14,714	14,737	194	1.3%
Haddonfield Borough	11,661	11,593	11,414	11,412	11,410	11,408	11,407	11,405	11,404	-10	-0.1%
Hi-Nella Borough	1,035	870	860	860	859	859	859	858	858	-2	-0.2%
Laurel Springs Borough	1,970	1,908	1,884	1,883	1,882	1,882	1,881	1,880	1,880	-4	-0.2%
Lawnside Borough	2,692	2,945	2,919	2,917	2,915	2,913	2,911	2,909	2,908	-11	-0.4%
Lindenwold Borough	17,410	17,613	17,458	17,449	17,441	17,432	17,424	17,418	17,413	-45	-0.3%
Magnolia Borough	4,405	4,341	4,298	4,290	4,282	4,274	4,267	4,260	4,256	-42	-1.0%
Merchantville Borough	3,800	3,821	3,778	3,778	3,777	3,777	3,777	3,776	3,776	-2	-0.1%
Mount Ephraim Borough	4,495	4,676	4,639	4,637	4,636	4,634	4,633	4,632	4,631	-8	-0.2%
Oaklyn Borough	4,188	4,038	3,992	4,001	4,010	4,019	4,026	4,033	4,038	46	1.2%
Pennsauken Township	35,737	35,885	35,628	35,924	36,219	36,518	36,778	36,990	37,171	1,543	4.3%
Pine Hill Borough	10,880	10,233	10,510	10,501	10,492	10,482	10,474	10,468	10,462	-48	-0.5%
Pine Valley Borough	20	12	12	12	12	12	12	12	12	0	0.0%
Runnemede Borough	8,535	8,468	8,381	8,380	8,378	8,377	8,376	8,375	8,374	-7	-0.1%
Somerdale Borough	5,192	5,151	5,460	5,444	5,427	5,411	5,397	5,385	5,375	-85	-1.6%
Stratford Borough	7,270	7,040	7,013	7,047	7,081	7,116	7,146	7,170	7,191	178	2.5%
Tavistock Borough	24	5	5	5	5	5	5	5	5	0	0.0%
Voorhees Township	28,130	29,131	29,370	29,305	29,240	29,174	29,117	29,071	29,031	-339	-1.2%
Waterford Township	10,494	10,649	10,753	10,749	10,744	10,740	10,736	10,733	10,747	-6	-0.1%
Winslow Township	34,611	39,499	39,019	39,910	40,797	41,698	42,478	43,119	43,662	4,643	11.9%
Woodlynne Borough	2,795	2,978	2,944	2,943	2,941	2,940	2,939	2,938	2,937	-7	-0.2%
Gloucester County	**255,719**	**288,288**	**291,479**	**307,766**	**323,969**	**340,425**	**354,677**	**366,383**	**376,308**	**84,829**	**29.1%**
Clayton Borough	7,135	8,179	8,493	9,013	9,531	10,057	10,512	10,886	11,203	2,710	31.9%

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Deptford Township	26,770	30,561	30,569	31,601	32,628	33,671	34,574	35,316	35,945	5,376	17.6%
East Greenwich Township	5,430	9,555	10,380	10,798	11,214	11,637	12,003	12,303	12,558	2,178	21.0%
Elk Township	3,615	4,216	4,156	4,717	5,274	5,841	6,331	6,734	7,076	2,920	70.3%
Franklin Township	15,470	16,820	16,669	17,714	18,753	19,808	20,722	21,473	22,110	5,441	32.6%
Glassboro Borough	18,970	18,579	19,216	20,380	21,538	22,715	23,733	24,570	25,279	6,063	31.6%
Greenwich Township	4,880	4,899	4,857	4,942	5,027	5,113	5,188	5,249	5,301	444	9.1%
Harrison Township	8,785	12,417	12,984	14,456	15,920	17,407	18,695	19,753	20,650	7,666	59.0%
Logan Township	6,035	6,042	5,983	6,217	6,450	6,687	6,892	7,061	7,203	1,220	20.4%
Mantua Township	14,217	15,217	15,054	16,334	17,608	18,901	20,021	20,941	21,721	6,667	44.3%
Monroe Township	28,967	36,129	36,862	39,459	42,040	44,662	46,934	48,799	50,381	13,519	36.7%
National Park Borough	3,205	3,036	2,999	3,053	3,107	3,162	3,210	3,249	3,282	283	9.4%
Newfield Borough	1,615	1,553	1,534	1,561	1,588	1,615	1,639	1,659	1,675	141	9.2%
Paulsboro Borough	6,160	6,097	5,989	6,054	6,118	6,184	6,241	6,287	6,327	338	5.6%
Pitman Borough	9,330	9,011	8,898	9,092	9,285	9,482	9,652	9,791	9,910	1,012	11.4%
South Harrison Township	2,415	3,162	3,138	3,397	3,655	3,917	4,144	4,331	4,489	1,351	43.1%
Swedesboro Borough	2,055	2,584	2,613	2,686	2,758	2,831	2,895	2,947	2,991	378	14.5%
Washington Township	48,155	48,559	47,862	49,302	50,738	52,192	53,452	54,488	55,366	7,504	15.7%
Wenonah Borough	2,315	2,278	2,254	2,318	2,382	2,447	2,503	2,549	2,588	334	14.8%
West Deptford Township	19,370	21,677	21,420	22,506	23,586	24,683	25,634	26,414	27,076	5,656	26.4%
Westville Borough	4,500	4,288	4,224	4,338	4,451	4,566	4,665	4,747	4,816	592	14.0%
Woodbury City	10,305	10,174	10,020	10,105	10,190	10,276	10,351	10,412	10,464	444	4.4%
Woodbury Heights Borough	2,990	3,055	3,010	3,054	3,098	3,143	3,181	3,213	3,240	230	7.6%
Woolwich Township	3,030	10,200	12,295	14,669	17,030	19,428	21,505	23,211	24,657	12,362	100.5%
Mercer County	**320,527**	**367,511**	**371,398**	**377,328**	**383,227**	**389,219**	**394,407**	**398,669**	**402,283**	**30,885**	**8.3%**
East Windsor Township	24,915	27,190	27,603	28,068	28,531	29,002	29,409	29,743	30,027	2,424	8.8%
Ewing Township	35,710	35,790	36,486	37,076	37,660	38,254	38,769	39,192	39,550	3,064	8.4%
Hamilton Township	87,109	88,464	89,030	90,099	91,163	92,243	93,178	93,947	94,598	5,568	6.3%
Hightstown Borough	5,215	5,494	5,517	5,562	5,607	5,653	5,693	5,725	5,753	236	4.3%
Hopewell Borough	2,035	1,922	1,929	1,932	1,936	1,939	1,942	1,944	1,946	17	0.9%
Hopewell Township	16,105	18,302	18,606	19,460	20,310	21,174	21,921	22,535	23,056	4,450	23.9%
Lawrence Township	29,160	33,472	33,242	33,511	33,779	34,052	34,287	34,481	34,645	1,403	4.2%
Pennington Borough	2,695	2,585	2,598	2,654	2,710	2,766	2,816	2,856	2,890	292	11.2%
Princeton**		28,572	29,603	30,084	30,559	31,044	31,463	31,808	32,100	2,497	8.4%
Robbinsville	10,275	13,642	14,176	14,784	15,390	16,006	16,538	16,978	17,347	3,171	22.4%
Trenton City	85,403	84,913	84,225	85,213	86,197	87,194	88,059	88,767	89,372	5,147	6.1%
West Windsor Township	21,905	27,165	28,383	28,885	29,385	29,892	30,332	30,693	30,999	2,616	9.2%

*Source: Delaware Valley Regional Planning Commission, June 2016. ** In January 2013, Princeton Township and Princeton Borough, in Mercer County, merged to form one single municipality, known simply as Princeton.*

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Report Title: **Analytical Data Report # 022: County- and Municipal-Level Population Forecasts, 2015-2045**

Publication No.: ADR 022

Date Published: July 2016

Geographic Area Covered: DVRPC's 9-county region, including Burlington, Camden, Gloucester, and Mercer counties in New Jersey, and Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania.

Key Words: population, population forecasts, age-cohort survival model, birth rates, survival rates, migration, Connections 2045, long-range plan

ABSTRACT: This report presents the Delaware Valley Regional Planning Commission's (DVRPC's) adopted 2045 county- and municipal-level population forecasts and describes the method used to develop them. Population and employment forecasts are a critical component of long-range land use and transportation planning. As a part of DVRPC's long-range planning activities, the Commission is required to maintain forecasts with at least a 20-year horizon, or to the horizon year of the long-range plan. DVRPC last adopted forecasts through the year 2040 in January 2012. Since that time, the Census Bureau has released 2015 population estimates, and both the nation and the region have continued to recover from the significant economic recession that officially began in December 2007 and ended in June 2009.

In order to incorporate the 2015 Census estimates and maintain a 30-year planning horizon, DVRPC has prepared 2045 population forecasts for its member counties and municipalities. These forecasts were formally adopted by the DVRPC Board on July 28, 2016, and serve as the basis for DVRPC planning and modeling activities. Employment forecasts in five-year increments through 2045 are scheduled to be adopted in October 2016.

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DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

ADR 023 | October 2016

Analytical Data Report

Regional, County, and Municipal Employment Forecasts, 2015–2045

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources, including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA); the Pennsylvania and New Jersey departments of transportation; and DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

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As the region's metropolitan planning organization, DVRPC provides technical assistance and services to its member state and local governments. *Delaware Valley Data* is our periodic series of free data bulletins, analytical data reports, data reference guides, and data snapshots.

Introduction

As a part of our long-range planning activities, DVRPC is required to maintain forecasts with at least a 20-year horizon, or to the horizon year of the long-range plan. Population forecasts in five-year increments between 2015 and 2045 were adopted by the DVRPC Board on July 28, 2016. This document presents employment forecasts in five-year increments between 2015 and 2045, developed by DVRPC in coordination with its member county planning staffs. These population and employment forecasts will support the region's 2045 long-range plan, scheduled for adoption in July 2017, and serve as the basis for DVRPC's planning and modeling activities.

2010 and 2013 Employment Base

DVRPC has traditionally based its long-range employment forecasts on employment data from the American Association of State Highway and Transportation Officials' (AASHTO) Census Transportation Planning Products (CTPP). However, 2010 CTPP data was not released until mid-2013, too late to be used for forecasting purposes prior to the 2013 adoption of the current Connections 2040 Long Range Plan. Additionally, changes in the method for calculating CTPP data has increased the margins of error and made it a less reliable source of employment data for small geographies. Subsequently, DVRPC staff researched and compared several sources of employment data, including government sources (such as ES-202 data, the BLS' Quarterly Census of Employment and Wages, and the Current Employment Statistics survey) and private proprietary sources (including Dun and Bradstreet). The National Establishment Time-Series (NETS), produced by Walls and Associates, was determined to be superior to other sources in terms of coverage, accuracy, and the provision of locational data.

The NETS database is essentially a "cleaned-up" version of the Dun and Bradstreet database. Using each company's unique DUNS number (or numbers, in cases where separate divisions within a company have unique DUNS numbers), Walls and Associates creates a time series for each business and then screens the data to eliminate duplicates and identify anomalies. If a file contains suspicious information, the data is cross-checked with previous annual records and adjusted or eliminated as appropriate, based on information collected from other sources (including government and non-profits). One advantage of the establishment-based NETS Database is that all employment, sales, and other activity is reported at the actual facility—not the headquarters.

Unlike government sources of employment data, the NETS database includes sole proprietors, part-time jobs, and farm operations, and has been found to be more accurate in reporting data for small privately-owned firms and public sector employers such as post offices and public schools. Employment from the NETS database is therefore generally higher than many of these other sources. As a base for the 2040 forecasts, DVRPC and county planning staffs reviewed 2000 and 2010 employment data from a NETS database that was acquired in 2013.

In March 2016, DVRPC acquired an updated NETS dataset that included both revised 2010 and 2013 employment data. All corrections made to the previous NETS database by DVRPC and county planning staffs, either during the previous forecasting round or as a result of ongoing DVRPC land

use and transportation studies, were incorporated in to the new database. DVRPC staff reviewed the revised 2010 data and the 2013 data to eliminate any remaining duplicates and correct obvious errors, using resources that included CoStar, company web sites, and on-line business directories. The data was then reviewed by the region's county planning staffs, and further corrections were made based on local knowledge (including errors in location and missing large employers).

The NETS database used by DVRPC includes the street address and the most current latitude-longitude for each establishment as well as the origin and destination latitude-longitudes for all significant moves, at the four-decimal-place-level. In order to assign each employer to a specific municipality, every employer in the NETS database was geocoded. Based on an internal review by DVRPC staff, several spatially inaccurate results were identified, and numerous adjustments were made to improve the accuracy of the dataset before the results were sent to the counties for review. While the counties were reviewing the employment data, DVRPC staff continued to refine the NETS GIS dataset, by comparing TomTom results with other geocoding services, and by manually checking the location of hundreds of significant employers.

2015 Employment Estimates

Estimates of the 2015 employment were then calculated, based on both the changes in NETS employment by sector in each county between 2010 and 2013, and the employment change in each county between 2010 and 2015 released by the BLS in September 2016. The estimated 2015 county employment was allocated to municipalities based on the proportion of the county's employment that was present in each municipality in 2013.

2045 Employment Forecasts

Employment forecasts in five-year increments through 2045 were developed using a similar method as was used in previous forecasting rounds. Various studies and past experience have shown that there is a direct relationship between the number of workers living in a region (which is a function of population) and the number of jobs. To forecast future employment, DVRPC determined an expected future ratio of employment to population for each county, based on the known ratio in 2015. These ratios were applied to the Commission's adopted 2045 population forecasts, to create employment forecasts for each county, in five-year increments through 2045.

County-level employment forecasts between 2020 and 2040 were disaggregated to the municipal level based on the proportion of each county's employment that was expected to be in each municipality by DVRPC's adopted 2040 forecasts, as adjusted by the differences between the Commission's adopted 2015 forecast and the 2015 NETS employment estimates. The proportion of each county's employment expected to be in each municipality in 2045 was forecast based on the linear trend in the proportion from 2015 to 2040. The draft employment forecasts in five-year increments were then reviewed by county planning staffs, and final revisions were made based on their recommendations.

Military employment, which DVRPC staff believes was not accurately reflected in the NETS database, was accounted for by adding the military employment in each municipality reported in the 2006–2010 five-

year CTPP estimates to the 2015 employment estimate and the future employment forecasts. Given the difficulty of forecasting future military employment, the number of military employees was kept stable in future years.

Table 1 summarizes regional and county employment forecasts in five-year increments through 2045, and municipal-level forecasts are provided in Appendix A. Table 2 identifies the 20 municipalities expected to gain the most employees between 2015 and 2045 in absolute numbers, while Table 3 identifies municipalities with the highest forecast percentage change in employment. Figure 1 illustrates the DVRPC region's 2045 municipal employment forecasts, and Figures 2 and 3 illustrate absolute and percent change in employment by municipality between 2015 and 2045.

Figure 4 illustrates the absolute increase in employment per square mile in each of the region's 352 municipalities and 18 City of Philadelphia planning districts. This map highlights not only where employment is increasing, but also the impact of relatively small increases on employment density in many of the region's centers. Employment density is forecast to increase not only in the City of Philadelphia, but also in many of the region's smaller boroughs, including Conshohocken and West Conshohocken boroughs in Montgomery County; Dublin, Penndel, and Ivyland boroughs in Bucks County; and Kennett Square, Phoenixville, and Downingtown boroughs in Chester County.

Highlights include the following:

- The DVRPC region is forecast to gain almost 373,000 jobs between 2015 and 2045 (an increase of almost 12 percent), with much of this growth concentrated in the suburbs.
- The region's five southeastern Pennsylvania counties are forecast to experience a 12.6 percent increase in employment, while employment in the four New Jersey counties is expected to increase by 9.8 percent.
- The largest percent increases are forecast in Gloucester County in New Jersey and Chester County in Pennsylvania, where employment is forecast to increase by 29 and 28 percent, respectively.
- The largest absolute increase in employment is forecast for Chester County, expected to gain 87,800 employees. Other counties forecast to see a significant number of additional employees include Montgomery County (expected to gain almost 82,000 employees) and Philadelphia (with a forecasted increase of almost 64,000 jobs).
- Both Philadelphia and Camden City, New Jersey, are forecast to gain employment, with forecasted percentage increases of 8.3 percent and 10.1 percent, respectively. The region's other two core cities are expected to see their employment stabilize and increase slightly, with a 2.8 percent increase in employment in Trenton, New Jersey, and a 2.6 percent increase in Chester City, Pennsylvania.

Summary

Population and employment forecasts are a critical component of long-range land use and transportation planning. This report presents the method used to develop 2045 and interim year employment forecasts, adopted by the DVRPC Board on October 27, 2016.

Data from the National Establishments Time Series (NETS) database served as the base for the 2045 employment forecasts. In March 2016, DVRPC acquired an updated NETS database that included 2013 employment data and revised 2010 data. The 2010 and 2013 employment data was reviewed and revised by DVRPC staff, utilizing resources that included CoStar, on-line business directories, company websites and, when appropriate, direct telephone calls. The revised data was then sent to the county planning staffs for additional revision. Additionally, during the summer of 2016, DVRPC acquired improved geocoding resources that allowed staff to further correct the spatial locations of employers.

Based on changes in the NETS employment between 2010 and 2013, and changes in employment in each county between 2010 and 2015 as reported by the U.S. Bureau of Labor Statistics (BLS), 2015 employment was estimated by county and municipality. Given that studies have shown that there is a direct relationship between the number of workers living in an area and the number of jobs, employment forecasts were calculated in five-year increments through 2045, by estimating a future ratio of population to employment in each county and applying it to DVRPC's adopted population forecasts.

Employment in the nine-county region is forecast to increase by almost 12 percent between 2015 and 2045, with the greatest absolute increases in employment expected in Chester, Montgomery, and Philadelphia counties and the greatest percentage increases forecast in Gloucester County, New Jersey, and Chester County, Pennsylvania. Together with the 2045 population forecasts adopted by the DVRPC Board in July 2016, these employment forecasts will serve as the basis for DVRPC's planning and modeling activities, and support the region's 2045 long-range plan, scheduled for adoption in July 2017.

Table 1: 2045 Employment Forecasts by County

County	2015 Employment	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Forecasted Absolute Change, 2015-2045	Forecasted Percent Change, 2015-2045
Bucks County	322,731	329,645	337,203	344,859	351,310	356,671	361,124	38,393	11.9%
Chester County	309,605	326,320	343,050	359,774	374,967	387,391	397,405	87,800	28.4%
Delaware County	268,054	270,167	272,269	274,401	276,248	277,763	279,050	10,996	4.1%
Montgomery County	582,443	598,434	614,469	629,563	642,996	654,966	664,385	81,942	14.1%
Philadelphia County	772,847	786,308	797,156	810,574	822,002	829,937	836,825	63,978	8.3%
Five Pennsylvania Counties	**2,255,680**	**2,310,874**	**2,364,147**	**2,419,171**	**2,467,523**	**2,506,728**	**2,538,789**	**283,109**	**12.6%**
Burlington County	241,298	246,351	251,368	255,562	258,363	261,195	263,622	22,324	9.3%
Camden County	263,582	265,169	266,753	268,359	269,750	270,892	271,869	8,287	3.1%
Gloucester County	121,382	128,161	134,902	141,752	147,682	152,554	156,686	35,304	29.1%
Mercer County	286,295	290,864	295,408	300,025	304,021	307,302	310,084	23,789	8.3%
Four New Jersey Counties	**912,557**	**930,545**	**948,431**	**965,698**	**979,816**	**991,943**	**1,002,261**	**89,704**	**9.8%**
Nine DVRPC Counties	**3,168,237**	**3,241,419**	**3,312,578**	**3,384,869**	**3,447,339**	**3,498,671**	**3,541,050**	**372,813**	**11.8%**

Source: *Delaware Valley Regional Planning Commission, October 2016.*

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Table 2: Municipalities with the Greatest Forecasted Absolute Change in Employment, 2015–2045

Rank	Municipality/County	Absolute Change	Rank	Municipality/County	Absolute Change
1	Upper Merion Township/ Montgomery	9,470	11	Plymouth Township/ Montgomery	4,500
2	Horsham Township/ Montgomery	8,660	12	Woolwich Township/ Gloucester	4,338
3	East Whiteland Township/ Chester	7,224	13	Camden City/ Camden	4,206
4	Uwchlan Township/ Chester	6,737	14	West Deptford Township/ Gloucester	3,844
5	Tredyffrin Township/ Chester	6,625	15	West Windsor Township/ Mercer	3,713
6	West Whiteland Township/ Chester	6,259	16	Hopewell Township/ Mercer	3,712
7	West Goshen Township/ Chester	5,459	17	Phoenixville Borough/ Chester	3,621
8	Conshohocken Borough/ Montgomery	5,000	18	Lower Merion Township/ Montgomery	3,500
9	Monroe Township/ Camden	4,999	19	Mt. Laurel Township/ Burlington	3,444
10	Upper Providence Township/ Montgomery	4,520	20	Upper Dublin Township/Bucks	3,400

Source: Delaware Valley Regional Planning Commission, October 2016. Does not include Philadelphia, which is both a county and a municipality.

Table 3: Municipalities with the Greatest Forecasted Percentage Change in Employment, 2015–2045

Rank	Municipality/County	Absolute Change	Rank	Municipality/County	Absolute Change
1	Woolwich Township/ Gloucester	164%	11	Parkesburg Borough/ Chester	59%
2	Modena Borough/ Chester	125%	12	West Sadsbury Township/ Chester	58%
3	Elk Township/ Gloucester	92%	13	Mantua Township/ Gloucester	57%
4	Dublin Borough/ Bucks	84%	14	Honey Brook Borough/ Chester	55%
5	Lower Oxford Township/ Chester	82%	15	Conshohocken Borough/ Montgomery	53%
6	West Brandywine Township/ Chester	77%	16	Wallace Township/ Chester	53%
7	Elverson Borough/ Chester	72%	17	Phoenixville Borough/ Chester	53%
8	East Vincent Township/ Chester	68%	18	West Nottingham Township/ Chester	53%
9	Harrison Township/ Gloucester	64%	19	Sellersville Borough/ Bucks	52%
10	South Coventry Township/ Chester	61%	20	Upper Oxford Township/ Chester	52%

Source: Delaware Valley Regional Planning Commission, October, 2016. Does not include Philadelphia, which is both a county and a municipality.

Figure 1:

2045 Municipal Employment Forecast

dvrpc

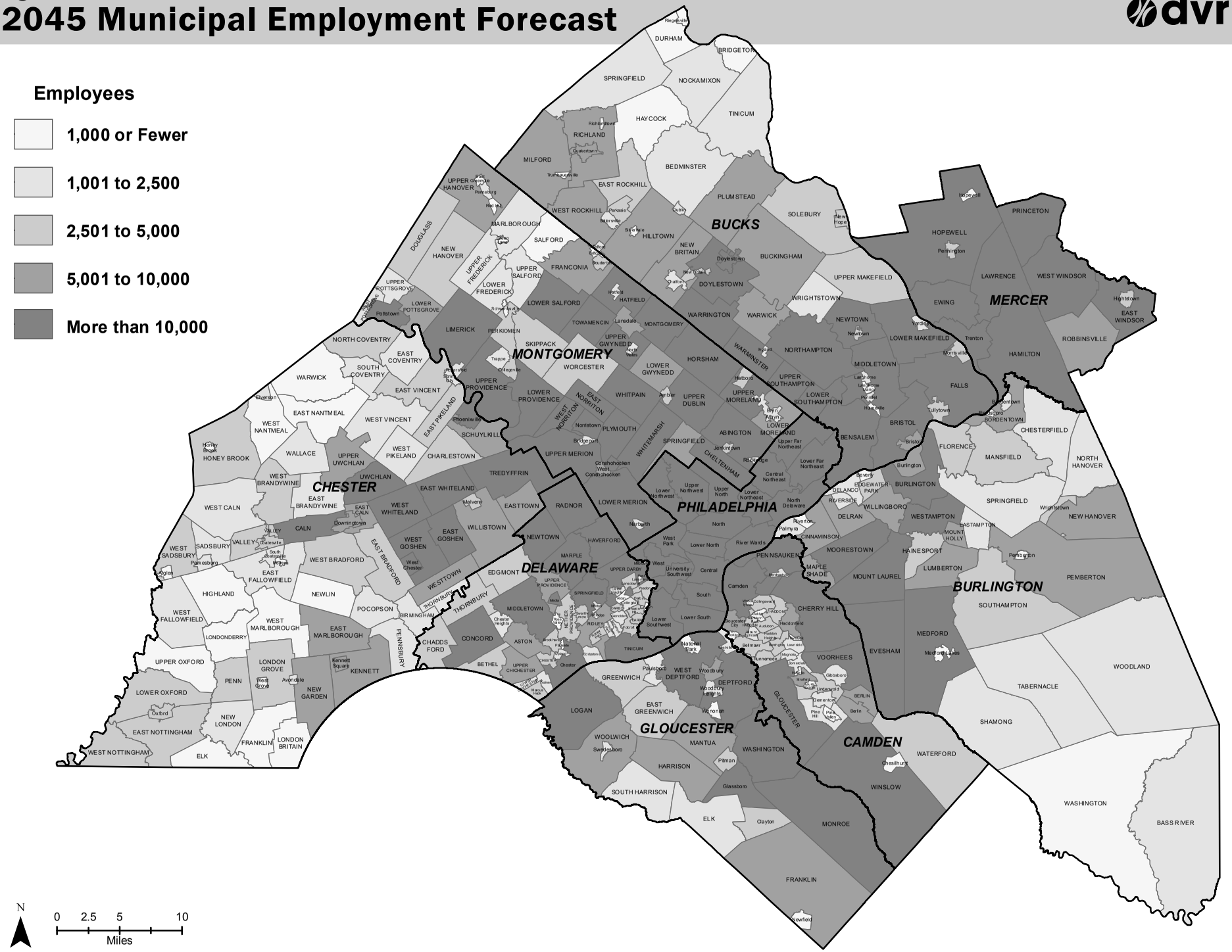

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Figure 2:

2045 Municipal Employment Forecast

Absolute Change: 2015—2045

dvrpc

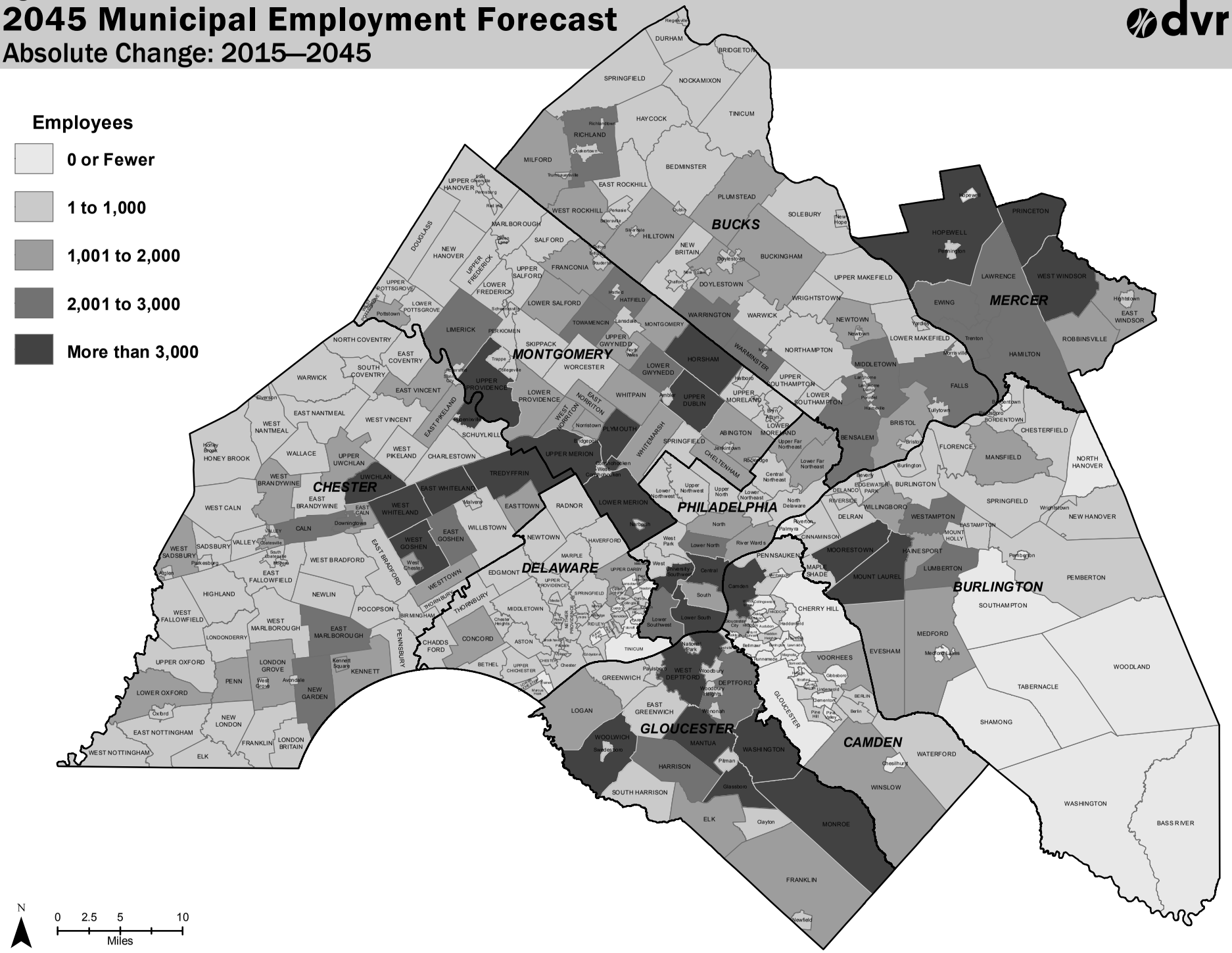

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Figure 3:

2045 Municipal Employment Forecast

Percentage Change: 2015—2045

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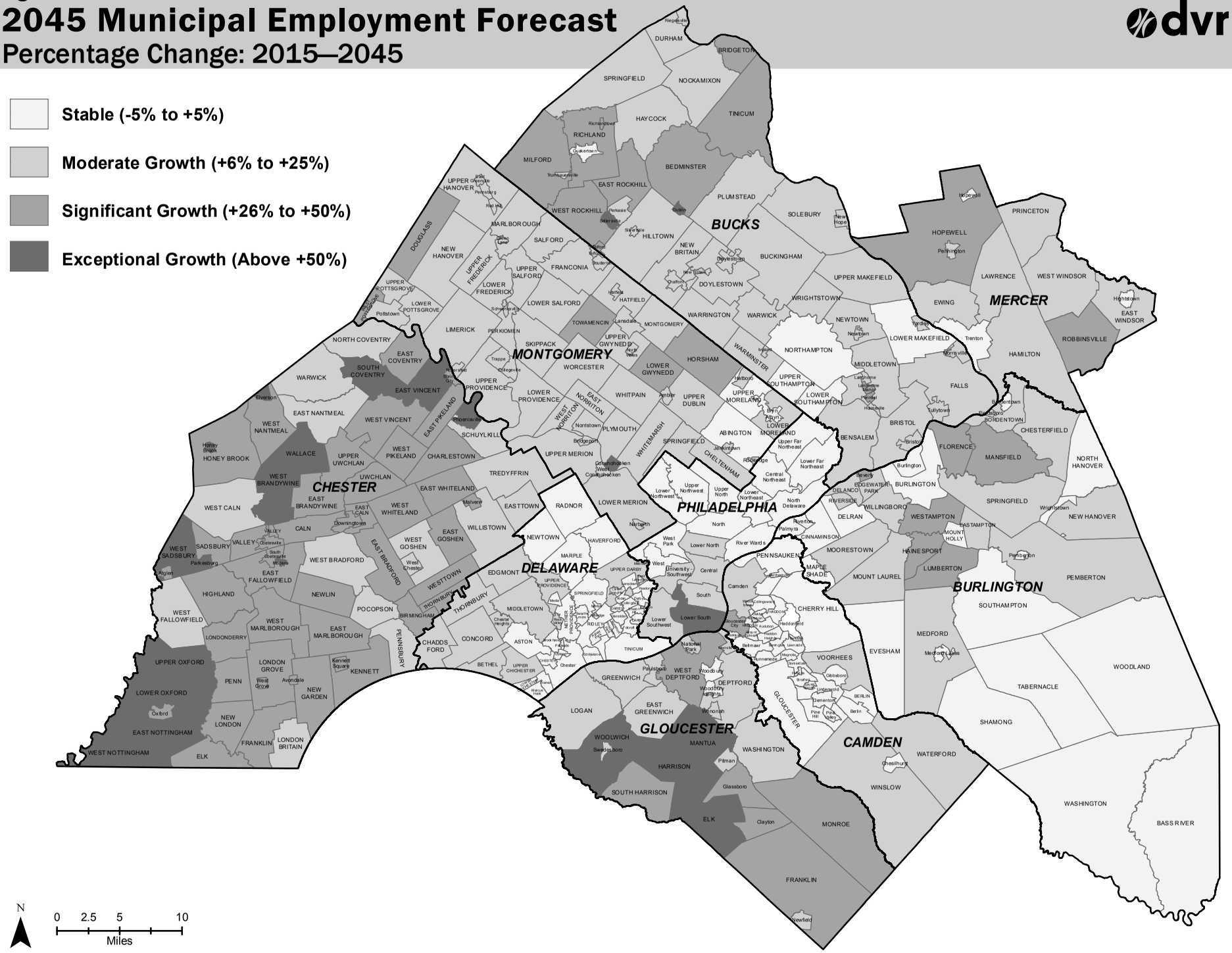

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Figure 4:

2045 Municipal Employment Forecast

Absolute Change per Square Mile by Municipality: 2015—2045

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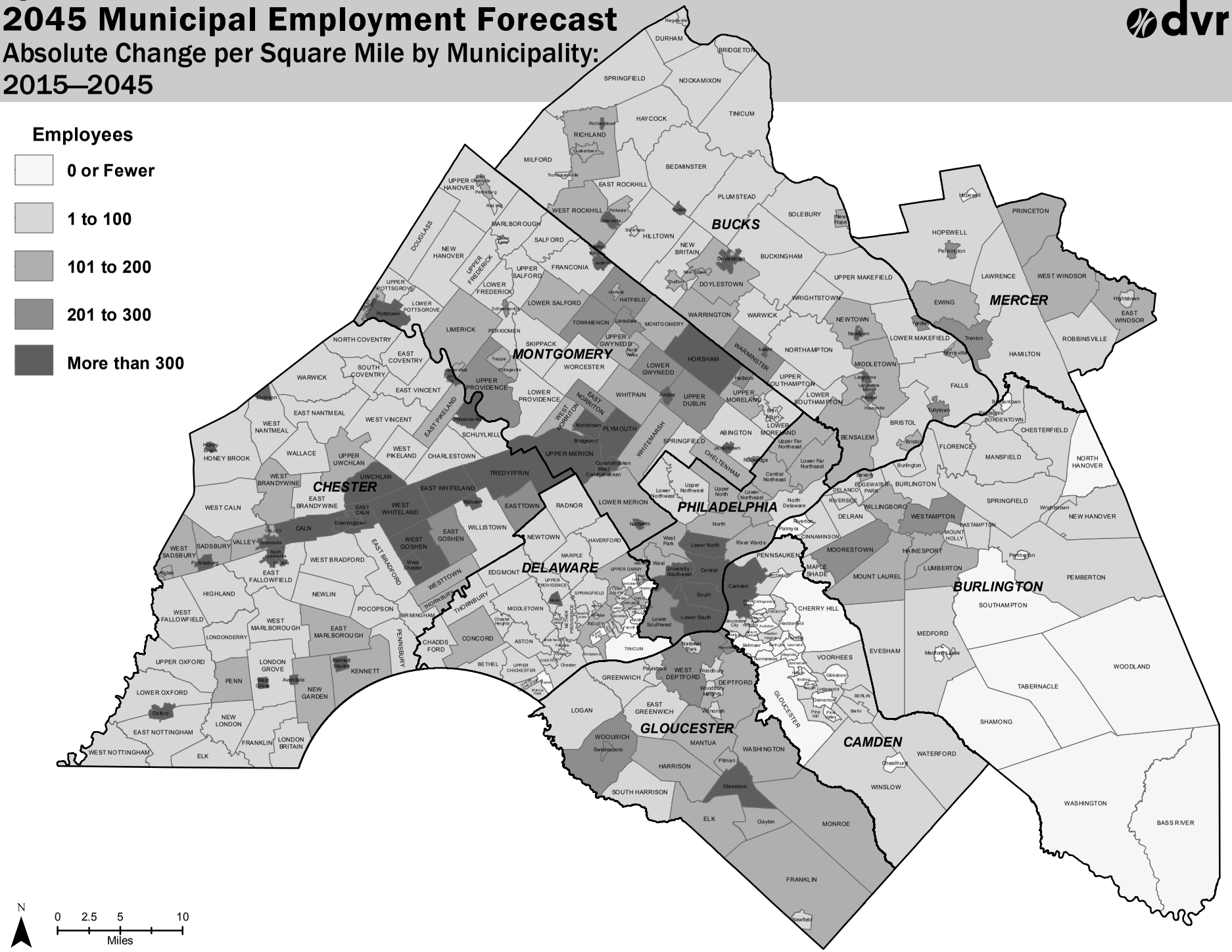

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Appendix A: Forecasted Employment by County and Municipality, 2015-2045

County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Bucks County	**322,731**	**329,645**	**337,203**	**344,859**	**351,310**	**356,671**	**361,124**	**38,393**	**11.9%**
Bedminster Township	1,864	2,018	2,116	2,215	2,260	2,311	2,424	560	30.0%
Bensalem Township	43,829	44,472	44,697	44,952	45,567	46,304	46,023	2,194	5.0%
Bridgeton Township	334	351	368	395	402	419	434	100	29.9%
Bristol Borough	5,111	5,166	5,239	5,315	5,366	5,396	5,415	304	5.9%
Bristol Township	23,168	23,575	23,799	24,037	24,370	24,768	24,740	1,572	6.8%
Buckingham Township	7,609	7,755	8,012	8,271	8,409	8,476	8,667	1,058	13.9%
Chalfont Borough	1,300	1,332	1,393	1,454	1,485	1,499	1,550	250	19.2%
Doylestown Borough	10,480	10,628	10,861	11,097	11,236	11,309	11,438	958	9.1%
Doylestown Township	11,453	11,838	12,071	12,308	12,652	13,030	13,163	1,710	14.9%
Dublin Borough	820	879	926	962	1,225	1,530	1,520	700	85.4%
Durham Township	254	256	257	259	267	276	273	19	7.5%
East Rockhill Township	2,140	2,259	2,335	2,411	2,520	2,636	2,700	560	26.2%
Falls Township	16,290	16,575	17,065	17,558	17,827	17,961	18,302	2,012	12.4%
Haycock Township	486	507	519	532	556	582	590	104	21.4%
Hilltown Township	6,113	6,252	6,509	6,766	6,897	6,959	7,167	1,054	17.2%
Hulmeville Borough	254	262	268	274	282	290	294	40	15.7%
Ivyland Borough	1,671	1,749	1,789	1,830	1,869	1,913	1,948	277	16.6%
Langhorne Borough	1,150	1,176	1,225	1,274	1,299	1,311	1,351	201	17.5%
Langhorne Manor Borough	313	329	364	398	413	420	454	141	45.0%
Lower Makefield Township	11,612	11,717	11,768	11,827	12,007	12,219	12,111	499	4.3%
Lower Southampton Township	13,210	13,289	13,334	13,387	13,457	13,512	13,401	191	1.4%
Middletown Township	24,781	25,116	25,630	26,154	26,465	26,634	26,900	2,119	8.6%
Milford Township	3,753	3,912	4,241	4,567	4,720	4,784	5,100	1,347	35.9%
Morrisville Borough	2,903	2,951	3,033	3,115	3,161	3,184	3,238	335	11.5%
New Britain Borough	3,004	3,046	3,088	3,132	3,176	3,214	3,204	200	6.7%
New Britain Township	5,330	5,453	5,528	5,605	5,791	5,992	5,999	669	12.6%
New Hope Borough	2,854	2,893	2,953	3,015	3,051	3,071	3,102	248	8.7%
Newtown Borough	2,375	2,404	2,426	2,447	2,522	2,604	2,588	213	9.0%
Newtown Township	13,519	13,712	14,016	14,325	14,505	14,601	14,771	1,252	9.3%
Nockamixon Township	1,519	1,580	1,617	1,655	1,733	1,816	1,838	319	21.0%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Northampton Township	14,669	14,801	14,953	15,113	15,233	15,310	15,299	630	4.3%
Penndel Borough	1,403	1,453	1,555	1,656	1,704	1,725	1,819	416	29.7%
Perkasie Borough	2,991	3,058	3,182	3,305	3,369	3,399	3,499	508	17.0%
Plumstead Township	6,583	6,785	7,183	7,578	7,771	7,856	8,214	1,631	24.8%
Quakertown Borough	5,546	5,598	5,660	5,724	5,772	5,801	5,802	256	4.6%
Richland Township	6,678	7,236	7,597	7,956	8,221	8,510	8,904	2,226	33.3%
Richlandtown Borough	288	300	326	351	363	368	393	105	36.5%
Riegelsville Borough	142	145	148	149	154	159	159	17	12.0%
Sellersville Borough	1,150	1,230	1,377	1,520	1,597	1,632	1,750	600	52.2%
Silverdale Borough	299	301	303	305	315	327	323	24	8.0%
Solebury Township	3,399	3,472	3,605	3,739	3,808	3,841	3,946	547	16.1%
Springfield Township	1,474	1,524	1,555	1,586	1,638	1,693	1,710	236	16.0%
Telford Borough (part)	778	815	894	971	1,007	1,022	1,099	321	41.3%
Tinicum Township	1,532	1,584	1,690	1,794	1,844	1,866	1,963	431	28.1%
Trumbauersville Borough	307	309	314	317	333	348	346	39	12.7%
Tullytown Borough	3,097	3,158	3,267	3,377	3,435	3,463	3,546	449	14.5%
Upper Makefield Township	2,741	2,790	2,876	2,962	3,008	3,031	3,092	351	12.8%
Upper Southampton Township	9,981	10,006	10,026	10,053	10,322	10,618	10,459	478	4.8%
Warminster Township	16,109	16,891	17,210	17,536	17,956	18,424	18,702	2,593	16.1%
Warrington Township	9,581	9,863	10,414	10,963	11,232	11,352	11,842	2,261	23.6%
Warwick Township	5,967	6,074	6,258	6,444	6,544	6,594	6,724	757	12.7%
West Rockhill Township	5,227	5,442	5,885	6,323	6,530	6,617	7,040	1,813	34.7%
Wrightstown Township	1,294	1,324	1,378	1,433	1,461	1,474	1,519	225	17.4%
Yardley Borough	1,996	2,034	2,100	2,167	2,203	2,220	2,269	273	13.7%
Chester County	**309,605**	**326,320**	**343,050**	**359,774**	**374,967**	**387,391**	**397,405**	**87,800**	**28.4%**
Atglen Borough	498	521	549	577	599	617	643	145	29.1%
Avondale Borough	780	840	906	971	1,026	1,071	1,122	342	43.8%
Birmingham Township	1,573	1,664	1,754	1,846	1,927	1,994	2,046	473	30.1%
Caln Township	8,191	8,719	9,294	9,872	10,358	10,761	11,181	2,990	36.5%
Charlestown Township	3,134	3,309	3,483	3,661	3,818	3,947	4,050	916	29.2%
Coatesville City	2,579	2,759	2,958	3,160	3,327	3,465	3,619	1,040	40.3%
Downingtown Borough	6,455	6,798	7,192	7,588	7,910	8,175	8,499	2,044	31.7%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
East Bradford Township	1,844	1,966	2,097	2,229	2,341	2,433	2,527	683	37.0%
East Brandywine Township	1,649	1,777	1,921	2,068	2,187	2,285	2,404	755	45.8%
East Caln Township	4,254	4,474	4,685	4,900	5,096	5,258	5,367	1,113	26.2%
East Coventry Township	1,515	1,618	1,730	1,842	1,937	2,015	2,096	581	38.3%
East Fallowfield Township	911	969	1,029	1,089	1,140	1,186	1,221	310	34.0%
East Goshen Township	8,156	8,597	9,036	9,482	9,877	10,205	10,461	2,305	28.3%
East Marlborough Township	5,264	5,608	6,002	6,399	6,721	6,987	7,308	2,044	38.8%
East Nantmeal Township	821	862	896	931	966	996	999	178	21.7%
East Nottingham Township	1,713	1,854	2,020	2,187	2,320	2,430	2,571	858	50.1%
East Pikeland Township	2,836	3,040	3,268	3,499	3,687	3,845	4,025	1,189	41.9%
Easttown Township	7,006	7,347	7,667	7,992	8,291	8,545	8,694	1,688	24.1%
East Vincent Township	1,867	2,063	2,298	2,306	2,716	2,858	3,129	1,262	67.6%
East Whiteland Township	23,399	24,735	26,117	27,514	28,722	29,730	30,623	7,224	30.9%
Elk Township	266	287	305	324	342	357	363	97	36.5%
Elverson Borough	596	663	746	829	894	947	1,026	430	72.1%
Franklin Township	608	659	715	773	820	859	905	297	48.8%
Highland Township	535	567	594	623	649	674	681	146	27.3%
Honey Brook Borough	389	425	466	507	541	569	602	213	54.8%
Honey Brook Township	2,990	3,164	3,342	3,522	3,678	3,809	3,920	930	31.1%
Kennett Township	5,782	6,112	6,450	6,793	7,092	7,341	7,555	1,773	30.7%
Kennett Square Borough	4,177	4,405	4,632	4,862	5,066	5,239	5,370	1,193	28.6%
London Britain Township	630	665	691	719	747	772	773	143	22.7%
Londonderry Township	488	530	575	621	660	694	729	241	49.4%
London Grove Township	2,535	2,738	2,972	3,208	3,400	3,559	3,755	1,220	48.1%
Lower Oxford Township	1,874	2,096	2,397	2,698	2,918	3,098	3,418	1,544	82.4%
Malvern Borough	2,359	2,500	2,646	2,794	2,921	3,027	3,121	762	32.3%
Modena Borough	124	147	178	207	230	248	279	155	125.0%
New Garden Township	6,534	6,884	7,277	7,673	7,999	8,268	8,578	2,044	31.3%
Newlin Township	271	293	315	336	357	375	387	116	42.8%
New London Township	1,041	1,098	1,155	1,213	1,263	1,306	1,385	344	33.0%
North Coventry Township	3,730	3,896	4,037	4,182	4,323	4,444	4,483	753	20.2%
Oxford Borough	2,156	2,319	2,504	2,691	2,843	2,968	3,118	962	44.6%
Parkesburg Borough	671	734	811	888	948	997	1,065	394	58.7%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Penn Township	2,916	3,084	3,286	3,490	3,649	3,781	3,961	1,045	35.8%
Pennsbury Township	1,395	1,460	1,514	1,568	1,624	1,671	1,680	285	20.4%
Phoenixville Borough	6,835	7,419	8,119	8,823	9,378	9,835	10,456	3,621	53.0%
Pocopson Township	1,030	1,081	1,123	1,165	1,208	1,244	1,252	222	21.6%
Sadsbury Township	1,571	1,692	1,830	1,969	2,083	2,176	2,288	717	45.6%
Schuylkill Township	4,530	4,706	4,840	4,977	5,124	5,197	5,247	717	15.8%
South Coatesville Borough	1,390	1,502	1,629	1,759	1,862	1,949	2,055	665	47.8%
South Coventry Township	1,146	1,257	1,392	1,528	1,633	1,721	1,844	698	60.9%
Spring City Borough	959	1,027	1,100	1,173	1,235	1,287	1,339	380	39.6%
Thornbury Township	1,302	1,384	1,470	1,557	1,631	1,693	1,749	447	34.3%
Tredyffrin Township	55,495	57,323	58,540	59,802	61,270	62,518	62,120	6,625	11.9%
Upper Oxford Township	361	393	428	465	494	519	547	186	51.5%
Upper Uwchlan Township	4,216	4,447	4,677	4,910	5,116	5,288	5,421	1,205	28.6%
Uwchlan Township	14,889	16,014	17,312	18,619	19,674	20,545	21,626	6,737	45.2%
Valley Township	2,085	2,249	2,440	2,633	2,787	2,915	3,074	989	47.4%
Wallace Township	903	981	1,074	1,168	1,242	1,304	1,383	480	53.2%
Warwick Township	614	648	674	701	729	753	754	140	22.8%
West Bradford Township	2,095	2,190	2,269	2,349	2,429	2,497	2,514	419	20.0%
West Brandywine Township	2,088	2,331	2,643	2,955	3,192	3,386	3,694	1,606	76.9%
West Caln Township	1,450	1,523	1,590	1,657	1,721	1,775	1,799	349	24.1%
West Chester Borough	11,440	11,787	11,979	12,181	12,448	12,678	12,510	1,070	9.4%
West Fallowfield Township	958	1,006	1,043	1,082	1,122	1,155	1,159	201	21.0%
West Goshen Township	24,174	25,299	26,334	27,385	28,369	29,189	29,633	5,459	22.6%
West Grove Borough	674	719	763	808	848	881	907	233	34.6%
West Marlborough Township	330	353	371	388	409	424	426	96	29.1%
West Nantmeal Township	647	690	732	775	814	845	870	223	34.5%
West Nottingham Township	1,736	1,884	2,060	2,238	2,378	2,493	2,647	911	52.5%
West Pikeland Township	964	1,029	1,097	1,165	1,225	1,274	1,320	356	36.9%
West Sadsbury Township	2,106	2,300	2,537	2,774	2,959	3,112	3,327	1,221	58.0%
West Vincent Township	1,476	1,552	1,623	1,695	1,759	1,816	1,846	370	25.1%
West Whiteland Township	23,476	24,691	25,883	27,093	28,175	29,076	29,735	6,259	26.7%
Westtown Township	4,257	4,479	4,693	4,910	5,107	5,271	5,383	1,126	26.5%
Willistown Township	7,896	8,118	8,275	8,436	8,616	8,769	8,741	845	10.7%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Delaware County	**268,054**	**270,167**	**272,269**	**274,401**	**276,248**	**277,763**	**279,050**	**10,996**	**4.1%**
Aldan Borough	957	963	966	969	973	978	978	21	2.2%
Aston Township	6,558	6,615	6,678	6,742	6,793	6,832	6,876	318	4.8%
Bethel Township	2,297	2,331	2,388	2,445	2,478	2,497	2,548	251	10.9%
Brookhaven Borough	2,702	2,722	2,739	2,756	2,773	2,787	2,796	94	3.5%
Chadds Ford Twp.	4,153	4,232	4,374	4,516	4,593	4,634	4,768	615	14.8%
Chester City	11,939	12,014	12,062	12,112	12,174	12,234	12,244	305	2.6%
Chester Township	942	956	980	1,004	1,017	1,025	1,047	105	11.1%
Chester Heights Borough	2,926	2,945	2,958	2,971	2,987	3,002	3,005	79	2.7%
Clifton Heights Borough	2,142	2,153	2,155	2,157	2,165	2,175	2,169	27	1.3%
Collingdale Borough	2,108	2,125	2,143	2,161	2,176	2,188	2,199	91	4.3%
Colwyn Borough	417	421	425	430	433	435	439	22	5.3%
Concord Township	11,491	11,733	12,179	12,629	12,864	12,988	13,416	1,925	16.8%
Darby Borough	3,955	3,982	4,003	4,025	4,047	4,068	4,077	122	3.1%
Darby Township	2,593	2,602	2,595	2,588	2,594	2,604	2,588	-5	-0.2%
East Lansdowne Borough	658	661	661	661	664	667	665	7	1.1%
Eddystone Borough	2,429	2,439	2,436	2,433	2,440	2,450	2,439	10	0.4%
Edgmont Township	2,247	2,307	2,424	2,542	2,601	2,630	2,745	498	22.2%
Folcroft Borough	3,501	3,507	3,484	3,460	3,462	3,474	3,437	-64	-1.8%
Glenolden Borough	2,366	2,376	2,376	2,375	2,383	2,394	2,385	19	0.8%
Haverford Township	16,973	17,066	17,103	17,142	17,217	17,298	17,279	306	1.8%
Lansdowne Borough	2,650	2,659	2,652	2,646	2,652	2,662	2,646	-4	-0.2%
Lower Chichester Township	1,374	1,380	1,381	1,381	1,386	1,392	1,387	13	0.9%
Marcus Hook Borough	3,014	3,037	3,058	3,079	3,099	3,115	3,127	113	3.7%
Marple Township	14,026	14,082	14,063	14,045	14,085	14,143	14,075	49	0.3%
Media Borough	11,882	11,974	12,064	12,156	12,236	12,303	12,357	475	4.0%
Middletown Township	14,076	14,220	14,407	14,597	14,727	14,820	14,968	892	6.3%
Millbourne Borough	370	375	382	389	393	396	402	32	8.6%
Morton Borough	1,290	1,297	1,300	1,303	1,309	1,315	1,314	24	1.9%
Nether Providence Township	4,626	4,656	4,677	4,698	4,723	4,747	4,753	127	2.7%
Newtown Township	12,615	12,710	12,798	12,888	12,971	13,040	13,090	475	3.8%

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Norwood Borough	1,140	1,145	1,146	1,146	1,151	1,156	1,152	12	1.1%
Parkside Borough	328	330	332	334	336	337	338	10	3.0%
Prospect Park Borough	1,726	1,736	1,742	1,747	1,756	1,764	1,764	38	2.2%
Radnor Township	25,694	25,861	25,978	26,099	26,239	26,371	26,407	713	2.8%
Ridley Township	2,809	2,814	2,795	2,776	2,777	2,786	2,757	-52	-1.9%
Ridley Park Borough	9,411	9,463	9,483	9,505	9,546	9,591	9,580	169	1.8%
Rose Valley Borough	297	302	310	318	323	326	333	36	12.1%
Rutledge Borough	131	132	132	132	133	133	133	2	1.5%
Sharon Hill Borough	2,985	3,003	3,014	3,026	3,041	3,056	3,058	73	2.4%
Springfield Township	14,177	14,292	14,411	14,532	14,633	14,715	14,791	614	4.3%
Swarthmore Borough	2,660	2,677	2,688	2,700	2,714	2,727	2,730	70	2.6%
Thornbury Township	2,366	2,418	2,514	2,610	2,661	2,687	2,780	414	17.5%
Tinicum Township	12,489	12,531	12,495	12,461	12,488	12,537	12,457	-32	-0.3%
Trainer Borough	1,799	1,799	1,779	1,760	1,757	1,762	1,735	-64	-3.6%
Upland Borough	1,222	1,227	1,228	1,228	1,232	1,237	1,233	11	0.9%
Upper Chichester Township	6,648	6,710	6,786	6,862	6,918	6,959	7,016	368	5.5%
Upper Darby Township	25,058	25,282	25,543	25,806	26,007	26,159	26,346	1,288	5.1%
Upper Providence Township	5,055	5,114	5,198	5,283	5,338	5,373	5,445	390	7.7%
Yeadon Borough	2,782	2,791	2,784	2,776	2,783	2,794	2,776	-6	-0.2%
Montgomery County	**582,443**	**598,434**	**614,469**	**629,563**	**642,996**	**654,966**	**664,385**	**81,942**	**14.1%**
Abington Township	30,656	31,098	31,327	31,512	31,899	32,371	32,156	1,500	4.9%
Ambler Borough	3,185	3,248	3,322	3,392	3,450	3,501	3,537	352	11.1%
Bridgeport Borough	2,180	2,248	2,298	2,345	2,399	2,455	2,480	300	13.8%
Bryn Athyn Borough	1,427	1,440	1,452	1,463	1,474	1,484	1,477	50	3.5%
Cheltenham Township	18,189	18,517	18,725	18,906	19,201	19,546	19,489	1,300	7.1%
Collegeville Borough	2,626	2,668	2,705	2,738	2,775	2,814	2,815	189	7.2%
Conshohocken Borough	9,368	10,531	11,292	12,036	12,854	13,522	14,368	5,000	53.4%
Douglass Township	3,661	3,820	4,038	4,249	4,380	4,431	4,661	1,000	27.3%
East Greenville Borough	651	663	675	687	697	707	711	60	9.2%
East Norriton Township	10,682	10,999	11,317	11,617	11,813	11,880	12,182	1,500	14.0%
Franconia Township	7,630	7,696	8,004	8,297	8,439	8,497	8,745	1,115	14.6%
Green Lane Borough	183	186	187	189	191	193	193	10	5.5%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Hatboro Borough	3,893	3,978	4,018	4,055	4,125	4,204	4,193	300	7.7%
Hatfield Borough	1,150	1,172	1,190	1,208	1,227	1,248	1,250	100	8.7%
Hatfield Township	17,580	18,120	18,629	19,110	19,533	19,857	20,218	2,638	15.0%
Horsham Township	30,408	31,549	33,538	35,468	36,584	37,907	39,068	8,660	28.5%
Jenkintown Borough	4,597	4,677	4,722	4,761	4,833	4,918	4,897	300	6.5%
Lansdale Borough	7,772	7,952	8,045	8,126	8,254	8,372	8,384	612	7.9%
Limerick Township	11,533	11,874	12,362	12,826	13,324	13,799	14,151	2,618	22.7%
Lower Frederick Township	1,110	1,146	1,178	1,208	1,260	1,320	1,334	224	20.2%
Lower Gwynedd Township	7,006	7,282	7,770	8,244	8,514	8,687	9,125	2,119	30.2%
Lower Merion Township	55,354	56,522	57,038	57,471	58,209	58,915	58,854	3,500	6.3%
Lower Moreland Township	8,085	8,225	8,331	8,424	8,551	8,692	8,685	600	7.4%
Lower Pottsgrove Township	4,670	4,768	4,943	5,109	5,239	5,346	5,470	800	17.1%
Lower Providence Township	12,994	13,230	13,581	13,910	14,129	14,290	14,494	1,500	11.5%
Lower Salford Township	9,663	9,864	10,234	10,586	10,776	10,886	11,163	1,500	15.5%
Marlborough Township	978	991	1,010	1,027	1,051	1,071	1,078	100	10.2%
Montgomery Township	16,097	16,473	16,923	17,343	17,580	17,640	18,012	1,915	11.9%
Narberth Borough	2,039	2,076	2,101	2,122	2,155	2,193	2,189	150	7.4%
New Hanover Township	2,020	2,102	2,198	2,290	2,370	2,435	2,515	495	24.5%
Norristown Borough	14,095	14,558	14,873	15,166	15,560	15,972	16,095	2,000	14.2%
North Wales Borough	1,419	1,443	1,460	1,476	1,498	1,522	1,519	100	7.0%
Pennsburg Borough	1,519	1,552	1,573	1,592	1,617	1,641	1,645	126	8.3%
Perkiomen Township	2,416	2,469	2,537	2,602	2,651	2,693	2,733	317	13.1%
Plymouth Township	23,839	24,550	25,500	26,410	27,090	27,652	28,339	4,500	18.9%
Pottstown Borough	10,757	11,090	11,342	11,578	11,857	12,128	12,257	1,500	13.9%
Red Hill Borough	631	642	654	666	676	685	689	58	9.2%
Rockledge Borough	957	979	996	1,011	1,031	1,054	1,057	100	10.4%
Royersford Borough	1,393	1,419	1,443	1,466	1,489	1,511	1,518	125	9.0%
Salford Township	526	544	564	583	605	627	641	115	21.9%
Schwenksville Borough	418	434	454	474	490	504	518	100	23.9%
Skippack Township	4,197	4,300	4,402	4,496	4,565	4,631	4,697	500	11.9%
Souderton Borough	2,788	2,876	2,972	3,064	3,147	3,227	3,288	500	17.9%
Springfield Township	7,874	8,000	8,084	8,158	8,271	8,399	8,374	500	6.4%
Telford Borough (part)	643	659	684	707	722	734	751	108	16.8%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Towamencin Township	7,548	8,086	8,612	9,125	9,567	9,909	10,421	2,873	38.1%
Trappe Borough	2,144	2,190	2,248	2,303	2,345	2,381	2,414	270	12.6%
Upper Dublin Township	21,566	22,207	22,864	23,485	24,048	24,546	24,966	3,400	15.8%
Upper Frederick Township	871	899	930	960	998	1,037	1,056	185	21.2%
Upper Gwynedd Township	25,099	25,428	25,751	26,036	26,324	26,607	26,599	1,500	6.0%
Upper Hanover Township	4,221	4,395	4,541	4,680	4,831	4,957	5,078	857	20.3%
Upper Merion Township	57,038	59,232	60,940	62,559	64,072	65,430	66,508	9,470	16.6%
Upper Moreland Township	18,160	18,395	18,536	18,650	18,853	19,092	18,977	817	4.5%
Upper Pottsgrove Township	1,161	1,186	1,227	1,264	1,301	1,335	1,361	200	17.2%
Upper Providence Township	22,276	23,028	24,014	24,960	25,575	25,947	26,796	4,520	20.3%
Upper Salford Township	1,273	1,303	1,338	1,371	1,407	1,442	1,462	189	14.8%
West Conshohocken Borough	5,836	5,978	6,180	6,371	6,506	6,612	6,748	912	15.6%
West Norriton Township	9,363	9,557	9,802	10,031	10,212	10,367	10,499	1,136	12.1%
West Pottsgrove Township	1,476	1,530	1,622	1,711	1,764	1,798	1,879	403	27.3%
Whitemarsh Township	20,727	21,090	21,343	21,565	21,894	22,235	22,227	1,500	7.2%
Whitpain Township	19,871	20,231	20,641	21,020	21,350	21,653	21,819	1,948	9.8%
Worcester Township	2,954	3,069	3,189	3,304	3,394	3,457	3,560	606	20.5%
Philadelphia County	**772,847**	**786,308**	**797,156**	**810,574**	**822,002**	**829,937**	**836,825**	**63,978**	**8.3%**
Central	277,884	280,877	283,540	287,458	289,839	291,941	294,586	16,702	6.0%
South	32,348	32,823	33,052	33,584	33,897	34,118	34,233	1,885	5.8%
Lower South	19,366	22,053	25,327	28,043	30,830	33,279	35,111	15,745	81.3%
Lower Southwest	21,287	21,570	22,013	22,546	22,943	23,231	23,518	2,231	10.5%
University/Southwest	81,863	84,881	86,678	89,222	91,692	92,487	94,866	13,003	15.9%
West	14,073	14,203	14,299	14,439	14,598	14,699	14,774	701	5.0%
West Park	17,141	17,404	17,509	17,692	17,785	17,928	17,987	846	4.9%
Lower North	27,134	27,582	28,096	28,441	28,963	29,335	29,204	2,070	7.6%
River Wards	23,154	23,578	23,698	23,934	24,224	24,485	24,249	1,095	4.7%
North	41,243	41,508	41,777	42,342	42,647	42,878	42,941	1,698	4.1%
Lower Northwest	18,212	18,475	18,586	18,710	18,889	19,048	19,008	796	4.4%
Upper Northwest	25,673	25,928	26,010	26,217	26,435	26,540	26,478	805	3.1%
Upper North	33,741	34,068	34,214	34,353	34,589	34,656	34,655	914	2.7%
Lower Northeast	27,338	27,591	27,740	27,958	28,086	28,125	28,124	786	2.9%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Central Northeast	22,546	22,843	23,015	23,244	23,395	23,498	23,473	927	4.1%
North Delaware	23,938	24,269	24,330	24,557	24,692	24,819	24,807	869	3.6%
Lower Far Northeast	31,433	31,835	32,080	32,378	32,667	32,893	32,853	1,420	4.5%
Upper Far Northeast	34,473	34,820	35,192	35,456	35,831	35,977	35,958	1,485	4.3%
Burlington County	**241,298**	**246,351**	**251,368**	**255,562**	**258,363**	**261,195**	**263,622**	**22,324**	**9.3%**
Bass River Township	1,556	1,572	1,566	1,556	1,558	1,571	1,544	-12	-0.8%
Beverly City	400	417	446	472	485	493	519	119	29.8%
Bordentown City	1,437	1,452	1,447	1,439	1,441	1,451	1,428	-9	-0.6%
Bordentown Township	5,424	5,530	5,624	5,703	5,760	5,824	5,858	434	8.0%
Burlington City	5,162	5,229	5,237	5,231	5,251	5,298	5,242	80	1.5%
Burlington Township	17,266	17,584	17,772	17,879	17,949	18,054	18,013	747	4.3%
Chesterfield Township	1,770	1,800	1,819	1,833	1,846	1,865	1,863	93	5.3%
Cinnaminson Township	9,862	9,981	9,978	9,949	9,979	10,064	9,938	76	0.8%
Delanco Township	1,193	1,234	1,296	1,353	1,383	1,403	1,455	262	22.0%
Delran Township	7,181	7,263	7,249	7,217	7,234	7,295	7,190	9	0.1%
Eastampton Township	949	980	1,027	1,070	1,092	1,109	1,147	198	20.9%
Edgewater Park Township	2,738	2,795	2,849	2,896	2,928	2,961	2,985	247	9.0%
Evesham Township	27,494	27,914	28,117	28,240	28,412	28,688	28,559	1,065	3.9%
Fieldsboro Borough	87	88	89	91	91	92	92	5	5.7%
Florence Township	3,424	3,650	3,889	4,017	4,112	4,190	4,297	873	25.5%
Hainesport Township	3,128	3,287	3,567	3,834	3,962	4,037	4,299	1,171	37.4%
Lumberton Township	6,605	6,926	7,488	8,022	8,279	8,433	8,954	2,349	35.6%
Mansfield Township	2,794	2,935	3,186	3,422	3,537	3,604	3,838	1,044	37.4%
Maple Shade Township	6,792	6,875	6,877	6,860	6,881	6,942	6,858	66	1.0%
Medford Lakes Borough	800	808	805	800	800	807	793	-7	-0.9%
Medford Township	11,762	11,938	12,189	12,416	12,559	12,653	12,855	1,093	9.3%
Moorestown Township	30,721	31,403	32,129	32,756	33,157	33,552	33,945	3,224	10.5%
Mount Holly Township	7,793	7,890	7,894	7,877	7,904	7,972	7,879	86	1.1%
Mount Laurel Township	37,270	38,050	38,815	39,464	39,903	40,362	40,714	3,444	9.2%
New Hanover Township	4,627	4,707	4,791	4,874	4,957	5,040	5,127	500	10.8%
North Hanover Township	1,451	1,455	1,437	1,429	1,422	1,416	1,401	-50	-3.4%
Palmyra Borough	2,008	2,021	1,994	1,963	1,957	1,971	1,916	-92	-4.6%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Pemberton Borough	541	547	544	541	541	546	537	-4	-0.7%
Pemberton Township	7,035	7,204	7,420	7,616	7,725	7,816	7,970	935	13.3%
Riverside Township	1,726	1,759	1,787	1,811	1,827	1,847	1,856	130	7.5%
Riverton Borough	836	844	839	832	832	840	823	-13	-1.6%
Shamong Township	1,695	1,713	1,705	1,693	1,696	1,709	1,680	-15	-0.9%
Southampton Township	3,705	3,744	3,729	3,704	3,709	3,739	3,677	-28	-0.8%
Springfield Township	1,513	1,543	1,593	1,640	1,666	1,681	1,726	213	14.1%
Tabernacle Township	2,042	2,063	2,054	2,041	2,044	2,061	2,026	-16	-0.8%
Washington Township	245	247	247	245	246	247	243	-2	-0.8%
Westampton Township	7,379	7,776	8,490	9,169	9,495	9,682	10,357	2,978	40.4%
Willingboro Township	8,184	8,388	8,632	8,850	8,979	9,093	9,253	1,069	13.1%
Woodland Township	1,893	1,911	1,899	1,882	1,883	1,897	1,860	-33	-1.7%
Wrightstown Borough	2,810	2,828	2,852	2,875	2,881	2,890	2,905	95	3.4%
Camden County	**263,582**	**265,169**	**266,753**	**268,359**	**269,750**	**270,892**	**271,869**	**8,287**	**3.1%**
Audubon Borough	2,882	2,878	2,858	2,840	2,834	2,839	2,809	-73	-2.5%
Audubon Park Borough	122	122	121	120	120	120	119	-3	-2.5%
Barrington Borough	2,919	2,916	2,900	2,885	2,881	2,886	2,860	-59	-2.0%
Bellmawr Borough	4,855	4,861	4,856	4,853	4,855	4,867	4,848	-7	-0.1%
Berlin Borough	4,889	4,908	4,936	4,965	4,981	4,998	5,012	123	2.5%
Berlin Township	6,474	6,492	6,514	6,537	6,551	6,572	6,574	100	1.5%
Brooklawn Borough	979	980	979	978	978	981	976	-3	-0.3%
Camden City	41,786	42,644	43,370	44,057	44,850	45,205	45,992	4,206	10.1%
Cherry Hill Township	66,799	66,845	66,734	66,641	66,648	66,808	66,479	-320	-0.5%
Chesilhurst Borough	268	267	264	262	261	261	257	-11	-4.1%
Clementon Borough	1,391	1,391	1,388	1,385	1,384	1,388	1,379	-12	-0.9%
Collingswood Borough	4,307	4,308	4,296	4,285	4,283	4,292	4,266	-41	-1.0%
Gibbsboro Borough	1,885	1,884	1,875	1,866	1,864	1,867	1,852	-33	-1.8%
Gloucester City	4,709	4,888	5,290	5,692	5,866	5,942	6,345	1,636	34.7%
Gloucester Township	19,959	19,964	19,911	19,863	19,857	19,901	19,782	-177	-0.9%
Haddon Township	4,577	4,590	4,606	4,624	4,634	4,649	4,651	74	1.6%
Haddonfield Borough	6,525	6,526	6,508	6,491	6,488	6,503	6,463	-62	-1.0%
Haddon Heights Borough	3,220	3,227	3,234	3,242	3,248	3,257	3,254	34	1.1%

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County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Hi-Nella Borough	201	201	201	201	201	202	201	0	0.0%
Laurel Springs Borough	468	468	465	463	463	464	460	-8	-1.7%
Lawnside Borough	1,916	1,911	1,894	1,877	1,872	1,874	1,850	-66	-3.4%
Lindenwold Borough	3,140	3,147	3,152	3,158	3,163	3,172	3,168	28	0.9%
Magnolia Borough	1,064	1,063	1,058	1,052	1,051	1,053	1,043	-21	-2.0%
Merchantville Borough	1,408	1,409	1,406	1,404	1,404	1,407	1,400	-8	-0.6%
Mount Ephraim Borough	1,137	1,137	1,133	1,129	1,128	1,131	1,123	-14	-1.2%
Oaklyn Borough	991	990	986	981	980	982	974	-17	-1.7%
Pennsauken Township	25,712	25,798	25,799	25,816	25,889	26,018	25,945	233	0.9%
Pine Hill Borough	1,618	1,625	1,627	1,629	1,634	1,643	1,640	22	1.4%
Pine Valley Borough	185	185	185	184	184	184	183	-2	-1.1%
Runnemede Borough	3,101	3,099	3,084	3,070	3,066	3,072	3,047	-54	-1.7%
Somerdale Borough	2,376	2,377	2,375	2,372	2,373	2,378	2,367	-9	-0.4%
Stratford Borough	6,353	6,354	6,335	6,318	6,315	6,329	6,289	-64	-1.0%
Tavistock Borough	50	50	50	50	50	50	50	0	0.0%
Voorhees Township	20,328	20,474	20,749	21,028	21,161	21,258	21,479	1,151	5.7%
Waterford Township	3,606	3,637	3,698	3,760	3,789	3,808	3,860	254	7.0%
Winslow Township	10,976	11,147	11,510	11,875	12,038	12,124	12,466	1,490	13.6%
Woodlynne Borough	406	406	406	406	406	407	406	0	0.0%
Gloucester County	**121,382**	**128,161**	**134,902**	**141,752**	**147,682**	**152,554**	**156,686**	**35,304**	**29.1%**
Clayton Borough	2,236	2,380	2,549	2,718	2,847	2,947	3,076	840	37.6%
Deptford Township	14,845	15,536	16,047	16,583	17,165	17,692	17,824	2,979	20.1%
East Greenwich Township	2,593	2,718	2,817	2,920	3,027	3,121	3,155	562	21.7%
Elk Township	1,106	1,240	1,465	1,684	1,813	1,894	2,126	1,020	92.2%
Franklin Township	4,372	4,642	4,944	5,247	5,488	5,676	5,895	1,523	34.8%
Glassboro Borough	7,359	7,860	8,475	9,089	9,543	9,883	10,380	3,021	41.1%
Greenwich Township	2,436	2,516	2,524	2,539	2,600	2,670	2,601	165	6.8%
Harrison Township	3,492	3,812	4,291	4,762	5,063	5,266	5,724	2,232	63.9%
Logan Township	9,726	10,183	10,529	10,892	11,277	11,624	11,726	2,000	20.6%
Mantua Township	5,333	5,786	6,436	7,078	7,501	7,792	8,396	3,063	57.4%

County / Municipality	2015 Employment Estimate	2020 Employment Forecast	2025 Employment Forecast	2030 Employment Forecast	2035 Employment Forecast	2040 Employment Forecast	2045 Employment Forecast	Absolute Change, 2015–2045	Percentage Change 2015–2045
Monroe Township	11,219	12,024	13,054	14,078	14,812	15,352	16,218	4,999	44.6%
National Park Borough	430	445	448	453	464	477	467	37	8.6%
Newfield Borough	441	456	457	460	471	484	472	31	7.0%
Paulsboro Borough	1,707	1,760	1,760	1,765	1,804	1,852	1,796	89	5.2%
Pitman Borough	2,481	2,590	2,659	2,733	2,823	2,908	2,911	430	17.3%
South Harrison Township	1,000	1,066	1,143	1,221	1,280	1,324	1,385	385	38.5%
Swedesboro Borough	1,618	1,681	1,708	1,740	1,790	1,841	1,822	204	12.6%
Washington Township	19,175	19,988	20,465	20,982	21,650	22,291	22,242	3,067	16.0%
Wenonah Borough	520	541	553	565	582	599	596	76	14.6%
West Deptford Township	13,690	14,441	15,169	15,910	16,564	17,107	17,534	3,844	28.1%
Westville Borough	1,784	1,860	1,904	1,953	2,015	2,075	2,070	286	16.0%
Woodbury City	9,289	9,538	9,440	9,372	9,545	9,783	9,366	77	0.8%
Woodbury Heights Borough	1,887	1,940	1,925	1,915	1,953	2,002	1,923	36	1.9%
Woolwich Township	2,643	3,158	4,140	5,093	5,605	5,894	6,981	4,338	164.1%
Mercer County	**286,295**	**290,864**	**295,408**	**300,025**	**304,021**	**307,302**	**310,084**	**23,789**	**8.3%**
East Windsor Township	17,414	17,737	18,170	18,607	18,858	19,015	19,359	1,945	11.2%
Ewing Township	22,150	22,877	23,322	23,772	24,047	24,230	24,680	2,530	11.4%
Hamilton Township	49,812	50,303	50,848	51,406	51,824	52,157	52,345	2,533	5.1%
Hightstown Borough	2,775	2,796	2,812	2,828	2,846	2,862	2,857	82	3.0%
Hopewell Borough	982	990	987	984	986	990	980	-2	-0.2%
Hopewell Township	14,696	14,797	15,282	15,771	17,012	18,290	18,408	3,712	25.3%
Lawrence Township	28,005	28,973	29,178	29,392	29,586	29,760	30,015	2,010	7.2%
Pennington Borough	2,412	2,449	2,502	2,555	2,587	2,608	2,646	234	9.7%
Princeton	26,211	27,014	27,617	28,227	28,585	28,815	29,399	3,188	12.2%
Robbinsville	6,542	6,815	7,186	7,558	7,743	7,836	8,212	1,670	25.5%
Trenton City	78,922	79,280	79,783	80,307	80,812	81,280	81,096	2,174	2.8%
West Windsor Township	36,374	36,833	37,721	38,618	39,135	39,459	40,087	3,713	10.2%

Source: Delaware Valley Regional Planning Commission, September 2016. Base employment data from the National Establishments Time Series (NETS) database, 2010 and 2013.

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Report Title: **Analytical Data Report # 023: County- and Municipal-Level Employment Forecasts, 2015–2045**

Publication No.: ADR023

Date Published: October 2016

Geographic Area Covered: DVRPC's nine-county region, including Burlington, Camden, Gloucester, and Mercer counties in New Jersey, and Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania.

Key Words: employment, employment forecasts, National Establishments Time Series database, NETS, Connections 2045, long-range plan

ABSTRACT: This report presents the Delaware Valley Regional Planning Commission's (DVRPC's) adopted 2045 county- and municipal-level employment forecasts and describes the method used to develop them. Population and employment forecasts are a critical component of long-range land use and transportation planning. As a part of DVRPC's long-range planning activities, the Commission is required to maintain forecasts with at least a 20-year horizon, or to the horizon year of the long-range plan.

DVRPC last adopted employment forecasts through the year 2040 in September 2012. In March 2016, DVRPC acquired a National Establishments Time Series (NETS) database that included 2013 employment data and revised 2010 data. The 2010 and 2013 employment data was reviewed and revised by DVRPC staff, utilizing resources that included CoStar, on-line business directories, company web sites, and, when appropriate, direct telephone calls. The revised data was then sent to the county planning staffs for additional revision. Additionally, during the summer of 2016, DVRPC acquired improved geocoding resources that allowed staff to further correct the spatial locations of employers.

Based on changes in the NETS employment between 2010 and 2013, and changes in employment in each county between 2010 and 2015, as reported by the U.S. Bureau of Labor Statistics, 2015 employment was estimated by county and municipality. Studies have shown that there is a direct relationship between the number of workers living in an area and the number of jobs. County-level employment was forecasted in five-year increments through 2045, by estimating a future ratio of population to employment in each county and applying it to DVRPC's adopted population forecasts. Together with the 2045 population forecasts adopted by the DVRPC Board in July 2016, these employment forecasts, adopted by the Board in October 2016, will serve as the basis for DVRPC's planning and modeling activities, and support the region's 2045 long-range plan, scheduled for adoption in July 2017.

Delaware Valley Regional Planning Commission
190 North Independence Mall West
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Philadelphia, PA 19106-1520

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Towamencin Wastewater System Assets

Total Debt	8,871,000	9,439,000	9,996,000
Purchase of Capital Assets	360,192	469,464	531,353

	2021	2020	2019
Income (Loss) Before Transfers	372,427	273,628	337,351
Interest paid	175,380	189,304	219,997
Depreciation	1,344,310	1,344,310	1,331,963
Total Source	$1,892,117	$1,807,242	$1,889,311
Income tax	0	0	0
Principal	568,000	557,000	559,000
Interest paid	175,380	189,304	219,997
Total Use	$743,380	$746,304	$778,997

W/Out Trans

Debt Service Coverage	2.55	2.42	2.43
Pre-Tax Interest Coverage - Including AFC(3)(x)	3.12	2.45	2.53
Post-Tax Interest Coverage - Including AFC(3)(x)	3.12	2.45	2.53
GCF / Interest Coverage(4)(x)	10.79	9.55	8.59
GCF / Tot. Debt(7)(%)	19.35	17.14	16.70
GCF / Construction(6)(%)	476.62	344.64	314.16

Comparable Group

Debt Service Coverage - As Reported

Comparable Group	2021	2020	2019
AMERICAN STATES WATER COMPANY	3.1	1.6	2.2
AMERICAN WATER WORKS COMPANY, INC.	3.0	2.3	1.8
ARTESIAN RESOURCES CORPORATION	3.9	3.8	3.7
CALIFORNIA WATER SERVICE GROUP	5.1	3.6	0.4
ESSENTIAL UTILITIES, INC.	1.0	0.4	0.4
MIDDLESEX WATER COMPANY	1.2	4.5	4.0
SJW GROUP	1.6	2.5	3.7
THE YORK WATER COMPANY	0.7	0.7	0.3
Median	2.3	2.4	2.0

Company Name	2021 DEPRECIATION	2020 DEPRECIATION	2019 DEPRECIATION	2021 TOTAL INTERST EXPENSE	2020 TOTAL INTERST EXPENSE	2019 TOTAL INTERST EXPENSE
AMERICAN STATES WATER COMPANY	39.974	37.204	35.713	22.834	22.531	24.586
AMERICAN WATER WORKS COMPANY, INC.	636.000	604.000	582.000	403.000	397.000	386.000
ARTESIAN RESOURCES CORPORATION	11.885	11.143	10.803	7.592	7.619	7.024
CALIFORNIA WATER SERVICE GROUP	111.581	100.935	91.288	44.980	45.047	44.891
ESSENTIAL UTILITIES, INC.	297.952	257.059	156.476	207.709	188.435	149.125
MIDDLESEX WATER COMPANY	26.799	20.838	17.232	8.114	7.493	7.264
SJW GROUP	96.474	91.622	68.489	54.339	54.255	31.796
THE YORK WATER COMPANY	8.859	8.177	7.688	4.926	4.707	5.124

	2021 INCOME TO PREF+COMM	2020 INCOME TO PREF+COMM	2019 INCOME TO PREF+COMM	2021 REPAY LT DEBT	2020 REPAY LT DEBT	2019 REPAY LT DEBT
AMERICAN STATES WATER COMPANY	22.834	22.531	24.586	28.356	71.136	40.325
AMERICAN WATER WORKS COMPANY, INC.	403.000	397.000	386.000	372.000	342.000	495.000
ARTESIAN RESOURCES CORPORATION	7.592	7.619	7.024	1.825	1.772	1.725
CALIFORNIA WATER SERVICE GROUP	44.980	45.047	44.891	5.353	22.141	405.568
ESSENTIAL UTILITIES, INC.	207.709	188.435	149.125	769.546	1,820.571	1,073.708
MIDDLESEX WATER COMPANY	8.114	7.493	7.264	52.691	7.472	7.343
SJW GROUP	54.339	54.255	31.796	76.113	28.931	1.400
THE YORK WATER COMPANY	4.926	4.707	5.124	37.649	39.628	85.906

Company Name	Pretax Operating Income			Interest expense			Net Income		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
AMERICAN STATES WATER CO	147.604	137.153	133.598	22.834	22.531	24.586	94.347	86.425	84.342
AMERICAN WATER WORKS CO INC	2,043.000	1,321.000	1,219.000	403.000	397.000	386.000	1,263.000	709.000	621.000
ARTESIAN RESOURCES -CL A	30.156	30.120	27.130	7.592	7.619	7.024	16.827	16.817	14.925
CALIFORNIA WATER SERVICE GP	150.197	153.896	125.678	44.980	45.047	44.891	101.125	96.831	63.116
ESSENTIAL UTILITIES, INC.	629.709	453.406	360.651	207.709	188.435	149.125	431.612	284.849	224.543
MIDDLESEX WATER CO	39.169	41.799	38.012	8.114	7.493	7.264	36.543	38.425	33.888
SJW GROUP	123.186	124.150	63.653	54.339	54.255	31.796	60.478	61.515	23.403
YORK WATER CO	23.030	23.323	21.766	4.926	4.707	5.124	16.984	16.598	14.402

Company Name	Gross Cash Flow			Total debt			CAPX		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
AMERICAN STATES WATER CO	137.882	125.872	126.678	629.017	586.555	499.928	144.515	130.423	151.940
AMERICAN WATER WORKS CO INC	2,119.000	1,507.000	1,398.000	11,077.000	11,025.000	9,547.000	1,764.000	1,822.000	1,654.000
ARTESIAN RESOURCES -CL A	30.266	24.401	21.079	172.029	171.460	153.846	40.814	34.277	40.677
CALIFORNIA WATER SERVICE GP	211.586	206.596	168.402	1,111.389	1,171.852	998.102	293.194	298.651	273.770
ESSENTIAL UTILITIES, INC.	700.258	511.439	354.411	6,114.443	5,777.606	3,097.913	1,020.519	835.642	550.273
MIDDLESEX WATER CO	61.981	52.811	46.410	331.418	287.541	263.687	79.378	105.619	89.125
SJW GROUP	149.679	143.507	86.320	1,595.037	1,538.915	1,423.078	233.933	195.323	164.325
YORK WATER CO	25.316	24.333	22.365	148.455	126.304	103.282	46.400	33.299	20.537

Company Name	Pretax Interest Coverage			Posttax Interest Coverage			GCF Interest Coverage		
	2021	2020	2019	2021	2020	2019	2021	2020	2019
AMERICAN STATES WATER CO	6.5	6.1	5.4	5.1	4.8	4.4	7.0	6.6	6.2
AMERICAN WATER WORKS CO INC	5.1	3.3	3.2	4.1	2.8	2.6	6.3	4.8	4.6
ARTESIAN RESOURCES -CL A	4.0	4.0	3.9	3.2	3.2	3.1	5.0	4.2	4.0
CALIFORNIA WATER SERVICE GP	3.3	3.4	2.8	3.2	3.1	2.4	5.7	5.6	4.8
ESSENTIAL UTILITIES, INC.	3.0	2.4	2.4	3.1	2.5	2.5	4.4	3.7	3.4
MIDDLESEX WATER CO	4.8	5.6	5.2	5.5	6.1	5.7	8.6	8.0	7.4
SJW GROUP	2.3	2.3	2.0	2.1	2.1	1.7	3.8	3.6	3.7
YORK WATER CO	4.7	5.0	4.2	4.4	4.5	3.8	6.1	6.2	5.4
Median	4.4	3.7	3.6	3.7	3.2	2.9	5.9	5.2	4.7

Company Name	GCF To Debt			GCF To CAPX		
	2021	2020	2019	2021	2020	2019
AMERICAN STATES WATER CO	21.9	21.5	25.3	95.4	96.5	83.4
AMERICAN WATER WORKS CO INC	19.1	13.7	14.6	120.1	82.7	84.5
ARTESIAN RESOURCES -CL A	17.6	14.2	13.7	74.2	71.2	51.8
CALIFORNIA WATER SERVICE GP	19.0	17.6	16.9	72.2	69.2	61.5
ESSENTIAL UTILITIES, INC.	11.5	8.9	11.4	68.6	61.2	64.4
MIDDLESEX WATER CO	18.7	18.4	17.6	78.1	50.0	52.1
SJW GROUP	9.4	9.3	6.1	64.0	73.5	52.5
YORK WATER CO	17.1	19.3	21.7	54.6	73.1	108.9
Median	18.2	15.9	15.8	73.2	72.2	63.0

	2021	2020	2019
Pre-Tax Interest Coverage - Including AFC(3)(x)	4.4	3.7	3.6
Post-Tax Interest Coverage - Including AFC(3)(x)	3.7	3.2	2.9
GCF / Interest Coverage(4)(x)	5.9	5.2	4.7
GCF / Tot. Debt(7)(%)	18.2	15.9	15.8
GCF / Construction(6)(%)	73.2	72.2	63.0

Golden State Water CO (Filer) CIK: 0000092116
AMERICAN STATES WATER CO (Filer) CIK: 0001056903

Print Document View Excel Document

10-K
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Summary of Significant Accounting Policies	12 Months Ended Dec. 31, 2021
Accounting Policies [Abstract]	
Summary of Significant Accounting Policies	Summary of Significant Accounting Policies

Nature of Operations: American States Water Company (“AWR”) is the parent company of Golden State Water Company (“GSWC”), Bear Valley Electric Service Inc. ("BVESI"), and American States Utility Services, Inc. (“ASUS”) (and its wholly owned subsidiaries, Fort Bliss Water Services Company (“FBWS”), Terrapin Utility Services, Inc. (“TUS”), Old Dominion Utility Services, Inc. (“ODUS”), Palmetto State Utility Services, Inc. (“PSUS”), Old North Utility Services, Inc. (“ONUS”), Emerald Coast Utility Services, Inc. (“ECUS”), and Fort Riley Utility Services, Inc. ("FRUS")). AWR and its subsidiaries may be collectively referred to as “Registrant” or “the Company.” The subsidiaries of ASUS are collectively referred to as the “Military Utility Privatization Subsidiaries.” On July 1, 2020, GSWC completed the transfer of the electric utility assets and liabilities from its electric division to BVESI, a separate legal entity and wholly owned subsidiary of AWR (Note 20). This reorganization did not result in any substantive changes to AWR's operations and business segments. AWR, through its wholly owned subsidiaries, serves over one million people in nine states.

GSWC and BVESI are both California public utilities, with GSWC engaged in the purchase, production, distribution and sale of water throughout California serving approximately 262,800 customers, while BVESI distributes electricity in several San Bernardino County mountain communities in California serving approximately 24,700 customers. The California Public Utilities Commission (“CPUC”) regulates GSWC’s and BVESI's businesses in matters including properties, rates, services, facilities, and transactions between GSWC, BVESI, and their affiliates.

ASUS, through its Military Utility Privatization Subsidiaries, operates, maintains and performs construction activities (including renewal and replacement capital work) on water and/or wastewater systems at various U.S. military bases pursuant to 50-year firm fixed-price contracts. These contracts are subject to annual economic price adjustments and modifications for changes in circumstances, changes in laws and regulations and additions to the contract value for new construction of facilities at the military bases.

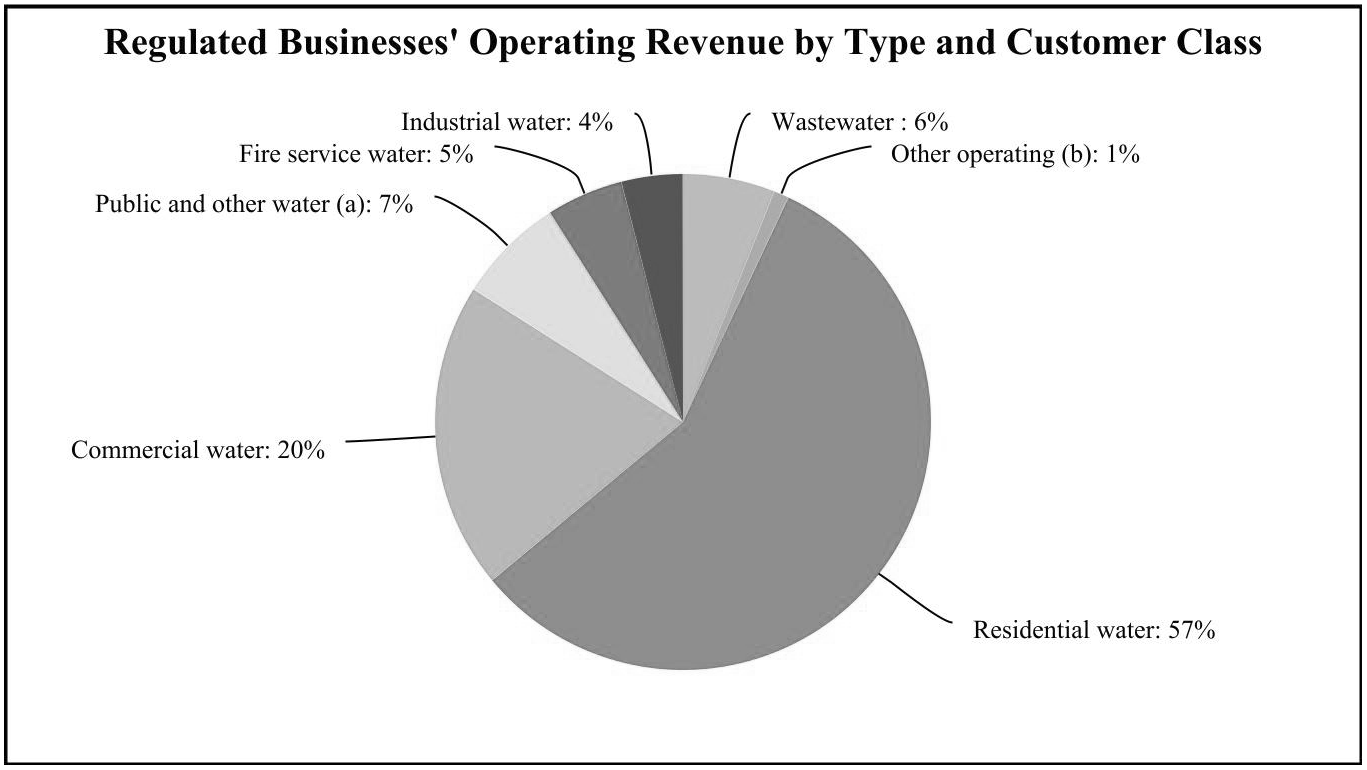
There is no direct regulatory oversight by the CPUC over AWR or the operations, rates or services provided by ASUS or the Military Utility Privatization Subsidiaries.

Basis of Presentation: The consolidated financial statements and notes thereto are presented in a combined report filed by two separate Registrants: AWR and GSWC. References in this report to “Registrant” are to AWR and GSWC, collectively, unless otherwise specified.

AWR owns all of the outstanding Common Shares of GSWC, BVESI and ASUS. ASUS owns all of the outstanding common shares of the Military Utility Privatization Subsidiaries. The consolidated financial statements of AWR include the accounts of AWR and its subsidiaries. These financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. Intercompany transactions and balances have been eliminated in the AWR consolidated financial statements.

Related-Party Transactions: GSWC, BVESI and ASUS provide and/or receive various support services to and from their parent, AWR, and among themselves. GSWC also allocates certain corporate office administrative and general costs to its affiliates BVESI and ASUS using

The following chart depicts the allocation of the Company's Regulated Businesses' operating revenue of $3,384 million by type, including a breakout of the total water services revenues by class of customer, for the year ended December 31, 2021:



(a) Includes water revenues from public authorities and other utilities and community water systems under bulk contracts.

(b) Includes other operating revenues consisting primarily of miscellaneous utility charges, fees and rents.

Presented in the table below is the number of water and wastewater customers the Company served by class as of December 31, 2021, 2020 and 2019, which represents approximately 14 million people served as of December 31, 2021:

	2021		2020		2019	
(In thousands)	Water	Wastewater	Water	Wastewater	Water	Wastewater
Residential	2,972	245	2,948	236	2,914	215
Commercial	225	15	225	15	222	13
Fire service	52	—	50	—	49	—
Industrial	4	—	4	—	4	—
Public and other (a)	16	1	17	1	16	1
Total	3,269	261	3,244	252	3,205	229

(a) Includes public authorities and other utilities and community water and wastewater systems under bulk contracts. Bulk contracts, which are accounted for as a single customer in the table above, generally result in service to multiple customers.

Customer growth in the Company's Regulated Businesses is primarily from (i) adding new customers to its customer base through acquisitions of water and/or wastewater utility systems, (ii) population growth in its authorized service areas, and (iii) sale of water to other water utilities and community water systems.

Interconnections

Artesian Water has two water service interconnection agreements with a neighboring utility, Chester Water Authority. One agreement, that expired on December 31, 2021, had a "take or pay" clause requiring us to purchase 3 million gallons per day. The other agreement is effective from January 1, 2022 through December 31, 2026, includes automatic five year renewal terms, unless terminated by either party, and has a "take or pay" clause requiring us to purchase water on a step down schedule through July 5, 2022, thereafter requiring us to purchase a minimum of 0.5 million gallons per day. Rates charged under this agreement are subject to change.

Artesian Water Maryland has one interconnection agreement with the Town of North East that has a "take or pay" clause requiring us to purchase a minimum of 35,000 gallons per day. The agreement extends through June 2024.

The minimum annual purchase commitments for all interconnection agreements for 2022 through 2026, calculated at the noticed rates, are as follows:

In thousands	
2022	$ 1,518
2023	759
2024	730
2025	702
2026	701
	$ 4,410

Expenses for purchased water were $4.3 million, $4.3 million and $4.2 million for 2021, 2020 and 2019, respectively.

Other Commitments

In March 2017, Artesian Water entered into a 3-year agreement with Worldwide Industries Corporation to clean and paint tanks in 2017, 2018 and 2019. Pursuant to the 3-year agreement, the expenditure committed in total for the years 2017 through 2019 was $1.3 million. In 2020, Artesian Water entered into a short term agreement with Worldwide Industries Corporation to clean and paint a tank in 2020. Pursuant to the agreement, the expenditure in 2020 was $0.1 million. In April 2021, Artesian Water entered into a 3-year agreement with Worldwide Industries Corporation effective July 1, 2021 to paint elevated water storage tanks. Pursuant to the agreement, the total expenditure for the three years is $1.2 million. Tank painting expense for 2021, 2020 and 2019 was $222,000, $155,000, and $447,000, respectively.

Budgeted mandatory utility plant expenditures, due to planned governmental highway projects, which require the relocation of Artesian Water's water service mains, expected to be incurred in 2022 through 2024 are as follows:

In thousands	
2022	$ 4,820
2023	8,430
2024	2,420
	$ 15,670

The exact timing and extent of these relocation projects is controlled primarily by the Delaware Department of Transportation.

NOTE 12

GEOGRAPHIC CONCENTRATION OF CUSTOMERS

Artesian Water, Artesian Water Maryland and Artesian Water Pennsylvania provide water utility service to customers within their established service territory in all three counties of Delaware and in portions of Maryland and Pennsylvania, pursuant to rates filed with and approved by the DEPSC, the MDPSC and the PAPUC. As of December 31, 2021, Artesian Water was serving approximately 91,700 customers, Artesian Water Maryland was serving approximately 2,500 customers and Artesian Water Pennsylvania was serving approximately 40 customers.

Artesian Wastewater provides wastewater utility service to customers within its established service territory in Sussex County, Delaware pursuant to rates filed with and approved by the DEPSC. As of December 31, 2021, Artesian Wastewater was serving

approximately 3,200 customers, including one large industrial customer. Effective January 14, 2022, following the acquisition of TESI, the number of wastewater customers served more than doubled. All wastewater customers are located in Sussex County, Delaware.

For immediate release

Artesian Resources Corporation declares its 1st Quarter Common Stock Dividend for 2022

Newark, DE, January 25, 2022 – Artesian Resources Corporation (NASDAQ: ARTNA) announced today that its Board of Directors has declared a regular quarterly dividend on the company's Class A and Class B Common Stock. The quarterly dividend of $0.2675 is payable February 23, 2022 to shareholders of record at the close of business on February 9, 2022, providing a $1.07 annualized dividend rate. This is Artesian's 117th consecutive quarterly dividend paid to shareholders.

About Artesian Resources

Artesian Resources Corporation operates as a holding company of wholly-owned subsidiaries offering water and wastewater services, and related services, on the Delmarva Peninsula. Artesian Water Company, the principal subsidiary, is the oldest and largest regulated water utility on the Delmarva Peninsula and has been providing water service since 1905. Artesian supplies 8.3 billion gallons of water per year through 1,368 miles of water main to nearly a third of Delaware residents.

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(rounded to the nearest hundred)	2021	2020
Visalia	47,400	46,700
Selma	6,600	6,500
Kern River Valley	4,000	4,000
	176,600	175,500
LOS ANGELES AREA		
East Los Angeles	27,000	26,900
Hermosa Redondo (serving Hermosa Beach, Redondo Beach and a portion of Torrance)	27,200	27,100
Dominguez (Carson and portions of Compton, Harbor City, Long Beach, Los Angeles and Torrance)	34,400	34,300
Los Angeles County Region (including Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Rolling Hills, Fremont Valley, Lake Hughes, Lancaster and Leona Valley)	25,800	25,700
Westlake (a portion of Thousand Oaks)	7,100	7,100
Hawthorne and Commerce (leased municipal systems)	7,600	7,700
	129,100	128,800
CALIFORNIA TOTAL	494,500	492,600
HAWAII	6,200	5,300
NEW MEXICO	8,600	8,500
WASHINGTON	36,400	36,600
TEXAS	1,900	—
COMPANY TOTAL	547,600	543,000

Rates and Regulation

The Commissions have plenary powers setting both rates and operating standards. As such, the Commissions' decisions significantly impact the Company's revenues, earnings, and cash flows. The amounts discussed herein are generally annual amounts, unless otherwise stated, and the financial impact to recorded revenue is expected to occur over a 12-month period from the effective date of the decision. In California, water utilities are required to make several different types of filings. Certain filings, such as General Rate Case (GRC) filings, escalation rate increase filings, and offset filings, may result in rate changes that generally remain in place until the next GRC. As explained below, surcharges and surcredits to recover balancing and memorandum accounts as well as GRC interim rate relief are temporary rate changes, having specific time frames for recovery.

The CPUC follows a rate case plan which requires Cal Water to file a GRC for each of its regulated operating districts (except Grand Oaks) every three years. In a GRC proceeding the CPUC not only considers the utility's rate setting requests, but may also consider other issues that affect the utility's rates and operations. The CPUC is generally required to issue its GRC decision prior to the first day of the test year or authorize interim rates. In accordance with the rate case plan, Cal Water filed its most recent GRC application in July of 2021 requesting rate changes effective January 1, 2023.

Between GRC filings, Cal Water may file escalation rate increases, which allow Cal Water to recover cost increases, primarily from inflation and incremental investments, during the second and third years of the rate case cycle. However, escalation rate increases are district specific and subject to an earnings test. The CPUC may reduce a district’s escalation rate increase if, in the most recent 13-month period, the earnings test reflects earnings in excess of what was authorized for that district.

In addition, California water utilities are entitled to make offset requests via advice letter. Offsets may be requested to adjust revenues for construction projects authorized in GRCs when those capital projects go into service (these filings are referred to as "rate base offsets"), or for rate changes charged to Cal Water for purchased water, purchased power, and pump taxes (which are referred to as "expense offsets"). Rate changes approved in offset requests remain in effect until the next GRC is approved.

In pursuit of the State of California's water conservation goals, the CPUC decoupled Cal Water's revenue requirement from customer consumption levels in 2008 by authorizing a Water Revenue Adjustment Mechanism (WRAM) and Modified Cost Balancing Account (MCBA) for each district. The WRAM and MCBA ensure that Cal Water recovers revenues authorized by the CPUC regardless of customer consumption. This has removed the historical disincentive against promoting

- restrictive covenants in or changes to the credit ratings on our current or future debt that could increase our financing costs or affect our ability to borrow, make payments on debt or pay dividends;
- risks associated with expanding our business and operations geographically; and
- the risks set forth in "Risk Factors" included elsewhere in this annual report.

In light of these risks, uncertainties and assumptions, investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this annual report or as of the date of any document incorporated by reference in this annual report, as applicable. When considering forward-looking statements, investors should keep in mind the cautionary statements in this annual report and the documents incorporated by reference. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise.

Overview

California Water Service Group is a holding company with seven operating subsidiaries: California Water Service Company (Cal Water), New Mexico Water Service Company (New Mexico Water), Washington Water Service Company (Washington Water), Hawaii Water Service Company, Inc. (Hawaii Water), TWSC, Inc. (Texas Water), and CWS Utility Services and HWS Utility Services LLC (CWS Utility Services and HWS Utility Services LLC being referred to collectively in this annual report as Utility Services). Cal Water, New Mexico Water, Washington Water, and Hawaii Water are regulated public utilities. Texas Water holds regulated and contracted wastewater utilities.

The regulated utility entities also provide some non-regulated services. Utility Services holds non-utility property and provides non-regulated services to private companies and municipalities outside of California (see Non-Regulated Activities below for more details). Cal Water was the original operating company and began operations in 1926.

Our business is conducted through our operating subsidiaries and we provide utility services to approximately two million people. The bulk of the business consists of the production, purchase, storage, treatment, testing, distribution and sale of water for domestic, industrial, public and irrigation uses, and the provision of domestic and municipal fire protection services. In some areas, we provide wastewater collection and treatment services, including treatment which allows water recycling. We also provide non-regulated water-related services under agreements with municipalities and other private companies. The non-regulated services include full water system operation, billing and meter reading services. Non-regulated operations also include the lease of communication antenna sites, lab services and promotion of other non-regulated services.

During the year ended December 31, 2021, there were no significant changes in the kind of products produced or services rendered by our operating subsidiaries, or in the markets or methods of distribution.

Our mailing address and contact information is:

California Water Service Group
1720 North First Street
San Jose, California 95112-4598
Telephone number: 408-367-8200
www.calwatergroup.com

Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports are available free of charge through our website at www.calwatergroup.com. The reports are available on our website as soon as reasonably practicable after such reports are filed with the SEC.

The content on any website referred to in this annual report is not incorporated by reference in this annual report unless expressly noted.

Regulated Business

California water operations are conducted by Cal Water, which provides service to approximately 494,500 customer connections in approximately 100 California communities through 21 separate districts, which are subject to regulation by the California Public Utilities Commission (CPUC). California water operations accounted for approximately 90.3% of our total customer connections and 91.9% of our total consolidated operating revenue.

We operate the City of Hawthorne and the City of Commerce water systems under lease agreements. In accordance with the lease agreements, we receive all revenues from operating the systems and are responsible for paying the operating costs. The City of Hawthorne and the City of Commerce lease revenues are governed through their respective city councils and are considered non-regulated because they are outside of the CPUC's jurisdiction. We report revenue and expenses for the City of

Customers

Our water utility customer base is diversified among residential water, commercial water, fire protection, industrial water, other water, wastewater customers, and other utility customers (consisting of contracted services that are associated with the utility operations). Residential water and wastewater customers make up the largest component of our water utility customer base, with these customers representing approximately 69%, 71%, and 69%, of our water and wastewater revenues for 2021, 2020, and 2019, respectively. Substantially all of our water utility customers are metered, which allows us to measure and bill for our customers' water consumption. Water consumption per customer is affected by local weather conditions during the year, especially during late spring, summer, and early fall. In general, during these seasons, an extended period of dry weather increases consumption, while above-average rainfall decreases consumption. Also, an increase in the average temperature generally causes an increase in water consumption. On occasion, abnormally dry weather in our service areas can result in governmental authorities declaring drought warnings and imposing water use restrictions in the affected areas, which could reduce water consumption. See "Business – *Water Utility Supplies, and Facilities and Wastewater Utility Facilities*" for a discussion of water use restrictions that may impact water consumption during abnormally dry weather. The geographic diversity of our water utility customer base reduces the effect of our exposure to extreme or unusual weather conditions in any one area of our service territories. Water usage is also affected by changing consumption patterns by our customers, resulting from such causes as increased water conservation and the installation of water saving devices and appliances that can result in decreased water usage. It is estimated that, in the event we experience a 0.50% decrease in residential water consumption, it would result in a decrease in annual residential water revenue of approximately $2,800,000, which would likely be partially offset by a reduction in incremental water production expenses such as chemicals and power.

Our natural gas utility customer base is diversified among residential gas, commercial gas, industrial gas, gas transportation, and other utility. Substantially all of our natural gas utility customers are metered, which allows us to measure and bill for our customers' natural gas usage. Natural gas usage per customer is affected by local weather conditions during the year, especially during the fall, winter, and early spring. These patterns reflect the higher demand for natural gas for heating purposes during the colder months.

The Company's growth in revenues over the past five years is primarily a result of the 2020 Peoples Gas Acquisition, increases in water and wastewater rates, and customer growth. See *Economic Regulation* for a discussion of water, wastewater, and natural gas rates. The increase in our utility customer base has been due to customers added through acquisitions, partnerships with developers, and organic growth (excluding dispositions) as shown below:

Year	Utility Customer Growth Rate
2021	1.2%
2020	42.9%
2019	2.1%
2018	2.3%
2017	1.1%

In 2021, 2020, and 2019, our customer count increased by 21,246, 772,099, and 21,108 customers, respectively, primarily due to the water and wastewater utility systems that we acquired, organic growth, and in 2020, due to the Peoples Gas Acquisition that resulted to the addition of approximately 750,000 natural gas utility customers. Overall, for the five year period of 2017 through 2021, our utility customer base, adjusted to exclude customers associated with utility system dispositions, increased at an annual compound rate of 13.4%. During the five year period ended December 31, 2021, our utility customer base including customers associated with utility system acquisitions and dispositions increased from 972,265 at January 1, 2017 to 1,820,049 at December 31, 2021.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K, or this Annual Report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that are made based upon, among other things, our current assumptions, expectations, plans, and beliefs concerning future events and their potential effect on us. These forward-looking statements involve risks, uncertainties and other factors, many of which are outside our control that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. In some cases you can identify forward-looking statements where statements are preceded by, followed by or include the words "believes," "expects," "estimates", "anticipates," "plans," "future," "potential," "probably," "predictions," "intends," "will," "continue," "in the event" or the negative of such terms or similar expressions. Please refer to the Summary in Item 1A – Risk Factors in this Annual Report for a description of the types of Forward-looking statements in this Annual Report. These factors are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors could also have material adverse effects on future results.

Given these risks and uncertainties, you should not place undue reliance on any forward-looking statements. You should read this Annual Report completely and with the understanding that our actual future results, performance and achievements may be materially different from what we expect. These forward-looking statements represent assumptions, expectations, plans, and beliefs only as of the date of this Annual Report. Except for our ongoing obligations to disclose certain information under the federal securities laws, we are not obligated, and assume no obligation, to update these forward-looking statements, even though our situation may change in the future. For further information or other factors which could affect our financial results and such forward-looking statements, see Item 1A – Risk Factors. We qualify all of our forward-looking statements by these cautionary statements.

PART I

Item 1. *Business*

The Company

Essential Utilities, Inc. (referred to as Essential Utilities, Essential, the Company, we, us, or our), a Pennsylvania corporation, is the holding company for regulated utilities providing water, wastewater, or natural gas services to an estimated five million people in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, Virginia, West Virginia, and Kentucky under the Aqua and Peoples brands. One of our largest operating subsidiaries, Aqua Pennsylvania, Inc., (Aqua Pennsylvania) accounted for approximately 55% of operating revenues and approximately 68% of income for our Regulated Water segment in 2021. As of December 31, 2021, Aqua Pennsylvania provided water or wastewater services to approximately one-half of the total number of water and wastewater customers we serve. Aqua Pennsylvania's service territory is located in the suburban areas in counties north and west of the City of Philadelphia and in 27 other counties in Pennsylvania. Our other regulated water or wastewater utility subsidiaries provide similar services in seven additional states. Additionally, pursuant to the Company' growth strategy, commencing on March 16, 2020 with the completion of the Peoples Gas Acquisition, the Company began to provide natural gas distribution services to customers in western Pennsylvania, Kentucky, and West Virginia. Approximately 93% of the total number of natural gas utility customers we serve are in western Pennsylvania. Lastly, the Company's market-based activities are conducted through Aqua Infrastructure, LLC and Aqua Resources Inc., and certain other non-regulated subsidiaries of Peoples. Prior to our October 30, 2020 sale of our investment in a joint venture, Aqua Infrastructure provided non-utility raw water supply services for firms in the natural gas drilling industry. Following the October 30, 2020 closing, Aqua Infrastructure does not provide any services to the natural gas drilling industry. Aqua Resources offers, through a third-party, water and sewer line protection solutions and repair services to households. Other non-regulated subsidiaries of Peoples provide utility service line protection services to households and operate gas marketing and production businesses.

PART I

Item 1. Business.

Overview

Middlesex Water Company (Middlesex) was incorporated as a water utility company in 1897 and owns and operates regulated water utility and wastewater systems primarily in New Jersey and Delaware. Middlesex also operates water and wastewater systems under contract on behalf of municipal and private clients primarily in New Jersey and Delaware.

The terms "the Company," "we," "our," and "us" refer to Middlesex Water Company and its subsidiaries, including Tidewater Utilities, Inc. (Tidewater) and Tidewater's wholly-owned subsidiaries, Southern Shores Water Company, LLC (Southern Shores) and White Marsh Environmental Systems, Inc. (White Marsh). The Company's other subsidiaries are Pinelands Water Company (Pinelands Water) and Pinelands Wastewater Company (Pinelands Wastewater) (collectively, Pinelands), Utility Service Affiliates, Inc. (USA) and Utility Service Affiliates (Perth Amboy) Inc., (USA-PA).

The Company's principal executive offices are located at 485C Route 1 South, Suite 400, Iselin, New Jersey 08830. Our telephone number is (732) 634-1500. Our website address is http://www.middlesexwater.com. Information contained on our website is not part of this Annual Report on Form 10-K. We make available, free of charge through our website, reports and amendments filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, after such material is electronically filed with or furnished to the United States Securities and Exchange Commission (the SEC).

Middlesex System

Located in New Jersey, the Middlesex System provides water services to approximately 61,000 retail customers, primarily in eastern Middlesex County and under wholesale contracts to the City of Rahway, Townships of Edison and Marlboro, the Borough of Highland Park and the Old Bridge Municipal Utilities Authority. The Middlesex System treats, stores and distributes water for residential, commercial, industrial and fire protection purposes. The Middlesex System also provides water treatment and pumping services to the Township of East Brunswick under contract. The amount of water supply allocated to the Township of East Brunswick is granted directly to the Township by the New Jersey Water Supply Authority. The Middlesex System produced approximately 59% of our 2021 consolidated operating revenues.

The Middlesex System's retail customers are located in an area of approximately 55 square miles in Woodbridge Township, the City of South Amboy, the Boroughs of Metuchen and Carteret, portions of the Township of Edison and the Borough of South Plainfield, all in Middlesex County, and a portion of the Township of Clark in Union County. Retail customers include a mix of residential customers, large industrial concerns and commercial and light industrial facilities. These customers are located in generally well-developed areas of central New Jersey.

The contract customers of the Middlesex System comprise an area of approximately 110 square miles with a population of over 200,000. Contract sales to the Townships of Edison and Marlboro, the City of Rahway and the Old Bridge Municipal Utilities Authority are supplemental to the water systems owned and operated by these customers. Middlesex is the sole source of water for the Borough of Highland Park and the Township of East Brunswick.

Middlesex provides water service to approximately 300 customers in Cumberland County, New Jersey. This system is referred to as Bayview, and is not physically interconnected with the Middlesex System. Bayview produced less than 0.1% of our 2021 consolidated operating revenues.

Tidewater System

Tidewater, together with its wholly-owned subsidiary, Southern Shores, provides water services to approximately 55,000 retail customers for residential, commercial and fire protection purposes in over 450 separate communities in New Castle, Kent and Sussex Counties, Delaware. The Tidewater System produced approximately 29% of our 2021 consolidated operating revenues.

USA-PA

USA-PA operates the City of Perth Amboy, New Jersey's (Perth Amboy) water and wastewater systems under a 10-year agreement, which expires in December 2028. There are approximately 12,000 customers comprised of residential, commercial and industrial connections, most of which are served by both the water and wastewater systems. In addition to performing day-to day operations, USA-PA is also responsible for emergency responses and management of capital projects funded by Perth Amboy. USA-PA produced approximately 5% of our 2021 consolidated operating revenues.

Pinelands Systems

Pinelands Water provides water services to approximately 2,500 residential customers in Burlington County, New Jersey. Pinelands Water is not physically interconnected with the Middlesex System. Pinelands Water produced approximately 1% of our 2021 consolidated operating revenues.

Pinelands Wastewater provides wastewater collection and treatment services to approximately 2,500 residential customers. Under contract, it also services one municipal wastewater system in Burlington County, New Jersey with approximately 200 residential customers. Pinelands Wastewater produced approximately 1% of our 2021 consolidated operating revenues.

USA

USA operates the Borough of Avalon, New Jersey's (Avalon) water utility, sewer utility and storm water system under a ten-year operations and maintenance contract expiring in June 2022. USA expects to participate in the public proposal process for a new ten-year contract. There are approximately 6,400 retail customers in Avalon, most of which are served by both the water system and wastewater collection system. In addition to performing day-to-day service operations, USA is responsible for billing, collections, customer service, emergency responses and management of capital projects funded by Avalon.

USA operates the Borough of Highland Park, New Jersey's (Highland Park) water utility and sewer utility under a ten-year operations and maintenance contract expiring in 2030. There are approximately 3,300 mostly retail customers in Highland Park. The contract commenced July 1, 2020.

USA also provides water and wastewater services to several other New Jersey municipalities under contracts that are not regulated by a public utility commission as to rates and service.

Under a marketing agreement with HomeServe USA Corp. (HomeServe) expiring in 2031, USA offers residential customers in New Jersey and Delaware various water and wastewater related home maintenance programs. USA receives a service fee for the billing, cash collection and other administrative matters associated with HomeServe's service contracts.

USA produced approximately 3% of our 2021 consolidated operating revenues.

White Marsh

White Marsh operates or maintains water and/or wastewater systems that serve approximately 4,500 service connections under 35 separate contracts. White Marsh also owns two commercial properties that are leased to Tidewater for its administrative office campus and its field operations center. White Marsh produced approximately 1% of our 2021 consolidated operating revenues.

EX-99.1 2 ex99-1.htm EX-99.1

EXHIBIT 99.1

FOR IMMEDIATE RELEASE

Middlesex Water Company Declares Quarterly Cash Dividend

ISELIN, N.J., January 27, 2022 – Middlesex Water Company (NASDAQ:MSEX) announced today that its Board of Directors has declared a cash dividend of $0.29 per share on its common stock, payable March 1, 2022 to shareholders of record as of February 14, 2022. Middlesex Water Company has paid cash dividends in varying amounts continually since 1912.

Middlesex Water Company is an investor-owned water and wastewater utility, serving customers primarily in central and southern New Jersey and Delaware. The Company is currently offering a 3% discount on all Common Stock purchases made under its Investment Plan whether by optional cash payment or by dividend reinvestment. The discount will continue until 200,000 shares are purchased at the discounted price or August 1, 2022, whichever event occurs first. To learn more visit https://shareholder.broadridge.com/middlesexwater

ABOUT MIDDLESEX WATER COMPANY

Established in 1897, Middlesex Water Company serves as a trusted provider offering life-sustaining high quality water service for residential, commercial, industrial and fire protection purposes. The Company offers a full range of water, wastewater utility and related services. An investor-owned public utility, Middlesex Water is a professional services provider specializing in municipal and industrial contract operations and water and wastewater system technical operations and maintenance. The company and its subsidiaries form the Middlesex Water family of companies, which collectively serve a population of nearly half a million people in New Jersey and Delaware. Middlesex is focused on meeting the needs of our employees, customers, and shareholders. We invest in our people, our infrastructure and the communities we serve to support reliable and resilient utility services, economic growth and quality of life. To learn more about Middlesex Water, visit https://www.middlesexwater.com

Item 1. ***Business***

General Development of Business

SJW Group was initially incorporated as SJW Corp. in the state of California on February 8, 1985. SJW Group is a holding company with four wholly-owned subsidiaries:

- San Jose Water Company ("SJWC") with its headquarters located at 110 West Taylor Street in San Jose, California 95110, was originally incorporated under the laws of the State of California in 1866. As part of a reorganization on February 8, 1985, SJWC became a wholly owned subsidiary of SJW Group. SJWC is a public utility in the business of providing water service to approximately 231,000 connections that serve a population of approximately one million people in an area comprising approximately 139 square miles in the metropolitan San Jose, California area.
- SJWNE LLC, a Delaware limited liability company, was formed in 2019, and is a wholly-owned subsidiary of SJW Group. SJWNE LLC is a special purpose entity established to hold SJW Group's investment in Connecticut Water Service, Inc. Connecticut Water Service, Inc. with its headquarters located in Clinton, Connecticut was incorporated in 1974 in the State of Connecticut. As part of the merger transaction between SJW Group and Connecticut Water Service, Inc. on October 9, 2019, Connecticut Water Service, Inc. and its subsidiaries ("CTWS") became a wholly-owned subsidiary of SJWNE LLC. Connecticut Water Service, Inc. is a holding company with four wholly-owned subsidiaries. The Connecticut Water Company ("Connecticut Water") and The Maine Water Company ("Maine Water") are public utilities in the business of providing water service to approximately 140,000 connections that serve a population of approximately 456,000 people in 81 municipalities throughout Connecticut and Maine and more than 3,000 wastewater connections in Southbury, Connecticut. The remaining two subsidiaries are Chester Realty, Inc., a real estate company in Connecticut, and New England Water Utility Services, Inc. ("NEWUS"), which provides contract water and sewer operations and other water related services.
- SJWTX, Inc. was incorporated in the State of Texas in 2005. SJWTX, Inc. is doing business as Canyon Lake Water Service Company ("CLWSC"). CLWSC is a public utility in the business of providing water service to approximately 24,000 service connections that serve approximately 70,000 people. CLWSC's service area comprises more than 266 square miles in the southern region of the Texas Hill Country in Bandera, Blanco, Comal, Hays, Kendall, Medina and Travis counties, the growing region between San Antonio and Austin, Texas. SJWTX, Inc. has a 25% interest in Acequia Water Supply Corporation ("Acequia"). Acequia has been determined to be a variable interest entity within the scope of Financial Accounting Standards Board ("FASB") Accounting Standard Codification ("ASC") Topic 810, "Consolidation" with SJWTX, Inc. as the primary beneficiary. As a result, Acequia has been consolidated with SJWTX, Inc. On December 17, 2021, CLWSC completed its acquisition of Kendall West Utility and Bandera East Utility, companies that provide water services, including wastewater and recycled water services in Kendall, Bandera and Medina counties which are located in south central Texas. Kendall West Utility and Bandera East Utility, together, added approximately 1,600 service connections that serve a population of approximately 5,000 people in a service area approximately 19 square miles to CLWSC's operations. SJWTX, Inc is undergoing a corporate reorganization to separate regulated operations from non-tariffed activities. In November 2021, SJWTX Holdings, Inc. ("SJWTX Holdings") and Texas Water Operation Services LLC ("TWOS") were formed for the purpose of effecting a corporate reorganization of our water services organization in Texas. TWOS was created for non-tariffed operations and is wholly-owned by SJWTX Holdings. SJWTX Holdings is a wholly-owned subsidiary of SJW Group, incorporated to hold the investments in SJWTX, Inc. and TWOS. In addition, in 2022, SJWTX Holdings intends to create a new subsidiary to hold future wholesale water supply assets.
- SJW Land Company was incorporated in 1985. SJW Land Company owns undeveloped land in California and Tennessee and operates commercial buildings in Tennessee.

Together, SJWC, Connecticut Water, CLWSC, Maine Water and NEWUS, are referred to as "Water Utility Services."

SJW Land Company and and Chester Realty, Inc. are collectively referred to as "Real Estate Services."

Regulation and Rates

Water Utility Services are subject to rate regulation based on cost recovery and meets the criteria of accounting guidance for rate-regulated operations, which considers the timing of the recognition of certain revenues and expenses. SJW Group's consolidated financial statements reflect the effects of the rate-making process. The rate-making process is intended to provide revenues sufficient to recover normal operating expenses, provide funds for replacement of water infrastructure and produce a fair and reasonable return on stockholder common equity. SJW Group's regulated operations financing activity is designed to

Lead and copper may enter drinking water primarily through plumbing materials. The Company is required to comply with the Lead and Copper Rule established by the EPA and administered by the DEP. The Company must monitor drinking water at customer taps for compliance with this rule. If lead concentrations exceed an action level, the Company must undertake a number of additional actions to control corrosion, inform the public about steps they should take to protect their health and may be required to replace lead service lines under its control. See "Management's Discussion and Analysis – Environmental Matters" for a discussion of the Company's compliance with the Lead and Copper rule.

The DEP and the Susquehanna River Basin Commission, or SRBC, regulate the amount of water withdrawn from streams in the watershed to assure that sufficient quantities are available to meet the needs of the Company and other regulated users. Through its Division of Dam Safety, the DEP regulates the operation and maintenance of the Company's impounding dams. The Company routinely inspects its dams and prepares annual reports of their condition as required by DEP regulations. The DEP reviews these reports and inspects the Company's dams. The DEP most recently inspected the Company's dams in 2021.

Since 1980, the DEP has required any new dam to have a spillway that is capable of passing the design flood without overtopping the dam. The design flood is either the Probable Maximum Flood, or PMF, or some fraction of it, depending on the size and location of the dam. PMF is very conservative and is calculated using the most severe combination of meteorological and hydrologic conditions reasonably possible in the watershed area of a dam.

The Company engaged a professional engineer to analyze the spillway capacities at the Lake Williams and Lake Redman dams and validate the DEP's recommended flood design for the dams. Management presented the results of the study to the DEP in December 2004, and DEP then requested that the Company submit a proposed schedule for the actions to address the spillway capacities. Thereafter, the Company retained an engineering firm to prepare preliminary designs for increasing the spillway capacities to pass the PMF through armoring the dams with roller compacted concrete. Management has met with the DEP on a regular basis to review the preliminary design and discuss scheduling, permitting, and construction requirements. Recently, the DEP expressed concern regarding the stability of the Lake Williams spillway in light of current design standards. The Company is currently completing the final design and the permitting process to armor and replace the spillway of the Lake Williams dam. The Company finalized its plans in 2021 and will begin construction in 2022 at a total cost of approximately $32 million. The Lake Redman dam will be reviewed following the completion of the work on the Lake Williams dam.

Capital expenditures and operating costs required as a result of water quality standards and environmental requirements have been traditionally recognized by state public utility commissions as appropriate for inclusion in establishing rates. The capital expenditures currently required as a result of water quality standards and environmental requirements have been budgeted in the Company's capital program and represent less than 15% of its expected total capital expenditures over the next five years. The Company is currently in compliance with wastewater environmental standards and does not anticipate any major capital expenditures for its current wastewater business.

Growth

(All dollar amounts are stated in thousands of dollars)

The Company continues to grow its number of customers and distribution facilities.

The growth in the number of customers of the Company is due primarily to the acquisition of water and wastewater systems and organic growth. During the year ended December 31, 2021, the Company increased its number of customers from 72,681 to 73,144. See "Management's Discussion and Analysis – Acquisitions and Growth" for a discussion of the Company's recent acquisitions.

The Company continues to grow its water distribution and wastewater collection systems to provide reliable service to its expanding franchised service territory and the increasing population within that territory. During the year ended December 31, 2021, the Company installed an additional 62,375 feet of water distribution mains and acquired an additional 171,587 feet of wastewater collection mains resulting in 999 miles of water mains and 73 miles of wastewater mains as of December 31, 2021.

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PART I

Item 1. Business.

The York Water Company (the "Company") is the oldest investor-owned water utility in the United States and is duly organized under the laws of the Commonwealth of Pennsylvania. The Company has operated continuously since 1816. The primary business of the Company is to impound, purify to meet or exceed safe drinking water standards and distribute water. The Company also owns and operates three wastewater collection systems and five wastewater collection and treatment systems. The Company operates within its franchised water and wastewater territory, which covers portions of 51 municipalities within three counties in south-central Pennsylvania. The Company is regulated by the Pennsylvania Public Utility Commission, or PPUC, for both water and wastewater in the areas of billing, payment procedures, dispute processing, terminations, service territory, debt and equity financing and rate setting. The Company must obtain PPUC approval before changing any practices associated with the aforementioned areas.

Water service is supplied through the Company's own distribution system. The Company obtains the bulk of its water supply from both the South Branch and East Branch of the Codorus Creek, which together have an average daily flow of 73.0 million gallons. This combined watershed area is approximately 117 square miles. The Company has two reservoirs, Lake Williams and Lake Redman, which together hold up to approximately 2.2 billion gallons of water. The Company supplements its reservoirs with a 15-mile pipeline from the Susquehanna River to Lake Redman which provides access to an additional supply of 12.0 million gallons of untreated water per day. The Company also owns nine wells which are capable of providing a safe yield of approximately 597,000 gallons per day to supply water to the customers of its satellite systems in Adams County. As of December 31, 2021, the Company's average daily availability was 39.6 million gallons, and average daily consumption was approximately 20.1 million gallons. The Company's service territory had an estimated population of 204,000 as of December 31, 2021. Industry within the Company's service territory is diversified, manufacturing such items as fixtures and furniture, electrical machinery, food products, paper, ordnance units, textile products, air conditioning systems, laundry detergent, barbells, and motorcycles.

The Company's water business is somewhat dependent on weather conditions, particularly the amount and timing of rainfall. Revenues are particularly vulnerable to weather conditions in the summer months. Prolonged periods of hot and dry weather generally cause increased water usage for watering lawns, washing cars, and keeping golf courses and sports fields irrigated. Conversely, prolonged periods of dry weather could lead to drought restrictions from governmental authorities. Despite the Company's adequate water supply, customers may be required to cut back water usage under such drought restrictions which would negatively impact revenues. The Company has addressed some of this vulnerability by instituting minimum customer charges which are intended to cover fixed costs of operations under all likely weather conditions.

The Company's business does not require large amounts of working capital and is not dependent on any single customer or a very few customers for a material portion of its business. Increases in revenues are generally dependent on the Company's ability to obtain rate increases from the PPUC in a timely manner and in adequate amounts and to increase volumes of water sold through increased consumption and increases in the number of customers served. The Company continuously looks for water and wastewater acquisition and expansion opportunities both within and outside its current service territory as well as additional opportunities to enter into bulk water contracts with municipalities and other entities to supply water.

The Company has agreements with several municipalities to provide sewer billing and collection services. The Company also has a service line protection program on a targeted basis in order to further diversify its business. Under this optional program, customers pay a fixed monthly fee, and the Company will repair or replace damaged customer service lines, as needed, subject to an annual maximum dollar amount. The Company continues to review and consider opportunities to expand both initiatives.

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Bulletin No. 195

1912 to January 1, 2022

The Handy-Whitman Index® of Public Utility Construction Costs™

Trends of Construction Costs

COMPILED & PUBLISHED BY
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Cost Trend Tables - 1912 to January 1, 2022	Table	Page
North Atlantic Region	B-1	B-1-1
South Atlantic Region	B-2	B-2-1
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Cost Trend Tables - 1912 to January 1, 2022		
North Atlantic Region	E-1	E-1-1
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South Central Region	E-4	E-4-1
Plateau Region	E-5	E-5-1
Pacific Region	E-6	E-6-1

COST TRENDS OF GAS UTILITY CONSTRUCTION

Cost Trend Tables - 1912 to January 1, 2022		
North Atlantic Region	G-1	G-1-1
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South Central Region	G-4	G-4-1
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COST TRENDS OF WATER UTILITY CONSTRUCTION

Cost Trend Tables - 1912 to January 1, 2022		
North Atlantic Region	W-1	W-1-1
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North Central Region	W-3	W-3-1
South Central Region	W-4	W-4-1
Plateau Region	W-5	W-5-1
Pacific Region	W-6	W-6-1

TRENDS OF PUBLIC UTILITY CONSTRUCTION COSTS

GEOGRAPHIC REGIONS

NOTE: All sewers and manholes in Hatfield Township are either owned by private owners or Hatfield Township.

FRANCONIA TOWNSHIP

HATFIELD TOWNSHIP

LANSDALE BOROUGH

LOWER SALFORD TOWNSHIP

TOWAMENCIN

UPPER GWYNEDD TOWNSHIP

WORCESTER TOWNSHIP

SKIPPACK TOWNSHIP

Lower Salford Township Connection Point

Rittenhouse Road Pump Station

Dual 16" Force Main

Towamencin Municipal Authority WWTP

4" Force Main

4" Force Main

Milestone Pump Station

Hollis Hills Pump Station

UGT Metered Flows

Legend

- Sanitary Manholes
- Collector Laterals (Private)
- Force Main
- Sanitary Sewers (Private)
- Sanitary Sewers
- Bustard_Road_Interceptor_Basin
- Towamencin Creek Interceptor Basin
- Kriebel Road Interceptor Basin

TOWAMENCIN TOWNSHIP

SEWER SYSTEM ASSET COST STUDY MAP JULY, 2022

TOWAMENCIN TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
65 EAST BUTLER AVENUE NEW BRITAIN, PA 18901-5106 - (215) 345-4330 - www.gilmore-assoc.com

JOB NO: 22-01077 | DATE: JULY 2022 | 0 200 400 800 1,200 1,600 2,000 2,400 Ft

Geocode	County	Municipality	2010	2020	Change		Munic. Rank
					Numeric	Percent	
091	Montgomery County	Montgomery County	799,874	856,553	56,679	7.1%	
09133120	Montgomery County	Hatfield township	17249	18640	1391	8.1%	260
09141432	Montgomery County	Lansdale borough	16269	18773	2504	15.4%	89
09145096	Montgomery County	Lower Salford township	14959	15896	937	6.3%	363
09177152	Montgomery County	Towamencin township	17578	18009	431	2.5%	676
09179056	Montgomery County	Upper Gwynedd township	15552	17072	1520	9.8%	200
09186496	Montgomery County	Worcester township	9750	10317	567	5.8%	395

BVR
What It's Worth

Cost of Capital Professional

Screen & Export

RECENT SAVE RESET

User Input Download User References

Specify search criteria

Company Name
Gannett Fleming

Valuation Date
12/31/2020

Returns Reference – Start Year
EARLIEST YEAR (Y

Returns Reference – End Year
2020

Returns Calculation - Mean
Arithmetic
Geometric

ERP Size Premium IRP CoE WACC Summary

Decile	Firms: Count	Firms: Min size ('000)	Firms: Max Size ('000)	Portfolio: Annual Return	Portfolio: Beta	Size Premium: S&P 500	Size Premium: Beta Adjusted
1 - Largest	199	$29,075,803	$1,966,078,882	11.06%	0.92	(0.75%)	

2	186	$13,178,743	$28,808,073	12.82%	1.04	1.01%
3	210	$6,743,361	$13,177,828	13.66%	1.11	1.85%
4	218	$3,861,858	$6,710,676	13.67%	1.13	1.86%
5	255	$2,445,693	$3,836,536	14.49%	1.17	2.68%
6	246	$1,591,865	$2,444,745	14.82%	1.18	3.01%
7	306	$911,586	$1,591,765	15.63%	1.26	3.82%
8	365	$451,955	$911,103	15.91%	1.31	4.10%
9	412	$190,019	$451,800	16.69%	1.34	4.88%
10 - Smallest	569	$2,194	$189,831	19.64%	1.40	7.83%
1 through 2	385	$13,178,743	$1,966,078,882	11.32%	0.94	(0.48%)
3 through 5	683	$2,445,693	$13,177,828	13.80%	1.13	1.99%
6 through 8	917	$451,955	$2,444,745	15.27%	1.23	3.46%
9 through 10	981	$2,194	$451,800	17.53%	1.35	5.72%
1 through 5	1,068	$2,445,693	$1,966,078,882	11.64%	0.96	(0.17%)
6 through 10	1,898	$2,194	$2,444,745	15.49%	1.24	3.68%

S&P 500 Annual Return for Period 1928 - 2020 : 11.81%

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KROLL

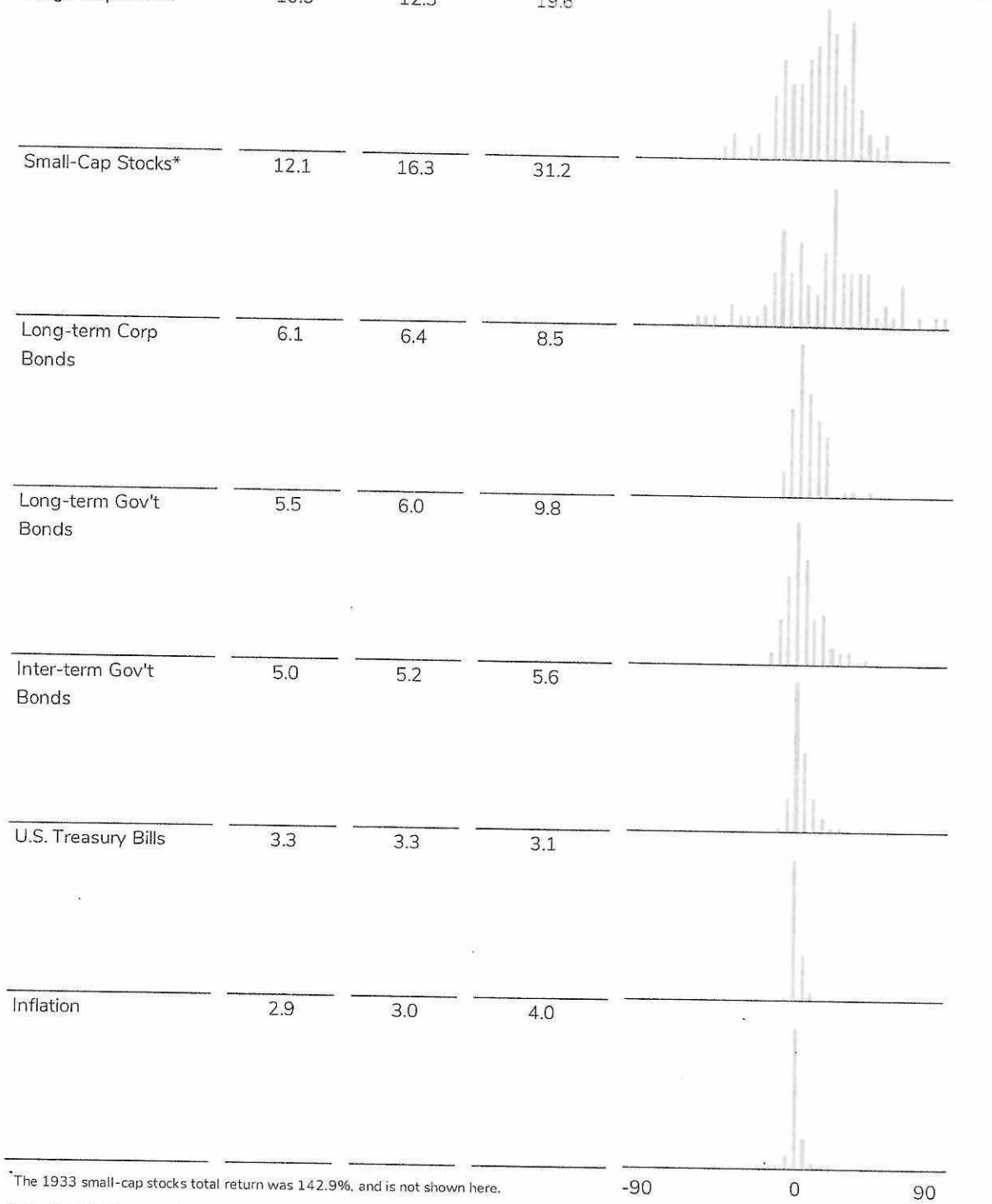
2022 SBBI® Yearbook

Stocks, Bonds, Bills, and Inflation®

U.S. Capital Markets Performance by
Asset Class 1926–2021

Exhibit 2.3: Basic Series, Summary Statistics of Annual Total Returns (%)
1926–2021

Series	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)	Distribution (%)
Large-Cap Stocks	10.5	12.3	19.6	
Small-Cap Stocks*	12.1	16.3	31.2	
Long-term Corp Bonds	6.1	6.4	8.5	
Long-term Gov't Bonds	5.5	6.0	9.8	
Inter-term Gov't Bonds	5.0	5.2	5.6	
U.S. Treasury Bills	3.3	3.3	3.1	
Inflation	2.9	3.0	4.0	



*The 1933 small-cap stocks total return was 142.9%, and is not shown here.

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Exhibit 6.8: Total Returns, Income Returns, and Capital Appreciation Returns of the SBBI® Asset Classes; Summary Statistics of Annual Returns (%)
1926–2021

	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)	Serial Correlation
Large-Cap Stocks				
Total Return	10.5	12.3	19.6	0.01
Income	3.9	3.9	1.6	0.92
Capital Appreciation	6.4	8.2	19.0	0.01
Small-Cap Stocks (TR)	12.1	16.3	31.2	0.05
Long-term Corp Bonds (TR)	6.1	6.4	8.5	0.01
Long-term Gov't Bonds				
Total Return	5.5	6.0	9.8	-0.16
Income	4.8	4.9	2.6	0.96
Capital Appreciation	0.5	0.9	8.9	-0.25
Inter-term Gov't Bonds				
Total Return	5.0	5.2	5.6	0.14
Income	4.3	4.3	2.9	0.96
Capital Appreciation	0.6	0.7	4.4	-0.17
U.S. Treasury Bills (TR)	3.3	3.3	3.1	0.92
Inflation	2.9	3.0	4.0	0.62

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In general, risk is rewarded by a higher return over the long term. For example, Exhibit 6.8 shows that over the 1926–2021 time horizon small-cap stocks were the riskiest asset class with a standard deviation of 31.2%, but also provided the greatest rewards to long-term investors, with an arithmetic mean annual return of 16.3%. Comparably, the risk (as measured by standard deviation) of large-cap stocks was significantly lower at 19.6%, and the reward (as measured by arithmetic average annual return) of large-cap stocks was correspondently lower at 12.3%.

U.S. Treasury bills, with a standard deviation of 3.1%, were nearly riskless and had the lowest arithmetic mean annual return at 3.3%.

Inflation-Adjusted Series Summary Statistics

Inflation-adjusted basic series summary statistics are presented in Exhibit 6.9. Note that the real rate of interest is close to zero (0.4%) on average. For the 96-year period, the geometric and arithmetic means are lower by the amount of inflation than those of the nominal series.

Note that this increased return comes at a price: risk (as measured by standard deviation) increased from 19.6% for large-cap stocks to 31.2% for small-cap stocks. The relationship between risk and return is a fundamental principle of finance. History tells us that small companies are riskier than large companies. Investors are compensated for taking on this additional risk by the higher returns provided by small companies.

Exhibit 7.1: Summary Statistics of Large-Cap Stocks and Small-Cap Stocks (%) 1926–2021

	Geometric Mean (%)	Arithmetic Mean (%)	Standard Deviation (%)
Large-Cap Stocks	10.5	12.3	19.6
Small-Cap Stocks	12.1	16.3	31.2

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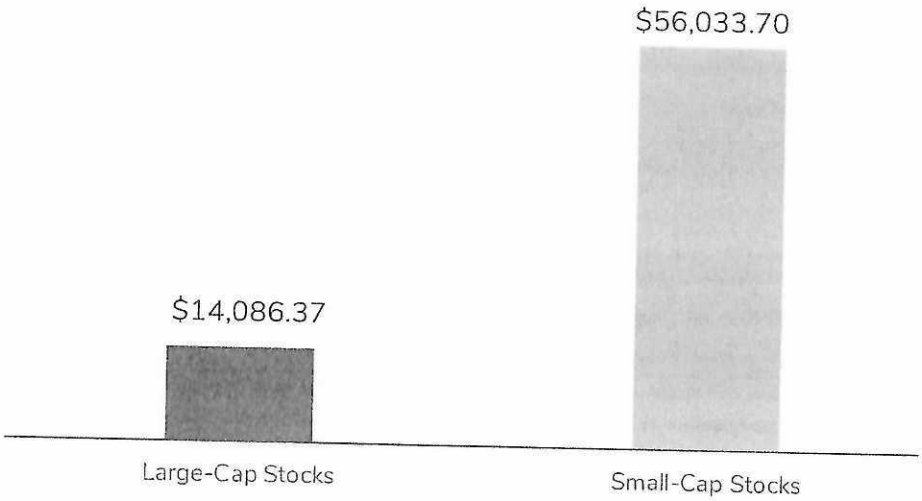
The differences in the performance of large-cap stocks and small-cap stocks can have important implications for investors. Exhibit 7.2 is a graphical depiction of the value of $1 invested at the end of 1925 in large-cap and small-cap stocks and held through December 31, 2021 (a total of 96 years).

Exhibit 7.2: The Value of $1 Invested in Large-Cap and Small-Cap Stocks, 1926–2021
Index (Year-end 1925 = $1.00)



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120 months (10-years), to 240 months (20-years) and finally to 360 months (30-years), small stocks increasingly outperform large stocks (55%, 66%, 88%, and 96% of the time, respectively).

This same pattern of increasing outperformance of small stocks as the holding period is increased can also be seen in the three "Post Banz" periods.

Long-term Returns in Excess of Systematic Risk

The capital asset pricing model, or CAPM, does not fully account for the higher returns of small-cap stocks. The textbook CAPM can be expressed as follows:

$$k_e = R_f + \beta \times (RP_m)$$

Where:

k_e	=	Cost of equity capital
R_f	=	Risk-free rate
β	=	Beta
RP_m	=	Equity risk premium (also referred as ERP)

According to the CAPM, the expected return on a security should consist of the riskless rate plus an additional return to compensate for the systematic risk of the security. The return in excess of the riskless rate is estimated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is the return that compensates investors for taking on risk equal to the risk of the market as a whole (systematic risk). Beta measures the extent to which a security or portfolio is exposed to systematic risk.

The beta of each decile indicates the degree to which the decile's return moves with that of the overall market. A beta greater than one indicates that the security or portfolio has greater systematic risk than the market; according to the CAPM equation, investors are compensated for taking on this additional risk.

CAPM is an attempt to predict *future* returns. CAPM can be used to see how well it would have done predicting returns that we *already know* (i.e., historical returns; returns that have already occurred). This is called "back-testing". If what "actually happened" is greater than "what CAPM would have predicted", then CAPM fell short of explaining what actually happened.

Smaller companies tend to have returns that are not fully explained by their higher betas, so return in excess of that predicted by CAPM tends to *increase* as one moves from the largest companies to the smallest companies. This size related phenomenon prompted a revision to the CAPM to include a size premium. A size premium (as used in the CAPM equation) is thus a measure of "what actually happened" minus "what textbook CAPM predicted":

Size Premium = Actual Excess Return – Excess Return Predicted by CAPM

A size premium is a common adjustment that analysts make to the textbook CAPM when developing cost of equity capital estimates.[189] [190] This is sometimes referred to as the "modified" CAPM:

$$k_e = R_f + \beta \times (RP_m) + RPs$$

Where:

k_e	=	Cost of equity capital
R_f	=	Risk-free rate
β	=	Beta
RP_m	=	Equity risk premium (also referred as ERP)
RPs	=	Size Premium

The size effect is not without controversy, nor is this controversy something new. Traditionally, small companies are believed to have greater required rates of return than large companies because small companies are inherently riskier. It is not clear, however, whether this is due to size itself, or to other factors closely related to or correlated with size (e.g., liquidity).[191]

189 The CRSP Deciles Size Study and Risk Premium Report Study, both of which provide size premia and other risk premia based upon data licensed from the Center for Research in Security Prices (CRSP) at the University of Chicago Booth School of Business, are fully available in the Kroll Cost of Capital Navigator platform at kroll.com/costofcapitalnavigator (subscription required). CRSP® is a registered trademark and service mark of Center for Research in Security Prices, LLC and has been licensed for use by Kroll, LLC. The Kroll publications and services are not sponsored, sold or promoted by CRSP®, its affiliates or its parent company. To learn more about CRSP, visit www.crsp.org.

190 A detailed discussion of company size and return (and size premia) based upon CRSP deciles 1-10 and the 10th decile split (10a, 10b, 10w, 10x, 10y, and 10z) is available in the Resources Library of the Cost of Capital Navigator at kroll.com/costofcapitalnavigator. (subscription required).

191 For more information, see the Resources section of the Cost of Capital Navigator at kroll.com/costofcapitalnavigator. A comprehensive discussion of the size effect is in the Cost of Capital Navigator "U.S. Cost of Capital Module's" Resources Library.

Exhibit 10.8: Equity Risk Premium Calculated Using the S&P 500 and the Income Return on Three Government Bonds of Different Horizons (%)
1926–2021

	Long-horizon	Intermediate-horizon	Short-horizon
S&P 500	7.46	8.04	9.03

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The equity risk premium is calculated by subtracting the arithmetic mean of the government bond income return from the arithmetic mean of the stock market total return. Exhibit 10.9 demonstrates this calculation for the long-horizon equity risk premium, the intermediate-horizon equity risk premium, and the short-horizon equity risk premium.

Exhibit 10.9: Calculation of the Long-Horizon Equity Risk Premium, the Intermediate-Horizon Equity Risk Premium, and the Short-Horizon Equity Risk Premium (%)
1926–2021

	Arithmetic Annual Mean			
	S&P 500 (the "Market")	Risk-free Rate		Equity Risk Premium
S&P 500	12.33	4.87	=	7.46
Intermediate-horizon	12.33	4.29	=	8.04
Short-horizon	12.33	3.30	=	9.03

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The Market Benchmark and Firm Size

Although not restricted to the 500 largest companies, the S&P 500 is considered a large-cap index. The returns of the S&P 500 are market-cap-weighted. The larger companies in the index therefore receive the majority of the weight. If using a large-cap index to calculate the equity risk premium, an adjustment is usually needed to account for the different risk and return characteristics of small stocks. This was discussed in Chapter 7 on the size premium.

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Company Name
Gannett Fleming

Valuation Date
12/31/2020

Returns Reference – Start Year
EARLIEST YEAR (Y

Returns Reference – End Year
2020

Returns Calculation - Mean
Arithmetic
Geometric

ERP Size Premium IRP CoE WACC Summary

Decile	Firms: Count	Firms: Min size ('000)	Firms: Max Size ('000)	Portfolio: Annual Return	Portfolio: Beta	Size Premium: S&P 500	Size Premium: Beta Adjusted
1 - Largest	199	$29,075,803	$1,966,078,882	11.06%	0.92	(0.75%)	

2	186	$13,178,743	$28,808,073	12.82%	1.04	1.01%
3	210	$6,743,361	$13,177,828	13.66%	1.11	1.85%
4	218	$3,861,858	$6,710,676	13.67%	1.13	1.86%
5	255	$2,445,693	$3,836,536	14.49%	1.17	2.68%
6	246	$1,591,865	$2,444,745	14.82%	1.18	3.01%
7	306	$911,586	$1,591,765	15.63%	1.26	3.82%
8	365	$451,955	$911,103	15.91%	1.31	4.10%
9	412	$190,019	$451,800	16.69%	1.34	4.88%
10 - Smallest	569	$2,194	$189,831	19.64%	1.40	7.83%
1 through 2	385	$13,178,743	$1,966,078,882	11.32%	0.94	(0.48%)
3 through 5	683	$2,445,693	$13,177,828	13.80%	1.13	1.99%
6 through 8	917	$451,955	$2,444,745	15.27%	1.23	3.46%
9 through 10	981	$2,194	$451,800	17.53%	1.35	5.72%
1 through 5	1,068	$2,445,693	$1,966,078,882	11.64%	0.96	(0.17%)
6 through 10	1,898	$2,194	$2,444,745	15.49%	1.24	3.68%

S&P 500 Annual Return for Period 1928 - 2020 : 11.81%

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	WORKING NOTES										WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
GROSS Property, plant and equipment	-	-	-		63,040,435	63,040,435	65,375,385	68,607,935	72,880,885	76,383,735	79,436,935	84,709,060
Accumulated Depreciation	-	-	-		25,508,642	25,508,642	26,095,022	26,565,192	26,908,873	27,450,166	28,122,565	28,465,272
NET PPE	-	-	-		37,531,793	37,531,793	39,280,363	42,042,743	45,972,012	48,933,569	51,314,370	56,243,788
in Total Debt	-	-	-	-	-	*8,871,000*						
Net Equity	-	-	-	-	-	*21,008,443*						
Investor Provided Capital	-	-	-	-	-	29,879,443	-					
Depreciation / GROSS PPE	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	0.00%	1.56%						
										4121000	3592000	
				Muni CAPX	0	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
			IOU savings	0%			100%	100%	100%	100%	100%	100%
				CAPX/Prior Yr. GROSS PPE			1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
				CAPX	234,278	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
				Dep rate	0.00%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
				Half yr. Dep	0.00%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%
				Dep on CAPX	-	1,738	21,427	29,663	39,211	32,144	28,018	48,380
				Rate of retirement	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
				Retired property	35,142	33,429	412,050	570,450	754,050	618,150	538,800	930,375
				Dep on Retired property	-	521	6,428	8,899	11,763	9,643	8,405	14,514
				Dep on Prior yr. GROSS	1,344,310	1,344,310	983,431	1,019,856	1,070,284	1,136,942	1,191,586	1,239,216
				Total Dep	1,344,310	1,345,527	998,430	1,040,620	1,097,732	1,159,443	1,211,199	1,273,082
Towamencin												
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310							
				part of OCN								
				NET PPE			PURTA	0.001527765				
				Rev			Reg Assessment Fee	0.005652534				

					2021	2022	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028
Towamencin												
	FIX CIP			CIP	$ -	$ -	$ 2,747,000	$ 3,803,000	$ 5,027,000	$ 4,121,000	$ 3,592,000	$ 6,202,500
					part of OCN	= to DepX						
					234,278	222,858						
									191	71	72	56
					2021	2022						
						-	2,185,000.00	2,679,000.00	2,033,000.00	61,750.00	323,000.00	327,750.00
Sewer Rental Charges	0	0	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,940,440	6,168,600	6,270,030		
EDUs	0	0	0	0	12,172	12,172	12632	13196	13624	13637	13705	13774
					0	0	460	564	428	13	68	69
		0	0	0	6086	12172	12402	12914	13410	13630.5		
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	425.4700953							
						$ 460.00	$ 460.00	$ 460.00	$ 460.00	$ 460.00		
		#DIV/0!	#DIV/0!	#DIV/0!	850.9401906	430.7459744						
Towamencin					C	5,847	29					
					E	12,172	61					
						0.48						
				1742000								
	Customer Growth					0	221	271	206	6	0.50%	0.50%
	Delivered to Customer		-	10.26	10	10	11	11	11	11	12	12
Towamencin	Customers		5,847	5,847	5,847	5,847	6,068	6,339	6,545	6,551	6,584	6,617
	Total Revenue (Less TAP)		5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417	5,671,387	6,917,648	6,938,120	6,972,810
										121.86%		
	avg CUST rev		941.31	963.11	885.72	896.71	880.38	861.56	866.52	1,055.97	1,053.82	1,053.82
	avg CUST flow		-	0	0	0	0	0	0	0	0	0
	avg EDU rev		#DIV/0!	#DIV/0!	425.47	430.75	422.90	413.87	416.28	507.27	506.25	506.23
	avg EDU flow		#DIV/0!	#DIV/0!	0	0	0	0	0	0	0	0

WORKING NOTES								WORKING NOTES				
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Rev Calculated				5,178,822	5,342,126	5,461,417	5,550,157	5,673,987	6,934,942	6,955,465

					2022	2023	2024	2025	2026	2027	2028
					Change			20.0%			15.0%
				$ 885.72	$ 896.71	$ 880.38	$ 880.38	$ 1,056.45	$ 1,056.45	$ 1,056.45	$ 1,214.92
							$ -	$ 176.08	$ -	$ -	$ 158.47
					-	99,086	119,291	6,805,664	2,600	17,294	17,345
					5,178,822	5,342,126	5,461,417	5,671,387	6,917,648	6,938,120	6,972,810
					-	-	-	1,134,277	-	-	1,045,922

Prior yr									
NET PURTA	0.1432%				53,746	56,249	60,205	65,832	70,073	73,482
REV Reg Assessment	0.5690%				30,039	30,602	31,281	38,930	39,567	39,684
					83,785	86,851	91,486	104,762	109,640	113,166

Towamencin Wastewater System Assets	
Investor Provide	29,879,443
Gross PP&E	63,040,435
Net PP&E	37,531,793
Revenues	5,279,190
EBITDA	2,054,035
EBIT	708,509
Customers	5,847
Population	20,425

G PPE		-	-	63,040,435	63,040,435	
NPPE		-	-	37,531,793	37,531,793	
Cust		5,847	5,847	5,847	5,847	

	2017	2018	2019	2020	2021	2022	2023			
Towamencin										
LESS: EOS - Wages & Benefits	0	-	-	-	-	1,561,332		0.15	LESS: EOS - Wages	Wages & Benefits
LESS: EOS - Professional Services	0	0	0	0	-	308,765		0.5	LESS: EOS - Profes	Net Professional Serv
LESS: EOS - Eliminated Expenses	0	0	0	0	-	-			LESS: EOS - Eli	Line Rentals
Towamencin										
Wages			0	0	0	1,561,332				
Professional Services					0	308,765				
Eliminated Exp			0	0	0	0				

Towamencin					included in OCN	= to DepX	
Reported CAPX - from the financials	0	0	422,187	495,837	234,278	222,858	

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WORKING NOTES												WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
	2017	2018	2019	2020	2021			Assets	Per Books	Difference			
GROSS Property, plant and equipment	-	-	-	-	63,040,435			63,040,435	-				
Accumulated Depreciation	-	-	-	-	25,508,642			25,508,642	-				
NET PPE	-	-	-	-	37,531,793			37,531,793	-	37,531,793			
Total Debt	-	-	-	-	8,871,000			981,836					
Net Equity	-	-	-	-	21,008,443								
Investor Provided Capital	-	-	-	-	29,879,443								
Depreciation Rate	0.00%	0.00%	0.00%	#DIV/0!	1.56%								
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310	981,836.00	moved item from 2021 to 2022						

	2022	2023	2024	2025	2026	
CAPX	0	2,747,000	3,803,000	5,027,000	4,121,000	3,924,500

Appendix A-5.1
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EXHIBIT 25
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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment	87,757,160	90,750,010	91,907,285	92,703,735	93,908,402	95,128,723	96,364,902	97,617,145	98,885,660	100,170,659	101,472,357	102,790,970	104,126,718	105,479,824
Accumulated Depreciation	29,268,413	30,128,500	31,347,409	32,645,729	33,887,058	35,144,517	36,418,317	37,708,669	39,015,788	40,339,894	41,681,207	43,039,949	44,416,348	45,810,634
NET PPE	58,488,747	60,621,510	60,559,876	60,058,006	60,021,344	59,984,206	59,946,585	59,908,476	59,869,872	59,830,765	59,791,150	59,751,021	59,710,370	59,669,190
in Total Debt														
Net Equity														
Investor Provided Capital														

Depreciation / GROSS PPE

	3,586,000	3,521,000	1,361,500	937,000	0	0	0	0	0	0	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
	3,586,000	3,521,000	1,361,500	937,000	1,417,255	1,435,672	1,454,328	1,473,227	1,492,371	1,511,764	1,531,409	1,551,309	1,571,468	1,591,889
	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%
	27,971	27,464	10,620	7,309	11,055	11,198	11,344	11,491	11,640	11,792	11,945	12,100	12,257	12,417
	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	537,900	528,150	204,225	140,550	212,588	215,351	218,149	220,984	223,856	226,765	229,711	232,696	235,720	238,783
	8,391	8,239	3,186	2,193	3,316	3,359	3,403	3,447	3,492	3,538	3,583	3,630	3,677	3,725
	1,321,461	1,369,012	1,415,700	1,433,754	1,446,178	1,464,971	1,484,008	1,503,292	1,522,827	1,542,616	1,562,662	1,582,969	1,603,539	1,624,377
	1,341,041	1,388,237	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069

Towamencin

Depreciation Expense

	7 2029	8 2030	9 2031	10 2032	11 2033	12 2034	13 2035	14 2036	15 2037	16 2038	17 2039	18 2040	19 2041	20 2042
	$ 3,586,000	$ 3,521,000	$ 1,361,500	$ 937,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	327,750.00	327,750.00	332,500.00	332,500.00	332,500.00	337,250.00	337,250.00	337,250.00	342,000.00	342,000.00	342,000.00	346,750.00	346,750.00	346,750.00
Sewer Rental Charges														
EDUs	13843	13912	13982	14052	14122	14193	14264	14335	14407	14479	14551	14624	14697	14770
	69	69	70	70	70	71	71	71	72	72	72	73	73	73

Towamencin

	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Towamencin	6,650	6,683	6,716	6,750	6,784	6,818	6,852	6,886	6,920	6,955	6,990	7,025	7,060	7,095
	8,058,825	8,099,120	8,139,615	8,752,935	8,796,700	8,840,683	9,062,584	9,107,897	9,336,506	9,383,188	9,618,706	9,666,800	9,958,012	10,007,802
	115.00%													
	1,211.90	1,211.90	1,211.90	1,296.73	1,296.73	1,296.73	1,322.67	1,322.67	1,349.12	1,349.12	1,376.10	1,376.10	1,410.50	1,410.50
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	582.16	582.17	582.15	622.90	622.91	622.89	635.35	635.36	648.05	648.05	661.03	661.02	677.55	677.58
	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
	6,990,242	8,078,972	8,119,368	8,159,964	8,774,817	8,818,692	8,862,785	9,085,240	9,130,667	9,359,847	9,406,646	9,642,753	9,690,967	9,982,907

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
			7.0%			2.0%		2.0%		2.0%		2.5%		2.8%
	$ 1,214.92	$ 1,214.92	$ 1,299.96	$ 1,299.96	$ 1,299.96	$ 1,325.96	$ 1,325.96	$ 1,352.48	$ 1,352.48	$ 1,379.53	$ 1,379.53	$ 1,414.02	$ 1,414.02	$ 1,453.61
	$ -	$ -	$ 85.04	$ -	$ -	$ 26.00	$ -	$ 26.52	$ -	$ 27.05	$ -	$ 34.49	$ -	$ 39.59
	17,432	20,147	20,248	20,349	21,882	21,992	22,102	22,656	22,770	23,341	23,458	24,047	24,167	24,895
	8,058,825	8,099,120	8,139,615	8,752,935	8,796,700	8,840,683	9,062,584	9,107,897	9,336,506	9,383,188	9,618,706	9,666,800	9,958,012	10,007,802
	-	-	569,773	-	-	176,814	-	182,158	-	187,664	-	241,670	-	280,218
	80,541	83,756	86,810	86,722	86,003	85,951	85,897	85,844	85,789	85,734	85,678	85,621	85,563	85,505
	45,832	46,060	46,290	49,762	50,010	50,259	51,515	51,772	53,066	53,330	54,664	54,936	56,585	56,867
	126,373	129,816	133,100	136,484	136,013	136,210	137,412	137,616	138,855	139,064	140,342	140,557	142,148	142,372

Towamencin

LESS: EOS - Wages & Benefits		15% savings	15%	0.15
LESS: EOS - Professional Services	ices	50% savings	50%	0.5
LESS: EOS - Eliminated Expenses		10% savings	100%	1

Towamencin

Wages

Professional Services

Eliminated Exp

Towamencin

Reported CAPX - from the financials

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment														
Accumulated Depreciation														
NET PPE														
Total Debt														
Net Equity														
Investor Provided Capital														
Depreciation Rate														
Depreciation Expense														
CAPX														

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	WORKING NOTES										WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
GROSS Property, plant and equipment	-	-	-		63,040,435	63,040,435	65,375,385	68,607,935	72,880,885	76,383,735	79,436,935	84,709,060
Accumulated Depreciation	-	-	-		25,508,642	25,508,642	26,095,022	26,565,192	26,908,873	27,450,166	28,122,565	28,465,272
NET PPE	-	-	-		37,531,793	37,531,793	39,280,363	42,042,743	45,972,012	48,933,569	51,314,370	56,243,788
in Total Debt	-	-	-	-	-	*8,871,000*						
Net Equity	-	-	-	-	-	*21,008,443*						
Investor Provided Capital	-	-	-	-	-	29,879,443	-					

Depreciation / GROSS PPE	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	0.00%	1.56%						
										4121000	3592000	
				Muni CAPX	0	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
			IOU savings	0%			100%	100%	100%	100%	100%	100%
				CAPX/Prior Yr. GROSS PPE			1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
				CAPX	234,278	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
				Dep rate	0.00%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
				Half yr. Dep	0.00%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%
				Dep on CAPX	-	1,738	21,427	29,663	39,211	32,144	28,018	48,380
				Rate of retirement	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
				Retired property	35,142	33,429	412,050	570,450	754,050	618,150	538,800	930,375
				Dep on Retired property	-	521	6,428	8,899	11,763	9,643	8,405	14,514
				Dep on Prior yr. GROSS	1,344,310	1,344,310	983,431	1,019,856	1,070,284	1,136,942	1,191,586	1,239,216
				Total Dep	1,344,310	1,345,527	998,430	1,040,620	1,097,732	1,159,443	1,211,199	1,273,082
Towamencin												
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310							
				part of OCN								

				NET PPE			PURTA	0.001527765				
				Rev			Reg Assessment Fee	0.005652534				
							1	2	3	4	5	6
					2021	2022	2023	2024	2025	2026	2027	2028
Towamencin												
	FIX CIP			CIP	$ -	$ -	$ 2,747,000	$ 3,803,000	$ 5,027,000	$ 4,121,000	$ 3,592,000	$ 6,202,500
					part of OCN	= to DepX						
					234,278	222,858						
									191	71	72	56

					2021	2022						
						-	2,185,000.00	2,679,000.00	2,033,000.00	61,750.00	323,000.00	327,750.00
Sewer Rental Charges	0	0	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,940,440	6,168,600	6,270,030		
EDUs	0	0	0	0	12,172	12,172	12632	13196	13624	13637	13705	13774
					0	0	460	564	428	13	68	69
		0	0	0	6086	12172	12402	12914	13410	13630.5		
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	425.4700953							
						$ 460.00	$ 460.00	$ 460.00	$ 460.00	$ 460.00		
		#DIV/0!	#DIV/0!	#DIV/0!	850.9401906	430.7459744						

Towamencin					C	5,847	29					
					E	12,172	61					
						0.48						
				1742000								
		Customer Growth				0	221	271	206	6	0.50%	0.50%
		Delivered to Customer	-	10.26	10	10	11	11	11	11	12	12
Towamencin		Customers	5,847	5,847	5,847	5,847	6,068	6,339	6,545	6,551	6,584	6,617
		Total Revenue (Less TAP)	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417	5,671,387	10,952,943	10,985,356	11,040,283
										192.95%		
		avg CUST rev	941.31	963.11	885.72	896.71	880.38	861.56	866.52	1,671.95	1,668.55	1,668.55
		avg CUST flow	-	0	0	0	0	0	0	0	0	0
		avg EDU rev	#DIV/0!	#DIV/0!	425.47	430.75	422.90	413.87	416.28	803.18	801.56	801.53
		avg EDU flow	#DIV/0!	#DIV/0!	0	0	0	0	0	0	0	0

WORKING NOTES												WORKING NOTES
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rev Calculated						5,178,822	5,342,126	5,461,417	5,550,157	5,673,987	10,980,325	11,012,819

						2022	2023	2024	2025	2026	2027	2028
						Change			90.0%			15.0%
					$ 885.72	$ 896.71	$ 880.38	$ 880.38	$ 1,672.72	$ 1,672.72	$ 1,672.72	$ 1,923.62
								$ -	$ 792.34	$ -	$ -	$ 250.91
						-	99,086	119,291	10,775,635	2,600	27,382	27,463
						5,178,822	5,342,126	5,461,417	5,671,387	10,952,943	10,985,356	11,040,283
						-	-	-	5,104,248	-	-	1,656,042

Prior yr												
NET PURTA		0.1432%					53,746	56,249	60,205	65,832	70,073	73,482
REV Reg Assessment		0.5690%					30,039	30,602	31,281	61,519	62,528	62,712
							83,785	86,851	91,486	127,351	132,601	136,194

Towamencin Wastewater System Assets	
Investor Provide	29,879,443
Gross PP&E	63,040,435
Net PP&E	37,531,793
Revenues	5,279,190
EBITDA	2,054,035
EBIT	708,509
Customers	5,847
Population	20,425

G PPE		-	-	63,040,435	63,040,435	
NPPE		-	-	37,531,793	37,531,793	
Cust		5,847	5,847	5,847	5,847	

	2017	2018	2019	2020	2021	2022	2023			
Towamencin										
LESS: EOS - Wages & Benefits	0	-	-	-	-	1,561,332		0.15	LESS: EOS - Wages	Wages & Benefits
LESS: EOS - Professional Services	0	0	0	0	-	308,765		0.5	LESS: EOS - Profes	Net Professional Serv
LESS: EOS - Eliminated Expenses	0	0	0	0	-	-			LESS: EOS - Eli	Line Rentals
Towamencin										
Wages			0	0	0	1,561,332				
Professional Services					0	308,765				
Eliminated Exp			0	0	0	0				

Towamencin					included in OCN	= to DepX	
Reported CAPX - from the financials	0	0	422,187	495,837	234,278	222,858	

WORKING NOTES												WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	2017	2018	2019	2020	2021			Assets	Per Books	Difference		
GROSS Property, plant and equipment	-	-	-	-	63,040,435			63,040,435	-			
Accumulated Depreciation	-	-	-	-	25,508,642			25,508,642	-			
NET PPE	-	-	-	-	37,531,793			37,531,793	-	37,531,793		
Total Debt	-	-	-	-	8,871,000			981,836				
Net Equity	-	-	-	-	21,008,443							
Investor Provided Capital	-	-	-	-	29,879,443							
Depreciation Rate	0.00%	0.00%	0.00%	#DIV/0!	1.56%							
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310	981,836.00	moved item from 2021 to 2022					

	2022	2023	2024	2025	2026	
CAPX	0	2,747,000	3,803,000	5,027,000	4,121,000	3,924,500

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment	87,757,160	90,750,010	91,907,285	92,703,735	93,908,402	95,128,723	96,364,902	97,617,145	98,885,660	100,170,659	101,472,357	102,790,970	104,126,718	105,479,824
Accumulated Depreciation	29,268,413	30,128,500	31,347,409	32,645,729	33,887,058	35,144,517	36,418,317	37,708,669	39,015,788	40,339,894	41,681,207	43,039,949	44,416,348	45,810,634
NET PPE	58,488,747	60,621,510	60,559,876	60,058,006	60,021,344	59,984,206	59,946,585	59,908,476	59,869,872	59,830,765	59,791,150	59,751,021	59,710,370	59,669,190
in Total Debt														
Net Equity														
Investor Provided Capital														

Depreciation / GROSS PPE

	3,586,000	3,521,000	1,361,500	937,000	0	0	0	0	0	0	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
	3,586,000	3,521,000	1,361,500	937,000	1,417,255	1,435,672	1,454,328	1,473,227	1,492,371	1,511,764	1,531,409	1,551,309	1,571,468	1,591,889
	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%	0.78%
	27,971	27,464	10,620	7,309	11,055	11,198	11,344	11,491	11,640	11,792	11,945	12,100	12,257	12,417
	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	537,900	528,150	204,225	140,550	212,588	215,351	218,149	220,984	223,856	226,765	229,711	232,696	235,720	238,783
	8,391	8,239	3,186	2,193	3,316	3,359	3,403	3,447	3,492	3,538	3,583	3,630	3,677	3,725
	1,321,461	1,369,012	1,415,700	1,433,754	1,446,178	1,464,971	1,484,008	1,503,292	1,522,827	1,542,616	1,562,662	1,582,969	1,603,539	1,624,377
	1,341,041	1,388,237	1,423,134	1,438,870	1,453,917	1,472,810	1,491,949	1,511,336	1,530,975	1,550,871	1,571,024	1,591,439	1,612,119	1,633,069

Towamencin

Depreciation Expense

	7 2029	8 2030	9 2031	10 2032	11 2033	12 2034	13 2035	14 2036	15 2037	16 2038	17 2039	18 2040	19 2041	20 2042
	$ 3,586,000	$ 3,521,000	$ 1,361,500	$ 937,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	327,750.00	327,750.00	332,500.00	332,500.00	332,500.00	337,250.00	337,250.00	337,250.00	342,000.00	342,000.00	342,000.00	346,750.00	346,750.00	346,750.00
Sewer Rental Charges														
EDUs	13843	13912	13982	14052	14122	14193	14264	14335	14407	14479	14551	14624	14697	14770
	69	69	70	70	70	71	71	71	72	72	72	73	73	73

Towamencin

	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Towamencin	6,650	6,683	6,716	6,750	6,784	6,818	6,852	6,886	6,920	6,955	6,990	7,025	7,060	7,095
	12,759,807	12,823,606	12,887,724	13,470,249	13,537,600	13,605,288	13,946,781	14,016,515	14,227,463	14,298,601	14,513,795	14,586,364	14,849,866	14,924,116
	115.00%													
	1,918.84	1,918.84	1,918.84	1,995.59	1,995.59	1,995.59	2,035.50	2,035.50	2,055.86	2,055.86	2,076.42	2,076.42	2,103.41	2,103.41
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	921.75	921.77	921.74	958.60	958.62	958.59	977.76	977.78	987.54	987.54	997.44	997.43	1,010.40	1,010.43
	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
	11,067,884	12,791,707	12,855,665	12,919,943	13,503,925	13,571,444	13,639,301	13,981,648	14,051,556	14,263,032	14,334,348	14,550,079	14,622,830	14,886,991
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
			4.0%			2.0%		1.0%		1.0%		1.3%		1.6%
	$ 1,923.62	$ 1,923.62	$ 2,000.57	$ 2,000.57	$ 2,000.57	$ 2,040.58	$ 2,040.58	$ 2,060.99	$ 2,060.99	$ 2,081.60	$ 2,081.60	$ 2,108.66	$ 2,108.66	$ 2,142.39
	$ -	$ -	$ 76.94	$ -	$ -	$ 40.01	$ -	$ 20.41	$ -	$ 20.61	$ -	$ 27.06	$ -	$ 33.74
	27,601	31,900	32,059	32,219	33,676	33,844	34,013	34,867	35,041	35,569	35,747	36,284	36,466	37,125
	12,759,807	12,823,606	12,887,724	13,470,249	13,537,600	13,605,288	13,946,781	14,016,515	14,227,463	14,298,601	14,513,795	14,586,364	14,849,866	14,924,116
	-	-	515,509	-	-	272,106	-	140,165	-	142,986	-	189,623	-	238,786
	80,541	83,756	86,810	86,722	86,003	85,951	85,897	85,844	85,789	85,734	85,678	85,621	85,563	85,505
	72,448	72,809	73,172	76,470	76,851	77,235	79,168	79,563	80,757	81,160	82,378	82,789	84,281	84,701
	152,989	156,565	159,982	163,192	162,854	163,186	165,065	165,407	166,546	166,894	168,056	168,410	169,844	170,206

Towamencin

LESS: EOS - Wages & Benefits		15% savings	15%	0.15
LESS: EOS - Professional Services	ices	50% savings	50%	0.5
LESS: EOS - Eliminated Expenses		10% savings	100%	1

Towamencin

Wages

Professional Services

Eliminated Exp

Towamencin

Reported CAPX - from the financials

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment														
Accumulated Depreciation														
NET PPE														
Total Debt														
Net Equity														
Investor Provided Capital														
Depreciation Rate														
Depreciation Expense														
CAPX														

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	WORKING NOTES										WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
GROSS Property, plant and equipment	-	-	-		125,257,168	125,257,168	127,592,118	130,824,668	135,097,618	138,600,468	141,653,668	146,925,793
Accumulated Depreciation	-	-	-		-	-	1,531,717	2,946,684	4,234,429	5,718,995	7,334,003	8,618,525
NET PPE	-	-	-		125,257,168	125,257,168	126,060,401	127,877,984	130,863,189	132,881,473	134,319,665	138,307,268
in Total Debt	-	-	-	-	-	*8,871,000*						
Net Equity	-	-	-	-	-	*21,008,443*						
Investor Provided Capital	-	-	-	-	-	29,879,443	-					

Depreciation / GROSS PPE	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	0.00%	1.54%						
										4121000	3592000	
				Muni CAPX	0	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
			IOU savings	0%			100%	100%	100%	100%	100%	100%
				CAPX/Prior Yr. GROSS PPE			1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
				CAPX	234,278	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
				Dep rate	0.00%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%
				Half yr. Dep	0.00%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%
				Dep on CAPX	-	1,716	21,152	29,283	38,708	31,732	27,658	47,759
				Rate of retirement	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
				Retired property	35,142	33,429	412,050	570,450	754,050	618,150	538,800	930,375
				Dep on Retired property	-	515	6,346	8,785	11,612	9,520	8,298	14,328
				Dep on Prior yr. GROSS	1,344,310	1,344,310	1,928,960	1,964,919	2,014,700	2,080,503	2,134,447	2,181,466
				Total Dep	1,344,310	1,345,511	1,943,767	1,985,417	2,041,796	2,102,716	2,153,808	2,214,898
Towamencin												
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310							
				part of OCN								

				NET PPE			PURTA	0.001527765				
				Rev			Reg Assessment Fee	0.005652534				
					2021	2022	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028
	Towamencin											
	FIX CIP			CIP	$ -	$ -	$ 2,747,000	$ 3,803,000	$ 5,027,000	$ 4,121,000	$ 3,592,000	$ 6,202,500
					part of OCN	= to DepX						
					234,278	222,858						
									191	71	72	56
					2021	2022						
						-	2,185,000.00	2,679,000.00	2,033,000.00	61,750.00	323,000.00	327,750.00
Sewer Rental Charges	0	0	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,940,440	6,168,600	6,270,030		
EDUs	0	0	0	0	12,172	12,172	12632	13196	13624	13637	13705	13774
					0	0	460	564	428	13	68	69
		0	0	0	6086	12172	12402	12914	13410	13630.5		
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	425.4700953							
						$ 460.00	$ 460.00	$ 460.00	$ 460.00	$ 460.00		
		#DIV/0!	#DIV/0!	#DIV/0!	850.9401906	430.7459744						
Towamencin					C	5,847	29					
					E	12,172	61					
						0.48						
				1742000								
		Customer Growth				0	221	271	206	6	0.50%	0.50%
		Delivered to Customer	-	10.26	10	10	11	11	11	11	12	12
Towamencin		Customers	5,847	5,847	5,847	5,847	6,068	6,339	6,545	6,551	6,584	6,617
		Total Revenue (Less TAP)	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417	5,671,387	9,800,002	9,829,003	9,878,148
										172.64%		
		avg CUST rev	941.31	963.11	885.72	896.71	880.38	861.56	866.52	1,495.96	1,492.92	1,492.92
		avg CUST flow	-	0	0	0	0	0	0	0	0	0
		avg EDU rev	#DIV/0!	#DIV/0!	425.47	430.75	422.90	413.87	416.28	718.63	717.18	717.16
		avg EDU flow	#DIV/0!	#DIV/0!	0	0	0	0	0	0	0	0

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WORKING NOTES								WORKING NOTES				
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Rev Calculated					5,178,822	5,342,126	5,461,417	5,550,157	5,673,987	9,824,502	9,853,576

	2022	2023	2024	2025	2026	2027	2028
Change				70.0%			15.0%
$ 885.72	$ 896.71	$ 880.38	$ 880.38	$ 1,496.64	$ 1,496.64	$ 1,496.64	$ 1,721.14
			$ -	$ 616.26	$ -	$ -	$ 224.50
	-	99,086	119,291	9,641,358	2,600	24,500	24,573
	5,178,822	5,342,126	5,461,417	5,671,387	9,800,002	9,829,003	9,878,148
	-	-	-	3,969,971	-	-	1,481,722

Prior yr							
NET PURTA	0.1432%	179,368	180,518	183,121	187,396	190,286	192,346
REV Reg Assessment	0.5690%	30,039	30,602	31,281	55,065	55,968	56,133
		209,407	211,120	214,402	242,461	246,254	248,479

Towamencin Wastewater System Assets	
Investor Provide	29,879,443
Gross PP&E	125,257,168
Net PP&E	125,257,168
Revenues	5,279,190
EBITDA	2,054,035
EBIT	708,524
Customers	5,847
Population	20,425

G PPE	-	-	125,257,168	125,257,168	
NPPE	-	-	125,257,168	125,257,168	
Cust	5,847	5,847	5,847	5,847	

	2017	2018	2019	2020	2021	2022	2023		
Towamencin									
LESS: EOS - Wages & Benefits	0	-	-	-	-	1,561,332		0.15	LESS: EOS - Wages Wages & Benefits
LESS: EOS - Professional Services	0	0	0	0	-	308,765		0.5	LESS: EOS - Profes Net Professional Serv
LESS: EOS - Eliminated Expenses	0	0	0	0	-	-			LESS: EOS - Eli Line Rentals
Towamencin									
Wages			0	0	0	1,561,332			
Professional Services					0	308,765			
Eliminated Exp			0	0	0	0			

Towamencin					included in OCN	= to DepX	
Reported CAPX - from the financials	0	0	422,187	495,837	234,278	222,858	

WORKING NOTES								WORKING NOTES				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	2017	2018	2019	2020	2021			Assets	Per Books	Difference		
GROSS Property, plant and equipment	-	-	-	-	125,257,168			125,257,168	-			
Accumulated Depreciation	-	-	-	-	-			-	-			
NET PPE	-	-	-	-	125,257,168			125,257,168	-	125,257,168		
Total Debt	-	-	-	-	8,871,000			1,928,960				
Net Equity	-	-	-	-	21,008,443							
Investor Provided Capital	-	-	-	-	29,879,443							
Depreciation Rate	0.00%	0.00%	0.00%	#DIV/0!	1.54%							
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310	1,928,960.00	moved item from 2021 to 2022					

	2022	2023	2024	2025	2026	
CAPX	0	2,747,000	3,803,000	5,027,000	4,121,000	3,924,500

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment	149,973,893	152,966,743	154,124,018	154,920,468	156,907,819	158,920,664	160,959,330	163,024,148	165,115,454	167,233,588	169,378,894	171,551,720	173,752,420	175,981,351
Accumulated Depreciation	10,362,611	12,163,037	14,321,839	16,559,849	18,607,518	20,681,454	22,781,995	24,909,482	27,064,261	29,246,683	31,457,101	33,695,874	35,963,367	38,259,947
NET PPE	139,611,282	140,803,706	139,802,179	138,360,619	138,300,301	138,239,210	138,177,335	138,114,666	138,051,193	137,986,905	137,921,793	137,855,846	137,789,053	137,721,404
in Total Debt														
Net Equity														
Investor Provided Capital														

Depreciation / GROSS PPE

	3,586,000	3,521,000	1,361,500	937,000	0	0	0	0	0	0	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
	3,586,000	3,521,000	1,361,500	937,000	2,338,060	2,368,053	2,398,431	2,429,198	2,460,360	2,491,922	2,523,889	2,556,266	2,589,059	2,622,272
	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%
	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%
	27,612	27,112	10,484	7,215	18,003	18,234	18,468	18,705	18,945	19,188	19,434	19,683	19,936	20,191
	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	537,900	528,150	204,225	140,550	350,709	355,208	359,765	364,380	369,054	373,788	378,583	383,440	388,359	393,341
	8,284	8,134	3,145	2,164	5,401	5,470	5,540	5,611	5,683	5,756	5,830	5,905	5,981	6,057
	2,262,657	2,309,598	2,355,688	2,373,510	2,385,775	2,416,380	2,447,378	2,478,774	2,510,572	2,542,778	2,575,397	2,608,435	2,641,896	2,675,787
	2,281,986	2,328,576	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921

Towamencin

Depreciation Expense

	7 2029	8 2030	9 2031	10 2032	11 2033	12 2034	13 2035	14 2036	15 2037	16 2038	17 2039	18 2040	19 2041	20 2042
	$ 3,586,000	$ 3,521,000	$ 1,361,500	$ 937,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	327,750.00	327,750.00	332,500.00	332,500.00	332,500.00	337,250.00	337,250.00	337,250.00	342,000.00	342,000.00	342,000.00	346,750.00	346,750.00	346,750.00
Sewer Rental Charges														
EDUs	13843	13912	13982	14052	14122	14193	14264	14335	14407	14479	14551	14624	14697	14770
	69	69	70	70	70	71	71	71	72	72	72	73	73	73

Towamencin

	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Towamencin	6,650	6,683	6,716	6,750	6,784	6,818	6,852	6,886	6,920	6,955	6,990	7,025	7,060	7,095
	11,416,669	11,473,753	11,531,121	12,052,328	12,112,590	12,173,153	12,478,699	12,541,092	12,855,874	12,920,153	13,114,601	13,180,174	13,444,766	13,511,990
	115.00%													
	1,716.86	1,716.86	1,716.86	1,785.53	1,785.53	1,785.53	1,821.24	1,821.24	1,857.66	1,857.66	1,876.24	1,876.24	1,904.38	1,904.38
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	824.73	824.74	824.71	857.69	857.71	857.69	874.84	874.86	892.34	892.34	901.29	901.27	914.80	914.83
	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
	9,902,843	11,445,211	11,502,437	11,559,949	12,082,459	12,142,871	12,203,586	12,509,896	12,572,445	12,888,014	12,952,453	13,147,388	13,213,124	13,478,378
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
			4.0%			2.0%		2.0%		1.0%		1.5%		2.1%
	$ 1,721.14	$ 1,721.14	$ 1,789.98	$ 1,789.98	$ 1,789.98	$ 1,825.78	$ 1,825.78	$ 1,862.30	$ 1,862.30	$ 1,880.92	$ 1,880.92	$ 1,909.13	$ 1,909.13	$ 1,949.23
	$ -	$ -	$ 68.85	$ -	$ -	$ 35.80	$ -	$ 36.52	$ -	$ 18.62	$ -	$ 28.21	$ -	$ 40.09
	24,695	28,542	28,684	28,828	30,131	30,281	30,433	31,197	31,353	32,140	32,300	32,787	32,950	33,612
	11,416,669	11,473,753	11,531,121	12,052,328	12,112,590	12,173,153	12,478,699	12,541,092	12,855,874	12,920,153	13,114,601	13,180,174	13,444,766	13,511,990
	-	-	461,245	-	-	243,463	-	250,822	-	129,202	-	197,703	-	283,752
	198,056	199,923	201,631	200,197	198,132	198,046	197,959	197,870	197,780	197,689	197,597	197,504	197,410	197,314
	64,843	65,167	65,491	68,442	68,783	69,126	70,856	71,209	72,992	73,356	74,457	74,828	76,326	76,706
	262,899	265,090	267,122	268,639	266,915	267,172	268,815	269,079	270,772	271,045	272,054	272,332	273,736	274,020

Towamencin

LESS: EOS - Wages & Benefits		15% savings	15%	0.15
LESS: EOS - Professional Services	ices	50% savings	50%	0.5
LESS: EOS - Eliminated Expenses		10% savings	100%	1

Towamencin

Wages

Professional Services

Eliminated Exp

Towamencin

Reported CAPX - from the financials

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment														
Accumulated Depreciation														
NET PPE														
Total Debt														
Net Equity														
Investor Provided Capital														
Depreciation Rate														
Depreciation Expense														
CAPX														

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	WORKING NOTES							WORKING NOTES				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
GROSS Property, plant and equipment	-	-	-		125,257,168	125,257,168	127,592,118	130,824,668	135,097,618	138,600,468	141,653,668	146,925,793
Accumulated Depreciation	-	-	-		-	-	1,531,717	2,946,684	4,234,429	5,718,995	7,334,003	8,618,525
NET PPE	-	-	-		125,257,168	125,257,168	126,060,401	127,877,984	130,863,189	132,881,473	134,319,665	138,307,268
in Total Debt	-	-	-	-	-	*8,871,000*						
Net Equity	-	-	-	-	-	*21,008,443*						
Investor Provided Capital	-	-	-	-	-	29,879,443	-					

Depreciation / GROSS PPE	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	0.00%	1.54%				4121000	3592000	
				Muni CAPX	0	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
			IOU savings	0%			100%	100%	100%	100%	100%	100%
				CAPX/Prior Yr. GROSS PPE			1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
				CAPX	234,278	222,858	2,747,000	3,803,000	5,027,000	4,121,000	3,592,000	6,202,500
				Dep rate	0.00%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%
				Half yr. Dep	0.00%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%
				Dep on CAPX	-	1,716	21,152	29,283	38,708	31,732	27,658	47,759
				Rate of retirement	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
				Retired property	35,142	33,429	412,050	570,450	754,050	618,150	538,800	930,375
				Dep on Retired property	-	515	6,346	8,785	11,612	9,520	8,298	14,328
				Dep on Prior yr. GROSS	1,344,310	1,344,310	1,928,960	1,964,919	2,014,700	2,080,503	2,134,447	2,181,466
				Total Dep	1,344,310	1,345,511	1,943,767	1,985,417	2,041,796	2,102,716	2,153,808	2,214,898
Towamencin												
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310							
				part of OCN								

				NET PPE			PURTA	0.001527765				
				Rev			Reg Assessment Fee	0.005652534				
					2021	2022	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028
Towamencin												
	FIX CIP			CIP	$ -	$ -	$ 2,747,000	$ 3,803,000	$ 5,027,000	$ 4,121,000	$ 3,592,000	$ 6,202,500
					part of OCN	= to DepX						
					234,278	222,858						
									191	71	72	56
					2021	2022						
						-	2,185,000.00	2,679,000.00	2,033,000.00	61,750.00	323,000.00	327,750.00
Sewer Rental Charges	0	0	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,940,440	6,168,600	6,270,030		
EDUs	0	0	0	0	12,172	12,172	12632	13196	13624	13637	13705	13774
					0	0	460	564	428	13	68	69
		0	0	0	6086	12172	12402	12914	13410	13630.5		
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	425.4700953							
						$ 460.00	$ 460.00	$ 460.00	$ 460.00	$ 460.00		
		#DIV/0!	#DIV/0!	#DIV/0!	850.9401906	430.7459744						
Towamencin					C	5,847	29					
					E	12,172	61					
						0.48						
				1742000								
		Customer Growth				0	221	271	206	6	0.50%	0.50%
		Delivered to Customer	-	10.26	10	10	11	11	11	11	12	12
Towamencin		Customers	5,847	5,847	5,847	5,847	6,068	6,339	6,545	6,551	6,584	6,617
		Total Revenue (Less TAP)	5,503,864	5,631,315	5,178,822	5,243,040	5,342,126	5,461,417	5,671,387	14,411,767	14,454,416	14,526,688
										253.88%		
		avg CUST rev	941.31	963.11	885.72	896.71	880.38	861.56	866.52	2,199.93	2,195.47	2,195.47
		avg CUST flow	-	0	0	0	0	0	0	0	0	0
		avg EDU rev	#DIV/0!	#DIV/0!	425.47	430.75	422.90	413.87	416.28	1,056.81	1,054.68	1,054.65
		avg EDU flow	#DIV/0!	#DIV/0!	0	0	0	0	0	0	0	0

WORKING NOTES								WORKING NOTES				
2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	Rev Calculated				5,178,822	5,342,126	5,461,417	5,550,157	5,673,987	14,447,796	14,490,552

					2022	2023	2024	2025	2026	2027	2028
					Change			150.0%			30.0%
				$ 885.72	$ 896.71	$ 880.38	$ 880.38	$ 2,200.94	$ 2,200.94	$ 2,200.94	$ 2,861.22
							$ -	$ 1,320.57	$ -	$ -	$ 660.28
					-	99,086	119,291	14,178,467	2,600	36,029	36,136
					5,178,822	5,342,126	5,461,417	5,671,387	14,411,767	14,454,416	14,526,688
					-	-	-	8,507,080	-	-	4,358,006

Prior yr											
NET PURTA		0.1432%				179,368	180,518	183,121	187,396	190,286	192,346
REV Reg Assessment		0.5690%				30,039	30,602	31,281	80,881	82,209	82,451
						209,407	211,120	214,402	268,277	272,495	274,797

Towamencin Wastewater System Assets	
Investor Provide	29,879,443
Gross PP&E	125,257,168
Net PP&E	125,257,168
Revenues	5,279,190
EBITDA	2,054,035
EBIT	708,524
Customers	5,847
Population	20,425

	G PPE	-	-	125,257,168	125,257,168	
	NPPE	-	-	125,257,168	125,257,168	
	Cust	5,847	5,847	5,847	5,847	

	2017	2018	2019	2020	2021	2022	2023			
Towamencin										
LESS: EOS - Wages & Benefits	0	-	-	-	-	1,561,332		0.15	LESS: EOS - Wages	Wages & Benefits
LESS: EOS - Professional Services	0	0	0	0	-	308,765		0.5	LESS: EOS - Profes	Net Professional Serv
LESS: EOS - Eliminated Expenses	0	0	0	0	-	-			LESS: EOS - Eli	Line Rentals
Towamencin										
Wages			0	0	0	1,561,332				
Professional Services					0	308,765				
Eliminated Exp			0	0	0	0				

Towamencin					included in OCN	= to DepX	
Reported CAPX - from the financials	0	0	422,187	495,837	234,278	222,858	

WORKING NOTES												WORKING NOTES	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	2017	2018	2019	2020	2021			Assets	Per Books	Difference		
GROSS Property, plant and equipment	-	-	-	-	125,257,168			125,257,168	-			
Accumulated Depreciation	-	-	-	-	-			-	-			
NET PPE	-	-	-	-	125,257,168			125,257,168	-	125,257,168		
Total Debt	-	-	-	-	8,871,000			1,928,960				
Net Equity	-	-	-	-	21,008,443							
Investor Provided Capital	-	-	-	-	29,879,443							
Depreciation Rate	0.00%	0.00%	0.00%	#DIV/0!	1.54%							
Depreciation Expense	-	-	1,331,963	1,344,310	1,344,310	1,928,960.00	moved item from 2021 to 2022					

	2022	2023	2024	2025	2026	
CAPX	0	2,747,000	3,803,000	5,027,000	4,121,000	3,924,500

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment	149,973,893	152,966,743	154,124,018	154,920,468	156,907,819	158,920,664	160,959,330	163,024,148	165,115,454	167,233,588	169,378,894	171,551,720	173,752,420	175,981,351
Accumulated Depreciation	10,362,611	12,163,037	14,321,839	16,559,849	18,607,518	20,681,454	22,781,995	24,909,482	27,064,261	29,246,683	31,457,101	33,695,874	35,963,367	38,259,947
NET PPE	139,611,282	140,803,706	139,802,179	138,360,619	138,300,301	138,239,210	138,177,335	138,114,666	138,051,193	137,986,905	137,921,793	137,855,846	137,789,053	137,721,404
in Total Debt														
Net Equity														
Investor Provided Capital														

Depreciation / GROSS PPE

	3,586,000	3,521,000	1,361,500	937,000	0	0	0	0	0	0	0	0	0	0
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
	3,586,000	3,521,000	1,361,500	937,000	2,338,060	2,368,053	2,398,431	2,429,198	2,460,360	2,491,922	2,523,889	2,556,266	2,589,059	2,622,272
	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%	1.54%
	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%	0.77%
	27,612	27,112	10,484	7,215	18,003	18,234	18,468	18,705	18,945	19,188	19,434	19,683	19,936	20,191
	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	537,900	528,150	204,225	140,550	350,709	355,208	359,765	364,380	369,054	373,788	378,583	383,440	388,359	393,341
	8,284	8,134	3,145	2,164	5,401	5,470	5,540	5,611	5,683	5,756	5,830	5,905	5,981	6,057
	2,262,657	2,309,598	2,355,688	2,373,510	2,385,775	2,416,380	2,447,378	2,478,774	2,510,572	2,542,778	2,575,397	2,608,435	2,641,896	2,675,787
	2,281,986	2,328,576	2,363,027	2,378,560	2,398,377	2,429,144	2,460,306	2,491,867	2,523,833	2,556,210	2,589,001	2,622,213	2,655,852	2,689,921

Towamencin

Depreciation Expense

	7 2029	8 2030	9 2031	10 2032	11 2033	12 2034	13 2035	14 2036	15 2037	16 2038	17 2039	18 2040	19 2041	20 2042
	$ 3,586,000	$ 3,521,000	$ 1,361,500	$ 937,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	327,750.00	327,750.00	332,500.00	332,500.00	332,500.00	337,250.00	337,250.00	337,250.00	342,000.00	342,000.00	342,000.00	346,750.00	346,750.00	346,750.00
Sewer Rental Charges														
EDUs	13843	13912	13982	14052	14122	14193	14264	14335	14407	14479	14551	14624	14697	14770
	69	69	70	70	70	71	71	71	72	72	72	73	73	73

Towamencin

	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Towamencin	6,650	6,683	6,716	6,750	6,784	6,818	6,852	6,886	6,920	6,955	6,990	7,025	7,060	7,095
	18,979,118	19,074,013	19,169,383	23,118,276	23,233,868	23,350,037	23,584,121	23,702,042	23,939,655	24,059,353	24,300,548	24,422,051	24,740,514	24,864,217
	130.00%													
	2,854.11	2,854.11	2,854.11	3,424.93	3,424.93	3,424.93	3,442.05	3,442.05	3,459.26	3,459.26	3,476.56	3,476.56	3,504.37	3,504.37
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1,371.03	1,371.05	1,371.00	1,645.19	1,645.23	1,645.18	1,653.40	1,653.44	1,661.67	1,661.67	1,670.03	1,670.00	1,683.37	1,683.43
	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
	14,563,005	19,026,566	19,121,698	19,217,306	23,176,072	23,291,953	23,408,412	23,643,081	23,761,297	23,999,504	24,119,501	24,361,299	24,483,106	24,802,365
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
			20.0%			0.5%		0.5%		0.5%		0.8%		0.9%
	$ 2,861.22	$ 2,861.22	$ 3,433.47	$ 3,433.47	$ 3,433.47	$ 3,450.64	$ 3,450.64	$ 3,467.89	$ 3,467.89	$ 3,485.23	$ 3,485.23	$ 3,513.11	$ 3,513.11	$ 3,544.73
	$ -	$ -	$ 572.24	$ -	$ -	$ 17.17	$ -	$ 17.25	$ -	$ 17.34	$ -	$ 27.88	$ -	$ 31.62
	36,317	47,448	47,685	47,923	57,796	58,085	58,375	58,960	59,255	59,849	60,148	60,751	61,055	61,851
	18,979,118	19,074,013	19,169,383	23,118,276	23,233,868	23,350,037	23,584,121	23,702,042	23,939,655	24,059,353	24,300,548	24,422,051	24,740,514	24,864,217
	-	-	3,833,877	-	-	116,750	-	118,510	-	120,297	-	195,376	-	223,778
	198,056	199,923	201,631	200,197	198,132	198,046	197,959	197,870	197,780	197,689	197,597	197,504	197,410	197,314
	107,660	108,197	108,737	131,094	131,749	132,406	133,732	134,399	135,745	136,422	137,788	138,476	140,279	140,979
	305,716	308,120	310,368	331,291	329,881	330,452	331,691	332,269	333,525	334,111	335,385	335,980	337,689	338,293

Towamencin

LESS: EOS - Wages & Benefits		15% savings	15%	0.15
LESS: EOS - Professional Services	ices	50% savings	50%	0.5
LESS: EOS - Eliminated Expenses		10% savings	100%	1

Towamencin

Wages

Professional Services

Eliminated Exp

Towamencin

Reported CAPX - from the financials

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	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GROSS Property, plant and equipment														
Accumulated Depreciation														
NET PPE														
Total Debt														
Net Equity														
Investor Provided Capital														
Depreciation Rate														
Depreciation Expense														
CAPX														

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DEALS AUGUST 6, 2018 / 5:11 PM / 6 MONTHS AGO

SJW Group makes $1.1 billion all-cash offer for Connecticut Water

3 MIN READ

NEW YORK (Reuters) - SJW Group (SJW.N) and Connecticut Water Service Inc (CTWS.O) said on Monday they were changing from a merger to an acquisition agreement, with SJW offering to buy the New England utility for $1.1 billion in cash instead of combining stock.

The switch to an all-cash offer is worth $70 per Connecticut Water share, a 33 percent premium to Connecticut Water's share price prior to the original deal announced in March, according to a joint statement.

It was also higher than the implied $61.86 per share value of the Clinton, Connecticut-based firm under the merger-of-equals transaction, which would have created a combined company in which existing SJW shareholders would hold 60 percent of the stock.

SJW closed 2.3 percent lower, while Connecticut Water was 9 percent higher at $68.50.

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To pay for the acquisition, SJW will initially utilize a $975 million bridge loan from financial adviser JP Morgan Chase (JPM.N). Ultimately, the purchase would be covered by debt and between $450 million and $500 million of equity finance.

The new deal aims to conclude in the first quarter of 2019, subject to approvals from Connecticut Water's shareholders, as well as regulators in Connecticut and Maine.

The duo's original all-stock merger announcement in March triggered competing offers from Eversource Energy (ES.N) and California Water Service Group (CWT.N).

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"We have converted from a stock-for-stock deal to a cash offer, which will resolve any further market distractions from the inferior proposals," SJW Chief Executive Eric Thornburg told Reuters, in reference to the actions by Eversource and CalWater.

Switching to an acquisition, versus a merger structure, means that SJW shareholders will no longer be required to vote on approving the deal, the statement said.

CalWater has an open tender offer to acquire SJW that runs until Sept. 28.

However, asked if the change was aimed at heading off any shareholder challenge to the deal, Thornburg told Reuters it "wasn't a consideration" and it had received nothing but support from its shareholders.

RBS sounds alarm over Brexit

CalWater declined to comment. A spokesman for Eversource said the company was evaluating developments but, as it has made clear, it will be disciplined in pursuing this or any other transaction.

Reporting by David French in New York; Additional Reporting by Liana B. Baker; Editing by Lisa Shumaker

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CONNECTICUT WATER SERVICE INC / CT
BALANCE_SHEET2
Form Type: 10-K
Period End: Dec 31, 2017
Date Filed: Mar 15, 2018
Table Of Contents

CONNECTICUT WATER SERVICE, INC.

CONSOLIDATED BALANCE SHEETS

December 31, (in thousands, except share amounts)	2017	2016
ASSETS		
Utility Plant	$ 927,289	$ 777,860
Construction Work in Progress	11,761	33,748
	939,050	811,608
Accumulated Provision for Depreciation	(241,327)	(210,212)
Net Utility Plant	697,723	601,396
Other Property and Investments	10,662	9,071
Cash and Cash Equivalents	3,618	1,564
Accounts Receivable (Less Allowance, 2017 - $1,265; 2016 - $1,100)	14,965	13,024
Accrued Unbilled Revenues	8,481	8,171
Materials and Supplies, at Average Cost	1,593	1,536
Prepayments and Other Current Assets	7,021	5,069
Total Current Assets	35,678	29,364
Unrecovered Income Taxes - Regulatory Asset	66,631	93,264
Pension Benefits - Regulatory Asset	11,339	12,266
Post-Retirement Benefits Other Than Pension - Regulatory Asset	116	265
Goodwill	67,016	30,427
Deferred Charges and Other Costs	9,618	8,449
Total Regulatory and Other Long-Term Assets	154,720	144,671
Total Assets	$ 898,783	$ 784,502
CAPITALIZATION AND LIABILITIES		
Common Stockholders' Equity:		
Common Stock Without Par Value: Authorized - 25,000,000 Shares		
Issued and Outstanding:		
2017 - 12,065,016; 2016 - 11,248,458	$ 191,641	$ 145,739
Retained Earnings	102,417	91,213
Accumulated Other Comprehensive Loss	(428)	(924)
Common Stockholders' Equity	293,630	236,028
Preferred Stock	772	772
Long-Term Debt	253,367	197,047
Total Capitalization	547,769	433,847
Current Portion of Long-Term Debt	6,173	4,859
Interim Bank Loans Payable	19,281	32,953
Accounts Payable and Accrued Expenses	11,319	13,116
Accrued Interest	1,439	1,012
Current Portion of Refund to Customers - Regulatory Liability	64	855
Other Current Liabilities	3,262	2,330
Total Current Liabilities	41,538	55,125
Advances for Construction	20,024	19,127
Deferred Federal and State Income Taxes	33,579	50,558
Unfunded Future Income Taxes	58,384	90,977
Long-Term Compensation Arrangements	32,649	33,540
Unamortized Investment Tax Credits - Regulatory Liability	1,133	1,189
Excess Accumulated Deferred Income Tax - Regulatory Liability	30,937	4,373
Refund to Customers - Regulatory Liability	-	108
Other Long-Term Liabilities	1,241	701
Total Long-Term Liabilities	177,947	200,573
Contributions in Aid of Construction	131,529	94,957
Commitments and Contingencies	-	-
Total Capitalization and Liabilities	$ 898,783	$ 784,502

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CONNECTICUT WATER SERVICE INC / CT
INCOME_STATEMENT2
Form Type: 10-K
Period End: Dec 31, 2017
Date Filed: Mar 15, 2018

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CONNECTICUT WATER SERVICE, INC.

CONSOLIDATED STATEMENTS OF INCOME

For the Years Ended December 31, (in thousands, except per share data)	2017	2016	2015
Operating Revenues	$ 107,054	$ 98,667	$ 96,041
Operating Expenses			
Operation and Maintenance	48,017	44,191	48,052
Depreciation	16,684	13,905	12,871
Income Taxes	(1,993)	2,570	(818)
Taxes Other Than Income Taxes	10,941	9,796	9,294
Total Operating Expenses	73,649	70,462	69,399
Net Operating Revenues	33,405	28,205	26,642
Other Utility Income, Net of Taxes	824	744	797
Total Utility Operating Income	34,229	28,949	27,439
Other Income (Deductions), Net of Taxes			
(Loss) Gain on Real Estate Transactions	33	(54)	349
Non-Water Sales Earnings	1,167	1,219	1,394
Allowance for Funds Used During Construction	774	1,198	530
Other	(2,308)	(1,009)	(214)
Total Other Income (Loss), Net of Taxes	(334)	1,354	2,059
Interest and Debt Expenses			
Interest on Long-Term Debt	9,054	7,714	7,087
Other Interest Income, Net	(359)	(922)	(458)
Amortization of Debt Expense and Premium, Net	146	124	108
Total Interest and Debt Expenses	8,841	6,916	6,737
Net Income	25,054	23,387	22,761
Preferred Stock Dividend Requirement	38	38	38
Total Net Income Applicable to Common Stock	$ 25,016	$ 23,349	$ 22,723
Weighted Average Common Shares Outstanding:			
Basic	11,540	11,009	10,958
Diluted	11,762	11,228	11,164
Earnings Per Common Share:			
Basic	$ 2.17	$ 2.12	$ 2.07
Diluted	$ 2.13	$ 2.08	$ 2.04

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the Years Ended December 31, (in thousands)	2017	2016	2015
Net Income	$ 25,054	$ 23,387	$ 22,761
Other Comprehensive Income (Loss), net of tax			
Adjustment to post-retirement benefit plans, net of tax benefit (expense) of $(419), $15, and $(505) in 2017, 2016, and 2015, respectively	289	(24)	765
Unrealized Investment gain (loss), net of tax (expense) benefit of $(13), $(22) and $62, in 2017, 2016, and 2015, respectively	207	35	(97)
Other Comprehensive Income, net of tax	$ 496	$ 11	$ 668
Comprehensive Income	$ 25,550	$ 23,398	$ 23,429

A-6 LIST OF TOWNS SERVED

List by operating divisions the towns served directly, indicating those in which franchise is for limited area by an asterisk (*) after name. Give population of the area and the number of customers.

Line No.	Town	Population of Area	Number of Customers	Line No.	Town	Population of Area	Number of Customers
					Sub Totals Forward:	30,120	725
1	Belmont N. H.	7,356	160	16			
2	Bow, N.H.	7,519	95	17			
3	Carroll, N.H.	763	409	18			
4	Belmont, NH	7,356	22	19			
5	Gilford, NH	7,126	39	20			
6				21			
7				22			
8				23			
9				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15	Sub Totals Forward:	30,120	725	30	Total	30,120	725

A-7 PAYMENTS TO INDIVIDUALS

List names of all individuals, partnerships, or corporations to whom payments totaling $10,000 or more for services rendered were made or accrued during the year, and the amount paid or accrued to each. Where payments or accruals to the individual members of a partnership or firm together total $10,000 or more, list each individual and the amount paid or due each.

Line No.	Name	Address	Amount
1	NESC	Plainville,, Ct.	222,877
2	City of Laconia	Laconia, NH	91,004
3	Rowell's Services	Northfield, NH	57,242
4	Eversource	Boston, MA	43,226
5	CoBank	Greenwood Village, CO	43,000
6	Stephen P. St. Cyr & Associates	Biddeford, Me.	40,959
7	NH Brown Law	Somersworth, NH	37,206
8	PKF O'Conner Davies	Shelton, Ct.	36,020
9	State of NH	Concord, NH	16,544
10	Fortin Construction	Londonderry, NH	16,155
11	Town of Carroll	Carroll, NH	15,201
12	Town of Belmont	Belmont, NH	14,953
13	Harcros Chemicals	Chicago, IL	12,909
14			
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29			
30	Total		$ 647,296

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CONSUMPTION INFORMATION (Dover Division)

1. Estimated total population of territory covered by franchise		
2. Estimated population reached by the distributing system		
3. Estimated population actually supplied		1,809
4. Total consumption during the year in gallons		50,866,736
5. Average daily consumption (in gallons)		138,429
6. Day on which the greatest amount was pumped		8/13/2020
7. Gallons pumped on above day		368,000
8. Week during which greatest amount was pumped	8/9/20-8/15/20	
9. Gallons pumped during above week		1,906,000
10. Gallons per day per service		218
11. Consumption metered		50,866,736
12. Consumption metered,	100 percent of total consumption	

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
637	1	0	636

Name of City, Town, or District	Number of Customers as of December 31
Dover, MA	636

Sixty-four of these connections represent contractual service to Town of Dover plus one master meter at town connection.

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CONSUMPTION INFORMATION (Plymouth Division)

1. Estimated total population of territory covered by franchise	2,513
2. Estimated population reached by the distributing system	2,513
3. Estimated population actually supplied	2,513
4. Total consumption during the year (GALS)	101,211,880
5. Average daily consumption	294,414
6. Day on which the greatest amount was pumped	7/27/2020
7. Gallons pumped on above day	724,300
8. Week during which greatest amount was pumped	7/26/2020-8/1/2020
9. Gallons pumped during above week	4,544,900
10. Gallons per day per service	219
11. Consumption metered	101,211,880
12. Consumption metered,	100% percent of total consumption

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
853	0	9	862

Name of City, Town, or District	Number of Customers as of December 31
Plymouth, MA	862

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CONSUMPTION INFORMATION (Springdale Division)

1. Estimated total population of territory covered by franchise		115
2. Estimated population reached by the distributing system		115
3. Estimated population actually supplied		115
4. Total consumption during the year (GALS)		7,463,606
5. Average daily consumption		20,448
6. Day on which the greatest amount was pumped		6/27/2020
7. Gallons pumped on above day		88,000
8. Week during which greatest amount was pumped	6/21/20-6/27/20	
9. Gallons pumped during above week		407,000
10. Gallons per day per service		418
11. Consumption metered		7,463,606
12. Consumption metered,	100 percent of total consumption	

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
41	0	1	42

Name of City, Town, or District	Number of Customers as of December 31
Dover, MA	42

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CONSUMPTION INFORMATION

1. Estimated total population of territory covered by franchise	1100	
2. Estimated population reached by the distributing system	1100	
3. Estimated population actually supplied	1100	
4. Total consumption during the year	31,956,826	gals.
5. Average daily consumption	87,553	gals.
6. Day on which the greatest amount was pumped	7/20/2020	
7. Gallons pumped on above day	173,596	
8. Week during which greatest amount was pumped	7/16/20-7/25/20	
9. Gallons pumped during above week	975,066	
10. Gallons per day per service	180	
11. Consumption metered	31,956,826	gals.
12. Consumption metered,	100	% of total consumption

13. CUSTOMERS

Number Being Supplied at Beginning of Year	Discontinued Since	Connected Since	Number Being Supplied at Close of Year
487	0		487

Name of City, Town, or District	Number of Customers as of December 31
Sheffield, MA	
*487 metered customers, 3 fixed fee customers	490

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Filed by Eversource Energy
(Commission File No. 001-05324) pursuant
to Rule 425 under the Securities Act of 1933

Subject Company: New England Service Company

JOINT NEWS RELEASE

New England Service Company To be Acquired by Aquarion Water Company

Region's largest private water company expands operations in
Connecticut, Massachusetts and New Hampshire

BRIDGEPORT, CONN. – April 8, 2021 – Aquarion Company (Aquarion), parent of Aquarion Water Company, and New England Service Company (NESC) (OTC Pink Sheets Trading Symbol: NESW) today announced that they have entered into a definitive agreement whereby Aquarion will acquire all outstanding shares of NESC and NESC will become a wholly-owned subsidiary of Aquarion. Aquarion is a water supply company and holding company based in Bridgeport, Connecticut, providing regulated water service to customers in Connecticut, Massachusetts, and New Hampshire. NESC is a holding company based in Plainville, Connecticut providing regulated water service to customers in Connecticut, Massachusetts, and New Hampshire.

Under the agreement, which was unanimously approved by the Boards of Directors of both Aquarion and NESC, the acquisition will be executed through a stock-for-stock transaction that is structured to be a tax-free reorganization. The agreement provides that the stockholders of NESC will receive 0.51208 shares of the common shares of Aquarion's parent, Eversource Energy (Eversource) (NYSE: ES), in exchange for each share of NESC common stock. The fixed exchange ratio implies a $44.90 per share price based on the $87.68 closing price of Eversource Energy common shares on April 6, 2021. In connection with the exchange, Eversource Energy will issue approximately 463,000 shares of ES Common Stock at closing.

The merger includes NESC's Valley Water System in Connecticut, Colonial Water Company and Mountain Water Systems in Massachusetts, and Abenaki Water Company in New Hampshire, as well as unregulated service operations throughout New England. The merger will add nearly 10,000 customers to Aquarion's existing base of 216,000 customers. Under the agreement, all NESC employees will be retained.

"This merger will create long-term benefits for customers, employees, and the communities we serve," said Donald Morrissey, President of Aquarion Water Company. "We will make investments in these water systems focused on reliability and water quality and deliver a superior customer experience. We also welcome NESC's dedicated employees to the Aquarion team. I'm confident that we share a similar passion for delivering superior water service to customers and the communities we serve and being great stewards of the environment."

Over the last ten years, Aquarion has integrated over 70 water systems into its operations, strengthening the company's ability to deliver high-quality water to communities throughout the region.

"I am pleased to announce the NESC and Aquarion combination and look forward to working with Aquarion's leadership team on a smooth transition for our customers and employees," said Don Vaughan, NESC Chairman. He also noted, "Aquarion is well-positioned to deliver the reliable high-quality water service that our customers expect." NESC President, Nicholas LaChance, added "The stockholders, customers and employees of NESC will benefit from this deal with Aquarion. We view this transaction with Aquarion as a win for all of our stakeholders, and we look forward to working closely with their team."

The completion of the transaction will require approval by the stockholders of NESC, and the NESC Board of Directors has resolved to recommend the adoption of the merger agreement by the stockholders. The transaction is also subject to the approval of regulatory authorities, including the Connecticut Public Utilities Regulatory Authority, Massachusetts Department of Public Utilities, and New Hampshire Public Utilities Commission, and satisfaction of several other conditions. The parties plan to file all required regulatory applications over the coming months with an anticipated closing by the end of 2021.

Advisors and Counsel

Ropes & Gray LLP served as counsel to Aquarion Company and Eversource Energy in the transaction. Boenning & Scattergood, Inc. provided a fairness opinion to the Board of Directors of New England Service Company. Cranmore, FitzGerald and Meaney served as counsel to New England Service Company.

About Aquarion Water Company:

Aquarion Water Company is the public water supply company for more than 625,000 people in 52 cities and towns throughout Connecticut, as well as serving customers in Massachusetts and New Hampshire. It is the largest investor-owned water utility in New England and among the seven largest in the U.S. Based in Bridgeport, CT, Aquarion has been in the public water supply business since 1857. Across its operations, Aquarion strives to act as a responsible steward of the environment and to assist the communities it serves in promoting sustainable practices. Aquarion Company is a wholly-owned subsidiary of Eversource.

For more information on Aquarion Water Company, please visit www.aquarionwater.com or www.facebook.com/aquarionwater.

About New England Service Company

Headquartered in Plainville, Connecticut, NESC is predominantly involved in the operation, management and financing of water systems and other related activities. NESC was formed in 1997 to operate in both regulated and unregulated water markets. NESC is the sole stockholder of four regulated water companies.

For more information on New England Service Company please visit
www.NewEnglandServiceCompany.com

This news release includes statements concerning Aquarion and Aquarion Water Company's expectations, beliefs, plans, objectives, goals, strategies, assumptions of future events, future financial performance or growth and other statements that are not historical facts, including statements regarding the planned merger with New England Service Company, the timing of such transaction and benefits anticipated from such transaction. These statements are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Generally, readers can identify these forward-looking statements through the use of words or phrases such as "will," "estimate," "expect," "anticipate," "intend," "plan," "project," "believe," "forecast," "should," "could" and other similar expressions. Forward-looking statements involve risks and uncertainties that may cause actual results or outcomes to differ materially from those included in the forward-looking statements. Factors that may cause actual results to differ materially from those included in the forward-looking statements include, but are not limited to: the transaction is subject to conditions to closing, including regulatory approvals, that may not be satisfied; it may take longer than anticipated to consummate the transaction; we may not realize the benefits we anticipate from the transaction; unforeseen liabilities; risks relating to integration of the acquired business; and other presently unknown or unforeseen factors.

Other risk factors are detailed in Eversource Energy's reports filed with the Securities and Exchange Commission (SEC) and updated as necessary, and are available on Eversource Energy's website at www.eversource.com and on the SEC's website at www.sec.gov. All such factors are difficult to predict and contain uncertainties that may materially affect Aquarion or Aquarion Water Company's actual results, many of which are beyond our control. You should not place undue reliance on the forward-looking statements; each speaks only as of the date on which such statement is made, except as required by federal securities laws, and Aquarion Water Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

Additional Information

This communication does not constitute an offer to buy or solicitation of any offer to sell securities. This communication relates to a proposed business combination transaction between Aquarion Company and New England Service Company. In connection with the proposed business combination, Eversource Energy will file a registration statement with the SEC. This communication is not a substitute for any registration statement, prospectus/proxy statement or other document Eversource Energy, Aquarion Company and/or New England Service Company may file with the SEC in connection with the proposed transaction. INVESTORS AND SECURITY HOLDERS OF NEW ENGLAND SERVICE COMPANY ARE URGED TO READ CAREFULLY THE REGISTRATION STATEMENT, PROSPECTUS, PROXY STATEMENT AND OTHER DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT EVERSOURCE ENERGY, AQUARION COMPANY, NEW ENGLAND SERVICE COMPANY AND THE PROPOSED TRANSACTION. Investors and security holders may obtain free copies of these documents (when they are available) and other related documents filed with the SEC at the SEC's web site at www.sec.gov or by directing a request to Eversource's Investor Relations department at (860) 665-5154 or by email to jeffrey.kotkin@eversource.com.

Certain Information Regarding Participants

This filing may be deemed solicitation material in respect of the proposed business combination transaction between Aquarion Company and New England Service Company. The directors, trustees, executive officers and certain other members of management and employees of Eversource Energy, Aquarion Company and New England Service Company may be deemed "participants" in the solicitation of proxies from stockholders of New England Service Company in favor of the proposed merger. You can find information about Eversource's trustees and executive officers in Eversource's annual report on Form 10-K for the year ended December 31, 2020, which was filed with the SEC on February 17, 2021 and its proxy statement for its 2021 annual meeting filed with the SEC on March 26, 2021. Information regarding the persons who may, under the rules of the SEC, be considered participants in the solicitation of the stockholders of New England Service Company in connection with the proposed merger will be set forth in the registration statement, prospectus/proxy statement or other documents filed with the SEC if any when they become available. You may obtain these documents (when they become available) free of charge at the SEC's web site at www.sec.gov and from Investor Relations at Eversource as described above.

Media Contacts:
Aquarion Contact:
Peter Fazekas
Director – Corporate Communications
Aquarion Water Company
Phone: (203) 336-7651
pfazekas@aquarionwater.com

New England Service Company Contact:
Nicholas LaChance
President and Chief Executive Officer
New England Service Company
37 Northwest Drive
Plainville, CT 06062
Phone: (860)-747-1665
NLaChance@NewEnglandServiceCompany.com

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NEW ENGLAND SERVICE COMPANY, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

	December 31, 2020	December 31, 2019
ASSETS		
Utility plant, at cost	$ 52,176,919	$ 50,866,999
Less accumulated depreciation and amortization	(17,108,971)	(16,242,563)
Net Utility Plant	35,067,948	34,624,436
Non-utility property, plant and equipment	2,340,344	2,229,441
Less: accumulated depreciation	(841,502)	(736,994)
Net Non-Utility Property, Plant and Equipment	1,498,842	1,492,447
Current Assets		
Cash and cash equivalents	1,217,863	781,095
Marketable securities	387,294	456,385
Accounts receivable	682,735	728,725
Accrued unbilled revenues	391,450	369,136
Regulatory asset - revenue adjustment mechanism, current portion	83,303	218,322
Income taxes receivable	-	5,286
Materials and supplies inventory	105,343	99,032
Prepaid expenses	51,811	52,968
Total Current Assets	2,919,799	2,710,949
Other Assets		
Investment in cooperative capital plan	28,473	21,500
Deferred charges and other regulatory assets	2,243,524	1,750,628
Regulatory asset - revenue adjustment mechanism, net of current portion	10,426	48,847
Preliminary survey and investigation	5,111	4,883
Regulatory asset - income taxes recoverable	4,263,900	4,238,900
Total Other Assets	6,551,434	6,064,758
Total Assets	$ 46,038,023	$ 44,892,590

See Notes to Consolidated Financial Statements

NEW ENGLAND SERVICE COMPANY, INC. AND SUBSIDIARIES

Consolidated Balance Sheets *(continued)*

	December 31, 2020	December 31, 2019
STOCKHOLDERS' EQUITY AND LIABILITIES		
Stockholders' Equity		
Common stock, no par; 3,000,000 shares authorized; 906,418 shares issued, 903,325 and 900,850 shares outstanding at December 31, 2020 and 2019	$ 3,784,217	$ 3,784,217
Additional paid in capital	297,426	297,426
Treasury stock, at cost, 3,093 and 5,568 shares at December 31, 2020 and 2019	(72,974)	(128,758)
Retained earnings	12,776,934	12,511,864
Total Stockholders' Equity	16,785,603	16,464,749
Long-term debt, net of current portion	9,148,153	9,349,951
Current Liabilities		
Note payable, bank	122,000	70,500
Current portion of long-term debt	678,831	570,170
Accounts payable and accrued expenses	765,365	544,412
Accrued property and other taxes	234,396	215,792
Deferred revenues	117,927	76,874
Total Current Liabilities	1,918,519	1,477,748
Other Liabilities		
Deferred income taxes	5,739,210	5,443,590
Regulatory - excess deferred income taxes	762,275	763,669
Regulatory - excess income taxes	293,643	195,762
Security deposits and other deferred credits	105,525	109,249
Customer advances for construction	97,586	42,738
Contributions in aid of construction	9,519,329	9,431,954
Amortized contributions in aid of construction	1,668,180	1,614,180
Total Other Liabilities	18,185,748	17,601,142
Total Stockholder's Equity and Liabilities	$ 46,038,023	$ 44,893,590

See Notes to Consolidated Financial Statements

NEW ENGLAND SERVICE COMPANY, INC. AND SUBSIDIARIES

Consolidated Statements of Income

	Year Ended December 31, 2020	2019
OPERATING REVENUES		
Contracts with customers		
Utility revenues	$ 6,531,154	$ 6,047,244
Contracting and jobbing	1,519,110	1,497,323
Total Contracts with Customers	8,050,264	7,544,567
Alternative revenue programs	(56,176)	97,506
Total Operating Revenues	7,994,088	7,642,073
OPERATING EXPENSES		
Operation expenses	3,399,314	3,292,866
Maintenance expenses	369,749	322,583
Cost of contracting and jobbing	737,715	804,274
Depreciation and amortization	1,170,093	1,129,426
Taxes other than income taxes	757,357	743,266
Interest charges	347,298	350,372
Total Operating Expenses	6,781,526	6,642,787
Income from Operations	1,212,562	999,286
OTHER INCOME AND (DEDUCTIONS)		
Rental income and other	2,000	3,114
Investment income	21,350	70,550
Allowance for funds used during construction	10,771	5,275
Non-operating expense	(3,454)	(2,676)
Total Other Income	30,667	76,263
Income Before Income Taxes	1,243,229	1,075,549
Income tax expense	310,230	289,200
Net Income	$ 932,999	$ 786,349
PER SHARE AMOUNTS		
Weighted average shares outstanding	902,454	897,030
Net income	$ 1.03	$ 0.88
Dividends	$ 0.74	$ 0.70
Book value	$ 18.60	$ 18.35

See Notes to Consolidated Financial Statements

VALLEY WATER SYSTEMS, INC.

Notes to Financial Statements
Years Ended December 31, 2020 and 2019

1. Description of the Company

Valley Water Systems, Inc. (the "Company"), a wholly owned subsidiary of New England Service Company ("NESC"), is a public utility distributing water to approximately 6,760 customers in the towns of Plainville, Farmington, and Southington, Connecticut area. As a public utility operating in Connecticut, the Company functions under rules and regulations prescribed by the State of Connecticut Public Utilities Regulatory Authority ("PURA").

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company maintains its accounts in accordance with the PURA Uniform System of Accounts as prescribed for Water Utilities Class A. The Company prepares its financial statements in accordance with accounting principles generally accepted in the United States of America which include the provisions of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 980, *Regulated Operations* ("ASC 980"). Under ASC 980, regulated companies defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that those costs and credits will be recognized in the rate setting process in a period different from the period in which they would have been reflected in income by an unregulated company. These deferred regulatory assets and liabilities are then reflected in the income statement in the period in which the same amounts are reflected in rates charged for service.

Use of Estimates

The preparation of financial statements require management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported revenues and expenses. Accordingly, actual results could differ from these estimates.

Cash and Cash Equivalents

Cash and cash equivalents includes cash balances held in bank accounts and highly liquid debt instruments with maturities of three months or less at the time of purchase.

From time to time, the Company had on deposit at financial institutions cash and cash equivalents which exceed current federal deposit insurance limitations. The Company had not experienced any losses in such accounts to date and believes it is not exposed to any significant credit risk on cash and cash equivalents.

Accounts Receivable

Accounts receivable are stated at the amount management expects to collect from outstanding balances. The Company continuously monitors the creditworthiness of customers and establishes, when necessary, an allowance for amounts that may become uncollectible in the future based on current economic trends, historical payment and bad debt write-off experience.

subsidiary water companies, serving approximately 200,000 customers in 52 towns and cities with a population of approximately 674,000 throughout Connecticut's seven counties.[2] A map showing AWC-CT's current service area is attached to the Joint Application as Exhibit I. AWC-CT has provided water and water services to Connecticut residents and customers continuously since 1857. AWC-CT is well known to PURA and well respected by the water industry in Connecticut, and nationally. AWC-CT had over $1.68 billion of utility plant assets as of December 31, 2020 and operating revenues of $189.6 million in 2020.

Q. Please describe New England Service Company.

A. NESC is a Connecticut stock corporation. NESC was formed in 1996 as a holding company to operate in both regulated and unregulated water utility markets. NESC has one regulated water distribution operating subsidiary in Connecticut. VWS, a utility established in 1884 as the Plainville Water Company, delivers water to over 6,800 customers or a population of approximately 18,000 in Plainville, Southington, and Farmington, Connecticut. A map showing VWS' current service area is attached to the Joint Application as Exhibit I.

In addition to owning VWS, NESC is also the sole stockholder of Colonial Water Company, a utility that provides water to about 1,530 customers in Dover and Plymouth, Massachusetts; Mountain Water Systems, a utility that provides water to about 490 customers in Sheffield, Massachusetts; and Abenaki Water Company, a combination of

[2] AWC-CT has acquired and integrated 16 new water systems since its last general rate proceeding in September 2013 via the acquisitions of the assets of the Indian Fields, West Service Corp. (2 systems), Bedrock, East Derby, Litchfield Hills, Southeastern CT Water Authority Lantern Hill Division, Hickory Hills Corporation, Arlington Acres, Pleasure Valley, Hillside Water Corporation, Town of Marlborough, and Town of New Fairfield systems, in addition to the transfer of the Laurel Ridge, West Shore Owners Association and Interlaken Water System assets.

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Filed by Eversource Energy
(Commission File No. 001-05324) pursuant
to Rule 425 under the Securities Act of 1933
Subject Company: The Torrington Water Company

THE TORRINGTON WATER COMPANY LETTERHEAD

March 8, 2022

Dear Stockholder:

We are pleased to announce that on March 7, 2022, the Board of Directors of The Torrington Water Company (OTC Pink Sheets Trading Symbol: TORW) unanimously approved an Agreement and Plan of Merger (the "Agreement") with Aquarion Company (" Aquarion"), a wholly-owned subsidiary of Eversource Energy (NYSE: ES). Aquarion is a holding company based in Bridgeport, Connecticut with regulated water operations in Connecticut, Massachusetts, and New Hampshire. The Torrington Water Company ("TWC") is a public utility that provides water service to approximately 10,000 customers in the city of Torrington and the towns of Burlington, Harwinton, Litchfield and New Hartford, Connecticut.

Under the terms of the Agreement, which has been unanimously approved by the boards of directors of Aquarion and TWC, TWC would merge with and become a wholly-owned subsidiary of Aquarion, and the stockholdcrs of TWC would receive in exchange for their TWC shares a number of validly issued, fully paid and nonassessable common shares, par value $5.00 per share, of Eversource Energy. The exchange ratio ("Exchange Ratio") that determines the number of Eversource Energy common shares issued in the merger will float between 1.0241 and 1.07 IO and will be determined by dividing $93.51 by Eversource's volume weighted average share price for IO full trading days ending on and including the second full trading day prior to closing date of the merger ("Eversource Share Value"). The Exchange Ratio becomes fixed at 1.0710 if the Eversource Share Value is less than $87.32 and becomes fixed at 1.0241 if the Eversource Share Value is greater than $91.32. An Exchange Ratio of 1.0710 implies a $92.81 per share value based on the closing price of $88.66 for Eversource Energy common shares on March 7, 2022, or a market premium of approximately I 04% over TWC's $45.50 closing price on March 7, 2022. Boenning & Scattergood, Inc. provided a fairness opinion to the Board of Directors of TWC. Based on an Exchange Ratio or 1.07 IO and the most recently declared dividends by TWC and Eversource Energy, TWC shareholders would receive an equivalent dividend of $2.58 per share compared to their current dividend on TWC shares of$1.38 per share.

The completion of the merger will require approval by the stockholders of TWC, and the TWC Board of Directors has resolved to recommend the adoption of the Agreement by the stockholders. The merger is also subject to the satisfaction of several other customary closing conditions, including the approval of the Connecticut Public Utilities Regulatory Authority. The parties plan to file for the approval of the Connecticut Public Utilities Regulatory Authority shortly, with an anticipated consummation of the merger by the end of 2022.

Within the coming weeks, you will be mailed a Proxy Statement/Prospectus for the TWC Stockholder Meeting, at which TWC stockholders will consider and vote with respect to the proposed merger.

Enclosed with this letter is the press release announcing the signing of the Agreement. The press release provides additional information that will answer many of your questions.

Sincerely yours,
Susan Suhanovsky
President

Forward-Looking Statements

This letter includes statements concerning The Torrington Water Company's expectations, beliefs, plans, objectives, goals, strategies, assumptions of future events, future financial performance or growth and other statements that are not historical facts, including statements regarding the planned merger with Aquarion Water Company, the timing of such transaction and benefits anticipated from such transaction. These statements are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Generally, readers can identify these forward-looking statements through the use of words or phrases such as "will," "estimate," "expect," "anticipate," "intend," "plan," "project," "believe," "forecast," "should," "could" and other similar expressions. Forward-looking statements involve risks and uncertainties that may cause actual results or outcomes to differ materially from those included in the forward-looking statements. Factors that may cause actual results to differ materially from those included in the forward-looking statements include, but are not limited to: the transaction is subject to conditions to closing, including regulatory approvals, that may not be satisfied; it may take longer than anticipated to consummate the transaction; we may not realize the benefits we anticipate from the transaction; unforeseen liabilities; risks relating to integration of the acquired business; and other presently unknown or unforeseen factors.

This Communication Does Not Constitute a Solicitation of Proxies

This communication does not constitute an offer to buy or solicitation of any offer to sell securities. This communication relates to a proposed business combination transaction between Aquarion Company and The Torrington Water Company. In connection with the proposed business combination, Eversource Energy will file a registration statement with the SEC. This communication is not a substitute for any registration statement, prospectus/proxy statement or other document Eversource Energy, Aquarion Company and/or The Torrington Water Company may file with the SEC in connection with the proposed transaction. INVESTORS AND SECURITY HOLDERS OF THE TORRINGTON WATER COMPANY ARE URGED TO READ CAREFULLY THE REGISTRATION STATEMENT, PROSPECTUS, PROXY STATEMENT AND OTHER DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT EVERSOURCE ENERGY, AQUARION COMPANY, THE TORRINGTON WATER COMPANY AND THE PROPOSED TRANSACTION. Investors and security holders may be able to obtain free copies of these documents (when they are available) and other related documents filed with the SEC at the SEC's website at www.sec.gov. The materials may also be obtained for free by directing a written request to: Susan Suhanovsky, President, The Torrington Water Company, PO Box 867, Torrington, CT 06790, telephone (860) 489-4149. Investors should read the proxy materials/prospectus before making a decision regarding the merger.

This filing may be deemed solicitation material in respect of the proposed business combination transaction between Aquarion Company and The Torrington Water Company. The directors, trustees, executive officers and certain other members of management and employees of Eversource Energy, Aquarion Company and The Torrington Water Company may be deemed "participants" in the solicitation of proxies from stockholders of The Torrington Water Company in favor of the proposed merger. You can find information about Eversource's trustees and executive officers in Eversource's annual report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on February 17, 2022 and its proxy statement for its 2021 annual meeting filed with the SEC on March 26, 2021. Information regarding the persons who may, under the rules of the SEC, be considered participants in the solicitation of the stockholders of The Torrington Water Company in connection with the proposed merger will be set forth in the registration statement, prospectus/proxy statement or other documents filed with the SEC if any when they become available. You may obtain these documents (when they become available) free of charge at the SEC's web site at www.sec.gov and from Susan Suhanovsky at The Torrington Water Company as described above.

About Aquarion Water Company:

Aquarion Water Company is the public water supply company for more than 700,000 people in 68 cities and towns in Connecticut, Massachusetts and New Hampshire. It is the largest investor-owned water utility in New England and among the seven largest in the U.S. Based in Bridgeport, CT, Aquarion has been in the public water supply business since 1857. Across its operations, Aquarion strives to act as a responsible steward of the environment and to assist the communities it serves in promoting sustainable practices. Aquarion Water Company is a wholly-owned subsidiary of Eversource.

For more information on Aquarion Water Company, please visit www.aquarionwater.com or www.facebook.com/aquarionwater.

MUNICIPALITIES SUPPLIED

1. Show below the names of the municipalities in which the respondent supplies water and the number of customers in each.

Line No.	Name (a)	Estimated Population Supplied*** (b)	Number of customers served by meter* (c)	Number of customers not served by meter** (d)	Total customers supplied (e)
1	Torrington	29,000	9,789	-	9,789
2	New Hartford	18	7	-	7
3	Litchfield	171	57	-	57
4	Harwinton	402	134	-	134
5	Burlington	414	138		138
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55	Total	30,005	10,125	-	10,125

THE TORRINGTON WATER COMPANY

Balance Sheets

	December 31,		
	2021	2020	2019
ASSETS			
Utility plant, at cost	$74,999,793	$71,847,851	$69,057,611
Less: accumulated depreciation	26,458,744	25,210,076	24,139,469
Net utility plant	48,541,049	46,637,775	44,918,142
Nonutility property, net of accumulated depreciation	202,624	372,935	372,935
Current Assets			
Cash and cash equivalents	1,577,648	2,781,302	1,064,441
Accounts receivable	554,416	757,705	518,129
Accrued unbilled revenues	876,500	858,000	821,000
Regulatory asset-water revenue adjustment, current portion	627,149	631,461	707,560
Materials and supplies inventory	196,635	369,507	300,436
Prepaid expenses	168,630	183,413	132,139
Total Current Assets	4,000,978	5,581,388	3,543,705
Other Assets			
Other assets	1,924,448	1,976,334	2,306,894
Preliminary survey and investigation charges	154,216	154,216	230,862
Regulatory asset-income taxes recoverable	7,375,800	6,855,660	6,476,000
Regulatory asset-water revenue adjustment, net of current portion	146,373	142,065	154,160
Regulatory asset-unfunded postretirement benefits	3,371,985	3,205,165	3,038,255
Total Other Assets	12,972,822	12,333,440	12,206,171
Total Assets	$65,717,473	$64,925,538	$61,040,953

See notes to financial statements

THE TORRINGTON WATER COMPANY

Balance Sheets *(continued)*

	December 31,		
	2021	2020	2019
STOCKHOLDERS' EQUITY AND LIABILITIES			
Stockholders' Equity			
Common stock, no par; 1,000,000 shares authorized; 864,000 issued and outstanding	$ 1,800,000	$ 1,800,000	$ 1,800,000
Retained earnings	21,930,762	21,326,808	20,524,284
Total Stockholders' Equity	23,730,762	23,126,808	22,324,284
Long-term debt, net	12,305,080	12,656,619	10,515,289
Current Liabilities			
Current portion of long-term debt	360,000	360,000	360,000
Accounts payable	191,921	586,707	329,619
Accrued taxes	501,964	695,550	611,538
Accrued interest	173,400	179,520	185,640
Other current liabilities	113,561	131,691	133,408
Total Current Liabilities	1,340,846	1,953,468	1,620,205
Other Liabilities			
Deferred income taxes	9,589,665	8,889,230	8,416,575
Regulatory liability-excess deferred income taxes	1,139,918	1,200,609	1,261,300
Unfunded postretirement benefits	3,371,985	3,205,165	3,038,255
Customer advances for construction	506,436	544,075	515,481
Contributions in aid of construction	11,078,991	10,772,973	10,850,172
Amortized contributions in aid of construction	2,653,790	2,576,591	2,499,392
Total Other Liabilities	28,340,785	27,188,643	26,581,175
Total Stockholders' Equity and Liabilities	$65,717,473	$64,925,538	$61,040,953

See notes to financial statements

THE TORRINGTON WATER COMPANY

Statements of Income and Retained Earnings

	Year Ended December 31,		
	2021	2020	2019
OPERATING REVENUES			
Contracts with customers	$ 6,934,525	$ 6,956,272	$ 6,268,405
Alternative revenue programs	900,619	762,420	1,211,817
Total Operating Revenues	7,835,144	7,718,692	7,480,222
OPERATING EXPENSES			
Operation expenses	2,485,521	2,570,359	2,381,493
Maintenance expenses	703,589	698,831	647,629
Depreciation expense	1,217,968	1,170,187	1,146,922
Taxes other than income taxes	1,382,016	1,333,810	1,319,487
Income taxes	133,200	135,900	74,200
Total Operating Expenses	5,922,294	5,909,087	5,569,731
Utility Operating Income	1,912,850	1,809,605	1,910,491
Other Income and Deductions			
Merchandising and jobbing, net	123,068	123,170	116,208
Interest income	2,411	2,212	4,025
Miscellaneous non-operating income	247,496	192,286	160,412
Gain on forgiveness of Paycheck Protection Program loan	-	276,057	-
Allowance for funds used during construction	42,306	26,707	10,905
Total Other Income and Deductions	415,281	620,432	291,550
Taxes applicable to other income	33,604	28,604	21,055
Net Other Income and Deductions	381,677	591,828	270,495
Income Before Interest Expense	2,294,527	2,401,433	2,180,986
Interest Expense			
Interest on long-term debt	489,624	466,235	446,760
Amortization of deferred financing costs	8,461	7,998	7,350
Other interest	168	1,476	1,538
Total Interest Expense	498,253	475,709	455,648
Net Income	1,796,274	1,925,724	1,725,338
RETAINED EARNINGS			
Dividends declared	(1,192,320)	(1,123,200)	(1,080,000)
Retained earnings, beginning	21,326,808	20,524,284	19,878,946
Retained earnings, ending	$21,930,762	$21,326,808	$20,524,284
PER SHARE AMOUNTS			
Net income, basic	$ 2.08	$ 2.23	$ 2.00
Dividends declared	$ 1.38	$ 1.30	$ 1.25
Book value	$ 27.47	$ 26.77	$ 25.84

See notes to financial statements

	BCWSA			ACSA			ALTOONA WATER AUTHORITY			CRWA		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**	**2020**	**2019**	**2018**	**2020**	**2019**	**2018**
NET Property, plant and equipment	457,544,068	453,174,193	444,814,214	643,502,136	629,097,945	622,343,318	94,458,106	100,528,196	106,598,286	224,285,248	203,420,262	178,131,377
Operating Income	17,944,985	19,821,564	15,116,318	80,147,473	75,382,370	68,023,690	4,082,275	6,157,037	14,022,174	19,083,482	21,336,089	20,313,529
ROR/N PPE	3.92%	4.37%	3.40%	12.45%	11.98%	10.93%	4.32%	6.12%	13.15%	8.51%	10.49%	11.40%
3-Year Average	3.90%			11.79%			7.87%			10.13%		
Median of Each Year		5.08%										
Median of Each Entity		5.42%										
Conclusion			5.25%									

	CHESTER WATER AUTHORITY			ERIE CITY WATER AUTHORITY			LASA*			RAWA		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**	**2020**	**2019**	**2018**	**2020**	**2019**	**2018**
NET Property, plant and equipment	280,862,318	282,920,765	277,881,505	200,008,941	194,099,358	191,070,499	147,014,498	140,405,221	142,318,075	63,336,954	66,455,706	64,973,550
Operating Income	4,928,913	4,705,194	1,487,430	13,461,619	9,549,652	10,005,109	6,069,056	6,901,580	6,054,460	3,653,656	3,556,133	2,945,874
ROR/N PPE	1.75%	1.66%	0.54%	6.73%	4.92%	5.24%	4.13%	4.92%	4.25%	5.77%	5.35%	4.53%
3-Year Average	1.32%			5.63%			4.43%			5.22%		
Median of Each Year												
Median of Each Entity												
Conclusion												

* Fiscal year 3/31

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	WCMA*			PITTSBURGH WATER & SEWER		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
NET Property, plant and equipment	617,498,278	590,631,677	554,245,152	921,650,000	830,578,000	757,480,000
Operating Income	26,537,557	23,281,341	27,079,696	50,831,000	65,808,000	61,660,000
ROR/N PPE	4.30%	3.94%	4.89%	5.52%	7.92%	8.14%
3-Year Average	4.38%			7.19%		

*Fiscal Year 3/31

Median of Each Year

Median of Each Entity

Conclusion

BUCKS COUNTY WATER AND SEWER AUTHORITY
STATEMENTS OF NET POSITION
YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
ASSETS		
Current Assets		
Cash and Cash Equivalents	$ 5,872,075	$ 5,870,876
Investments	17,122,426	23,051,730
Accounts Receivable, Net of Allowance for Doubtful Accounts	8,310,705	6,175,101
Unbilled Revenue Receivable	9,768,802	9,020,572
Prepaid Expenses	729,044	692,186
Total Current Assets	41,803,052	44,810,465
Non-Current Assets		
Restricted Assets		
Cash and Cash Equivalents	3,617,503	3,922,837
Investments	63,732,897	60,095,138
Interest Receivable	920,477	748,766
Total Restricted Assets	68,270,877	64,766,741
Capital Assets		
Land, Rights-of-Way and Construction in Progress	81,292,208	77,851,553
Other Capital Assets, Net of Accumulated Depreciation	376,251,860	375,322,640
Total Capital Assets, Net	457,544,068	453,174,193
Total Non-Current Assets	525,814,945	517,940,934
Total Assets	567,617,997	562,751,399
Deferred Outflows of Resources		
Deferred Amount from Debt Refundings	7,790,319	8,818,011
Pension: Changes in Assumptions	591,106	591,106
Pension: Difference Between Expected and Actual Experience	805,127	805,127
Pension: Difference Between Projected and Actual Earnings on Investments	1,691,386	1,691,386
Pension: Contributions Made Subsequent to Measurement Date	4,326,752	4,326,752
OPEB: Difference Between Expected and Actual Experience	26,180	34,877
OPEB: Difference Between Projected and Actual Earnings on Plan Investments	-	1,972
Total Deferred Outflows of Resources	15,230,870	16,269,231
LIABILITIES AND NET POSITION		
Current Liabilities		
Accounts Payable and Accrued Expenses	12,749,312	11,887,091
Current Portion of Bonds Payable	22,375,000	21,345,000
Interest Payable	745,039	803,887
Total Current Liabilities	35,869,351	34,035,978
Non-Current Liabilities		
Customer and Developer Deposits	3,613,254	3,715,610
Bonds Payable, Net of Unamortized Bond Discount and Premium	223,030,306	233,209,683
Net Pension Liability	1,880,256	1,880,256
Net OPEB Liability	4,026,011	3,953,798
Total Non-Current Liabilities	232,549,827	242,759,347
Total Liabilities	268,419,178	276,795,325
Deferred Inflows of Resources		
Pension: Changes in Assumptions	32,118	32,118
OPEB: Changes in Assumptions	241,345	321,526
OPEB: Difference Between Projected and Actual Earnings on Investments	86,429	-
Proceeds from Sale of Future Revenues	3,795,454	3,967,975
Total Deferred Inflows of Resources	4,155,346	4,321,619
Net Position		
Net Investment in Capital Assets	229,523,791	216,079,031
Restricted for Capital Activity	15,719,591	12,077,609
Restricted for Debt Service	31,553,004	31,514,000
Unrestricted	33,477,957	38,233,046
Total Net Position	$ 310,274,343	$ 297,903,686

See accompanying notes to the financial statements.

BUCKS COUNTY WATER AND SEWER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES,
AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
Operating Revenues		
Retail Sewer Service	$ 54,861,161	$ 49,612,675
Wholesale Sewer Service	14,337,247	20,728,839
Retail Water Service	11,747,314	11,481,175
Wholesale Water Service	4,663,441	4,315,851
Improvement and Tapping Fees	263,705	580,375
Other Revenues	3,557,822	5,875,885
Total Operating Revenues	89,430,690	92,594,800
Expenses		
Operating Expenses		
Sewage Treatment and Water Procurement		
Sewage Treatment	19,678,584	20,534,850
Water Procurement	5,736,644	5,352,970
Total Sewage Treatment and Water Procurement	25,415,228	25,887,820
Plant Operations		
Payroll and Related Costs	2,732,227	1,927,213
Repairs and Maintenance	1,945,504	1,292,778
Electricity	521,131	405,213
Water and Sewage Testing	249,680	256,279
Total Plant Operations	5,448,542	3,881,483
Collection, Transmission and Distribution Service		
Payroll and Related Costs	8,845,809	9,070,825
Repairs and Maintenance	3,084,311	2,347,631
Electricity	885,701	807,210
Other Related Costs	216,408	274,544
Total Collection, Transmission and Distribution Service	13,032,229	12,500,210
Total Operating Expenses	43,895,999	42,269,513
General and Administrative Expenses		
Payroll and Related Costs	4,412,980	4,536,162
Professional Fees	2,329,876	2,732,816
Insurance	497,923	522,165
Other	2,382,465	3,199,536
Total General and Administrative Expense	9,623,244	10,990,679
Total Expenses	53,519,243	53,260,192
Income From Operations Before Depreciation	35,911,447	39,334,608
Depreciation	(17,966,462)	(19,513,044)
Operating Income	17,944,985	19,821,564
Nonoperating Revenue (Expense)		
Interest Expense, Net of Amounts Capitalized	(7,770,635)	(8,517,857)
Investment Income	628,113	2,078,449
Improvement and Tapping Fees	1,821,485	1,262,884
Amortization	(253,291)	(218,126)
Total Nonoperating Expense	(5,574,328)	(5,394,650)
Increase In Net Position	12,370,657	14,426,914
Net Position - Beginning of Year	297,903,686	283,476,772
Net Position - End of Year	$ 310,274,343	$ 297,903,686

See accompanying notes to the financial statements.

BUCKS COUNTY WATER AND SEWER AUTHORITY
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
DECEMBER 31, 2019 AND 2018

NOTE 6: SEGMENT INFORMATION

As of and for the years ended December 31, 2019 and 2018 segment information is as follows:

	2019			
Assets	Sewer System	Water System	Administrative Account	Totals
Current Assets				
Cash and Investments	$ 14,429,267	$ 11,367,223	$ 3,126,116	$ 28,922,606
Accounts Receivable, Unbilled Revenue and Net Intercompany Transfers	6,989,222	17,310,475	(9,104,024)	15,195,673
Other	608,655	83,531	-	692,186
Non-Current Assets				
Restricted Assets	48,050,977	12,345,721	4,370,043	64,766,741
Capital Assets	304,158,678	142,902,978	6,112,537	453,174,193
Total Assets	374,236,799	184,009,928	4,504,672	562,751,399
Deferred Outflows of Resources				
Deferred Amount from Debt Refundings	2,839,649	5,978,362	-	8,818,011
Pension: Changes in Assumptions	465,033	126,073	-	591,106
Pension: Difference Between Expected and Actual Experience	674,207	130,920	-	805,127
Pension: Difference Between Projected and Actual Earnings on Investments	1,437,679	253,707	-	1,691,386
Pension: Contributions Made Subsequent to Measurement Date	3,275,976	1,050,776	-	4,326,752
OPEB: Difference Between Expected and Actual Experience	29,645	5,232	-	34,877
OPEB: Difference Between Projected and Actual Earnings on Plan Investments	1,676	296	-	1,972
Total Deferred Outflows of Resources	8,723,865	7,545,366	-	16,269,231
Liabilities and Net Position				
Liabilities				
Current Liabilities	29,501,359	3,745,556	789,063	34,035,978
Non-Current Liabilities	150,796,046	88,247,692	3,715,609	242,759,347
Total Liabilities	180,297,405	91,993,248	4,504,672	276,795,325
Deferred Inflows of Resources				
Pension: Changes in Assumptions	27,086	5,032	-	32,118
Pension: Difference Between Projected and Actual Earnings on Investments	(165,256)	165,256	-	-
OPEB: Changes in Assumptions	273,297	48,229	-	321,526
Proceeds from Sale of Future Revenues	-	3,967,975	-	3,967,975
Total Deferred Inflows of Resources	135,127	4,186,492	-	4,321,619
Net Position				
Net Investment in Capital Assets	156,941,099	53,025,395	6,112,537	216,079,031
Restricted for Capital Activity	5,071,173	6,352,002	654,434	12,077,609
Restricted for Debt Service	25,520,284	5,993,716	-	31,514,000
Unrestricted	14,995,576	30,004,441	(6,766,971)	38,233,046
Total Net Position	$ 202,528,132	$ 95,375,554	$ -	$ 297,903,686

BUCKS COUNTY WATER AND SEWER AUTHORITY
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
DECEMBER 31, 2019 AND 2018

NOTE 6: SEGMENT INFORMATION (CONTINUED)

	2018			
Assets	Sewer System	Water System	Administrative Account	Totals
Current Assets				
Cash and Investments	$ 13,996,611	$ 9,258,718	$ 1,343,631	$ 24,598,960
Accounts Receivable, Unbilled Revenue and Net Intercompany Transfers	6,114,899	18,137,594	(6,574,182)	17,678,311
Other	610,549	85,000	-	695,549
Non-Current Assets				
Restricted Assets	47,524,162	12,202,731	3,988,462	63,715,355
Capital Assets	293,945,954	145,484,365	5,383,895	444,814,214
Total Assets	362,192,175	185,168,408	4,141,806	551,502,389
Deferred Outflows of Resources				
Deferred Amount from Debt Refundings	3,503,369	6,462,562	-	9,965,931
Pension: Changes in Assumptions	632,513	155,628	-	788,141
Pension: Difference Between Expected and Actual Experience	162,431	40,607	-	203,038
Pension: Contributions Made Subsequent to Measurement Date	6,428,229	1,607,056	-	8,035,285
Total Deferred Outflows of Resources	10,726,542	8,265,853	-	18,992,395
Liabilities and Net Position				
Liabilities				
Current Liabilities	24,140,550	3,373,492	645,278	28,159,320
Non-Current Liabilities	156,519,961	91,561,281	3,496,528	251,577,770
Total Liabilities	180,660,511	94,934,773	4,141,806	279,737,090
Deferred Inflows of Resources				
Pension: Changes in Assumptions	36,187	6,638	-	42,825
Pension: Difference Between Projected and Actual Earnings on Investments	2,478,081	619,520	-	3,097,601
Proceeds from the Sale of Future Revenues	-	4,140,496	-	4,140,496
Total Deferred Inflows of Resources	2,514,268	4,766,654	-	7,280,922
Net Position				
Net Investment in Capital Assets	129,539,966	61,197,479	5,383,898	196,121,343
Restricted for Capital Activity	18,722,168	-	491,930	19,214,098
Restricted for Debt Service	28,801,994	6,333,246	-	35,135,240
Unrestricted	12,679,810	26,202,109	(5,875,828)	33,006,091
Total Net Position	$ 189,743,938	$ 93,732,834	$ -	$ 283,476,772

BUCKS COUNTY WATER AND SEWER AUTHORITY
STATEMENTS OF NET POSITION
DECEMBER 31, 2019 AND 2018

ASSETS	2019	2018
Current Assets		
Cash and Cash Equivalents	$ 5,870,876	$ 3,803,232
Investments	23,051,730	20,795,728
Accounts Receivable, Net of Allowance for Doubtful Accounts	6,175,101	7,707,994
Unbilled Revenue Receivable	9,020,572	9,970,317
Prepaid Expenses	692,186	695,549
Total Current Assets	44,810,465	42,972,820
Non-Current Assets		
Restricted Assets		
Cash and Cash Equivalents	3,922,837	3,541,256
Investments	60,095,138	59,883,991
Interest Receivable	748,766	290,108
Total Restricted Assets	64,766,741	63,715,355
Capital Assets		
Land, Rights-of-Way and CIP	77,851,553	79,376,857
Other Capital Assets, Net of Accumulated Depreciation	375,322,640	365,437,357
Total Capital Assets, Net	453,174,193	444,814,214
Total Non-Current Assets	517,940,934	508,529,569
Total Assets	562,751,399	551,502,389
Deferred Outflows of Resources		
Deferred Amount from Debt Refundings	8,818,011	9,965,931
Pension: Changes in Assumptions	591,106	788,141
Pension: Difference Between Expected and Actual Experience	805,127	203,038
Pension: Difference Between Projected and Actual Earnings on Investments	1,691,386	-
Pension: Contributions Made Subsequent to Measurement Date	4,326,752	8,035,285
OPEB: Difference Between Expected and Actual Experience	34,877	-
OPEB: Difference Between Projected and Actual Earnings on Plan Investments	1,972	-
Total Deferred Outflows of Resources	16,269,231	18,992,395
LIABILITIES AND NET POSITION		
Current Liabilities		
Accounts Payable and Accrued Expenses	11,887,091	6,872,214
Current Portion of Bonds Payable	21,345,000	20,460,000
Interest Payable	803,887	827,106
Total Current Liabilities	34,035,978	28,159,320
Non-Current Liabilities		
Customer and Developer Deposits	3,715,610	3,496,528
Bonds Payable, Net of Unamortized Bond Discount and Premium	233,209,683	239,927,805
Net Pension Liability	1,880,256	2,296,351
Net OPEB Liability	3,953,798	5,857,086
Total Non-Current Liabilities	242,759,347	251,577,770
Total Liabilities	276,795,325	279,737,090
Deferred Inflows of Resources		
Pension: Changes in Assumptions	32,118	42,825
Pension: Difference Between Projected and Actual Earnings on Investments	-	3,097,601
OPEB: Changes in Assumptions	321,526	-
Proceeds from Sale of Future Revenues	3,967,975	4,140,496
Total Deferred Inflows of Resources	4,321,619	7,280,922
Net Position		
Net Investment in Capital Assets	216,079,031	196,121,343
Restricted for Capital Activity	12,077,609	19,214,098
Restricted for Debt Service	31,514,000	35,135,240
Unrestricted	38,233,046	33,006,091
Total Net Position	$ 297,903,686	$ 283,476,772

See accompanying notes to the financial statements.

BUCKS COUNTY WATER AND SEWER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES,
AND CHANGES IN NET POSITION
YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
Operating Revenues		
Retail Sewer Service	$ 49,612,675	$ 48,634,267
Wholesale Sewer Service	20,728,839	19,105,200
Retail Water Service	11,481,175	11,755,194
Wholesale Water Service	4,315,851	4,357,235
Improvement and Tapping Fees	580,375	279,425
Other Revenues	5,875,885	4,697,553
Total Operating Revenues	92,594,800	88,828,874
Expenses		
Operating Expenses		
Sewage Treatment and Water Procurement		
Sewage Treatment	20,534,850	20,862,709
Water Procurement	5,352,970	5,611,587
Total Sewage Treatment and Water Procurement	25,887,820	26,474,296
Plant Operations		
Payroll and Related Costs	1,927,213	1,592,995
Repairs and Maintenance	1,292,778	1,251,844
Electricity	405,213	461,808
Water and Sewage Testing	256,279	218,091
Total Plant Operations	3,881,483	3,524,738
Collection, Transmission and Distribution Service		
Payroll and Related Costs	9,070,825	8,191,888
Repairs and Maintenance	2,347,631	1,992,003
Electricity	807,210	995,191
Other Related Costs	274,544	298,459
Total Collection, Transmission and Distribution Service	12,500,210	11,477,541
Total Operating Expenses	42,269,513	41,476,575
General and Administrative Expenses		
Payroll and Related Costs	4,536,162	6,780,772
Professional Fees	2,732,816	1,981,255
Insurance	522,165	476,597
Other	3,199,536	4,933,790
Total General and Administrative Expense	10,990,679	14,172,414
Total Expenses	53,260,192	55,648,989
Income From Operations Before Depreciation	39,334,608	33,179,885
Depreciation	(19,513,044)	(18,063,567)
Operating Income	19,821,564	15,116,318
Nonoperating Revenue (Expense)		
Interest Expense,		
Net of Amounts Capitalized	(8,517,857)	(9,017,615)
Investment Income	2,078,449	2,015,753
Other	-	4,824
Improvement and Tapping Fees	1,262,884	2,750,737
Amortization	(218,126)	(51,377)
Total Nonoperating Expense	(5,394,650)	(4,297,678)
Increase In Net Position, Before Contributed Capital	14,426,914	10,818,640
Contributed Capital	-	779,914
Net Position - Beginning of Year, as Previously Reported	283,476,772	275,130,457
Adjustment for GASB No. 75	-	(3,252,239)
Net Position - Beginning of Year, Restated	283,476,772	271,878,218
Net Position - End of Year	$ 297,903,686	$ 283,476,772

See accompanying notes to the financial statements.

BUCKS COUNTY WATER AND SEWER AUTHORITY
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
DECEMBER 31, 2018 AND 2017

NOTE 6: SEGMENT INFORMATION

As of and for the years ended December 31, 2018 and 2017 segment information is as follows:

	2018			
Assets	Sewer System	Water System	Administrative Account	Totals
Current Assets				
Cash and Investments	$ 13,996,611	$ 9,258,718	$ 1,343,631	$ 24,598,960
Accounts Receivable and Unbilled Revenue	6,114,899	18,137,594	(6,574,182)	17,678,311
Other	610,549	85,000	-	695,549
Non-Current Assets				
Restricted Assets	47,524,162	12,202,731	3,988,462	63,715,355
Capital Assets	293,945,954	145,484,365	5,383,895	444,814,214
Total Assets	362,192,175	185,168,408	4,141,806	551,502,389
Deferred Outflows of Resources				
Deferred Amount from Debt Refundings	3,503,369	6,462,562	-	9,965,931
Changes in Assumptions	632,513	155,628	-	788,141
Difference Between Expected and Actual Experience	162,431	40,607	-	203,038
Contributions Made Subsequent to Measurement Date	6,428,229	1,607,056	-	8,035,285
Total Deferred Outflows of Resources	10,726,542	8,265,853	-	18,992,395
Liabilities and Net Position				
Liabilities				
Current Liabilities	24,140,550	3,373,492	645,278	28,159,320
Non-Current Liabilities	156,519,961	91,561,281	3,496,528	251,577,770
Total Liabilities	180,660,511	94,934,773	4,141,806	279,737,090
Deferred Inflows of Resources				
Changes in Assumptions	36,187	6,638	-	42,825
Difference Between Projected and Actual Earnings on Investments	2,478,081	619,520	-	3,097,601
Proceeds from the Sale of Future Revenues	-	4,140,496	-	4,140,496
Total Deferred Inflows of Resources	2,514,268	4,766,654	-	7,280,922
Net Position				
Net Investment in Capital Assets	129,539,966	61,197,479	5,383,898	196,121,343
Restricted for Capital Activity	18,722,168	-	491,930	19,214,098
Restricted for Debt Service	28,801,994	6,333,246	-	35,135,240
Unrestricted	12,679,810	26,202,109	(5,875,828)	33,006,091
Total Net Position	$ 189,743,938	$ 93,732,834	$ -	$ 283,476,772

BUCKS COUNTY WATER AND SEWER AUTHORITY
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
DECEMBER 31, 2018 AND 2017

NOTE 6: SEGMENT INFORMATION (CONTINUED)

	2018		
	Sewer System	Water System	Totals
Operating Revenues			
Retail Sewer Service	$ 48,634,267	$ -	$ 48,634,267
Wholesale Sewer Service	19,105,200	-	19,105,200
Retail Water Service	-	11,755,194	11,755,194
Wholesale Water Service	-	4,357,235	4,357,235
Improvement and Tapping Fees	-	279,425	279,425
Other Revenues	3,130,165	1,567,388	4,697,553
Total Operating Revenues	70,869,632	17,959,242	88,828,874
Expenses			
Operating Expenses			
Sewage Treatment and Water Procurement			
Sewage Treatment	20,862,709	-	20,862,709
Water Procurement	-	5,611,587	5,611,587
Total Sewage and Water Procurement	20,862,709	5,611,587	26,474,296
Plant Operations			
Payroll and Related Costs	1,592,995	-	1,592,995
Repairs and Maintenance	1,251,844	-	1,251,844
Electricity	461,808	-	461,808
Water and Sewage Testing	218,091	-	218,091
Total Plant Operations	3,524,738	-	3,524,738
Collection, Transmission and Distribution Service			
Payroll and related costs	6,404,591	1,787,297	8,191,888
Repairs and maintenance	1,660,514	331,489	1,992,003
Electricity	822,812	172,379	995,191
Other related costs	209,224	89,235	298,459
Total Collection, Transmission and Distribution Service Expense	9,097,141	2,380,400	11,477,541
Total Operating Expense	33,484,588	7,991,987	41,476,575
General and Administrative Expenses			
Payroll and related costs	5,714,319	1,066,453	6,780,772
Professional fees	1,747,815	233,440	1,981,255
Insurance	395,522	81,075	476,597
Other	4,821,938	111,852	4,933,790
Total General and Administrative Expenses	12,679,594	1,492,820	14,172,414
Income from Operations before depreciation	24,705,450	8,474,435	33,179,885
Depreciation	(14,696,296)	(3,367,271)	(18,063,567)
Operating Income	10,009,154	5,107,164	15,116,318
Nonoperating Revenue (Expense)			
Interest Expense, net of Amounts Capitalized	(5,405,915)	(3,611,700)	(9,017,615)
Investment Income	1,623,182	392,571	2,015,753
Other	4,824	-	4,824
Improvement and Tapping Fees	2,750,737	-	2,750,737
Amortization	(51,377)	-	(51,377)
Total Nonoperating Expense	(1,078,549)	(3,219,129)	(4,297,678)
Increase in Net Position, Before Contributed Capital	8,930,605	1,888,035	10,818,640
Contributed Capital	710,204	69,710	779,914
Net Position - Beginning of Year, as Previously Reported	182,867,532	92,262,925	275,130,457
Adjustment for GASB No. 75	(2,764,403)	(487,836)	(3,252,239)
Net Position - Beginning of Year, Restated	180,103,129	91,775,089	271,878,218
Net Position, End of Year	$ 189,743,938	$ 93,732,834	$ 283,476,772

BUCKS COUNTY WATER AND SEWER AUTHORITY
NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
DECEMBER 31, 2018 AND 2017

NOTE 6: SEGMENT INFORMATION (CONTINUED)

	2018			
	Sewer System	Water System	Administrative Account	Totals
Cash Flows from Operating Activities				
Cash Received from Customers	$ 72,660,789	$ 17,539,631	$ -	$ 90,200,420
Payments to Suppliers	(31,373,585)	(6,551,971)	-	(37,925,556)
Payroll and Related Payments	(13,711,973)	(3,095,494)	-	(16,807,467)
Other Operating (Payments) / Transactions	12,644,098	(13,022,354)	222,511	(155,745)
Net Cash Provided from Operations	40,219,329	(5,130,188)	222,511	35,311,652
Cash Flows from Capital and Related Financing Activities				
Acquisition and Construction of Capital Assets	(12,799,197)	(860,416)	(191,958)	(13,851,571)
Improvement and Tapping Fees	2,750,737	-	-	2,750,737
Bond Principal Repayments	(17,784,999)	(2,475,000)	-	(20,259,999)
Interest Paid	(6,364,234)	(3,537,201)	-	(9,901,435)
Net Cash Used in Capital and Related Financing Activities	(34,197,693)	(6,872,617)	(191,958)	(41,262,268)
Cash Flows from Investing Activities				
Sale of Investments, Net	(5,599,131)	12,069,155	-	6,470,024
Interest Received	14,790	392,571	-	407,361
Net Cash Used in Investing Activities	(5,584,341)	12,461,726	-	6,877,385
Net Increase (Decrease) in Cash and Cash Equivalents	437,295	458,921	30,553	926,769
Cash and Cash Equivalents - Beginning of Year	1,529,900	33,485	4,854,334	6,417,719
Cash and Cash Equivalents - End of Year	$ 1,967,195	$ 492,406	$ 4,884,887	$ 7,344,488
Displayed as:				
Cash and Cash Equivalents	$ 1,967,195	$ 492,406	$ 1,343,631	$ 3,803,232
Restricted Cash and Cash Equivalents	-	-	3,541,256	3,541,256
	$ 1,967,195	$ 492,406	$ 4,884,887	$ 7,344,488
Reconciliation of Operating Income to Net Cash Provided from Operations:				
Operating Income	$ 10,009,154	$ 5,107,164	$ -	$ 15,116,318
Adjustments to Reconcile Operating Income to Net Cash Provided from Operating Activities				
Depreciation	14,696,296	3,367,271	-	18,063,567
Changes in Assets and Liabilities:				
Receivables and Unbilled Revenue, Net	3,276,483	(247,091)	-	3,029,392
Prepaid Expenses	(34,155)	(5,410)	-	(39,565)
Intercompany Receivables (Payables)	12,685,022	(13,036,180)	351,158	-
Accounts Payable and Accrued Expenses	531,336	(121,266)	(164,592)	245,478
Interest Payable	(37,555)	16,262	-	(21,293)
Customer and Developer Deposits	-	-	35,945	35,945
Net Pension and OPEB Liabilities and Related Pension Deferrals	(907,252)	(210,938)	-	(1,118,190)
Net Cash Provided from Operations	$ 40,219,329	$ (5,130,188)	$ 222,511	$ 35,311,652

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF NET POSITION

DECEMBER 31, 2020 AND 2019

Assets and Deferred Outflows of Resources

	2020	2019
Assets:		
Current assets:		
Cash and cash equivalents	$ 209,431,473	$ 175,476,686
Accounts receivable:		
Billed sewer revenue	20,446,710	16,702,983
Unbilled sewer revenue	44,044,901	43,666,409
Other	4,734	30,225
Other current assets	6,634,434	6,604,244
Total current assets	280,562,252	242,480,547
Restricted/designated assets:		
Cash and cash equivalents	272,815,362	150,150,904
Investments	-	84,963,478
Accrued interest receivable	-	375,444
Total restricted/designated assets	272,815,362	235,489,826
Prepaid bond costs	5,815,062	6,591,319
Nondepreciable capital assets:		
Land	5,344,896	5,344,896
Construction in progress	94,302,298	81,287,241
Total nondepreciable capital assets	99,647,194	86,632,137
Depreciable capital assets - at cost, net of accumulated depreciation	543,854,942	542,465,808
Total	643,502,136	629,097,945
Total Assets	1,202,694,812	1,113,659,637
Deferred Outflows of Resources:		
Related to pensions	27,581,534	35,676,281
Other post-retirement benefits	1,758,333	853,236
Refunding adjustment	5,247,763	6,278,101
Total Deferred Outflows of Resources	34,587,630	42,807,618
Total Assets and Deferred Outflows of Resources	$ 1,237,282,442	$ 1,156,467,255

Liabilities, Deferred Inflows of Resources, and Net Position

	2020	2019
Liabilities:		
Current liabilities:		
Accounts payable	$ 6,092,972	$ 7,349,003
Accrued liabilities:		
Compensated absences	5,950,167	4,994,678
Salaries and wages	1,985,019	1,751,181
Accrued interest on bonds	2,592,551	2,638,762
Reserve for litigation	2,371,900	2,371,900
Pretreatment advance payments	2,600	1,850
Current maturities of sewer revenue bonds	28,785,000	27,635,000
Total current liabilities	47,780,209	46,742,374
Long-term liabilities:		
Other post-employment benefits	13,901,968	12,087,137
Net pension liability	7,266,922	28,684,748
Sewer revenue bonds - less current maturities	670,495,000	650,300,000
Unamortized bond premium	67,960,993	50,763,732
Net long-term debt	738,455,993	701,063,732
Total long-term liabilities	759,624,883	741,835,617
Total Liabilities	807,405,092	788,577,991
Deferred Inflows of Resources:		
Related to pensions	25,133,372	9,341,236
Other post-retirement benefits	3,169,749	1,904,424
Total Deferred Inflows of Resources	28,303,121	11,245,660
Net Position:		
Net investment in capital assets	154,324,268	142,167,140
Unrestricted	247,249,961	214,476,464
Total Net Position	401,574,229	356,643,604
Total Liabilities, Deferred Inflows of Resources, and Net Position	$ 1,237,282,442	$ 1,156,467,255

The notes to financial statements are an integral part of this statement.

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ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
Operating Revenues	$ 186,799,875	$ 180,238,305
Operating Expenses:		
Treatment	50,981,608	49,805,868
Intercepting sewer systems	8,771,952	8,753,813
Upper Allegheny system	307,944	298,412
Administrative and engineering	15,682,596	15,962,845
Billing and collecting	4,461,391	3,572,073
Management information systems	4,071,959	3,690,385
Total operating expenses before depreciation	84,277,450	82,083,396
Operating Income Before Depreciation	102,522,425	98,154,909
Depreciation	22,374,952	22,772,539
Operating Income	80,147,473	75,382,370
Non-operating Revenues (Expenses):		
Interest income	2,002,687	8,966,272
Interest expense on bonds	(27,485,399)	(28,261,390)
Amortization of prepaid bond costs	(516,597)	(596,640)
Loss on capital assets retired	(4,573,423)	-
Change in value of pension related items	(2,469,057)	(4,177,854)
Change in value of OPEB related items	(2,175,059)	(774,061)
Total non-operating revenues (expenses)	(35,216,848)	(24,843,673)
Change in Net Position	44,930,625	50,538,697
Net Position:		
Beginning of year	356,643,604	306,104,907
End of year	$ 401,574,229	$ 356,643,604

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF NET POSITION

DECEMBER 31, 2019 AND 2018

Assets and Deferred Outflows of Resources

	2019	2018
Assets:		
Current assets:		
Cash and cash equivalents	$ 175,476,686	$ 142,482,220
Accounts receivable:		
Billed sewer revenue	16,702,983	16,544,587
Unbilled sewer revenue	43,666,409	41,408,016
Other	30,225	4,469
Other current assets	6,604,244	6,556,274
Total current assets	242,480,547	206,995,566
Restricted/designated assets:		
Cash and cash equivalents	150,150,904	83,445,720
Investments	84,963,478	167,782,528
Accrued interest receivable	375,444	622,842
Total restricted/designated assets	235,489,826	251,851,090
Prepaid bond costs	6,591,319	7,187,959
Nondepreciable capital assets:		
Land	5,344,896	5,344,896
Construction in progress	81,287,241	59,836,813
Total nondepreciable capital assets	86,632,137	65,181,709
Depreciable capital assets - at cost, net of accumulated depreciation	542,465,808	557,161,609
Total	629,097,945	622,343,318
Net pension asset	-	2,705,577
Total Assets	1,113,659,637	1,091,083,510
Deferred Outflows of Resources:		
Related to pensions	35,676,281	17,633,917
Other post-retirement benefits	853,236	932,894
Refunding adjustment	6,278,101	7,077,328
Total Deferred Outflows of Resources	42,807,618	25,644,139
Total Assets and Deferred Outflows of Resources	$ 1,156,467,255	$ 1,116,727,649

Liabilities, Deferred Inflows of Resources, and Net Position

	2019	2018
Liabilities:		
Current liabilities:		
Accounts payable	$ 7,349,003	$ 7,180,579
Accrued liabilities:		
Compensated absences	4,994,678	4,539,483
Salaries and wages	1,751,181	1,529,529
Accrued interest on bonds	2,638,762	2,745,875
Reserve for litigation	2,371,900	2,371,900
Pretreatment advance payments	1,850	24,375
Current maturities of sewer revenue bonds	27,635,000	26,630,000
Total current liabilities	46,742,374	45,021,741
Long-term liabilities:		
Other post-employment benefits	12,087,137	13,297,158
Net pension liability	28,684,748	6,121,872
Sewer revenue bonds - less current maturities	650,300,000	677,935,000
Unamortized bond premium	50,763,732	55,857,500
Net long-term debt	701,063,732	733,792,500
Total long-term liabilities	741,835,617	753,211,530
Total Liabilities	788,577,991	798,233,271
Deferred Inflows of Resources:		
Related to pensions	9,341,236	12,389,471
Other post-retirement benefits	1,904,424	-
Total Deferred Inflows of Resources	11,245,660	12,389,471
Net Position:		
Net investment in capital assets	142,167,140	120,849,236
Unrestricted	214,476,464	185,255,671
Total Net Position	356,643,604	306,104,907
Total Liabilities, Deferred Inflows of Resources, and Net Position	$ 1,156,467,255	$ 1,116,727,649

The notes to financial statements are an integral part of this statement.

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ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
Operating Revenues	$ 180,238,305	$ 169,724,327
Operating Expenses:		
Treatment	49,805,868	47,633,280
Intercepting sewer systems	8,753,813	8,490,808
Upper Allegheny system	298,412	563,244
Administrative and engineering	15,962,845	14,736,160
Billing and collecting	3,572,073	3,482,212
Management information systems	3,690,385	3,723,344
Total operating expenses before depreciation	82,083,396	78,629,048
Operating Income Before Depreciation	98,154,909	91,095,279
Depreciation	22,772,539	23,071,589
Operating Income	75,382,370	68,023,690
Non-operating Revenues (Expenses):		
Interest income, net of amounts capitalized	8,966,272	3,127,451
Interest expense on bonds	(28,261,390)	(20,735,872)
Amortization of prepaid bond costs	(596,640)	(629,995)
Change in value of pension related items	(4,177,854)	(61,702)
Change in value of OPEB related items	(774,061)	(789,172)
Total non-operating revenues (expenses)	(24,843,673)	(19,089,290)
Change in Net Position	50,538,697	48,934,400
Net Position:		
Beginning of year	306,104,907	257,170,507
End of year	$ 356,643,604	$ 306,104,907

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF NET POSITION

DECEMBER 31, 2018 AND 2017

Assets and Deferred Outflows of Resources

	2018	2017
Assets:		
Current assets:		
Cash and cash equivalents	$ 142,482,220	$ 119,248,255
Accounts receivable:		
Billed sewer revenue	16,544,587	17,185,654
Unbilled sewer revenue	41,408,016	40,232,780
Other	4,469	4,635
Other current assets	6,556,274	6,432,263
Total current assets	206,995,566	183,103,587
Restricted/designated assets:		
Cash and cash equivalents	83,445,720	100,289,509
Investments	167,782,528	-
Accrued interest receivable	622,842	-
Total restricted/designated assets	251,851,090	100,289,509
Prepaid bond costs	7,187,959	6,472,479
Nondepreciable capital assets:		
Land	5,344,896	5,344,896
Construction in progress	59,836,813	38,371,565
Total nondepreciable capital assets	65,181,709	43,716,461
Depreciable capital assets - at cost, net of accumulated depreciation	557,161,609	564,883,734
Total	622,343,318	608,600,195
Net pension asset	2,705,577	-
Total Assets	1,091,083,510	898,465,770
Deferred Outflows of Resources:		
Related to pensions	17,633,917	21,247,515
Other post-retirement benefits	932,894	-
Refunding adjustment	7,077,328	8,074,203
Total Deferred Outflows of Resources	25,644,139	29,321,718
Total Assets and Deferred Outflows of Resources	$ 1,116,727,649	$ 927,787,488

Liabilities, Deferred Inflows of Resources, and Net Position

	2018	2017
Liabilities:		
Current liabilities:		
Accounts payable	$ 7,180,579	$ 7,167,120
Accrued liabilities:		
Compensated absences	4,539,483	4,689,828
Salaries and wages	1,529,529	1,441,024
Accrued interest on bonds	2,745,875	2,260,535
Reserve for litigation	2,371,900	2,371,900
Pretreatment advance payments	24,375	71,600
Current maturities of sewer revenue bonds	26,630,000	25,395,000
Total current liabilities	45,021,741	43,397,007
Long-term liabilities:		
Other post-employment benefits	13,297,158	6,199,726
Net pension liability	6,121,872	16,421,705
Sewer revenue bonds - less current maturities	677,935,000	547,335,000
Unamortized bond premium	55,857,500	48,952,220
Net long-term debt	733,792,500	596,287,220
Total long-term liabilities	753,211,530	618,908,651
Total Liabilities	798,233,271	662,305,658
Deferred Inflows of Resources:		
Related to pensions	12,389,471	2,935,957
Net Position:		
Net investment in capital assets	120,849,236	95,281,689
Unrestricted	185,255,671	167,264,184
Total Net Position	306,104,907	262,545,873
Total Liabilities, Deferred Inflows of Resources, and Net Position	$ 1,116,727,649	$ 927,787,488

The notes to financial statements are an integral part of this statement.

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ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
Operating Revenues	$ 169,724,327	$ 170,182,173
Operating Expenses:		
Treatment	47,633,280	44,821,531
Intercepting sewer systems	8,490,808	7,100,846
Upper Allegheny system	563,244	487,512
Administrative and engineering	14,736,160	13,772,696
Billing and collecting	3,482,212	4,439,250
Management information systems	3,723,344	3,778,272
Total operating expenses before depreciation	78,629,048	74,400,107
Operating Income Before Depreciation	91,095,279	95,782,066
Depreciation	23,071,589	22,426,718
Operating Income	68,023,690	73,355,348
Non-operating Revenues (Expenses):		
Interest income, net of amounts capitalized	3,127,451	1,096,517
Interest expense on bonds, net of amounts capitalized	(20,735,872)	(21,544,440)
Amortization of prepaid bond costs	(629,995)	(693,501)
Change in value of pension related items	(61,702)	(3,196,667)
Change in value of OPEB related items	(789,172)	-
Total non-operating revenues (expenses)	(19,089,290)	(24,338,091)
Change in Net Position	48,934,400	49,017,257
Net Position:		
Beginning of year, as restated for 2018	257,170,507	213,528,616
End of year	$ 306,104,907	$ 262,545,873

The notes to financial statements are an integral part of this statement.

CAPITAL REGION WATER

BALANCE SHEETS

DECEMBER 31, 2020 AND 2019

	2020	2019
Assets and Deferred Outflows of Resources		
Assets:		
Current assets:		
Cash and cash equivalents	$ 33,125,086	$ 37,818,930
Accounts receivable, net of allowance for uncollectible accounts of $6,812,663 and $6,179,939	12,990,450	11,392,879
Grants receivable	207,125	481,413
Due from the City of Harrisburg	3,247,428	3,030,340
Prepaid expenses	631,891	407,379
Inventory	226,727	219,675
Total current assets	50,428,707	53,350,616
Restricted assets:		
Cash and cash equivalents - restricted under trust indentures and guarantee agreement	10,339,323	10,728,097
Investments - restricted under trust indentures	19,133,382	23,792,020
Total restricted assets	29,472,705	34,520,117
Noncurrent assets:		
Capital assets, not being depreciated	41,304,196	25,938,916
Capital assets, net of accumulated depreciation of $138,312,983 and $132,254,413	182,981,052	177,481,346
Net pension asset	793,994	-
Total noncurrent assets	225,079,242	203,420,262
Total Assets	304,980,654	291,290,995
Deferred Outflows of Resources:		
Deferred loss on refunding	6,138,866	6,849,812
Deferred outflows of resources for other postemployment benefits	154,587	78,714
Deferred outflows of resources for pension	1,018,573	1,518,157
Total Deferred Outflows of Resources	7,312,026	8,446,683
Total Assets and Deferred Outflows of Resources	$ 312,292,680	$ 299,737,678

CAPITAL REGION WATER

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
Operating Revenues:		
User charges	$ 46,053,281	$ 47,556,016
Total operating revenues	46,053,281	47,556,016
Operating Expenses:		
Operating	15,078,242	14,776,480
Administrative	5,832,986	5,788,495
Depreciation	6,058,571	5,654,952
Total operating expenses	26,969,799	26,219,927
Operating Income	19,083,482	21,336,089
Non-Operating Revenues (Expenses):		
Investment income	426,489	1,193,936
Grant revenue	177,024	1,184,617
Gain on sale of easements	191,516	40,000
Miscellaneous income (expense)	921,942	606,499
Gain (loss) on disposal of capital assets	2,000	(74,363)
Interest expense	(5,725,558)	(5,836,796)
Total non-operating revenues (expenses)	(4,006,587)	(2,886,107)
Change in Net Position	15,076,895	18,449,982
Net Position:		
Beginning of year	94,622,873	76,172,891
End of year	$109,699,768	$ 94,622,873

The accompanying notes are an integral part of these financial statements.

CAPITAL REGION WATER

BALANCE SHEET

DECEMBER 31, 2019

(with comparative totals as of December 31, 2018)

	2019	2018
Assets and Deferred Outflows of Resources		
Assets:		
Current assets:		
Cash and cash equivalents	$ 37,818,930	$ 48,169,716
Accounts receivable, net of allowance for uncollectible accounts of $6,179,939 and $5,914,774	11,392,879	10,001,747
Grants receivable	481,413	905,431
Due from the City of Harrisburg	3,030,340	3,686,285
Prepaid expenses	407,379	403,089
Inventory	219,675	347,960
Total current assets	53,350,616	63,514,228
Restricted assets:		
Cash and cash equivalents - restricted under trust indentures and guarantee agreement	10,728,097	19,430,292
Investments - restricted under trust indentures	23,792,020	19,433,058
Total restricted assets	34,520,117	38,863,350
Noncurrent assets:		
Capital assets, not being depreciated	25,938,916	16,946,141
Capital assets, net of accumulated depreciation of $132,254,413 and $128,988,007	177,481,346	160,175,578
Net pension asset	-	1,009,658
Total noncurrent assets	203,420,262	178,131,377
Total Assets	291,290,995	280,508,955
Deferred Outflows of Resources:		
Deferred loss on refunding	6,849,812	7,877,263
Deferred outflows of resources for other postemployment benefits	78,714	77,533
Deferred outflows of resources for pension	1,518,157	651,522
Total Deferred Outflows of Resources	8,446,683	8,606,318
Total Assets and Deferred Outflows of Resources	$ 299,737,678	$ 289,115,273

CAPITAL REGION WATER

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEAR ENDED DECEMBER 31, 2019

(with comparative totals for the year ended December 31, 2018)

	2019	2018
Operating Revenues:		
User charges	$ 47,556,016	$ 44,895,271
Total operating revenues	47,556,016	44,895,271
Operating Expenses:		
Operating	14,776,480	13,894,496
Administrative	5,788,495	5,293,225
Depreciation	5,654,952	5,394,021
Total operating expenses	26,219,927	24,581,742
Operating Income	21,336,089	20,313,529
Non-Operating Revenues (Expenses):		
Investment income	1,193,936	568,004
Grant revenue	1,184,617	1,502,468
Gain on sale of easements	40,000	4,838,927
Miscellaneous income (expense)	606,499	(180,383)
Loss on disposal of capital assets	(74,363)	-
Interest expense	(5,836,796)	(6,812,458)
Total non-operating revenues (expenses)	(2,886,107)	(83,442)
Change in Net Position	18,449,982	20,230,087
Net Position:		
Beginning of year	76,172,891	55,942,804
End of year	$ 94,622,873	$ 76,172,891

The accompanying notes are an integral part of these financial statements.

CAPITAL REGION WATER

BALANCE SHEET

DECEMBER 31, 2018

Assets and Deferred Outflows of Resources	
Assets:	
Current assets:	
Cash and cash equivalents	$ 48,169,716
Accounts receivable, net of allowance for uncollectible accounts of $5,914,774	10,001,747
Grants receivable	905,431
Due from the City of Harrisburg	3,686,285
Prepaid expenses	403,089
Inventory	347,960
Total current assets	63,514,228
Restricted assets:	
Cash and cash equivalents - restricted under trust indentures and guarantee agreement	19,430,292
Investments - restricted under trust indentures	19,433,058
Total restricted assets	38,863,350
Noncurrent assets:	
Capital assets, not being depreciated	16,946,141
Capital assets, net of accumulated depreciation of $128,988,007	160,175,578
Net pension asset	1,009,658
Total noncurrent assets	178,131,377
Total Assets	280,508,955
Deferred Outflows of Resources:	
Deferred loss on refunding	7,877,263
Deferred outflows of resources for other postemployment benefits	77,533
Deferred outflows of resources for pension	651,522
Total Deferred Outflows of Resources	8,606,318
Total Assets and Deferred Outflows of Resources	$ 289,115,273

CAPITAL REGION WATER

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEAR ENDED DECEMBER 31, 2018

Operating Revenues:	
User charges	$ 44,895,271
Total operating revenues	44,895,271
Operating Expenses:	
Operating	13,894,496
Administrative	5,293,225
Depreciation	5,394,021
Total operating expenses	24,581,742
Operating Income	20,313,529
Non-Operating Revenues (Expenses):	
Investment income	568,004
Grant revenue	1,502,468
Gain on sale of easements	4,838,927
Miscellaneous expense	(180,383)
Interest expense	(6,812,458)
Total non-operating revenues (expenses)	(83,442)
Change in Net Position	20,230,087
Net Position:	
Beginning of year - restated	55,942,804
End of year	$ 76,172,891

The accompanying notes are an integral part of these financial statements.

CITY OF ALTOONA
BLAIR COUNTY, PENNSYLVANIA
STATEMENT OF NET POSITION
DECEMBER 31, 2020
(AMOUNTS EXPRESSED IN WHOLE DOLLARS)

	PRIMARY GOVERNMENT	COMPONENT UNITS		
	Governmental Activities	Altoona Water Authority	Redevelopment Authority of Altoona	The Parking Authority of the City of Altoona
ASSETS				
Cash and Cash Equivalents	$ 31,413,012	$ 5,350,729	$ 246,634	$ 128,655
Investments	237,289	10,115,673	0	0
Taxes Receivable	4,127,451	0	0	0
Accounts Receivable	0	3,890,554	0	692
Intergovernmental Receivables	200,975	0	0	0
Loans Receivable - Current	687,316	0	9,826	0
Other Receivables	537,728	8,295	0	0
Prepaid Expenses	302,750	228,189	0	1,017
Inventory	406,484	0	0	0
Loans Receivable - Long-Term	5,731,660	0	94,387	0
Right to Use Asset, Net	0	94,458,106	0	0
Capital Assets, Net of Accumulated Depreciation	404,818,897	0	248,717	2,489,094
TOTAL ASSETS	$448,463,562	$114,051,546	$ 599,564	$2,619,458
Deferred Outflows of Resources				
Deferred Charges:				
Bond Discounts	$ 43,943	$ 0	$ 0	$ 0
Defined Benefit Pensions	9,503,418	1,160,795	0	0
OPEB Plans	410,933	0	0	0
Total Deferred Outflows of Resources	$ 9,958,294	$ 1,160,795	$ 0	$ 0
LIABILITIES				
Accounts Payable	$ 1,940,050	$ 1,137,391	$ 580	$ 17,229
Accrued Payroll	478,552	0	0	4,136
Payroll Taxes and Benefits Payable	321,792	0	0	3,263
Accrued Expenses	0	302,112	0	0
Accrued Payroll, Taxes, and Withholding	0	247,835	0	0
Accumulated Compensated Absences	0	0	0	1,093
Accrued Interest	484,310	0	0	291
Deposits Held	136,987	83,805	0	0
Unearned Revenues - Grants	6,720,952	0	0	0
Unearned Revenues - Rent Received in Advance	0	0	200	32,749
Noncurrent Liabilities:				
Due Within One Year	4,813,139	4,243,433	0	23,132
Due in More Than One Year	129,441,566	139,374,630	0	141,860
TOTAL LIABILITIES	$144,337,348	$145,389,206	$ 780	$ 223,753
Deferred Inflows of Resources				
Defined Benefit Pensions	$ 13,641,984	$ 1,975,668	$ 0	$ 0
NET POSITION				
Net Investment in Capital Assets	$335,150,152	$ 0	$ 248,717	$2,324,102
Restricted for:				
Highway Aid	966,475	0	0	0
Capital Expenditures	6,100,506	0	0	0
Recreation	243,369	0	0	0
Other Projects	4,410,401	0	344,636	0
Water Authority	0	0	0	0
Unrestricted (Deficit)	(46,428,379)	(32,152,533)	5,431	71,603
TOTAL NET POSITION	$300,442,524	($ 32,152,533)	$ 598,784	$2,395,705

See Accompanying Notes and Independent Auditor's Report

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER OPERATING FUND

	2020 BUDGET 0%
REVENUE	
WATER SALES	17,900,000
SALES TO OTHER UTILITIES	500,000
BULK SALES	-
CAPITAL SURCHARGE	500,000
PENALTIES	90,000
INSTALL/RENEW-SERVICE LINES	95,000
METER INCOME	30,000
SHUT OFFS	60,000
FIRE LINES	330,000
FINAL READINGS	45,000
CAPACITY FEES	30,000
REIMBURSEMENTS-BELLWOOD BORO	96,589
REIMBURSEMENTS-HOLLIDAYSBURG BORO	342,652
INTEREST INCOME	50,000
SERVICE-WASTEWATER DIVISION	1,161,358
TIMBER SALES	50,000
OTHER RENTALS	172,000
MISCELLANEOUS INCOME	96,000
BAD DEBT RECOVERY	4,000
TOTAL REVENUES	**21,552,599**
EXPENDITURES-ADMINSITRATIVE	
WAGES	794,997
OFFICER'S COMPENSATION	1,200
CONSULTING ENGINEERS	50,000
AUDITING	15,000
LEGAL FEES	25,000
TRUSTEES EXPENSE	-
OTHER PROFESSIONAL FEES	75,000
ADVERTISING	6,000
PUBLIC RELATIONS AND MARKETING	1,000
TRAVEL/CONFERENCES/EDUCATION	3,000
DUES & SUPSCRIPTIONS	7,500
MAINTENANCE BUILDING	20,000
MAINTENANCE-EQUIPMENT	12,000
OFFICE SUPPLIES	6,000
POSTAGE	2,000
LEASE PAYMENT	3,799,870
HUMAN RESOURCE EXPENSE	2,500
SAFETY COMMITTEE EXPENSE	12,000
TELEPHONE EXPENSE	15,000
BAD DEBT EXPENSE	20,000
UTILITIES	22,000
SMALL TOOLS, EQUIPMENT, FURNITURE	4,500
TOTAL ADMINISTRATIVE EXPENDITURES	**4,894,567**

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER OPERATING FUND

	2020 BUDGET
EXPENDITURES-EMPLOYEE BENEFITS & INSURANCE	
SOCIAL SECURITY	423,599
WORKERS COMPENSATION	84,000
PA UNEMPLOYMENT COMPENSATION	5,000
PENSION	488,366
GROUP LIFE, AD&D, LTD , STD	90,000
HOSPITALIZATION & MAJOR MEDICAL	1,515,415
HEALTH & WELFARE(AFSCME)	28,000
MEDICAL EXAMINATIONS	8,000
INSURANCE-FLEET	17,773
INSURANCE-ALL RISK PROPERTY	142,219
INSURANCE-PUBLIC OFFICIAL LIABILITY	5,954
CONTINGENCIES	250,000
TOTAL EMPLOYEE FRINGE BENEFITS & INSURANCE	**3,058,326**
TOTAL OPERATING EXPENDITURES	**15,711,419**
CAPITAL EXPENDITURES	
CONSTRUCTION & RENEWAL	438,500
VEHICLES	310,143
OFFICE FURNITURE & EQUIPMENT	-
METERS	10,000
COMPUTER EQUIPMENT	7,500
FIRE HYDRANTS	40,000
PLANT EQUIPMENT/RENEWAL	480,264
OTHER EQUIPMENT	24,650
TOTAL CAPITAL EXPENDITURES	**1,311,057**
DEBT SERVICE & INTEREST	
DEBT SERVICE PAYMENT	4,408,904
TOTAL DEBT SERVICE PAYMENT	**4,408,904**
TOTAL EXPENDITURES	**21,431,380**
NET REVENUE/(DEFICIT)	**121,219**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER OPERATING FUND

	2020 BUDGET
REVENUE	**0%**
WASTEWATER RENTALS	11,600,000
CAPITAL SURCHARGE	500,000
PENALTIES	65,000
CAPACITY FEES	10,000
SEWER INSTALL/TAP FEES	20,000
SEWER-SURCHARGE/PRETREATMENT	150,000
SEPTIC HAULER FEES	500,000
INTERMUNICIPAL SERVICE REIMBURSEMENT	668,680
INTEREST INCOME	75,000
MISCELLANEOUS INCOME	90,000
RECOVERY - CHARGED OFF ACCOUNTS	2,000
TOTAL REVENUES	**13,680,680**
EXPENDITURES-ADMINISTRATIVE	
OFFICER'S COMPENSATION	1,200
CONSULTING ENGINEERS	85,000
AUDITING	12,000
LEGAL FEES	40,000
TRUSTEE EXPENSE	5,200
OTHER PROFESSIONAL FEES	35,000
ADVERTISING	3,000
PUBLIC RELATIONS EXPENSE	1,000
TRAVEL/CONFERENCES/EDUCATION	5,000
DUES & SUPSCRIPTIONS	7,700
MAINTENANCE-EQUIPMENT	12,000
OFFICE SUPPLIES	5,000
POSTAGE	3,000
LEASE PAYMENT	2,137,427
PAYMENT FOR WATER DIVISION SERVICES	1,161,358
HUMAN RESOURCE EXPENSE	2,500
SAFETY COMMITTEE EXPENSE	10,000
BAD DEBT EXPENSE	15,000
TELEPHONE EXPENSE	7,000
SMALL TOOLS, EQUIPMENT, FURNITURE	2,000
TOTAL ADMINISTRATIVE EXPENDITURES	**3,550,385**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER OPERATING FUND

	2020 BUDGET
EXPENDITURES-SANITARY SEWERS	
WAGES	690,528
MAINTENANCE-BUILDING	5,000
GIS SYSTEM EXPENSE	17,033
TELEPHONE EXPENSE	2,400
SAFETY EQUIPMENT/CLOTHING	4,000
MATERIALS & SUPPLIES	200,000
MAINTENANCE-VEHICLE	50,000
GASOLINE & OIL	25,000
DIESEL FUEL	30,000
STREET CUTS	150,000
ONE CALL SYSTEM EXPENSE	4,000
SMALL TOOLS, EQUIPMENT, FURNITURE	7,100
TOTAL SANITARY SEWERS EXPENDITURES	**1,185,061**
EXPENDITURES-EMPLOYEE BENEFITS & INSURANCE	
SOCIAL SECURITY	164,435
WORKERS COMPENSATION	42,000
PA UNEMPLOYMENT COMPENSATION	2,500
PENSION	230,800
GROUP LIFE, AD&D, LTD	30,000
HOSPITALIZATION & MAJR MEDICAL	653,800
HEALTH & WELFARE(AFSCME)	11,000
MEDICAL EXAMINATIONS	5,000
INSURANCE-FLEET	11,972
INSURANCE-ALL RISK PROPERTY	113,442
INSURANCE-BOILER MACHINERY	-
INSURANCE-PUBLIC OFFICIAL LIAB	5,658
CONTINGENCIES	100,000
TOTAL EMPLOYEE FRINGE BENEFITS & INSURANCE	**1,370,607**
TOTAL OPERATING EXPENDITURES	**9,369,495**

CITY OF ALTOONA
BLAIR COUNTY, PENNSYLVANIA
STATEMENT OF NET POSITION
DECEMBER 31, 2019
(AMOUNTS EXPRESSED IN WHOLE DOLLARS)

	PRIMARY GOVERNMENT	COMPONENT UNITS		
	Governmental Activities	Altoona Water Authority	Redevelopment Authority of Altoona	The Parking Authority of the City of Altoona
ASSETS				
Cash and Cash Equivalents	$ 24,556,757	$ 2,142,068	$ 217,510	$ 157,819
Investments	366,982	12,127,836	0	0
Taxes Receivable	4,174,803	0	0	0
Accounts Receivable	0	3,750,328	2,816	3,568
Intergovernmental Receivables	321,540	0	0	0
Loans Receivable – Current	795,935	0	8,972	0
Other Receivables	193,952	14,619	0	0
Prepaid Expenses	314,090	25,755	0	1,667
Inventory	512,219	0	0	0
Loans Receivable – Long-Term	5,374,360	0	103,723	0
Right to Use Asset, Net	0	100,528,196	0	0
Capital Assets, Net of Accumulated Depreciation	405,378,818	0	254,542	2,527,780
TOTAL ASSETS	$441,989,456	$118,588,802	$ 587,563	$2,690,834
Deferred Outflows of Resources				
Deferred Charges:				
Bond Discounts	$ 780,363	$ 0	$ 0	$ 0
Defined Benefit Pensions	10,878,514	1,651,319		
OPEB Plans	1,130,677	0	0	0
Total Deferred Outflows of Resources	$ 12,789,554	$ 1,651,319	$ 0	$ 0
LIABILITIES				
Accounts Payable	$ 2,790,042	$ 1,732,865	$ 4,978	$ 14,842
Accrued Payroll	362,296	0	0	0
Payroll Taxes and Benefits Payable	134,704	0	0	3,459
Accrued Expenses	0	0	0	2,958
Accrued Payroll, Taxes, and Withholding	0	427,226	0	0
Accumulated Compensated Absences	0	279,288	0	2,119
Accrued Interest	295,444	0	0	321
Deposits Held	112,334	83,805	0	0
Unearned Revenues – Grants	6,271,037	0	0	0
Unearned Revenues - Rent Received in Advance	0	0	200	39,412
Noncurrent Liabilities:				
Due Within One Year	3,835,073	7,205,690	0	22,257
Due in More Than One Year	118,568,396	150,406,922	0	164,998
TOTAL LIABILITIES	$132,369,326	$160,135,796	$ 5,178	$ 250,366
Deferred Inflows of Resources				
Defined Benefit Pensions	$ 12,696,000	$ 1,965,233	$ 0	$ 0
NET POSITION				
Net Investment in Capital Assets	$345,530,381	$ 0	$ 254,542	$2,340,525
Restricted for:			0	0
Highway Aid	894,316	0	0	0
Capital Expenditures	8,184,878	0	0	0
Recreation	231,511	0	0	0
Other Projects	5,470,093	0	339,715	0
Water Authority	0	0	0	0
Unrestricted (Deficit)	(50,597,495)	(41,860,908)	(11,872)	99,943
TOTAL NET POSITION	$309,713,684	($ 41,860,908)	$ 582,385	$2,440,468

See Accompanying Notes and Independent Auditor's Report

ALTOONA WATER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

	Year Ended December 31, 2017	2016
Operating Revenues, Securing Revenue Bonds		
Water/Sewer Rentals	$ 28,033,026	$ 27,234,701
Installations and Renewals Service Lines	119,509	116,080
Meter Sales, Shut-Offs, and Remotes	224,910	224,676
Timber Sales	40,197	142,007
Septic Hauler Fees	75,649	81,269
Fire Hydrant and Line Rentals	343,767	331,999
Service to Wastewater Division	1,057,455	1,097,406
Miscellaneous	322,114	414,937
Intermunicipal Service Reimbursements	1,409,183	1,346,227
Total Operating Revenues	31,625,810	30,989,302
Operating Expenses - Functional and Departmental		
Administration	2,117,738	5,106,472
Billing and Collection	709,035	750,662
Purification and Distribution/Disposal	5,001,575	5,078,445
Meter Division	482,163	476,819
Maintenance	3,823,793	3,918,953
Fringe Benefits and Insurance	3,706,216	3,838,891
Depreciation and Amortization	6,796,548	7,861,126
Total Operating Expenses-Functional and Departmental	22,637,068	27,031,368
Operating Income	8,988,742	3,957,934
Nonoperating Revenues and (Expenses)		
Capital Contribution to City of Altoona	(223,701,014)	--
Investment Income	80,223	50,052
Interest Expense	(2,813,892)	(2,983,688)
Fees and Miscellaneous	(379)	(839)
Gain on Disposition of Fixed Assets	45,961	34,612
Contributed Capital	16,825	--
Amortization Bond Issue Costs	(125,478)	(126,251)
Total Nonoperating Revenues and (Expenses)	(226,497,754)	(3,026,114)
Net Income	(217,509,012)	931,820
Net Position - January 1	146,894,669	145,962,849
Net Position - December 31	**$(70,614,343)**	**$ 146,894,669**

See Accompanying Notes to Financial Statements

ALTOONA WATER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

	Year Ended December 31, 2018	2017
Operating Revenues, Securing Revenue Bonds		
Water/Sewer Rentals	$ 30,794,341	$ 28,033,026
Installations and Renewals Service Lines	139,503	119,509
Meter Sales, Shut-Offs, and Remotes	250,565	224,910
Timber Sales	116,337	40,197
Septic Hauler Fees	2,269,905	75,649
Fire Hydrant and Line Rentals	341,023	343,767
Service to Wastewater Division	1,047,022	1,057,455
Miscellaneous	421,392	322,114
Intermunicipal Service Reimbursements	1,231,099	1,409,183
Total Operating Revenues	36,611,187	31,625,810
Operating Expenses - Functional and Departmental		
Administration	2,180,781	2,117,738
Billing and Collection	681,880	709,035
Purification and Distribution/Disposal	5,060,425	5,001,575
Meter Division	505,784	482,163
Maintenance	3,956,167	3,823,793
Fringe Benefits and Insurance	4,133,886	3,706,216
Depreciation and Amortization	6,070,090	6,796,548
Total Operating Expenses-Functional and Departmental	22,589,013	22,637,068
Operating Income	14,022,174	8,988,742
Nonoperating Revenues and (Expenses)		
Capital Contribution to City of Altoona	(4,277,135)	(223,701,014)
Investment Income	170,111	80,223
Interest Expense	(6,783,092)	(2,813,892)
Fees and Miscellaneous	--	(379)
Gain on Disposition of Fixed Assets	105,075	45,961
Contributed Capital	201,042	16,825
Amortization Bond Issue Costs	(154,988)	(125,478)
Total Nonoperating Revenues and (Expenses)	(10,738,987)	(226,497,754)
Net Income/(Loss)	3,283,187	(217,509,012)
Net Position - January 1	(70,614,343)	146,894,669
Net Position - December 31	**$(67,331,156)**	**$(70,614,343)**

See Accompanying Notes to Financial Statements

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER REVENUE FUND

	2019 BUDGET
REVENUE	
WATER SALES	17,474,179
SALES TO OTHER UTILITIES	450,000
BULK SALES	-
CAPITAL SURCHARGE	500,000
PENALTIES	90,000
INSTALL/RENEW-SERVICE LINES	95,000
METER INCOME	30,000
SHUT OFFS	60,000
FIRE LINES	330,000
FINAL READINGS	45,000
CAPACITY FEES	30,000
REIMBURSEMENTS-BELLWOOD BORO	261,257
REIMBURSEMENTS-HOLLIDAYSBURG BORO	743,153
INTEREST INCOME	70,000
SERVICE-WASTEWATER DIVISION	1,112,400
TIMBER SALES	50,000
OTHER RENTALS	172,000
MISCELLANEOUS INCOME	96,000
BAD DEBT RECOVERY	4,000
TOTAL REVENUES	**21,612,989**
EXPENDITURES-ADMINSITRATIVE	
WAGES	770,879
OFFICER'S COMPENSATION	1,200
CONSULTING ENGINEERS	45,000
AUDITING	15,000
LEGAL FEES	25,000
TRUSTEES EXPENSE	4,200
OTHER PROFESSIONAL FEES	100,000
ADVERTISING	6,000
PUBLIC RELATIONS AND MARKETING	1,000
TRAVEL/CONFERENCES/EDUCATION	2,500
DUES & SUPSCRIPTIONS	6,500
MAINTENANCE BUILDING	15,000
MAINTENANCE-EQUIPMENT	12,000
OFFICE SUPPLIES	6,000
POSTAGE	2,000
LEASE PAYMENT	2,730,010
HUMAN RESOURCE EXPENSE	2,500
SAFETY COMMITTEE EXPENSE	12,000
TELEPHONE EXPENSE	15,000
BAD DEBT EXPENSE	20,000
UTILITIES	22,000
SMALL TOOLS, EQUIPMENT, FURNITURE	2,500
TOTAL ADMINISTRATIVE EXPENDITURES	**3,816,289**

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER REVENUE FUND

	2019 BUDGET
EXPENDITURES-BILLING & COLLECTION	
WAGES	467,320
TRAVEL/CONFERENCES/EDUCATION	500
MAINTENANCE-EQUIPMENT	10,000
OFFICE SUPPLIES	20,000
UTILITY BILLING SOFTWARE HOSTING	85,000
POSTAGE	145,000
COLLECTION EXPENSE	7,000
TELEPHONE EXPENSE	3,000
SMALL TOOLS, EQUIPMENT, FURNITURE	4,000
TOTAL BILLING & COLLECTION EXPENDITRURES	**741,820**
EXPENDITURES-PURIFICATION & DISTRIBUTION	
WAGES	1,247,592
TRAVEL/CONFERENCES/EDUCATION	7,000
DAM INSPECTIONS	27,000
TELEPHONE EXPENSE	2,700
MAINTENANCE-WATER PUMP STATION	-
MAINTENANCE-TANKS	-
MAINTENANCE-WATERSHED	15,000
SOURCE WATER PROTECTION	6,000
UTILITIES	105,000
SMALL TOOLS, EQUIPMENT, FURNITURE	8,000
TOTAL PURIFICATION & DISTRIBUTION EXPENDITURES	**1,418,292**
EXPENDITURES-HORSESHOE CURVE WTP	
LAB COSTS/SUPPLIES	32,500
TELEPHONE EXPENSE	4,200
ELECTRICITY	130,000
CHEMICALS	89,250
MAINTENANCE	86,250
SLUDGE DISPOSAL	10,000
UTILITIES - PROPANE HEATING	65,000
TOTAL HORSESHOE CURVE EXPENDITURES	**417,200**
EXPENDITURES-MILL RUN WTP	
LAB COSTS/SUPPLIES	17,300
TELEPHONE EXPENSE	1,300
ELECTRICITY	40,000
CHEMICALS	18,900
MAINTENANCE	25,000
SLUDGE DISPOSAL	3,000
UTILITIES - PROPANE HEATING	15,000
TOTAL MILL RUN EXPENDITURES	**120,500**

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER REVENUE FUND

	2019 BUDGET
EXPENDITURES-TIPTON WTP	
LAB COSTS/SUPPLIES	25,800
TELEPHONE EXPENSE	1,500
ELECTRICITY	54,000
CHEMICALS	31,500
MAINTENANCE	23,000
SLUDGE DISPOSAL	3,000
UTILITIES - PROPANE HEATING	10,000
TOTAL TIPTON EXPENDITURES	**148,800**
EXPENDITURES-KETTLE WTP	
LAB COSTS/SUPPLIES	3,000
TELEPHONE EXPENSE	1,000
ELECTRICITY	7,000
CHEMICALS	2,000
MAINTENANCE	5,000
SLUDGE DISPOSAL	
UTILITIES - PROPANE HEATING	4,500
TOTAL KETTLE EXPENDITURES	**22,500**
EXPENDITURES-HOMER GAP WTP	
LAB COSTS/SUPPLIES	2,000
TELEPHONE EXPENSE	400
ELECTRICITY	7,000
CHEMICALS	2,000
MAINTENANCE	4,000
SLUDGE DISPOSAL	-
UTILITIES - PROPANE HEATING	5,000
TOTAL HOMER GAP EXPENDITURES	**20,400**
EXPENDITURES-PLANE NINE WTP	
LAB COSTS/SUPPLIES	32,500
TELEPHONE EXPENSE	1,500
ELECTRICITY	75,000
CHEMICALS	31,500
MAINTENANCE	23,000
SLUDGE DISPOSAL	3,000
UTILITIES - PROPANE HEATING	15,000
INSURANCE	11,000
TOTAL PLANE NINE EXPENDITURES	**192,500**

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER REVENUE FUND

	2019 BUDGET
EXPENDITURES-BELLWOOD WTP	
LAB COSTS/SUPPLIES	32,500
TELEPHONE EXPENSE	1,400
ELECTRICITY	75,000
CHEMICALS	54,600
MAINTENANCE	28,750
SLUDGE DISPOSAL	4,000
UTILITIES - PROPANE HEATING	20,000
INSURANCE	10,000
TOTAL BELLWOOD EXPENDITURES	**226,250**
EXPENDITURES-METER DIVISION	
WAGES	450,182
MAINTENANCE-EQUIPMENT	30,000
TELEPHONE EXPENSE	5,000
OFFICE SUPPLIES/UNIFORMS/MAINT.	2,000
MATERIALS & SUPPLIES	20,000
GASOLINE & OIL	18,000
SMALL TOOLS, EQUIPMENT, FURNITURE	3,500
	-
TOTAL METER DIVISION EXPENDITURES	**528,682**
EXPENDITURES-MAINTENANCE	
WAGES	2,446,757
TRAVEL/CONFERENCES/EDUCATION	14,000
MAINTENANCE-BUILDING	10,000
MAINTENANCE-EQUIPMENT	8,000
MAINTENANCE-COMMUNICATION EQUIPMENT	500
OFFICE SUPPLIES	3,000
GIS SYSTEM EXPENSE	11,200
TELEPHONE EXPENSE	16,000
SAFETY EQUIPMENT/CLOTHING	10,000
MAINTENANCE - WATER PUMP STATIONS	12,000
MAINTENANCE - TANKS	30,000
UTILITIES	18,000
MECHANICS UNIFORMS	2,000
MATERIALS & SUPPLIES	400,000
LEASE EXPENSE	14,051
MAINTENANCE-VEHICLE	75,000
GASOLINE & OIL	55,000
DIESEL FUEL	65,000
STREET CUTS	325,000
ONE CALL SYSTEM EXPENSE	7,000
SMALL TOOLS, EQUIPMENT, FURNITURE	15,000
TOTAL MAINTENANCE EXPENDITURES	**3,537,508**

ALTOONA WATER AUTHORITY
WATER DIVISION
WATER REVENUE FUND

	2019 BUDGET
EXPENDITURES-EMPLOYEE BENEFITS & INSURANCE	
SOCIAL SECURITY	411,779
WORKMENS COMPENSATION	140,000
PA UNEMPLOYMENT COMPENSATION	5,000
PENSION	486,300
GROUP LIFE, AD&D, LTD , STD	90,000
HOSPITALIZATION & MAJOR MEDICAL	1,480,000
HEALTH & WELFARE(AFSCME)	28,329
MEDICAL EXAMINATIONS	8,000
INSURANCE-FLEET	24,601
INSURANCE-ALL RISK PROPERTY	147,898
INSURANCE-PUBLIC OFFICIAL LIABILITY	3,685
CONTINGENCIES	-
TOTAL EMPLOYEE FRINGE BENEFITS & INSURANCE	**2,825,592**
TOTAL OPERATING EXPENDITURES	**14,016,333**
CAPITAL EXPENDITURES	
CONSTRUCTION & RENEWAL	612,912
VEHICLES	-
OFFICE FURNITURE & EQUIPMENT	-
METERS	-
COMPUTER EQUIPMENT	-
FIRE HYDRANTS	-
PLANT EQUIPMENT/RENEWAL	-
OTHER EQUIPMENT	-
TOTAL CAPITAL EXPENDITURES	**612,912**
DEBT SERVICE & INTEREST	
DEBT SERVICE PAYMENT	6,435,936
TOTAL DEBT SERVICE PAYMENT	**6,435,936**
TOTAL EXPENDITURES	**21,065,181**
NET REVENUE/(DEFICIT)	**547,808**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER REVENUE FUND

	2019 BUDGET
REVENUE	**0%**
WASTEWATER RENTALS	11,343,481
CAPITAL SURCHARGE	500,000
PENALTIES	65,000
CAPACITY FEES	10,000
SEWER INSTALL/TAP FEES	20,000
SEWER-SURCHARGE/PRETREATMENT	150,000
SEPTIC HAULER FEES	190,000
INTERMUNICIPAL SERVICE REIMBURSEMENT	592,855
INTEREST INCOME	25,000
MISCELLANEOUS INCOME	90,000
RECOVERY - CHARGED OFF ACCOUNTS	2,000
TOTAL REVENUES	**12,988,336**
EXPENDITURES-ADMINISTRATIVE	
OFFICER'S COMPENSATION	1,200
CONSULTING ENGINEERS	113,000
AUDITING	12,000
LEGAL FEES	40,000
TRUSTEE EXPENSE	5,200
OTHER PROFESSIONAL FEES	35,000
ADVERTISING	3,000
PUBLIC RELATIONS EXPENSE	1,000
TRAVEL/CONFERENCES/EDUCATION	5,000
DUES & SUPSCRIPTIONS	6,700
MAINTENANCE-EQUIPMENT	12,000
OFFICE SUPPLIES	5,000
POSTAGE	3,000
PAYMENT FOR CITY SERVICES	1,535,630
PAYMENT FOR WATER DIVISION SERVICES	1,112,400
HUMAN RESOURCE EXPENSE	2,500
SAFETY COMMITTEE EXPENSE	10,000
BAD DEBT EXPENSE	15,000
TELEPHONE EXPENSE	7,000
SMALL TOOLS, EQUIPMENT, FURNITURE	2,000
TOTAL ADMINISTRATIVE EXPENDITURES	**2,926,630**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER REVENUE FUND

	2019 BUDGET
EXPENDITURES-DISPOSAL PLANTS	
WAGES	1,338,792
TRAVEL/CONFERENCE/EDUCATION	16,000
PRETREATMENT MONITORING	60,000
TELEPHONE EXPENSE	4,500
SAFETY EQUIPMENT/CLOTHING	1,500
MAINTENANCE - PUMP STATIONS	4,000
SMALL TOOLS, EQUIPMENT, FURNITURE	10,000
TOTAL DISPOSAL PLANTS EXPENDITURES	**1,434,792**
EXPENDITURES - EASTERLY PLANT	
LAB COSTS & SUPPLIES	55,000
TELEPHONE EXPENSE	2,000
ELECTRICITY-PLANTS	350,000
CHEMICALS	70,000
MAINTENANCE-PLANTS	103,000
MAINTENANCE-CSO'S	15,000
SLUDGE DISPOSAL	20,000
NATURAL GAS & OIL	35,000
TOTAL EASTERLY PLANT EXPENDITURES	**650,000**
EXPENDITURES - WESTERLY PLANT	
LAB COSTS & SUPPLIES	55,000
TELEPHONE EXPENSE	10,000
ELECTRICITY-PLANTS	500,000
CHEMICALS	95,000
MAINTENANCE-PLANTS	204,000
MAINTENANCE-CSO'S	15,000
SLUDGE DISPOSAL	20,000
NATURAL GAS & OIL	55,000
TOTAL WESTERLY PLANT EXPENDITURES	**954,000**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER REVENUE FUND

	2019 BUDGET
EXPENDITURES-SANITARY SEWERS	
WAGES	682,400
MAINTENANCE-BUILDING	4,000
GIS SYSTEM EXPENSE	11,200
TELEPHONE EXPENSE	2,400
SAFETY EQUIPMENT/CLOTHING	4,000
MATERIALS & SUPPLIES	180,000
MAINTENANCE-VEHICLE	40,000
GASOLINE & OIL	20,000
DIESEL FUEL	30,000
STREET CUTS	150,000
ONE CALL SYSTEM EXPENSE	4,000
SMALL TOOLS, EQUIPMENT, FURNITURE	3,000
TOTAL SANITARY SEWERS EXPENDITURES	**1,131,000**
EXPENDITURES-EMPLOYEE BENEFITS & INSURANCE	
SOCIAL SECURITY	154,621
WORKMENS COMPENSATION	68,000
PA UNEMPLOYMENT COMPENSATION	2,500
PENSION	230,000
GROUP LIFE, AD&D, LTD	30,000
HOSPITALIZATION & MAJR MEDICAL	636,354
HEALTH & WELFARE(AFSCME)	11,600
MEDICAL EXAMINATIONS	5,000
INSURANCE-FLEET	16,436
INSURANCE-ALL RISK PROPERTY	103,458
INSURANCE-BOILER MACHINERY	-
INSURANCE-PUBLIC OFFICIAL LIAB	3,474
CONTINGENCIES	-
TOTAL EMPLOYEE FRINGE BENEFITS & INSURANCE	**1,261,443**
TOTAL OPERATING EXPENDITURES	**8,357,865**

ALTOONA WATER AUTHORITY
WASTEWATER DIVISION
SEWER REVENUE FUND

	2019 BUDGET
CAPITAL EXPENTITURES	
CONSTRUCTION & RENEWAL	-
VEHICLES	431,000
OFFICE FURNITURE & EQUIPMENT	8,000
COMPUTER EQUIPMENT	15,500
PLANT EQUIPMENT/RENEWAL	-
OTHER EQUIPMENT	9,000
TOTAL CAPITAL EXPENDITURES	**463,500**
DEBT SERVICE & INTEREST	
DEBT SERVICE PAYMENT	4,154,608
TOTAL DEBT SERVICE PAYMENT	**4,154,608**
TOTAL EXPENDITURES	**12,975,973**
NET REVENUE/(DEFICIT)	**12,363**

CITY OF READING

COMBINING STATEMENT OF NET POSITION - WATER FUNDS

December 31, 2019

	City Water Fund	Reading Area Water Authority	Eliminations	Total Water Fund
ASSETS				
Current assets:				
Cash	$ 1,858,893	$ 13,894,351	$ -	$ 15,753,244
Investments	119,120	-	-	119,120
Accounts receivable, net	1,687	5,230,760	-	5,232,447
Interfund receivables	293,208	-	(224,755)	68,453
Inventory	-	160,309	-	160,309
Prepaid expenses	-	54,600	-	54,600
Total current assets	2,272,908	19,340,020	(224,755)	21,388,173
Restricted assets - cash and investments	-	9,570,456	-	9,570,456
Noncurrent assets:				
Capital assets not being depreciated	2,059,359	270,252	-	2,329,611
Capital assets, net of accumulated depreciation	9,380,774	66,185,454	-	75,566,228
Total capital assets, net	11,440,133	66,455,706	-	77,895,839
Rights to leased land	-	917,715	-	917,715
Total noncurrent assets	11,440,133	67,373,421	-	78,813,554
TOTAL ASSETS	13,713,041	96,283,897	(224,755)	109,772,183
DEFERRED OUTFLOWS				
Deferred charge on bond refunding	123,536	917,612	-	1,041,148
Deferred outflows of resources for pension	599,238	-	-	599,238
Deferred outflows of resources for other postemployment benefits	20,939	-	-	20,939
TOTAL DEFERRED OUTFLOWS	743,713	917,612	-	1,661,325
LIABILITIES				
Current liabilities:				
Accounts payable	14,606	378,233	-	392,839
Interfund payables	4,214,064	224,755	(224,755)	4,214,064
Accrued interest	-	297,398	-	297,398
Accrued payroll and compensated absences	-	790,915	-	790,915
Escrow deposits	-	107,245	-	107,245
Current portion notes and bonds payable	99,498	3,379,254	-	3,478,752
Total current liabilities	4,328,168	5,177,800	(224,755)	9,281,213
Noncurrent liabilities:				
Notes and Bonds payable, net	3,065,323	77,462,829	-	80,528,152
Net pension liability	1,178,813	-	-	1,178,813
Other postemployment benefits	144,972	-	-	144,972
Total noncurrent liabilities	4,389,108	77,462,829	-	81,851,937
TOTAL LIABILITIES	8,717,276	82,640,629	(224,755)	91,133,150
DEFERRED INFLOWS				
Deferred inflows of resources for pension	576,698	-	-	576,698
Deferred inflows of resources for other postemployment benefits	1,900	-	-	1,900
TOTAL DEFERRED INFLOWS	578,598	-	-	578,598
NET POSITION				
Net investment in capital assets	8,398,848	(13,468,765)	-	(5,069,917)
Restricted for debt service	-	7,592,650	-	7,592,650
Restricted for capital assets	-	1,879,990	-	1,879,990
Unrestricted	(3,237,968)	18,557,005	-	15,319,037
TOTAL NET POSITION	$ 5,160,880	$ 14,560,880	$ -	$ 19,721,760

See note to supplementary information.

CITY OF READING

COMBINING STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION - WATER FUNDS

Year Ended December 31, 2019

	City Water Fund	Reading Area Water Authority	Eliminations	Total Water Fund
OPERATING REVENUES				
Charges for services	$ 12,151,531	$ 32,093,301	$ (12,151,531)	$ 32,093,301
Other	487,110	41,836	-	528,946
TOTAL OPERATING REVENUES	12,638,641	32,135,137	(12,151,531)	32,622,247
OPERATING EXPENSES				
Lease payments	-	12,142,535	(12,142,535)	-
Personnel	441,051	6,372,046	-	6,813,097
Depreciation and amortization	596,856	4,311,994	-	4,908,850
Risk management	65,800	-	-	65,800
Contracted Services	-	907,019	-	907,019
Chemicals and supplies	-	1,173,058	-	1,173,058
Utilities	-	655,444	-	655,444
Other	1,869,230	3,016,908	(8,996)	4,877,142
TOTAL OPERATING EXPENSES	2,972,937	28,579,004	(12,151,531)	19,400,410
OPERATING INCOME	9,665,704	3,556,133	-	13,221,837
NONOPERATING REVENUES (EXPENSES)				
Intergovernmental revenue	-	125,000	-	125,000
Interest income	2,445	597,173	-	599,618
Interest expense	(154,896)	(3,768,727)	-	(3,923,623)
Gain (loss) on sale of solid waste accounts receivable	-	68,728	-	68,728
Other	-	19,797	-	19,797
NET NONOPERATING REVENUES (EXPENSES)	(152,451)	(2,958,029)	-	(3,110,480)
INCOME BEFORE TRANSFERS	9,513,253	598,104	-	10,111,357
Transfers out - lease payments	(9,774,710)	-	-	(9,774,710)
CHANGE IN NET POSITION	(261,457)	598,104	-	336,647
NET POSITION - BEGINNING OF YEAR - RESTATED	5,422,337	13,962,776	-	19,385,113
NET POSITION - END OF YEAR	$ 5,160,880	$ 14,560,880	$ -	$ 19,721,760

Financial Information

Net Position - The following schedule presents a summary of net position comparison at December 31, 2018, 2017, and 2016:

	2018	2017 (As Restated)	2016 (As Restated)
Assets			
Unrestricted current assets	$ 25,886,197	$ 24,371,571	$ 20,614,911
Restricted current assets	3,389,010	11,067,725	19,177,064
Capital assets, net	64,973,550	59,036,648	55,262,527
Other asset	351,810	1,020,000	1,020,000
Deferred Outflow of Resources	1,054,979	1,197,798	1,346,286
Total Assets and Deferred Outflow of Resources	$ 102,255,546	$ 96,693,742	$ 97,420,788
Liabilities			
Current liabilities	$ 7,496,258	$ 5,387,837	$ 5,985,559
Long-term debt	80,796,512	84,017,089	87,200,895
Total Liabilities	$ 88,292,770	$ 89,404,926	$ 93,186,454
Net Position			
Net investment in capital assets	$ (18,130,096)	$ (27,177,795)	$ (22,222,481)
Restricted for debt service	7,513,275	7,426,839	7,409,503
Unrestricted	24,579,597	27,039,772	19,047,312
Total Net Position	$ 13,962,776	$ 7,288,816	$ 4,234,334

Current liabilities increased by 39.1% in 2018 compared to a decrease by 10.0% in 2017 and an increase by 20.7% in 2016. The 2018 increase is attributable to increases in capital accounts payable.

Revenues - The following schedule presents a summary of revenues for the years ended December 31, 2018, 2017, and 2016:

	2018	2017	2016
Operating Revenues			
Water billings	$ 29,663,185	$ 29,736,140	$ 29,622,297
Interest and penalty charges	541,209	472,340	586,502
Tampered meter and other charges	310,720	449,933	591,344
Tapping and connection fees	50,610	177,175	86,244
Abandonment fees	20,107	60,907	32,001
Total Operating Revenues	$ 30,585,831	$ 30,896,495	$ 30,918,388

The 2018 fiscal year's total operating revenue decreased by 1.0% compared to 2017, and decreased by 0.1% and increased by 11.7% in 2017 and 2016, respectively.

Financial Information (continued)

Expenses - The following schedule presents a summary of expenses for the years ended December 31, 2018, 2017, and 2016:

	2018	2017 (As Restated)	2016 (As Restated)
Operating Expenses			
Lease payments, City of Reading	**$ 11,640,032**	$ 11,426,339	$ 11,441,419
Chemical supplies	**1,051,101**	746,486	1,197,002
Meter reading	**-**	-	539,483
Salaries, payroll taxes, and employee benefits	**6,213,345**	5,877,245	5,529,809
Contracted services	**967,302**	849,520	1,089,676
Other	**3,895,738**	3,176,042	2,881,120
Total Operating Expenses	**$ 23,767,518**	$ 22,075,632	$ 22,678,509

The $1,691,886 increase in expenses is primarily the result of the increase in chemical supplies, salaries, payroll taxes and employee benefits, and bad debt expense.

Changes in Net Position - The following schedule presents a summary of changes in net position for the years ended December 31, 2018, 2017, and 2016:

	2018	2017 (As Restated)	2016 (As Restated)
Operating revenues	**$ 30,585,831**	$ 30,896,495	$ 30,918,388
Operating expenses	**23,767,518**	22,075,632	22,678,509
Operating Income before Depreciation	**6,818,313**	8,820,863	8,239,879
Depreciation and amortization	**3,872,439**	3,304,835	2,946,682
Operating Income	**2,945,874**	5,516,028	5,293,197
Nonoperating revenues (expenses), net	**3,728,086**	(2,461,546)	(3,468,433)
Increase in Net Position	**$ 6,673,960**	$ 3,054,482	$ 1,824,764

LANCASTER AREA SEWER AUTHORITY
Statements of Net Position
March 31, 2021 and 2020

	2021	2020
Assets and Deferred Outflows of Resources		
Current Assets		
Cash and cash equivalents	$ 4,644,074	$ 2,445,432
Funds in custody of trustee, restricted cash	4,210,000	6,209,890
Investments	-	1,500,000
Accounts receivable	3,593,825	2,752,178
Prepaid expenses	71,764	69,116
Total Current Assets	12,519,663	12,976,616
Capital Assets		
Capital assets not being depreciated		
Land	875,181	95,181
Construction in progress	4,742,245	5,206,076
Capital assets being depreciated		
Sewer system - lines	122,165,152	112,758,402
Sewer system - pump stations	41,931,866	41,163,499
Sewer system - treatment plant	72,170,735	70,517,190
Buildings and improvements	4,090,201	3,669,937
Technology	1,424,091	1,424,091
Vehicles	2,529,916	2,346,319
Equipment	1,077,480	996,387
Accumulated depreciation	(103,992,369)	(97,771,861)
Capital Assets, Net	147,014,498	140,405,221
Accounts receivable, net of current portion	161,167	188,278
Funds in custody of trustee, restricted cash, net of current portion	21,447,170	19,013,907
Funds in custody of trustee, restricted investments	4,337,053	6,978,398
Total Assets	185,479,551	179,562,420
Deferred Outflows of Resources		
Pension	496,415	957,717
Total Assets and Deferred Outflows of Resources	$ 185,975,966	$ 180,520,137

The Notes to Financial Statements are an integral part of these statements. | 14

LANCASTER AREA SEWER AUTHORITY
Statements of Revenues, Expenses, and Changes in Net Position
Years Ended March 31, 2021 and 2020

	2021	2020
Operating Revenue		
Sewer rental	$ 22,534,309	$ 21,682,126
Industrial waste surcharges	357,471	416,698
Bulk treatment fees	406,091	118,171
Trucked waste program	503,123	465,481
Interest and penalties	254,311	317,239
Miscellaneous income	321,335	304,333
Total operating revenue	24,376,640	23,304,048
Operating Expenses		
Administrative	3,841,748	4,069,985
Collection department	7,913,564	6,702,101
Treatment plant	5,168,757	4,508,047
Pretreatment program and laboratory department	306,245	346,310
Columbia Borough	741,975	776,025
West Earl	335,295	-
Total operating expenses	18,307,584	16,402,468
Operating income	6,069,056	6,901,580
Nonoperating Revenues (Expenses)		
Interest income	99,485	793,490
Tapping fees	1,322,458	1,123,675
Capacity reservation fees	287,960	215,181
Proceeds from sale of assets	66,100	40,911
Interest expense	(2,519,082)	(2,603,702)
Bond issue costs	(109,314)	-
Amortization	555,179	286,257
Total nonoperating revenues (expenses)	(297,214)	(144,188)
Income before capital contributions	5,771,842	6,757,392
Capital contributions	1,075,815	851,741
Increase in net position	6,847,657	7,609,133
Net position at beginning of year	104,086,085	96,476,952
Net position at end of year	$ 110,933,742	$ 104,086,085

The Notes to Financial Statements are an integral part of these statements. | 16

Table 2 below shows a Condensed Statement of Revenue, Expenses, and Changes in Net Position for the years ended March 31, 2018, 2017, and 2016. The change in net position increased from $ 4.6 million in fiscal year 2017 to $ 9.0 million in fiscal year 2018. Operating income increased $ 381,000 over last year while non-operating revenue (expense) increased $ 3.2 million over fiscal year 2017.

	2018	2017	2016
Operating revenue	$ 21,499,186	$ 20,849,832	$ 19,713,716
Operating expenses	15,978,558	15,710,138	14,557,000
Operating income	5,520,628	5,139,694	5,156,716
Non-operating revenue (expenses)	2,251,417	(908,165)	(1,983,244)
Income before capital contribution	7,772,045	4,231,529	3,173,472
Capital contribution	1,224,093	324,142	551,477
Change in net position	8,996,138	4,555,671	3,724,949
Net position, beginning of year	81,380,843	76,825,172	73,100,223
Net position, end of year	$ 90,376,981	$ 81,380,843	$ 76,825,172

Table 2 - Condensed Statement of Revenues, Expenses, and Changes in Net Position

Table 3 and Table 4 below show a breakdown of fiscal year 2018 Operating Revenue and Operating Expenses, respectively.

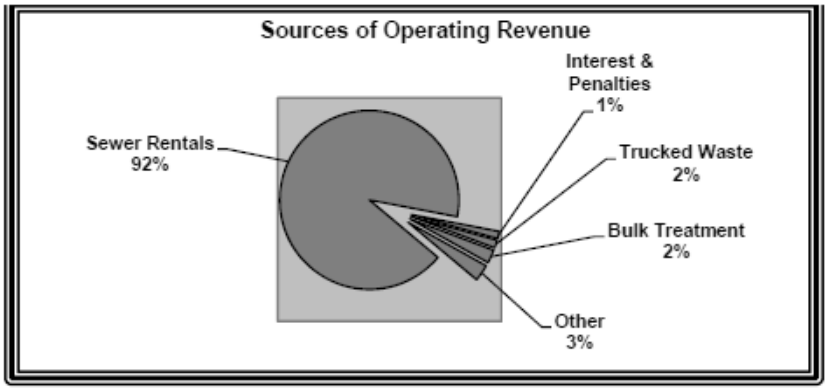


Table 3 - Sources of Operating Revenue - Fiscal Year 2018

Financial Analysis (Continued)

Table 2 below shows a Condensed Statement of Revenue, Expenses, and Changes in Net Position for the years ended March 31, 2019, 2018, and 2017. The change in net position decreased from $ 9.0 million in fiscal year 2018 to $ 6.1 million in fiscal year 2019. Operating income increased $ 564,000 over last year while non-operating revenue (expense) decreased $ 3.1 million over fiscal year 2018.

	2019	2018	2017
Operating revenue	$ 22,974,614	$ 21,499,186	$ 20,849,832
Operating expenses	16,889,502	15,978,558	15,710,138
Operating income	6,085,112	5,520,628	5,139,694
Non-operating revenue (expenses)	(825,158)	2,251,417	(908,165)
Income before capital contribution	5,259,954	7,772,045	4,231,529
Capital contribution	840,017	1,224,093	324,142
Change in net position	6,099,971	8,996,138	4,555,671
Net position, beginning of year	90,376,981	81,380,843	76,825,172
Net position, end of year	$ 96,476,952	$ 90,376,981	$ 81,380,843

Table 2 - Condensed Statement of Revenues, Expenses, and Changes in Net Position

Table 3 and Table 4 below show a breakdown of fiscal year 2019 Operating Revenue and Operating Expenses, respectively.

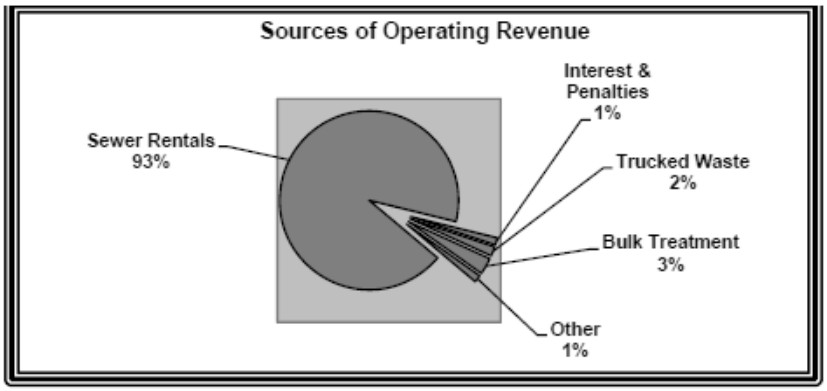


Table 3 - Sources of Operating Revenue - Fiscal Year 2019

Table 2 below shows a Condensed Statement of Revenue, Expenses, and Changes in Net Position for the years ended March 31, 2020, 2019, and 2018. The change in net position increased from $ 6.1 million in fiscal year 2019 to $ 7.6 million in fiscal year 2020. Operating income increased $ 847,000 over last year while non-operating expenses decreased $ 650,000 over fiscal year 2019.

	2020	2019	2018
Operating revenue	$ 23,304,048	$ 22,943,962	$ 21,499,186
Operating expenses	16,402,468	16,889,502	15,978,558
Operating income	6,901,580	6,054,460	5,520,628
Non-operating revenue (expenses)	(144,188)	(794,506)	2,251,417
Income before capital contribution	6,757,392	5,259,954	7,772,045
Capital contribution	851,741	840,017	1,224,093
Change in net position	7,609,133	6,099,971	8,996,138
Net position, beginning of year	96,476,952	90,376,981	81,380,843
Net position, end of year	$ 104,086,085	$ 96,476,952	$ 90,376,981

Table 2 - Condensed Statement of Revenues, Expenses, and Changes in Net Position

Table 3 and Table 4 below show a breakdown of fiscal year 2020 Operating Revenue and Operating Expenses, respectively.

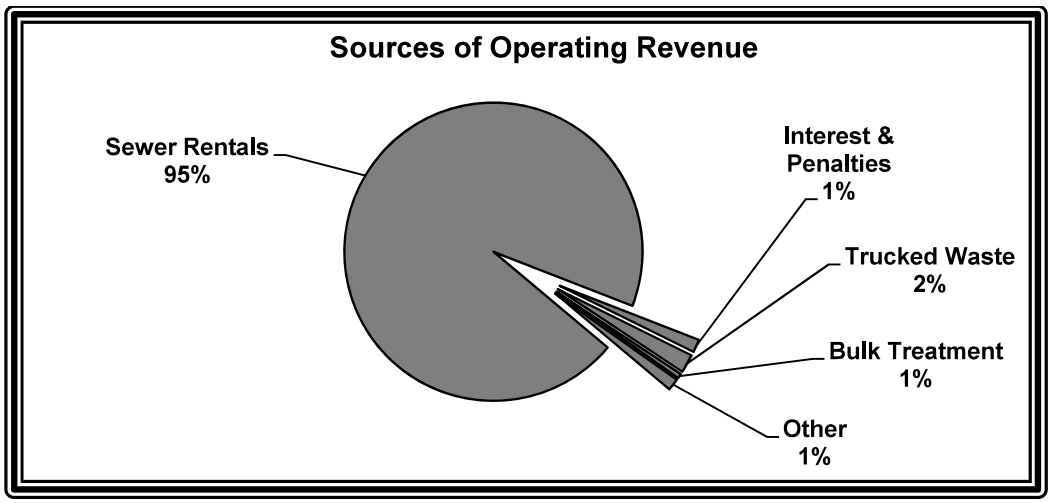


Table 3 - Sources of Operating Revenue - Fiscal Year 2020

Revenue

In fiscal year 2018, revenue exceeded budgeted revenue by 7.2% resulting from capacity reservation and tapping fee income exceeding budget, which offset below-budget investment and other income.

Expenses

Expenses, excluding depreciation, were 5.3% over budget. Interest expense was below budget as 52% of paid interest expense was capitalized as project costs. This was offset by above-budget expenditures in Administrative and Treatment Plant expenses. Higher than budgeted legal expenses of $ 31,000 and amortization of pension liability of $ 58,000 generated above-budget Administrative expenses. Treatment plant expenses for nutrient credit purchases to remain in compliance with the Authority's discharge permit were over-budget by $ 62,000 and expenses for sludge disposal were over-budget by $ 91,000. Above-budget expense for depreciation of $ 573,000 accounts for 71.2% of the negative budget variance in operating expenses.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Authority's capital assets, net of accumulated depreciation, as of March 31, 2018 were $ 141.2 million. The Authority capitalizes all assets costing more than $ 20,000 whose expected life exceeds 12 months. A condensed statement of capital assets for fiscal years 2018, 2017, and 2016 is presented in Table 6 below. Additional information on the Authority's capital assets can be found in Note 5 of the financial statements.

	2018	2017	2016
Construction in progress	$ 41,124,606	$ 24,247,571	$ 8,328,405
Land	95,181	95,181	95,181
Sewer System			
Lines	102,594,800	99,909,426	99,088,012
Pump stations	38,845,592	33,042,528	32,887,101
Treatment plant	38,193,779	38,039,056	37,266,392
Buildings and improvements	3,640,150	3,640,150	3,199,420
Technology	1,424,091	1,353,402	1,295,369
Vehicles	2,291,170	1,760,826	1,706,256
Equipment	830,745	830,745	830,745
	229,040,114	202,918,885	184,696,881
Total accumulated depreciation	(87,820,739)	(83,211,180)	(78,843,305)
Total Capital Assets	$ 141,219,375	$ 119,707,705	$ 105,853,576

Table 6 - Condensed Statement of Capital Assets - Fiscal Years 2018, 2017, and 2016

Budgetary Highlights (Continued)

Revenue

In fiscal year 2019, actual revenue exceeded budgeted revenue by $ 820,000 resulting from sewer rental, investment, and other income exceeding budget. These were partially offset by below-budget revenue in capacity reservation and tapping fee income.

Expenses

Expenses, excluding depreciation, were $ 1.5 million over budget. Above average rainfall generated a 40% increase in flow through the collection system and treatment plant for the year. Consequently, electricity and chemical costs, sewer treatment costs from the City of Lancaster and the Borough of Columbia, and nutrient credit purchase costs were $ 1.4 million over budget. When combined with extensive rehabilitation of the centrifuge at the treatment plant, the operating expenses, excluding depreciation, exceeded budget by $ 1.5 million. Above-budget expense for depreciation of $ 308,000 accounts for the balance of the negative budget variance in operating expenses.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Authority's capital assets, net of accumulated depreciation, as of March 31, 2019 were $ 142.3 million. The Authority capitalizes all assets costing more than $ 20,000 whose expected life exceeds 12 months. A condensed statement of capital assets for fiscal years 2019, 2018, and 2017 is presented in Table 6 below. Additional information on the Authority's capital assets can be found in Note 5 of the financial statements.

	2019	2018	2017
Construction in progress	$ 37,011,554	$ 41,124,606	$ 24,247,571
Land	95,181	95,181	95,181
Sewer System			
Lines	110,392,727	102,594,800	99,909,426
Pump stations	40,897,235	38,845,592	33,042,528
Treatment plant	38,262,279	38,193,779	38,039,056
Buildings and improvements	3,640,150	3,640,150	3,640,150
Technology	1,424,091	1,424,091	1,353,402
Vehicles	2,295,745	2,291,170	1,760,826
Equipment	977,181	830,745	830,745
	234,996,143	229,040,114	202,918,885
Total accumulated depreciation	(92,678,068)	(87,820,739)	(83,211,180)
Total Capital Assets	$ 142,318,075	$ 141,219,375	$ 119,707,705

Table 6 - Condensed Statement of Capital Assets - Fiscal Years 2019, 2018, and 2017

In fiscal year 2020, actual revenue was below budgeted revenue by $ 7,000 resulting from below-budget revenue in sewer rental and surcharges. These were offset by above-budget revenue in capacity reservation and tapping fee income and investment income.

Expenses

Expenses were $ 127,000 under budget. Above-budget expenses for required equipment maintenance in our collection system were offset by below-budget depreciation costs as well as below-budget expenditures at the treatment plant and laboratory.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Authority's total capital assets, net of accumulated depreciation, as of March 31, 2020 were $ 140.4 million. The Authority capitalizes all assets costing more than $ 20,000 whose expected life exceeds 12 months. A condensed statement of capital assets for fiscal years 2020, 2019, and 2018 is presented in Table 6 below. Additional information on the Authority's capital assets can be found in Note 5 of the financial statements.

	2020	2019	2018
Construction in progress	$ 5,206,076	$ 37,011,554	$ 41,124,606
Land	95,181	95,181	95,181
Sewer System			
Lines	112,758,402	110,392,727	102,594,800
Pump stations	41,163,499	40,897,235	38,845,592
Treatment plant	70,517,190	38,262,279	38,193,779
Buildings and improvements	3,669,937	3,640,150	3,640,150
Technology	1,424,091	1,424,091	1,424,091
Vehicles	2,346,319	2,295,745	2,291,170
Equipment	996,387	977,181	830,745
	238,177,082	234,996,143	229,040,114
Total accumulated depreciation	(97,771,861)	(92,678,068)	(87,820,739)
Total Capital Assets	$ 140,405,221	$ 142,318,075	$ 141,219,375

Table 6 - Condensed Statement of Capital Assets - Fiscal Years 2020, 2019, and 2018

Debt Administration

As of March 31, 2020, the Authority had $ 66.4 million of bonds outstanding including $ 56.5 million in Sewer Revenue Bonds and $ 9.9 million of bonds through a subsidy agreement with the Borough of Columbia. Unamortized bond premiums of $ 2.8 million bring the total bonds payable liability to $ 69.3 million. Bond principal payments of $ 5.8 million and amortization of bond premiums of $ 0.3 million reduced the total bonds payable liability by $ 6.1 million from the March 31, 2019 balance of $ 75.4 million.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Net Position
March 31, 2021 and 2020

	2021	2020
Current Assets		
Cash and cash equivalents, unrestricted (Note 3)	$ 32,955,491	$ 29,663,969
Accounts receivable, customers (net of allowance for doubtful accounts of $474,033 in 2021 and 2020)	6,110,790	7,014,694
Unbilled water and sewer service	10,669,704	10,722,797
Surcharges receivable, current portion	350,000	350,000
Other receivables	235,285	216,612
Material and supplies	3,914,453	3,630,945
Prepaid expenses	1,023,104	1,121,573
Total Current Assets	55,258,827	52,720,590
Property, Plant and Equipment		
Property, plant and equipment (Note 2)	857,061,066	813,804,411
Less: accumulated depreciation	(239,562,788)	(225,388,158)
Property, Plant and Equipment, Net	617,498,278	588,416,253
Non-Current Assets		
Surcharges receivable, net of current portion and allowance for doubtful accounts of $200,000 in 2021 and 2020	1,166,543	1,465,670
Prepaid bond insurance	920,538	867,810
Restricted assets:		
Special funds held by trustee (Note 4 & 5)	140,795,056	176,264,906
Restricted cash held by the Authority (Note 6)	3,613,385	6,663,291
Total Non-Current Assets	146,495,522	185,261,677
Total Assets	819,252,627	826,398,520
Deferred Outflows of Resources		
Net difference between projected and actual earnings on pension plan investments	-	7,199,443
Changes in assumptions related to pensions	29,403	-
Difference between expected and actual experience related to pensions	549,765	835,078
Contribution to pension plan subsequent to measurement date	51,812	-
Difference between expected and actual experience related to OPEB	16,345	20,431
Changes in assumptions related to OPEB	7,818,150	7,138,277
Deferred losses on bond refundings, net of amortization (Note 8)	3,104,156	3,413,275
Total Deferred Outflows of Resources	11,569,631	18,606,504

(continued)
See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Revenues, Expenses and Changes in Net Position
Fiscal Years Ended March 31, 2021 and 2020

	2021	2020
Operating Revenues		
Water	$ 88,548,010	$ 86,373,308
Wastewater	17,024,421	16,156,229
Other operating revenues	1,945,458	2,930,304
Total Operating Revenues	107,517,889	105,459,841
Operating Expenses		
Source of supply	1,075,085	1,072,453
Treatment system	8,688,752	8,651,822
Distribution	21,126,537	20,592,367
Engineering	1,674,676	1,599,655
Wastewater system	9,424,097	8,871,707
Landfill	4,842	4,790
Depreciation and amortization	15,777,383	14,151,165
Commercial and general	21,858,960	25,934,541
Management fee	1,350,000	1,300,000
Total Operating Expenses	80,980,332	82,178,500
Operating Income Before Non-Operating Expenses	26,537,557	23,281,341
Non-Operating Revenues (Expenses)		
Investment income	2,891,362	4,775,646
Net increase in the fair value of investments	40,103	43,786
Interest expense	(19,831,042)	(21,188,625)
Loss on disposals of property, plant and equipment	(199,495)	(775,797)
Total Non-Operating Expenses	(17,099,072)	(17,144,990)
Income Before Capital Contributions	9,438,485	6,136,351
Capital Contributions	6,497,060	5,193,678
Increase in Net Position	15,935,545	11,330,029
Total Net Position, Beginning of Fiscal Year	156,507,789	145,177,760
Total Net Position, End of Fiscal Year	$ 172,443,334	$ 156,507,789

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Net Position
March 31, 2020 and 2019

	2020	2019
Current Assets		
Cash and cash equivalents, unrestricted (Note 3)	$ 29,663,969	$ 27,812,712
Accounts receivable, customers (net of allowance for doubtful accounts of $474,033 in 2020 and $473,827 in 2019)	7,014,694	6,547,940
Unbilled water and sewer service	10,722,797	9,852,958
Surcharges receivable, current portion	350,000	350,000
Other receivables	216,612	498,933
Material and supplies	3,630,945	2,868,304
Prepaid expenses	1,121,573	352,547
Total Current Assets	52,720,590	48,283,394
Property, Plant and Equipment		
Property, plant and equipment (Note 2)	816,019,835	767,648,700
Less: accumulated depreciation	(225,388,158)	(213,403,548)
Property, Plant and Equipment, Net	590,631,677	554,245,152
Non-Current Assets		
Surcharges receivable, net of current portion and allowance for doubtful accounts of $200,000 in 2020 and 2019	1,465,670	1,509,942
Prepaid bond insurance	867,810	913,328
Restricted assets:		
Special funds held by trustee (Note 4 & 5)	176,264,906	207,837,151
Restricted cash held by the Authority (Note 6)	6,663,291	16,415,126
Total Non-Current Assets	185,261,677	226,675,547
Total Assets	828,613,944	829,204,093
Deferred Outflows of Resources		
Net difference between projected and actual earnings on pension plan investments	7,199,443	30,552
Changes in assumptions related to pensions	-	57,541
Difference between expected and actual experience related to pensions	835,078	602,541
Contribution to pension plan subsequent to measurement date	-	150,548
Difference between expected and actual experience related to OPEB	20,431	24,517
Changes in assumptions related to OPEB	7,138,277	1,501,026
Deferred losses on bond refundings, net of amortization (Note 8)	3,413,275	4,283,283
Total Deferred Outflows of Resources	18,606,504	6,650,008

(continued)

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Net Position
March 31, 2019 and 2018

	2019	Restated 2018
Current Assets		
Cash and cash equivalents, unrestricted (Note 3)	$ 27,812,712	$ 19,209,356
Accounts receivable, customers (net of allowance for doubtful accounts of $473,827 in 2019 and $470,533 in 2018)	6,547,940	6,298,373
Unbilled water and sewer service	9,852,958	9,851,714
Surcharges receivable, current portion	350,000	350,000
Other receivables	498,933	1,070,190
Inventory - material and supplies	2,868,304	2,515,551
Prepaid expenses	352,547	200,121
Total Current Assets	48,283,394	39,495,305
Property, Plant and Equipment		
Property, plant and equipment (Note 2)	767,648,700	711,563,565
Less: accumulated depreciation	(213,403,548)	(201,495,896)
Property, Plant and Equipment, Net	554,245,152	510,067,669
Non-Current Assets		
Surcharges receivable, net of current portion and allowance for doubtful accounts of $200,000 in 2019 and 2018	1,509,942	1,653,673
Prepaid bond insurance	913,328	958,845
Restricted assets:		
Special funds held by trustee (Note 4 & 5)	207,837,151	234,717,525
Restricted cash held by the Authority (Note 6)	16,415,126	19,597,310
Total Non-Current Assets	226,675,547	256,927,353
Total Assets	829,204,093	806,490,327
Deferred Outflows of Resources		
Net difference between projected and actual earnings on pension plan investments	30,552	-
Changes in assumptions related to pensions	57,541	77,283
Difference between expected and actual experience related to pensions	602,541	825,024
Contribution to pension plan subsequent to measurement date	150,548	56,041
Difference between expected and actual experience related to OPEB	24,517	-
Changes in assumptions related to OPEB	1,501,026	-
Deferred losses on bond refundings, net of amortization (Note 8)	4,283,283	4,612,214
Total Deferred Outflows of Resources	6,650,008	5,570,562

(continued)

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Net Position
March 31, 2018 and 2017

	2018	2017
Current Assets		
Cash and cash equivalents, unrestricted (Note 3)	$ 19,209,356	$ 15,067,865
Accounts receivable, customers (net of allowance for doubtful accounts of $470,533 in 2018 and $458,506 in 2017)	6,298,373	5,597,012
Unbilled water and sewer service	9,851,714	9,777,602
Surcharges receivable, current portion	350,000	350,000
Other receivables	1,070,190	5,178,590
Inventory - material and supplies	2,515,551	2,289,998
Prepaid expenses	200,121	129,312
Total Current Assets	39,495,305	38,390,379
Property, Plant and Equipment		
Property, plant and equipment (Note 2)	711,563,565	662,320,792
Less: accumulated depreciation	(201,495,896)	(189,824,163)
Property, Plant and Equipment, net	510,067,669	472,496,629
Non-Current Assets		
Surcharges receivable, net of current portion and allowance for doubtful accounts of $200,000 in 2018 and 2017	1,653,673	1,959,138
Prepaid bond insurance	958,845	596,655
Restricted assets:		
Special funds held by trustee (Note 4 & 5)	234,717,525	254,963,842
Restricted cash held by authority (Note 6)	19,597,310	19,003,328
Total Non-Current Assets	256,927,353	276,522,963
Total Assets	806,490,327	787,409,971
Deferred Outflows of Resources		
Net difference between projected and actual earnings on pension plan investments	-	170,728
Changes in assumptions related to pensions	77,283	-
Difference between expected and actual experience related to pensions	825,024	104,074
Contribution to pension plan subsequent to measurement date	56,041	-
Deferred losses on bond refundings, net of amortization (Note 8)	4,612,214	1,205,212
Total Deferred Outflows of Resources	5,570,562	1,480,014

(continued)

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Revenues, Expenses and Changes in Net Position
Fiscal Years Ended March 31, 2020 and 2019

	2020	2019
Operating Revenues		
Water	$ 86,373,308	$ 86,597,707
Wastewater	16,156,229	15,286,438
Other operating revenues	2,930,304	5,450,849
Total Operating Revenues	105,459,841	107,334,994
Operating Expenses		
Source of supply	1,072,453	935,776
Treatment system	8,651,822	8,810,618
Distribution	20,592,367	18,735,370
Engineering	1,599,655	1,530,906
Wastewater system	8,871,707	8,444,588
Landfill	4,790	4,765
Depreciation and amortization	14,151,165	13,433,385
Commercial and general	25,934,541	27,059,890
Management fee	1,300,000	1,300,000
Total Operating Expenses	82,178,500	80,255,298
Operating Income Before Non-Operating Expenses	23,281,341	27,079,696
Non-Operating Revenues (Expenses)		
Investment income	4,775,646	4,943,913
Net increase in the fair value of investments	43,786	20,450
Interest expense	(21,188,625)	(20,975,541)
Loss on disposals of property, plant and equipment	(775,797)	(403,367)
Total Non-Operating Expenses	(17,144,990)	(16,414,545)
Income Before Capital Contributions	6,136,351	10,665,151
Capital Contributions	5,193,678	6,523,749
Increase in Net Position	11,330,029	17,188,900
Total Net Position, Beginning of Fiscal Year	145,177,760	127,988,860
Total Net Position, End of Fiscal Year	$ 156,507,789	$ 145,177,760

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Revenues, Expenses and Changes in Net Position
Fiscal Years Ended March 31, 2019 and 2018

	2019	Restated 2018
Operating Revenues		
Water	$ 86,597,707	$ 81,638,410
Wastewater	15,286,438	14,901,786
Other operating revenues	5,450,849	3,527,303
Total Operating Revenues	107,334,994	100,067,499
Operating Expenses		
Source of supply	935,776	865,364
Treatment system	8,810,618	8,002,831
Distribution	18,735,370	17,775,014
Engineering	1,530,906	1,307,465
Wastewater system	8,444,588	8,509,813
Landfill	4,765	43,367
Depreciation and amortization	13,433,385	12,577,264
Commercial and general	27,059,890	28,228,521
Management fee	1,300,000	1,225,000
Total Operating Expenses	80,255,298	78,534,639
Operating Income Before Non-Operating Revenues	27,079,696	21,532,860
Non-Operating Revenues (Expenses)		
Investment income	4,943,913	3,535,070
Net increase (decrease) in the fair value of investments	20,450	(407,750)
Interest expense	(20,975,541)	(15,262,836)
Loss on disposals of property	(403,367)	(336,175)
Total Non-Operating Expenses	(16,414,545)	(12,471,691)
Income Before Capital Contributions	10,665,151	9,061,169
Capital Contributions	6,523,749	13,400,327
Increase in Net Position	17,188,900	22,461,496
Total Net Position, Beginning of Fiscal Year	127,988,860	135,957,658
Prior Period Adjustment, see Note 19	-	(30,430,294)
Total Net Position, End of Fiscal Year	$ 145,177,760	$ 127,988,860

See accompanying notes to the financial statements.

MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY
Statements of Revenues, Expenses and Changes in Net Position
Fiscal Years Ended March 31, 2018 and 2017

	2018	2017
Operating Revenues		
Water	$ 81,638,410	$ 77,440,502
Wastewater	14,901,786	14,121,562
Other operating revenues	3,527,303	2,858,021
Total Operating Revenues	100,067,499	94,420,085
Operating Expenses		
Source of supply	865,364	861,886
Treatment system	8,002,831	8,006,826
Distribution	17,775,014	17,459,687
Engineering	1,307,465	1,271,392
Wastewater system	8,509,813	7,632,386
Landfill	43,367	12,005
Depreciation and amortization	12,577,264	11,562,121
Commercial and general	28,228,521	25,817,145
Management fee	1,225,000	1,200,000
Total Operating Expenses	78,534,639	73,823,448
Operating Income Before Non-Operating Revenues	21,532,860	20,596,637
Non-Operating Revenues (Expenses)		
Investment income	3,535,070	3,225,914
Net increase (decrease) in the fair value of investments	(407,750)	431,964
Interest expense	(15,262,836)	(15,032,096)
Loss on disposals of property	(336,175)	(1,732,987)
Total Non-Operating Expenses	(12,471,691)	(13,107,205)
Income Before Capital Contributions	9,061,169	7,489,432
Capital Contributions	13,400,327	13,432,729
Increase in Net Position	22,461,496	20,922,161
Total Net Position, Beginning of Year	135,957,658	115,035,497
Total Net Position, End of Year	$ 158,419,154	$ 135,957,658

See accompanying notes to the financial statements.

ERIE CITY WATER AUTHORITY
(AKA ERIE WATER WORKS)
Statement of Net Position
December 31, 2020 and 2019

	2020	2019
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
Current Assets		
Cash and cash equivalents	**$ 15,840,370**	$ 12,385,206
Restricted cash - workers' compensation fund	**279,455**	338,915
Investments - cash and certificates of deposit (at par)	**795,109**	846,875
Receivables - customers, net	**5,791,611**	3,974,224
Current portion of customer receivables	**19,600**	19,600
Inventories, at cost	**1,549,331**	1,627,035
Prepaid expenses	**1,340,963**	865,774
Total current assets	**25,616,439**	20,057,629
Non-Current Assets		
Restricted investments		
Amount provided for retirement of long-term debt	**7,686,000**	8,864,436
Amount provided for future system improvements	**11,941,433**	19,881,874
Board designated reserve for capital expenditures	**5,000,000**	5,000,000
Investment in self-liquidity bonds	**5,225,000**	5,325,000
Long-term customer receivables	**117,932**	137,221
Capital assets, net of accumulated depreciation		
Contributed capital assets	**2,508,257**	2,829,653
Purchased capital assets	**197,500,684**	191,269,705
Total non-current assets	**229,979,306**	233,307,889
Total assets	**255,595,745**	253,365,518
Deferred Outflows of Resources		
Deferred City of Erie lease payments	**103,067,058**	5,033,530
Changes in pension experience	**1,753,594**	1,254,876
Changes in pension investment returns	**-**	-
Changes in pension assumptions	**1,969,111**	2,724,471
Deferred loss on advanced bond refunding, net	**23,376,680**	11,836,635
Deferred bond swap fee, net	**11,179,830**	11,912,546
Total deferred outflow of resources	**141,346,273**	32,762,058
Total assets and deferred outflow of resources	**$ 396,942,018**	$ 286,127,576

The notes to the financial statements are an integral part of these statements.

ERIE CITY WATER AUTHORITY
(AKA ERIE WATER WORKS)
Statement of Revenues, Expenses and Changes in Net Position
December 31, 2020 and 2019

	2020	2019
Operating revenues	**$ 40,725,085**	$ 40,086,711
Operating expenses		
Personnel	**6,112,365**	6,345,483
Personnel benefits	**3,504,971**	4,689,942
Supplies and materials	**2,012,909**	2,010,029
Other services and charges	**5,037,083**	5,498,375
City of Erie lease	**2,850,000**	3,600,000
Total operating expenses	**19,517,328**	22,143,829
Operating income before depreciation	**21,207,757**	17,942,882
Depreciation	**7,746,138**	8,393,230
Operating income	**13,461,619**	9,549,652
Non-operating revenue (expense)		
Interest expense	**(13,588,313)**	(12,123,859)
Other revenue (expense), net	**(153,290)**	1,651,260
Net loss before contributed capital	**(279,984)**	(922,947)
Capital asset contributions	**-**	-
CHANGE IN NET POSITION	**(279,984)**	(922,947)
Net Position		
Beginning of year	**(55,786,094)**	(54,863,147)
End of year	**$ (56,066,078)**	$ (55,786,094)

The notes to the financial statements are an integral part of these statements.

Erie City Water Authority
Statements of Financial Position

	As of December 31,			
	2019	2018	Change	% Change
ASSETS				
Current assets	$ 20,057,629	$ 17,026,267	$ 3,031,362	17.80%
Restricted investments	28,746,310	32,386,195	(3,639,885)	-11.24%
Capital assets, net of accumulated depreciation	194,099,358	191,070,499	3,028,859	1.59%
Other non-current assets	10,462,221	10,481,961	(19,740)	-0.19%
Deferred outflows of resources	32,762,058	34,530,203	(1,768,145)	-5.12%
Total Assets and Deferred Outflows	$ 286,127,576	$ 285,495,125	$ 632,451	0.22%
LIABILITIES AND NET POSITION				
Current liabilities	$ 7,175,123	$ 8,766,073	$ (1,590,950)	-18.15%
Long-term debt, net of unaccreted discounts	306,968,863	310,547,787	(3,578,924)	-1.15%
Other non-current liabilities	25,881,649	21,044,412	4,837,237	22.99%
Deferred inflow of resources	1,888,035	-	1,888,035	0.00%
Total liabilities and deferred inflow of resources	341,913,670	340,358,272	1,555,398	0.46%
Net position -				
Net investment in capital assets	15,948,959	11,468,894	4,480,065	39.06%
Restricted for capital projects, debt service	8,864,436	9,849,537	(985,101)	-10.00%
Unrestricted	(80,599,489)	(76,181,578)	(4,417,911)	5.80%
Total net position	(55,786,094)	(54,863,147)	(922,947)	1.68%
Total liabilities and net position	$ 286,127,576	$ 285,495,125	$ 632,451	0.22%

Changes in Net Position –

The Authority's net position decreased by $922,947 in 2019. The 2019 decrease in the net position resulted from several factors related to materials and supplies costs and personnel related costs that was offset by savings on interest expense.

Total operating revenues for the year ended December 31, 2019 of $40,086,711 increased $316,562 (0.80%) compared to December 31, 2018.

Total operating expenses of $22,143,829 increased $756,012 (3.53%).

Total 2019 expenses of $42,660,918 compared to $44,001,398 in 2018 decreased $1,340,480 (11.11%).

to $285.50 million. Total liabilities and inflows increased $36.14 million [11.88%] to $340.36 million. The primary reasons for the increase are discussed in the following *Changes in Net Position* section.

Restricted investments of $32.39 million increased $21.03 million [285.19%], primarily from $27 million of new capital project funds from the 2018 bond issue.

Capital assets (net of depreciation) increased $3.09 million. Gross capital assets (before depreciation) increased $11.47 million representing capital additions in accordance with the Authority's adopted capital project program.

ERIE CITY WATER AUTHORITY
STATEMENTS OF FINANCIAL POSITION

	As of December 31,			
	2018	2017	$ Change	% Change
ASSETS				
Current assets	$ 17,026,267	$ 13,116,705	$ 3,909,562	29.8%
Restricted investments	32,386,195	11,356,255	21,029,940	185.2%
Capital assets, net of accumulated depreciation	191,070,499	187,981,855	3,088,644	1.6%
Other non-current assets	10,481,961	10,665,706	(183,745)	(1.7%)
Deferred outflows of resources	34,530,203	30,999,314	3,530,889	11.4%
Total Assets and Deferred Outflows	$ 285,495,125	$ 254,119,835	$ 31,375,290	12.3%

	As of December 31,			
	2018	2017	$ Change	% Change
LIABILITIES AND NET ASSETS				
Current liabilities	$ 8,766,073	$ 7,893,978	$ 872,095	29.8%
Long-term debt, net of unaccreted discounts	310,547,787	284,395,079	26,152,708	9.2%
Other non-current liabilities	21,044,412	11,930,218	(9,114,194)	76.4%
Deferred inflow of resources	-	1,113,991	(1,113,991)	-
Total liabilities and deferred outflow of resources	340,358,272	305,333,266	35,025,006	11.5%
Net position –				
Invested in capital assets, net of related debt	11,468,894	7,320,870	4,148,024	56.7%
Restricted for capital projects, debt service	9,849,537	7,691,083	2,158,454	28.1%
Unrestricted	(76,181,578)	(66,225,384)	(9,956,194)	(15.0%)
Total net position	(54,863,147)	(51,213,431)	(3,649,716)	(7.1%)
Total liabilities and net position	$ 285,495,125	$ 254,119,835	($ 31,375,290)	(12.3%)

Changes in Net Position –

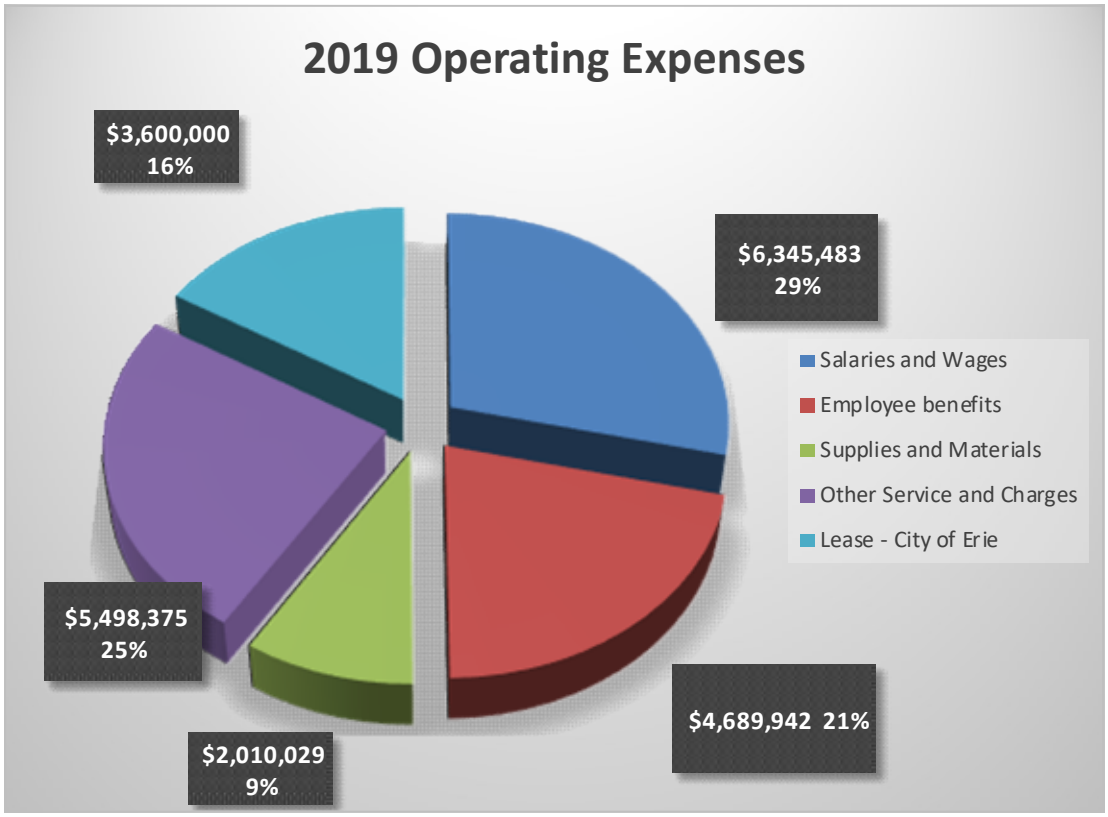
The Authority's net position decreased by <$3.65> million in 2018, compared to a <$.84> million decrease in 2017. The 2018 decrease in the net position resulted from several factors – $1.84 million increase in pension costs, $1.1 million increase in interest expense and $1.03 million of bond issue costs.

Total operating revenues for the year ended December 31, 2018 of $39.8 million increased $1.3 million [3.3%] compared to December 31, 2017.

Total operating expenses of $21.4 million increased $2.48 million [13.1%]. The majority of the

ERIE CITY WATER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	For the year ended December 31,			
	2019	2018	Change	% Change
Operations				
Operating revenues	$ 40,086,711	$ 39,770,149	$ 316,562	0.80%
Operating expenses	(22,143,829)	(21,387,817)	(756,012)	3.53%
Depreciation	(8,393,230)	(8,377,223)	(16,007)	0.19%
Operating income	$ 9,549,652	$ 10,005,109	$ (455,457)	-4.55%
Non-operating revenue (expense)				
Interest expense	$ (12,123,859)	$ (14,236,358)	$ 2,112,499	-14.84%
Other revenues	2,302,321	1,948,092	354,229	18.18%
Other expenses	(651,061)	(1,446,534)	795,473	-54.99%
	(10,472,599)	(13,734,800)	3,262,201	-23.75%
Net loss before capital contributions	(922,947)	(3,729,691)	2,806,744	-75.25%
Capital assets contributions	-	79,975	(79,975)	-100.00%
Change in net position	$ (922,947)	$ (3,649,716)	$ 2,726,769	-74.71%

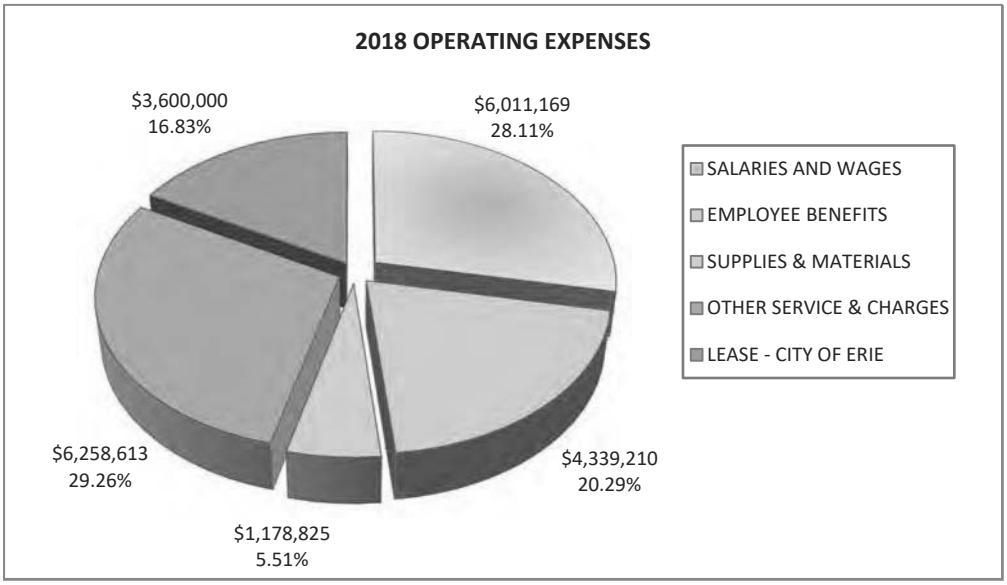


2018 decrease in operating expenses was attributable to higher pension costs and contracted services.

Total 2018 expenses of $44.0 million $40.3 million increased $3.7 million [9.18%] compared to 2017.

ERIE CITY WATER AUTHORITY
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	For the year ended December 31,			
	2018	2017	$ Change	% Change
Operations -				
Operating revenues	$ 39,770,149	$ 38,483,311	$ 1,286,838	3.3%
Operating expenses	(21,387,817)	(18,912,253)	2,475,564	13.1%
Depreciation	(8,377,223)	(8,214,879)	162,344	(2.0%)
Operating income	10,005,109	11,356,179	1,351,070	(11.9%)
Non-operating revenue (expense)				
Interest expense	(14,236,358)	(13,165,069)	1,071,289	8.1%
Other revenues	1,948,092	1,326,328	621,764	46.9%
Other expenses	(1,446,534)	(354,727)	1,091,807	307.8%
	(13,734,800)	(12,193,468)	1,541,332	12.6%
Net loss before capital contributions	(3,729,691)	(837,289)	(2,892,402)	(345.4%)
Capital asset contributions	79,975		79,975	-
Change in net position	($ 3,649,716)	($ 837,289)	($ 2,812,427)	(335.9%)



Chester Water Authority
Statements of Net Position
December 31, 2019 and 2018

Assets and Deferred Outflows of Resources

	December 31, 2019	December 31, 2018
Current Assets		
Cash and cash equivalents	$ 12,498,028	$ 9,680,971
Investments	1,224,596	1,207,385
Accounts receivable, net of allowance for doubtful accounts of $300,000 in both 2019 and 2018	4,715,593	4,215,519
Unbilled revenue	4,184,067	4,143,347
Materials and supplies	2,392,807	2,894,794
Other current assets	225,137	44,735
Total Current Assets	25,240,228	22,186,751
Non-Current Assets		
Property, plant, and equipment—net of accumulated depreciation	282,114,520	277,881,505
Net pension asset	806,245	-
Total Non-Current Assets	282,920,765	277,881,505
Restricted Assets		
Cash and cash equivalents	28,304,535	7,629,992
Total Restricted Assets	28,304,535	7,629,992
Total Assets	336,465,528	307,698,248
Deferred Outflows of Resources		
Changes in pension investment returns and actuarial assumptions	1,134,806	4,646,383
Changes in OPEB investment returns and actuarial assumptions	1,912,766	420,158
Total Deferred Outflows of Resources	3,047,572	5,066,541
Total Assets and Deferred Outflows of Resources	$ 339,513,100	$ 312,764,789

See accompanying notes to financial statements.

Chester Water Authority
Statements of Revenues, Expenses, and Changes In Net Position
For The Years Ended December 31, 2019 and 2018

	December 31, 2019	December 31, 2018
Operating Revenues		
Residential	$ 16,511,126	$ 16,270,379
Commercial	7,179,069	7,006,726
Industrial	9,832,034	8,262,780
Fire protection	4,063,901	3,902,103
Capacity charges, flat and late fee revenues	1,374,484	1,134,612
Sales to other water utilities	6,802,562	6,749,553
Total Operating Revenues	45,763,176	43,326,153
Operating Expenses		
Purification and Pumping	7,409,809	7,479,180
Distribution	6,687,166	7,989,652
Administrative	13,672,346	12,605,483
Finance/customer service, billing and collections	3,834,971	4,189,300
Depreciation	9,453,690	9,575,108
Total Operating Expenses	41,057,982	41,838,723
Operating Income	4,705,194	1,487,430
Non-Operating Revenues/(Expenses)		
Net investment income	155,689	131,632
Interest expense	(2,810,444)	(2,776,729)
Other nonoperating revenues	311,563	514,232
Amortization of bond discounts and debt issuance costs	479,795	401,140
Gain (loss) on disposal of property and equipment	302,194	17,882
Total Non-Operating Revenues/(Expenses)	(1,561,203)	(1,711,843)
Income (Loss) Before Contributions	3,143,991	(224,413)
Capital Contributions	894,723	5,652,845
Change In Net Position	4,038,714	5,428,432
Net Position - Beginning of year, as previously reported	234,034,302	233,538,507
Cumulative effect of prior period adjustment for adoption of GASB 75 - Net OPEB Liability	-	(4,932,637)
Net Position - Beginning of year, restated	234,034,302	228,605,870
Net Position - End of year	$ 238,073,016	$ 234,034,302

See accompanying notes to financial statements.

Chester Water Authority
Statements of Net Position
December 31, 2018 and 2017

Assets and Deferred Outflows of Resources

	December 31, 2018	December 31, 2017
Current Assets		
Cash and cash equivalents	$ 9,680,971	$ 12,277,333
Investments	1,207,385	1,185,056
Accounts receivable, net of allowance for doubtful accounts of $300,000 in both 2018 and 2017	4,215,519	4,018,123
Unbilled revenue	4,143,347	4,100,936
Materials and supplies	2,894,794	2,438,785
Other current assets	44,734	72,551
Total Current Assets	22,186,750	24,092,784
Non-Current Assets		
Property, plant, and equipment—net of accumulated depreciation	277,881,505	271,133,389
Net pension asset	-	1,501,182
Total Non-Current Assets	277,881,505	272,634,571
Restricted Assets		
Cash and cash equivalents	7,629,992	7,549,260
Total Restricted Assets	7,629,992	7,549,260
Total Assets	307,698,247	304,276,615
Deferred Outflows of Resources		
Changes in pension investment returns and actuarial assumptions	4,646,383	1,479,458
Changes in OPEB investment returns and actuarial assumptions	420,158	-
Total Deferred Outflows of Resources	5,066,541	1,479,458
Total Assets and Deferred Outflows of Resources	$ 312,764,788	$ 305,756,073

See accompanying notes to financial statements.

Chester Water Authority
Statements of Revenues, Expenses, and Changes In Net Position
For The Years Ended December 31, 2018 and 2017

	December 31, 2018	December 31, 2017
Operating Revenues		
Residential	$ 16,270,379	$ 16,471,074
Commercial	7,006,726	5,885,341
Industrial	8,262,780	7,414,215
Fire protection	3,902,103	4,001,045
Capacity charges, flat and late fee revenues	1,134,612	1,360,899
Sales to other water utilities	6,749,553	7,158,892
Total Operating Revenues	43,326,153	42,291,466
Operating Expenses		
Purification and Pumping	7,479,180	7,326,031
Distribution	7,989,652	7,159,659
Administrative	12,605,483	11,664,820
Finance/customer service, billing and collections	4,189,300	3,824,583
Depreciation	9,575,108	9,521,150
Total Operating Expenses	41,838,723	39,496,243
Operating Income	1,487,430	2,795,223
Non-Operating Revenues (Expenses)		
Net investment income	131,632	146,144
Interest expense	(2,776,729)	(2,681,713)
Other nonoperating revenues	514,231	982,798
Amortization of bond discounts and debt issuance costs	401,140	250,136
Gain (loss) on disposal of property and equipment	17,882	(481,900)
Total Non-Operating Revenues/(Expenses)	(1,711,844)	(1,784,535)
(Loss) Income Before Contributions	(224,414)	1,010,688
Capital Contributions	5,652,845	2,699,498
Change In Net Position	5,428,431	3,710,186
Net Position—Beginning of year, as previously reported	233,538,507	229,828,321
Cumulative effect of prior period adjustment for adoption of GASB 75 - Net OPEB Liability	(4,932,637)	-
Net Position - Beginning of year, restated	228,605,870	229,828,321
Net Position—End of year	$ 234,034,301	$ 233,538,507

See accompanying notes to financial statements.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2020 AND 2019

	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	$ 60,210	$ 64,680
Accounts receivable, net:		
Water:		
Billed	7,400	7,138
Unbilled	7,955	8,965
Total water	15,355	16,103
Wastewater treatment:		
Billed	3,676	2,130
Unbilled	3,457	3,725
Total wastewater treatment	7,133	5,855
Other receivables	1,924	2,450
Total accounts receivable, net	24,412	24,408
Prepaid expenses	1,737	707
Inventory	2,075	1,597
Total current assets	88,434	91,392
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	16,201	16,360
Investments	9,705	9,604
Total restricted assets	25,906	25,964
Capital assets, not being depreciated	155,050	135,287
Capital assets, net of accumulated depreciation	766,600	695,291
Total noncurrent assets	947,556	856,542
Total Assets	1,035,990	947,934
Deferred Outflows of Resources		
Deferred charge on refunding	91,827	99,012
Accumulated decrease in fair value of hedging derivatives	33,863	13,351
Total Deferred Outflows of Resources	125,690	112,363

(Continued)

The notes to financial statements are an integral part of this statement.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2020 AND 2019

	2020	2019
Operating Revenues:		
Residential, commercial, and industrial water sales	$ 162,676	$ 171,681
Wastewater treatment	71,899	70,970
Other	7,422	6,398
Total operating revenues	241,997	249,049
Operating Expenses:		
Direct operating expenses	92,134	89,512
Wastewater treatment	72,698	72,389
Reimbursement for City of Pittsburgh indirect services	4,289	1,991
Expense of water provided by other entities	386	1,338
Depreciation	21,659	18,011
Total operating expenses	191,166	183,241
Operating Income	50,831	65,808
Non-operating Revenues (Expenses):		
Federal and private grants	7,001	6,922
Interest revenue	201	719
Investment income (loss) - change in fair value of swap	-	(4,180)
Interest and amortization	(37,463)	(38,740)
Bond issuance costs	(2,075)	(2,462)
Total non-operating revenues (expenses)	(32,336)	(37,741)
Net Income before Capital Contribution and Special Item	18,495	28,067
Capital Contribution:		
Donated property	76	110
Special Item:		
Private lead line replacement	(18,832)	(22,283)
Net Income (Loss)	(261)	5,894
Net Position:		
Beginning of year	1,535	(4,359)
End of year	$ 1,274	$ 1,535

The notes to financial statements are an integral part of this statement.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2019 AND 2018

	2019	2018
Assets		
Current assets:		
Cash and cash equivalents	$ 64,680	$ 46,920
Accounts receivable, net:		
Water:		
Billed	7,138	8,537
Unbilled	8,965	8,583
Total water	16,103	17,120
Wastewater treatment:		
Billed	2,130	7,014
Unbilled	3,725	3,719
Total wastewater treatment	5,855	10,733
Other receivables	2,450	1,510
Total accounts receivable, net	24,408	29,363
Prepaid expenses	707	520
Inventory	1,597	1,984
Total current assets	91,392	78,787
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	16,360	13,970
Investments	9,604	9,356
Total restricted assets	25,964	23,326
Hedging derivative - interest rate swap	-	4,750
Capital assets, not being depreciated	135,287	139,303
Capital assets, net of accumulated depreciation	695,291	618,177
Total noncurrent assets	856,542	785,556
Total Assets	947,934	864,343
Deferred Outflows of Resources		
Deferred charge on refunding	99,012	102,534
Accumulated decrease in fair value of hedging derivatives	13,351	757
Total Deferred Outflows of Resources	112,363	103,291

(Continued)

The notes to financial statements are an integral part of this statement.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
Operating Revenues:		
Residential, commercial, and industrial water sales	$ 171,681	$ 159,506
Wastewater treatment	70,970	67,261
Other	6,398	4,967
Total operating revenues	249,049	231,734
Operating Expenses:		
Direct operating expenses	89,512	72,633
Wastewater treatment	72,389	71,822
Reimbursement for City of Pittsburgh services	1,991	4,911
Expense of water provided by other entities:		
Subsidy of customers located in the City	1,338	3,814
Depreciation	18,011	16,894
Total operating expenses	183,241	170,074
Operating Income	65,808	61,660
Non-operating Revenues (Expenses):		
Federal and private grants	6,922	-
Donated property	110	13,649
Interest revenue	719	469
Investment income (loss) - change in fair value of swap	(4,180)	2,542
Interest and amortization	(38,740)	(34,365)
Bond issuance costs	(2,462)	-
Total non-operating revenues (expenses)	(37,631)	(17,705)
Net Income before Special Item	28,177	43,955
Special Item:		
Private lead line replacement	(22,283)	(4,478)
Net Income	5,894	39,477
Net Position:		
Beginning of year	(4,359)	(43,836)
End of year	$ 1,535	$ (4,359)

The notes to financial statements are an integral part of this statement.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2018 AND 2017

	2018	2017
Assets		
Current assets:		
Cash and cash equivalents	$ 46,920	$ 11,076
Accounts receivable, net:		
Water:		
Billed	8,537	9,335
Unbilled	8,583	6,760
Total water	17,120	16,095
Wastewater treatment:		
Billed	7,014	9,975
Unbilled	3,719	3,746
Total wastewater treatment	10,733	13,721
Other receivables	1,510	1,074
Total accounts receivable, net	29,363	30,890
Prepaid expenses	520	674
Inventory	1,984	3,777
Total current assets	78,787	46,417
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	13,970	18,264
Investments	9,356	11,684
Total restricted assets	23,326	29,948
Hedging derivative - interest rate swap	4,750	-
Capital assets, not being depreciated	139,303	100,240
Capital assets, net of accumulated depreciation	618,177	589,567
Total noncurrent assets	785,556	719,755
Total Assets	864,343	766,172
Deferred Outflows of Resources		
Deferred charge on refunding	102,534	110,326
Accumulated decrease in fair value of hedging derivatives	757	3,279
Total Deferred Outflows of Resources	103,291	113,605

(Continued)

The notes to financial statements are an integral part of this statement.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017
Operating Revenues:		
Residential, commercial, and industrial water sales	$ 159,506	$ 128,488
Wastewater treatment	67,261	68,935
Other	4,967	5,573
Total operating revenues	231,734	202,996
Operating Expenses:		
Direct operating expenses	72,633	71,156
Wastewater treatment	71,822	75,107
Reimbursement for City of Pittsburgh services	4,911	5,363
Expense of water provided by other entities:		
Subsidy of customers located in the City	3,814	5,594
Depreciation	16,894	16,172
Total operating expenses	170,074	173,392
Operating Income	61,660	29,604
Non-operating Revenues (Expenses):		
Donated property	13,649	1,595
Interest revenue	469	460
Investment income (loss) - change in fair value of swap	2,542	835
Interest and amortization	(34,365)	(34,913)
Bond issuance costs	-	(3,894)
Total non-operating revenues (expenses)	(17,705)	(35,917)
Special Item:		
Private lead line replacement	(4,478)	-
Net Income (Loss)	39,477	(6,313)
Net Position:		
Beginning of year	(43,836)	(37,523)
End of year	$ (4,359)	$ (43,836)

The notes to financial statements are an integral part of this statement.

WHIRLPOOL CORP. NYSE-WHR

RECENT PRICE 182.50 | P/E RATIO 7.0 (Trailing: 6.8 Median: 11.0) | RELATIVE P/E RATIO 0.39 | DIV'D YLD 3.8% | VALUE LINE 1780

TIMELINESS 4 Lowered 3/18/22
SAFETY 3 New 7/27/90
TECHNICAL 2 Raised 3/25/22
BETA 1.40 (1.00 = Market)

18-Month Target Price Range

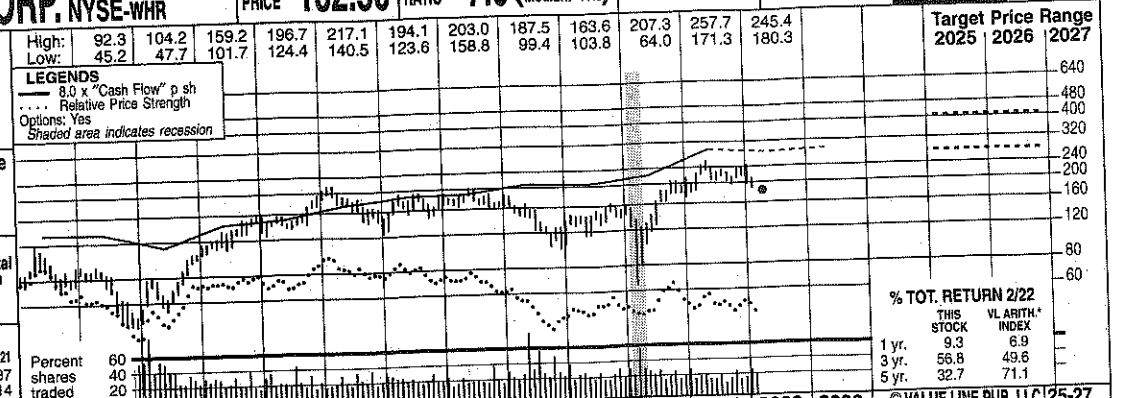
Low-High	Midpoint (% to Mid)
$171-$316	$244 (35%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	445	(+125%)	24%
Low	295	(+50%)	13%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	325	303	337
to Sell	264	282	314
Hld's(000)	56517	57709	57174



% TOT. RETURN 2/22

	THIS STOCK	VL ARITH.* INDEX
1 yr.	9.3	6.9
3 yr.	56.8	49.6
5 yr.	32.7	71.1

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2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
231.79	255.37	259.00	227.99	241.66	245.61	229.66	243.75	254.77	270.54	278.22	299.34	328.70	324.11	308.83	372.63	*396.55*	*412.30*	Sales per sh
13.28	16.32	13.90	11.37	16.61	16.54	14.04	17.97	18.79	21.69	23.37	23.65	26.00	25.62	27.62	36.73	*38.60*	*40.35*	"Cash Flow" per sh
6.35	8.10	5.50	4.34	9.10	8.95	7.05	10.03	11.39	12.38	14.05	13.78	15.16	16.00	18.52	26.59	*27.25*	*28.25*	Earnings per sh A
1.72	1.72	1.72	1.72	1.72	1.93	2.00	2.38	2.88	3.45	3.90	4.30	4.55	4.75	4.85	5.45	*5.60*	*7.00*	Div'ds Decl'd per sh B■
7.38	7.05	7.49	7.21	7.80	8.00	6.03	7.51	9.23	8.92	8.86	9.63	9.22	8.44	6.51	8.90	*12.00*	*12.25*	Cap'l Spending per sh
42.09	51.46	41.18	48.85	55.61	55.01	53.92	63.95	62.63	61.42	64.10	59.13	35.80	50.71	60.30	82.14	*104.30*	*127.20*	Book Value per sh C
76.00	76.00	73.00	75.00	76.00	76.00	79.00	77.00	78.00	77.22	74.47	71.00	64.00	63.00	63.00	59.00	*58.00*	*57.00*	Common Shs Outst'g D
13.4	11.6	12.8	12.0	9.5	7.9	10.6	12.8	13.4	14.4	11.9	12.9	9.3	8.8	8.1	8.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio
.72	.62	.77	.80	.60	.50	.67	.72	.71	.73	.62	.65	.50	.47	.42	.44			Relative P/E Ratio
2.0%	1.8%	2.4%	3.3%	2.0%	2.7%	2.7%	1.8%	1.9%	1.9%	2.3%	2.4%	3.2%	3.4%	3.2%	2.5%			Avg Ann'l Div'd Yield
						18143	18769	19872	20891	20718	21253	21037	20419	19456	21985	*23000*	*23500*	Sales ($mill)
						9.3%	10.7%	9.6%	11.6%	10.6%	9.1%	9.0%	9.7%	11.8%	12.3%	*12.5%*	*13.0%*	Operating Margin
						551.0	540.0	560.0	688.0	655.0	654.0	645.0	587.0	568.0	494.0	*525*	*550*	Depreciation ($mill)
						558.0	844.0	906.0	987.0	1085.0	1025.0	1019.0	1027.0	1172.3	1673.0	*1715*	*1750*	Net Profit ($mill)
						18.6%	7.3%	16.6%	17.5%	14.6%	14.7%	11.9%	25.6%	24.7%	23.6%	*23.0%*	*23.0%*	Income Tax Rate
						3.1%	4.5%	4.6%	4.7%	5.2%	4.8%	4.8%	5.0%	6.0%	7.6%	*7.5%*	*7.4%*	Net Profit Margin
						317.0	228.0	d305.0	d419.0	d323.0	d575.0	d1780	d971.0	685.0	1185.0	*1800*	*2350*	Working Cap'l ($mill)
						1944.0	1846.0	3544.0	3470.0	3876.0	4392.0	4046.0	4140.0	5059.0	4929.0	*4500*	*4000*	Long-Term Debt ($mill)
						4260.0	4924.0	4885.0	4743.0	4773.0	4198.0	2291.0	3195.0	3799.0	4846.0	*6050*	*7250*	Shr. Equity ($mill)
						10.6%	13.8%	11.7%	13.0%	13.5%	12.9%	17.6%	15.1%	14.2%	18.0%	*17.0%*	*16.5%*	Return on Total Cap'l
						13.1%	17.1%	18.5%	20.8%	22.7%	24.4%	44.5%	32.1%	30.9%	34.5%	*28.5%*	*24.0%*	Return on Shr. Equity
						9.5%	13.3%	14.0%	15.1%	16.6%	17.0%	31.1%	22.6%	22.7%	27.5%	*23.0%*	*19.5%*	Retained to Com Eq
						28%	22%	25%	27%	27%	30%	30%	30%	27%	20%	*19%*	*19%*	All Div'ds to Net Prof

CAPITAL STRUCTURE as of 12/31/21
Total Debt $5237 mill. Due in 5 Yrs $1752 mill.
LT Debt $4929 mill. LT Interest $170 mill.
(Total interest coverage: 13.5x) (50% of Capital)

Leases, Uncapitalized $234 mill.
Pension Assets-12/21 $3.6 bill. Oblig. $3.8 bill.

Preferred Stock None
Common Stock 58,611,212 shares as of 2/4/22

MARKET CAP: $10.7 billion (Large Cap)

CURRENT POSITION ($MILL.)

	2019	2020	12/31/21
Cash Assets	1952	2924	3044
Receivables	2198	3109	3100
Inventory (LIFO)	2438	2187	2717
Other	810	795	834
Current Assets	7398	9015	9695
Accts Payable	4547	4834	5413
Debt Due	853	310	308
Other	2969	3186	2789
Current Liab.	8369	8330	8510

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Sales	3.5%	4.5%	5.5%
"Cash Flow"	7.5%	7.0%	4.5%
Earnings	10.5%	10.0%	6.0%
Dividends	11.0%	8.0%	3.5%
Book Value	2.0%	.5%	15.0%

QUARTERLY SALES ($ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	4760	5186	5091	5382	20419
2020	4325	4042	5291	5796	19456
2021	5358	5324	5488	5815	21985
2022	*5350*	*5450*	*6000*	*6200*	*23000*
2023	*5450*	*5550*	*6150*	*6350*	*23500*

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	3.11	4.01	3.97	4.91	16.00
2020	2.82	2.15	6.91	6.64	18.52
2021	7.20	6.64	6.68	6.14	26.59
2022	*5.75*	*6.50*	*7.50*	*7.50*	*27.25*
2023	*6.00*	*6.75*	*7.85*	*7.65*	*28.25*

QUARTERLY DIVIDENDS PAID B■

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	1.10	1.15	1.15	1.15	4.55
2019	1.15	1.20	1.20	1.20	4.75
2020	1.20	1.20	1.20	1.25	4.85
2021	1.25	1.40	1.40	1.40	5.80
2022	1.75				

(A) Diluted earnings. Quarterly figures may not sum due to rounding and change in shares outstanding. Excludes nonrecurring: '06, (68¢), '07, (9¢); '10, ($1.13); '11, ($3.96); '13, 21¢; '14, ($3.22); '15, ($2.55); '16, ($2.56); '17, ($9.08); '18, ($17.88); '19, $2.45; '20, ($1.45); '21, ($1.77). Next earnings report due late April. (B) Dividends historically paid in mid-March, mid-June, mid-September, and mid-December. ■ Dividend reinvestment plan available. (C) Includes intangibles. In 2021: $4.5 billion, $75.70 a share. (D) In millions.

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Company's Financial Strength	A
Stock's Price Stability	45
Price Growth Persistence	40
Earnings Predictability	75

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BUSINESS: Whirlpool Corporation is the leading manufacturer of major home appliances. It makes products in 12 countries under 13 principal brand names, and markets products in nearly every country around the world. Its principal products are home laundry appliances (29% of '21 sales); home refrigerators and freezers (31%); home cooking appliances (25%); and other (15%). N. American sales are 58% of total. Acquired Maytag Corporation (3/06). The company has about 78,000 employees. Officers & directors own 1.4% of common stock; The Vanguard Group, 12.5%; BlackRock, Inc., 8.7% (3/22 proxy). Chairman & CEO: Marc Bitzer. Incorporated: DE. Address: 2000 M-63, Benton Harbor, MI 49022. Telephone: 269-923-5000. Internet: www.whirlpoolcorp.com.

Whirlpool's shares have taken investors through the spin cycle over the past several months. The equity is trading some 29% off of the all-time high of $257.70 it achieved in May of 2021 (down 21% since our January review). The company's performance has slowed, especially when compared to results during the consumer spending surge that began in the second half of last year. We believe underlying trends are favorable, excluding the volatility created by recent coronavirus variants. However, mounting macroeconomic pressures are proving increasingly problematic in the near term.

The company will probably have a choppy start in 2022, but we expect performance to improve as the year progresses. Supply-chain disruptions, raw material inflation, and challenges related to the Delta and Omicron variants, particularly in Latin America and the Asia/Pacific region, will likely continue to generate headwinds over the next several months. Moreover, reduced pandemic-related restrictions have moderated consumer spending versus last year, when more rigid stay-at-home conditions were in effect and home improvement activity was surging. That said, we expect momentum to pick up steam in the second half of this year.

Fundamentals for the housing market and consumer-spending will remain healthy, but there are some concerns. While the Fed's rate hikes are likely to temper momentum for a spell, once economic conditions stabilize, spending will probably rebound. Yet, inflationary pressures and raw material shortages, particularly of semiconductors and resin, could well continue to pressure margins once demand levels normalize and home improvement markets cool further. The Fed's tapering plan may prompt some moderation in housing, as well. Thus, margins will probably decline over the long haul, as it gets more costly to keep the top and bottom lines rising at a steady clip.

Though untimely for the year ahead, these shares have solid long-term appeal. The bellwether stock is an attractive play for patient investors seeking income. Conservative accounts should be mindful of the elevated Beta (1.40).

Simon R. Shoucair *April 8, 2022*

The Water Utility Industry consists of seven investor-owned companies that provide water to both residential, commercial, and industrial customers.

Equities in this group have historically been known for their earnings predictability, good dividend growth, and low volatility.

Inflation clearly poses a potential threat to the entire group. That's because utilities do not have the pricing power as nonregulated businesses. When their costs increase, they mostly do not have the power to raise their rates. A formal, often lengthy procedure, of getting regulatory approval is required. As we have mentioned before, the role of state regulators cannot be underestimated.

Meanwhile, the industry fundamentals remain the same. Following years of underinvestment, most utilities in the country are currently involved in construction projects to replace aging pipelines.

Despite not performing well in 2022, investors must still pay a high premium to own an equity in this Industry.

Inflation Concerns

Prices of goods and services have increased significantly over the past year. While this is not good news for many entities, it is particularly bad for utilities. Indeed, these companies have been allowed to operate as a monopoly in their service areas, but in return, they have agreed to let state regulators have the final call on the prices customers are charged. For more then the past decade, this hasn't been a problem because inflation has been very tame. Since the pandemic has disrupted everything from the labor markets to the world's supply chains, (with a strong assist from easy monetary and fiscal policy), costs have spiked substantially. Thus, utilities are seeing their expenses rise without a similar increase in clients bills.

To date, the group's earnings have not been meaningfully impacted. However, should prices not stabilize, earnings growth could be impeded. Some states have mechanisms where the higher costs can be passed along to users temporarily, but in most locations, a formal request must typically be made to recoup these expenses. One problem in the industry has always been that even when state public utility commissions have treated the utilities fairly, there is a time difference between when the outlays are made and when they are recovered. This is known as "regulatory lag". In an extended inflationary period, such as the 1970s, this was a major problem.

Regulatory Environment Is Key

Each state has its own authority that deals with requests for rate relief. In the recent past, regulators and water utilities have had a relatively good working relationship. With the nation's water infrastructure in poor condition, members of this group have been investing heavily in replacing pipelines that have been, over 70 years old, in many instances. Recall that this cooperation was achieved during an era of stable prices. So, the authorities have not met with much resistance from the general public, even though customer bills have been increased at levels well ahead of the inflation rate. This has been accepted without much blowback because there has been a general agreement: For decades water rates were artificially kept too low, which meant that insufficient investment was made to modernize water infrastructure. Investors should also keep in mind that regulators are typically appointed by elected officials. No matter how justified a price hike in water bills may be, a politician is generally not going to gain favor with voters by constantly allowing rates to be raised. In any case, for those looking to invest in this sector, they should be aware of the potential for these types of issues to materialize.

INDUSTRY TIMELINESS: 59 (of 97)

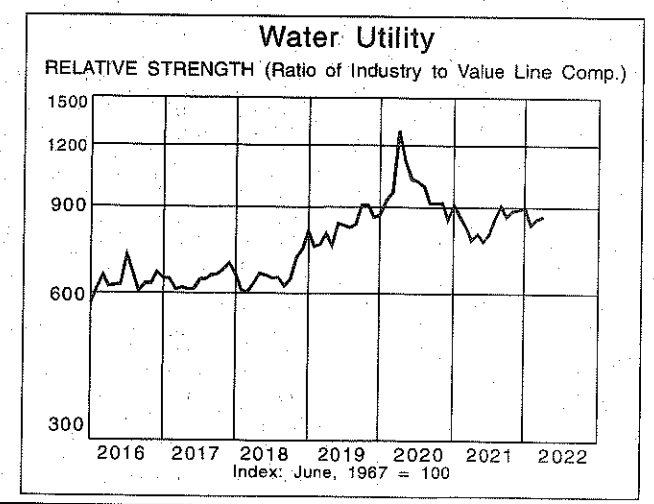
Industry Fundamentals

Despite the recent trend toward higher prices, most members in this sector have posted solid earnings and dividend growth over the past year. What's more, should inflation moderate, they could probably survive this recent hiccup with only modest damage. At the recent stock quotations, it seems that only a small amount of the potential problems are priced in by the market. Also, though the group's equities have underperformed the market in 2022, investors still seem willing to pay high price multiples to own water stocks. One way utilities could weather the potential storm would be by suspending or delaying construction programs. This would kick the problem down the road, and someone would still have to eventually pay for upgrading America's water assets.

Conclusion

The *Value Line* Timeliness Ranking System currently puts this group in the bottom half of the nearly 100 industries it tracks. One development that has recently spooked the market has been the spike in long-term interest rates. In addition to having to issue debt with higher coupons to finance a portion of the building programs, more-generous bond yields also act as an alternative financial security for investors seeking assets that generate income. In sum, those who have been long-time shareholders in the companies covered here might want to take some money off the table. For those on the sidelines, it may be best to remain there until there is further evidence that inflation is under control.

James A. Flood



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AMER. STATES WATER NYSE-AWR

RECENT PRICE 87.33 | P/E RATIO 33.6 (Trailing: 34.2 / Median: 27.0) | RELATIVE P/E RATIO 1.88 | DIV'D YLD 1.8% | VALUE LINE 1782

TIMELINESS 3 Raised 3/5/21
SAFETY 2 Raised 7/20/12
TECHNICAL 3 Lowered 3/25/22
BETA .65 (1.00 = Market)

18-Month Target Price Range

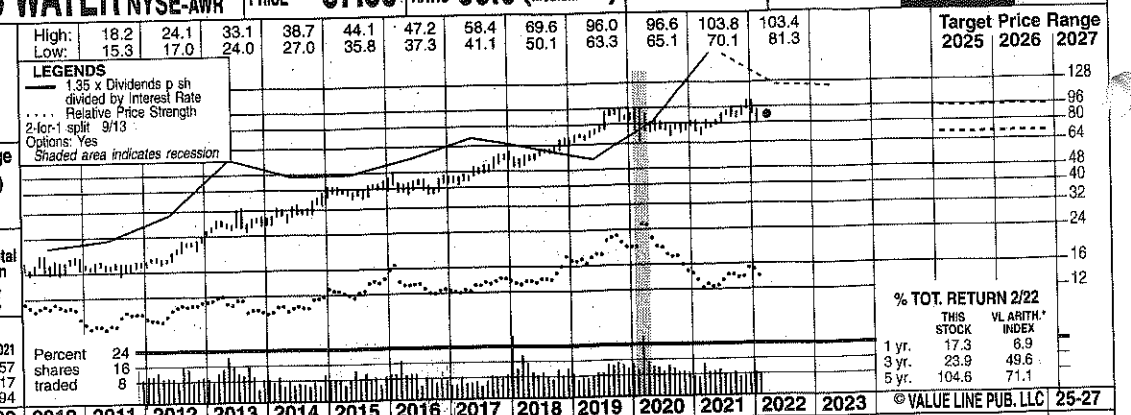
Low-High	Midpoint (% to Mid)
$77-$132	$105 (20%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+10%)	4%
Low	70	(-20%)	-3%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	126	146	157
to Sell	117	101	117
Hld's(000)	25636	26958	27394



2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	12.01	11.88	12.86	13.24	13.51	*13.95*	*14.25*	Revenues per sh	*18.15*
1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	2.70	2.96	2.84	3.26	3.34	3.64	*3.75*	*4.15*	"Cash Flow" per sh	*4.75*
.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.61	1.62	1.88	1.72	2.28	2.33	2.55	*2.60*	*2.75*	Earnings per sh A	*3.25*
.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	.99	1.06	1.16	1.28	1.40	*1.52*	*1.65*	Div'd Decl'd per sh B■	*2.15*
1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	3.55	3.08	3.44	4.12	3.54	3.91	*4.00*	*4.00*	Cap'l Spending per sh	*4.25*
8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.45	15.19	16.33	17.39	18.57	*19.45*	*20.65*	Book Value per sh D	*23.75*
34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	36.68	36.76	36.85	36.89	36.94	*37.25*	*37.50*	Common Shs Outst'g C	*37.50*
27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	25.6	25.7	34.0	34.4	34.3	33.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	*25.0*
1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.34	1.29	1.84	1.83	1.76	1.82			Relative P/E Ratio	*1.40*
2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	2.0%	1.8%	1.5%	1.6%	1.7%			Avg Ann'l Div'd Yield	*2.6%*
						466.9	472.1	465.8	458.6	436.1	440.6	436.8	473.9	488.2	498.9	*520*	*535*	Revenues ($mill)	*680*
						54.1	62.7	61.1	60.5	59.7	69.4	63.9	84.3	86.4	94.3	*95.0*	*105*	Net Profit ($mill)	*120*
						39.9%	36.3%	38.4%	38.4%	36.8%	36.0%	22.0%	22.6%	24.6%	24.4%	*24.0%*	*24.0%*	Income Tax Rate	*24.0%*
						2.5%	--	--	--	--	--	--	--	2.5%	--	*1.0%*	*1.5%*	AFUDC % to Net Profit	*1.5%*
						42.2%	39.8%	39.1%	41.1%	39.4%	38.0%	40.5%	44.4%	47.2%	46.1%	*48.5%*	*48.5%*	Long-Term Debt Ratio	*52.0%*
						57.8%	60.2%	60.9%	58.9%	60.6%	62.0%	59.5%	55.6%	52.8%	53.9%	*51.5%*	*51.5%*	Common Equity Ratio	*48.0%*
						787.0	818.4	832.6	791.5	815.3	854.9	938.4	1082.5	1216.2	1272.6	*1410*	*1500*	Total Capital ($mill)	*1710*
						917.8	981.5	1003.5	1060.8	1150.9	1205.0	1296.3	1415.7	1512.0	1626.0	*1720*	*1800*	Net Plant ($mill)	*2025*
						8.3%	8.9%	8.6%	9.0%	8.6%	9.3%	7.9%	8.9%	8.0%	8.3%	*8.0%*	*8.0%*	Return on Total Cap'l	*8.0%*
						11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	13.8%	*13.0%*	*13.5%*	Return on Shr. Equity	*13.5%*
						11.9%	12.7%	12.0%	13.0%	12.1%	13.1%	11.4%	14.0%	13.5%	13.8%	*13.0%*	*13.5%*	Return on Com Equity	*13.5%*
						6.6%	6.8%	5.7%	6.0%	5.3%	6.2%	4.5%	6.9%	6.1%	6.2%	*5.5%*	*5.5%*	Retained to Com Eq	*4.5%*
						45%	47%	53%	54%	56%	52%	61%	51%	55%	55%	*58%*	*60%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $443.6 mill. Due in 5 Yrs $33.5 mill.
LT Debt $412.2 mill. LT Interest $22.8 mill. (38% of Cap'l)

Leases, Uncapitalized: Annual rentals $2.6 mill.
Pension Assets-12/21 $233.5 mill. Oblig. $259.8 mill.
Pfd Stock None
Common Stock 36,945,434 shs. as of 2/18/22

MARKET CAP: $3.2 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	1.3	36.7	5.0
Accts Receivable	20.9	29.2	34.4
Other	100.3	91.2	98.7
Current Assets	122.5	157.1	138.1
Accts Payable	55.6	63.8	65.9
Debt Due	5.3	.4	31.4
Other	55.1	54.4	58.3
Current Liab.	116.0	118.6	155.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	2.5%	1.5%	*5.5%*
"Cash Flow"	5.5%	4.5%	*5.5%*
Earnings	9.0%	8.5%	*5.5%*
Dividends	9.5%	8.0%	*9.0%*
Book Value	5.5%	6.0%	*5.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	101.7	124.7	134.5	113.0	473.9
2020	109.1	121.3	133.6	124.2	488.2
2021	117.1	128.4	136.8	116.6	498.9
2022	*120*	*130*	*140*	*130*	*520*
2023	*120*	*135*	*145*	*135*	*535*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	.35	.72	.76	.45	2.28
2020	.38	.69	.72	.54	2.33
2021	.52	.72	.76	.55	2.55
2022	*.52*	*.75*	*.78*	*.55*	*2.60*
2023	*.55*	*.79*	*.82*	*.59*	*2.75*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.255	.255	.275	.275	1.06
2019	.275	.275	.305	.305	1.16
2020	.305	.305	.335	.335	1.28
2021	.335	.335	.365	.365	1.40
2022	.365				

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Co., it supplies water to 262,770 customers in 10 California counties. Service areas include the metropolitan areas of Los Angeles and Orange Counties. The company also provides electricity to 24,656 customers in Big Bear Lake and San Bernardino Cnty. Provides water & wastewater services to U.S. military bases through its ASUS subsidiary. Sold Chaparral City Wtr. of AZ. (6/11). Employs 808. BlackRock, Inc. owns 16.4% of out. shares; Vanguard, 12.0%; off. & dir., 1.0% (4/21 Proxy). Chairman: Lloyd Ross. Pres. & CEO: Robert Sprowls. Inc: CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel.: 909-394-3600. Internet: www.aswater.com.

American States Water is still awaiting a decision on a major rate case. As we mentioned in our January report, the company's Golden States Water subsidiary agreed to a deal with the state's Public Advocate Office. The California Public Utility Commission (CPUC) must still approve the settlement, but a few issues remain unresolved. As part of the deal, the utility has agreed to invest over $400 million over the next three-year period on upgrading its existing pipelines and other assets.

Dividend growth prospects are bright. The company has an excellent track record of hiking the annual payout, as the distributions have increased by 8.0% and 9.0% annually, over the past five- and 10-year periods. We think that this pace can be sustained to 2025-2027.

The company's private water business offers the chance to boost profitability. Through its ASUS subsidiary, it provides water services to domestic military bases. The government has determined that privatizing this service will be cheaper than doing it in house. ASUS has already won a number of 50-year contracts and should continue to do so as the program is rolled out. In this segment, returns on equity are not capped by regulatory authorities.

Inflation could present a problem for the utility industry. Soaring prices are increasing the cost of doing business. And while interim rate relief can be granted, utilities file petitions for rate increases every three years in California. The pending one is for the years 2022 to 2024 and may have underestimated the pace of rising expenses. In any case, much of the company's future will be determined by how it is treated by the CPUC.

Shares of American States Water have underperformed of late. Since our January report, the value of the stock has declined 13%. This provides evidence that the stock might be more volatile than investors believe, despite a low Beta coefficient (.65), 2 Safety rank, and a high score for Earnings Predictability. We attribute the move downward to the spike in long-term interest. Indeed, the yield on the 10-year Treasury bond has risen almost 95 basis points from 1.51% at year-end 2021, to about 2.45% recently.

James A. Flood *April 8, 2022*

(A) Primary earnings. Excludes nonrecurring gains/(losses):; '06, 3¢; '08, (14¢); '10, (23¢); '11, 10¢. Next earnings report due early May.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions, adjusted for split.
(D) Includes intangibles. As of 12/31/21; $1.1 million/$0.03 a share.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	90
Earnings Predictability	95

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AMERICAN WATER NYSE-AWK

RECENT PRICE 161.42 | P/E RATIO 22.6 (Trailing: 38.0 / Median: 24.0) | RELATIVE P/E RATIO 1.26 | DIV'D YLD 1.6% | VALUE LINE 1783

TIMELINESS 3 Lowered 6/25/21
SAFETY 3 New 7/25/08
TECHNICAL 4 Lowered 4/8/22
BETA .85 (1.00 = Market)

18-Month Target Price Range

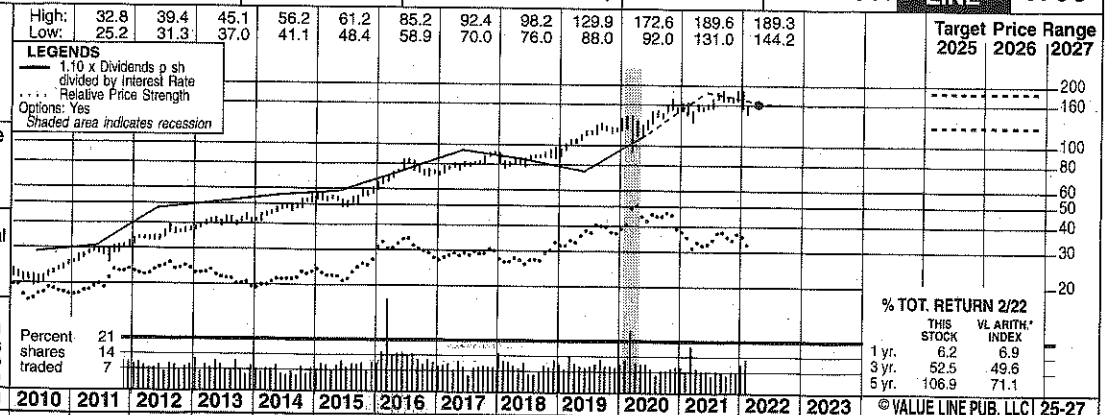
Low-High	Midpoint (% to Mid)
$139-$227	$183 (15%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	185	(+15%)	5%
Low	125	(-25%)	-4%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	444	465	526
to Sell	377	362	369
Hld's(000)	150291	155734	156569



2006E	2007E	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	18.81	19.04	19.97	20.83	21.58	*22.00*	*23.00*	Revenues per sh	*27.10*
.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.75	5.13	5.26	5.14	6.15	6.65	7.24	*10.45*	*8.15*	*8.70*	"Cash Flow" per sh	*10.10*
d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	2.38	3.15	3.43	3.91	6.95	*4.50*	*4.85*	Earnings per sh A	*5.75*
--	--	.40	.82	.86	.90	1.21	.84	1.21	1.33	1.47	1.62	1.78	1.96	2.15	2.36	*2.58*	*2.80*	Div'd Decl'd per sh B■	*3.55*
4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	8.04	8.78	9.15	10.05	*9.70*	*9.90*	*9.85*	Cap'l Spending per sh	*11.50*
23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.13	32.42	33.83	35.58	40.19	*42.05*	*44.40*	Book Value per sh D	*57.80*
160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.46	178.28	178.10	178.44	180.68	180.81	181.30	181.61	*182.00*	*182.50*	Common Shs Outst'g C	*190.00*
--	--	18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	33.6	27.3	32.9	35.3	23.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	*27.0*
--	--	1.14	1.04	.93	1.05	1.06	1.12	1.05	1.03	1.45	1.70	1.47	1.75	1.81	1.32			Relative P/E Ratio	*1.50*
--	--	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.0%	2.1%	1.7%	1.6%	1.4%			Avg Ann'l Div'd Yield	*2.3%*
						2876.9	2901.9	3011.3	3159.0	3302.0	3357.0	3440.0	3610.0	3777.0	3920.0	*4000*	*4200*	Revenues ($mill)	*5150*
						374.3	369.3	429.8	476.0	468.0	426.0	567.0	621.0	709.0	1263.0	*820*	*885*	Net Profit ($mill)	*1095*
						40.7%	39.1%	39.4%	39.1%	39.2%	53.3%	28.2%	25.5%	23.3%	23.0%	*22.5%*	*23.0%*	Income Tax Rate	*24.0%*
						6.2%	5.1%	--	--	--	--	--	--	5.1%	*2.9%*	*5.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
						53.9%	52.4%	52.4%	53.7%	52.4%	54.7%	56.3%	58.5%	59.1%	58.6%	*59.5%*	*60.0%*	Long-Term Debt Ratio	*60.0%*
						46.1%	47.6%	47.4%	46.2%	47.5%	45.3%	43.6%	41.4%	40.9%	41.4%	*40.5%*	*40.0%*	Common Equity Ratio	*40.0%*
						9635.5	9940.7	10364	10911	10967	11875	13433	14760	15787	17642	*19000*	*20200*	Total Capital ($mill)	*22000*
						11739	12391	12900	13933	14992	16246	17409	18232	19710	21084	*21950*	*23000*	Net Plant ($mill)	*26000*
						5.4%	5.1%	5.5%	5.7%	5.6%	4.9%	5.4%	5.4%	5.7%	8.3%	*5.5%*	*5.0%*	Return on Total Cap'l	*6.0%*
						8.4%	7.8%	8.7%	9.4%	9.0%	7.9%	9.7%	10.1%	11.0%	17.3%	*10.5%*	*11.0%*	Return on Shr. Equity	*10.5%*
						8.4%	7.8%	8.7%	9.4%	9.0%	7.9%	9.7%	10.1%	11.0%	17.3%	*10.5%*	*11.0%*	Return on Com Equity	*10.5%*
						3.6%	4.7%	4.3%	4.7%	4.0%	2.5%	4.2%	4.4%	5.0%	*11.5%*	*4.5%*	*4.5%*	Retained to Com Eq	*4.0%*
						57%	40%	50%	50%	56%	68%	58%	57%	55%	34%	*57%*	*58%*	All Div'ds to Net Prof	*62%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $10982 mil. Due in 5 Yrs $2867 mil.
LT Debt $10341 mil. LT Interest $384 mil. (59% of Cap'l)

Leases, Uncapitalized: Annual rentals $13.0 mill.
Pension Assets 12/21 $2294.0 mill Oblig. $1991.0 mill.
Pfd Stock $3.0 mill. Pfd Div'd $.2 mill
Common Stock 181,724,991 shares as of 2/10/22

MARKET CAP: $29.3 billion (Large Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	91	576	136
Accts Receivable	294	321	271
Other	900	1009	1147
Current Assets	1285	1906	1554
Accts Payable	203	189	235
Debt Due	814	1611	641
Other	1028	1081	1265
Current Liab.	2045	2881	2141

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '25-'27
Revenues	3.0%	3.5%	*4.5%*
"Cash Flow"	8.0%	7.0%	*6.0%*
Earnings	10.5%	8.0%	*7.5%*
Dividends	11.0%	11.5%	*9.0%*
Book Value	3.5%	4.5%	*8.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	813	882	1013	902	3610
2020	844	931	1079	923	3777
2021	888	999	1082	951	3920
2022	*895*	*1010*	*1110*	*985*	*4000*
2023	*925*	*1060*	*1190*	*1025*	*4200*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	.62	.94	1.33	.54	3.43
2020	.68	.97	1.46	.80	3.91
2021	.73	1.14	1.53	3.55	6.95
2022	*.77*	*1.18*	*1.65*	*.90*	*4.50*
2023	*.85*	*1.25*	*1.80*	*.95*	*4.85*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.415	.455	.455	.455	1.78
2019	.455	.50	.50	.50	1.96
2020	.50	.55	.55	.55	2.15
2021	.55	.6025	.6025	.6025	2.36
2022	.6025				

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to approximately 14 million people in 24 states. Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86% of 2021 revenues. Pennsylvania is its largest market accounting for 21.5% of regulated revenues; New Jersey, 20.3%; Missouri, 13.9%. Has 6,400 employees. The Vanguard Grp, owns 11.7% of outstanding shares; BlackRock, Inc., 8.1%; officers & directors, less than 1.0% (4/21 Proxy). President & CEO: Susan N. Story. Chairman: George MacKenzie. Address: 1 Water Street, Camden, NJ 08102. Tel.: 856-346-8200. Internet: www.amwater.com.

American Water Works finished up another successful year. In the fourth quarter, the company posted adjusted share earnings of $0.85, a solid 6% increase over 2020's strong results. For the full year, the water utility posted an impressive 9% rise in the bottom line, on an operational basis. It should be noted that a one-time $2.70-a-share gain was registered for the profit made on the sale of its Homeowners Insurance Service Group in a transaction valued at $1.275 billion. Since we have been using GAAP in our presentation, the total for 2021 is shown as $6.95.

Short- and long-term earnings prospects remain bright. In 2022, adjusted share net will likely increase only 6% to $4.50. (Total net income could prove higher as American Water sold a New York-based subsidiary for $608 million in January.) In 2023, the utility's earnings per share could well climb 7%, which is in line with management's guidance of 7%-10% growth annually over the next five-year period.

The company's strategy of growth through acquisition ought to remain the mainstay behind its success. American Water has been buying up small water districts for years. With its economies of scale, it is able to squeeze significantly more profits out of the same assets. This trend could even accelerate, as smaller utilities could be hit hard by the current inflationary environment.

There is a new caveat added to the mixture here. In general, utilities have done well over the past decade because inflation has remained very tame. This makes it more palatable for state regulators to pass along costs to customers. However, with the large jump in prices, it may be more difficult to do so. What's more, there is the possibility of regulatory lag, or a delay in when American Water makes outlays and when it is reimbursed. On the plus side, water utilities have enjoyed constructive relationships with their regulators in the past.

These shares do not have much to offer at this time. Even though the price of the stock has declined about 850 basis points more than the S&P 500 Index since our January report, total return potential to 2025-2027 is not attractive.

James A. Flood *April 8, 2022*

(A) Diluted earnings. Excludes nonrecur. losses: '08, $4.62; '09, $2.63; '11, $0.07. Disc. oper.: '06, ($0.04); '11, $0.03; '12, ($0.10); '13,($0.01). GAAP used as of 2014. Includes $2.70 sh. gain from sale of HOS sub.in Q4,'21. Next earnings report due early May.
(B) Dividends paid in March, June, September, and December. ■ Div. reinvestment available.
(C) In millions. (D) Includes intangibles. On 12/31/21: $1.231 billion, $6.67/share.
(E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	75
Earnings Predictability	95

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CALIFORNIA WATER NYSE-CWT

RECENT PRICE **58.80** | P/E RATIO **31.4** (Trailing: 30.0 Median: 27.0) | RELATIVE P/E RATIO **1.75** | DIV'D YLD **1.7%** | VALUE LINE **1784**

TIMELINESS 3 Lowered 10/29/21
SAFETY 3 Lowered 7/27/07
TECHNICAL 3 Lowered 3/25/22
BETA .65 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$50-$91	$71 (20%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	75	(+30%)	8%
Low	50	(-15%)	-2%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	113	133	155
to Sell	99	93	109
Hld's(000)	39103	41511	42143

High:	19.4	19.3	23.4	26.4	26.0	36.8	46.2	49.1	57.5	57.4	72.1	72.0
Low:	16.7	16.8	18.4	20.3	19.5	22.5	32.4	35.3	44.6	39.7	51.0	52.8

Target Price Range 2025 | 2026 | 2027

LEGENDS
1.33 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 6/11
Options: Yes
Shaded area indicates recession

% TOT. RETURN 2/22

	THIS STOCK	VL ARITH.* INDEX
1 yr.	6.7	6.9
3 yr.	16.0	49.6
5 yr.	70.4	71.1

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	12.29	12.70	13.89	14.53	14.72	15.78	14.72	*15.40*	*15.80*	Revenues per sh	*16.40*
1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.47	2.22	2.34	3.00	3.11	3.14	3.88	3.91	*3.55*	*3.80*	"Cash Flow" per sh	*4.05*
.67	.75	.95	.98	.91	.86	1.02	1.02	1.19	.94	1.01	1.40	1.36	1.31	1.97	1.96	*2.05*	*2.30*	Earnings per sh [A]	*2.55*
.58	.58	.59	.59	.60	.62	.63	.64	.65	.67	.69	.72	.75	.79	.85	.92	*1.00*	*1.08*	Div'd Decl'd per sh [B] ■	*1.25*
2.14	1.84	2.41	2.65	2.97	2.83	3.04	2.58	2.76	3.69	4.77	5.40	5.65	5.84	5.93	5.46	*5.85*	*6.00*	Cap'l Spending per sh	*6.45*
9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.11	13.41	13.75	14.44	15.19	16.07	18.30	21.92	*22.45*	*22.90*	Book Value per sh [C]	*23.60*
41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	47.81	47.88	47.97	48.01	48.07	48.53	50.33	53.72	*53.50*	*53.50*	Common Shs Outst'g [D]	*54.00*
29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	19.7	24.8	29.6	26.9	30.3	39.3	24.9	30.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*24.0*
1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.04	1.25	1.55	1.35	1.64	2.09	1.28	1.67			Relative P/E Ratio	*1.30*
2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.9%	2.3%	1.9%	1.8%	1.5%	1.7%	1.5%			Avg Ann'l Div'd Yield	*2.0%*
						560.0	584.1	597.5	588.4	609.4	666.9	698.2	714.6	794.3	790.9	*825*	*845*	Revenues ($mill) [E]	*885*
						42.6	47.3	56.7	45.0	48.7	67.2	65.6	63.1	96.8	101.1	*110*	*125*	Net Profit ($mill)	*138*
						37.5%	30.3%	33.0%	36.0%	35.5%	30.1%	24.5%	19.1%	11.1%	20.1%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
						8.0%	4.3%	2.7%	4.3%	6.1%	3.5%	3.1%	5.8%	3.3%	1.7%	*4.0%*	*5.0%*	AFUDC % to Net Profit	*5.0%*
						47.8%	41.6%	40.1%	44.4%	44.6%	42.7%	49.3%	50.2%	45.9%	47.3%	*44.0%*	*42.5%*	Long-Term Debt Ratio	*39.5%*
						52.2%	58.4%	59.9%	55.6%	55.4%	57.3%	50.7%	49.8%	54.1%	52.7%	*56.0%*	*57.5%*	Common Equity Ratio	*60.5%*
						908.2	1024.9	1045.9	1154.4	1191.2	1209.3	1440.2	1566.7	1702.4	2233.4	*2150*	*2125*	Total Capital ($mill)	*2100*
						1457.1	1515.8	1590.4	1701.8	1859.3	2048.0	2232.7	2406.4	2650.6	2846.9	*2900*	*2925*	Net Plant ($mill)	*2975*
						6.3%	6.0%	6.3%	5.2%	5.5%	7.1%	5.9%	5.5%	7.0%	5.5%	*5.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
						9.0%	7.9%	9.1%	7.0%	7.4%	9.7%	9.0%	8.1%	10.5%	8.6%	*9.0%*	*10.0%*	Return on Shr. Equity	*11.0%*
						9.0%	7.9%	9.1%	7.0%	7.4%	9.7%	9.0%	8.1%	10.5%	8.6%	*9.0%*	*10.0%*	Return on Com Equity	*11.0%*
						3.4%	3.4%	4.1%	2.0%	2.4%	4.7%	4.0%	3.2%	6.0%	4.6%	*4.5%*	*5.5%*	Retained to Com Eq	*5.5%*
						62%	56%	55%	71%	68%	51%	55%	60%	43%	47%	*49%*	*47%*	All Div'ds to Net Prof	*49%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $1096.0 mill. **Due in 5 Yrs** $357.0 mill.
LT Debt $1055.8 mill. **LT Interest** $40.0 mill.
(Total interest coverage: 6.4x) (47% of Cap'l)

Pension Assets-12/21 $810.5 mill.
Oblig. $887.5 mill.

Pfd Stock None

Common Stock 53,716,000 shs.

MARKET CAP: $3.2 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	42.7	44.6	78.4
Other	142.0	221.4	222.1
Current Assets	184.7	266.0	300.5
Accts Payable	108.5	131.7	144.4
Debt Due	197.0	375.1	40.2
Other	53.2	81.9	72.0
Current Liab.	358.7	588.7	256.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	3.0%	4.0%	*1.5%*
"Cash Flow"	6.5%	9.0%	*2.0%*
Earnings	6.5%	11.0%	*6.5%*
Dividends	3.5%	5.0%	*6.5%*
Book Value	6.0%	7.0%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) [E] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	126.1	179.0	232.6	176.9	714.6
2020	125.6	175.5	304.1	189.1	794.3
2021	147.7	213.1	256.7	173.4	790.9
2022	*155*	*215*	*260*	*195*	*825*
2023	*160*	*220*	*265*	*200*	*845*

Cal-endar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	d.16	.35	.88	.24	1.31
2020	d.42	.11	1.94	.31	1.97
2021	d.06	.75	1.20	.07	1.96
2022	*.10*	*.55*	*1.15*	*.25*	*2.05*
2023	*.15*	*.60*	*1.20*	*.35*	*2.30*

Cal-endar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.1875	.1875	.1875	.1875	.75
2019	.1975	.1975	.1975	.1975	.79
2020	.2125	.2125	.2125	.2125	.85
2021	.230	.230	.230	.230	.92
2022	.250				

BUSINESS: California Water Service Group provides regulated and nonregulated water service to 494,500 customers in 100 communities in the state of California. Accounts for about 94% of total customers. Also operates in Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '21: residential, 69%; business, 19%; industrial, 3%; public authorities, 5%; other 4%. Off. and dir. own 1% of common stock (4/21 proxy). Has 1,184 employees. Pres. and CEO: Martin A. Kropelnicki. Inc.: DE. Addr.: 1720 North First St., San Jose, CA 95112-4598. Tel.: 408-367-8200. Internet: www.calwatergroup.com.

California Water Service stock has not performed well year to date. Subsequent to etching a fresh all-time high of about $72 per share in early January, the equity has slipped nearly 20% in value. A mix of broader market turbulence and relatively lackluster fourth-quarter financial results were likely behind the selloff. In regard to the latter, December-period revenues and earnings of $173 million and $0.07 per share both contracted on an annual and sequential basis, respectively. The underperformance can be largely attributed to a decrease in regulatory cost mechanisms, higher deferred revenues, and an uptick in general and administrative expenses.

Modest top- and bottom-line expansion is likely on tap this year. Water consumption ought to slowly improve as the West Coast economy continues to reopen from pandemic-related shutdowns. Moreover, the potential for improved weather conditions and some relief on the transportation cost front is also encouraging. On balance, we are trimming $10 million from our 2022 revenue call, to $825 million, and are lowering our share-profit forecast by $0.30, to $2.05.

The company's wholly-owned subsidiary, New Mexico Water, recently inked a deal to acquire the assets of Monterey Water Company. Subject to the state's closing conditions, California Water's customer roster will get a marginal boost in the New Mexico area. Going forward, we think small-scale bolt-on asset purchases are likely, especially given the company's decent cash position ($78 million at the end of 2021).

Shares of California Water are ranked to mirror the broader market averages over the coming six to 12 months (Timeliness: 3). Investors with a short-term horizon should approach with caution here in an effort to avoid trying to call a bottom. Longer term, the water utility's business prospects are solid, in our view, and ought to be supported by sustainable, yet periodic, rate hikes. That said, buy-and-hold subscribers would do well to remain on the sidelines, as total return potential three to five years hence is nothing to write home about, even after the recent price slide.

Nicholas P. Patrikis *April 8, 2022*

(A) Basic EPS. Excl. nonrecurring gain (loss): '11, 4¢. Next earnings report due early May.
(B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan available.
(C) Incl. intangible assets. In '21 : $36.8 mill., $0.69/sh.
(D) In millions, adjusted for split.
(E) Excludes non-regulated revenues

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	75
Earnings Predictability	55

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ESSENTIAL UTIL. NYSE-WTRG

RECENT PRICE **50.04** | P/E RATIO **28.0** (Trailing: 30.0 Median: 25.0) | RELATIVE P/E RATIO **1.56** | DIV'D YLD **2.2%** | VALUE LINE **1785**

TIMELINESS 4 Lowered 3/18/22
SAFETY 3 Lowered 1/8/21
TECHNICAL 4 Lowered 4/8/22
BETA .95 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$42-$72	$57 (15%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+40%)	11%
Low	45	(-10%)	Nil

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	244	245	313
to Sell	231	223	208
Hld's(000)	171680	174820	178560

High:	19.0	21.5	28.1	28.2	31.1	35.8	39.6	39.4	47.3	54.5	53.9	53.7
Low:	15.4	16.8	20.6	22.4	24.4	28.0	29.4	32.1	32.7	30.4	41.1	44.7

Target Price Range 2025 | 2026 | 2027

LEGENDS
1.60 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
5-for-4 split 9/13
Options: Yes
Shaded area indicates recession

% TOT. RETURN 2/22

	THIS STOCK	VL ARITH.* INDEX
1 yr.	14.6	6.9
3 yr.	39.4	49.6
5 yr.	65.7	71.1

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.62	4.56	4.71	4.03	5.96	7.43	*7.85*	*8.25*	Revenues per sh	*8.95*
1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.89	1.87	2.07	2.12	1.90	1.73	2.21	2.89	*3.00*	*3.20*	"Cash Flow" per sh	*4.00*
.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	1.32	1.35	1.08	1.04	1.12	1.67	*1.80*	*1.95*	Earnings per sh	*2.25*
.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	.74	.79	.85	.91	.97	1.04	*1.14*	*1.25*	Div'd Decl'd per sh	*1.55*
1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.16	2.69	2.78	2.49	3.41	4.04	*3.90*	*3.85*	Cap'l Spending per sh	*3.80*
5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	11.02	11.26	17.58	19.09	20.50	*21.45*	*22.30*	Book Value per sh	*26.90*
165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	178.59	176.54	177.39	177.71	178.09	220.76	245.39	252.87	*255.00*	*260.00*	Common Shs Outst'g	*280.00*
34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	24.7	32.6	39.1	39.6	28.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*26.0*
1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.25	1.24	1.76	2.08	2.03	1.55			Relative P/E Ratio	*1.45*
1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	2.3%	2.4%	2.4%	2.2%	2.2%	2.2%			Avg Ann'l Div'd Yield	*2.7%*
						757.8	768.6	779.9	814.2	819.9	809.5	838.1	889.7	1462.7	1878.1	*2000*	*2150*	Revenues ($mill)	*2500*
						153.1	205.0	213.9	201.8	234.2	239.7	192.0	224.5	284.8	431.6	*460*	*505*	Net Profit ($mill)	*630*
						39.0%	10.0%	10.5%	6.9%	8.2%	6.6%	--	--	--	--	*5.0%*	*10.0%*	Income Tax Rate	*15.0%*
						--	1.1%	2.4%	3.1%	3.8%	6.3%	6.8%	7.2%	4.5%	4.8%	*5.0%*	*5.0%*	AFUDC % to Net Profit	*6.0%*
						52.7%	48.9%	48.5%	50.3%	48.4%	50.6%	54.4%	43.1%	54.0%	52.7%	*54.0%*	*54.5%*	Long-Term Debt Ratio	*53.0%*
						47.3%	51.1%	51.5%	49.7%	51.6%	49.4%	45.6%	56.9%	46.0%	47.3%	*46.0%*	*45.5%*	Common Equity Ratio	*47.0%*
						2929.7	3003.6	3216.0	3469.5	3587.7	3965.4	4407.8	6824.2	10192	10964	*11975*	*12800*	Total Capital ($mill)	*16000*
						3936.2	4167.3	4402.0	4688.9	5001.6	5399.9	5930.3	6345.8	9512.9	10252	*10900*	*11600*	Net Plant ($mill)	*13500*
						6.6%	8.0%	7.8%	6.9%	7.6%	7.1%	5.5%	4.2%	3.7%	4.8%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
						11.0%	13.4%	12.9%	11.7%	12.7%	12.2%	9.6%	5.8%	6.1%	8.3%	*8.5%*	*8.5%*	Return on Shr. Equity	*8.5%*
						11.0%	13.4%	12.9%	11.7%	12.7%	12.2%	9.6%	5.8%	6.1%	8.3%	*8.5%*	*8.5%*	Return on Com Equity	*8.5%*
						4.3%	6.7%	6.1%	4.7%	5.6%	5.1%	2.1%	.9%	1.1%	3.3%	*3.0%*	*3.0%*	Retained to Com Eq	*2.5%*
						61%	50%	52%	60%	56%	59%	79%	84%	82%	60%	*63%*	*64%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $5976.9 mill. **Due in 5 Yrs** $882.1 mill.
LT Debt $5779.5 mill. **LT Interest** $200.0 mill.
(53% of Cap'l)

Pension Assets-12/21 $433.1 mill.
Oblig. $452.9 mill.

Pfd Stock None

Common Stock 252,875,079 shares as of 2/15/22

MARKET CAP: $12.7 billion (Large Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	1868.9	4.8	10.6
Receivables	67.1	154.8	141.0
Inventory (AvgCst)	18.4	58.4	109.6
Other	58.3	182.2	176.6
Current Assets	2012.7	380.2	437.8
Accts Payable	74.9	177.5	192.9
Debt Due	130.8	162.6	197.1
Other	113.1	263.8	285.1
Current Liab.	318.8	603.9	675.1

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	3.5%	5.0%	*7.5%*
"Cash Flow"	5.0%	3.0%	*10.0%*
Earnings	6.0%	1.0%	*10.0%*
Dividends	7.5%	7.0%	*8.0%*
Book Value	11.0%	14.0%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	201.1	218.9	243.6	226.1	889.7
2020	255.6	384.5	348.6	474.0	1462.7
2021	583.5	397.0	361.9	535.7	1878.1
2022	*610*	*420*	*420*	*550*	*2000*
2023	*630*	*445*	*500*	*575*	*2150*

Cal-endar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2019	.09	.25	.38	.28	1.04
2020	.21	.29	.22	.40	1.12
2021	.72	.32	.19	.44	1.67
2022	*.73*	*.33*	*.29*	*.45*	*1.80*
2023	*.78*	*.37*	*.33*	*.47*	*1.95*

Cal-endar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.2047	.2047	.219	.219	.85
2019	.219	.219	.2343	.2343	.91
2020	.2343	.2343	.2507	.2507	.97
2021	.2507	.2507	.2682	.2682	1.04
2022	.2682				

BUSINESS: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2021, Aqua Amer. provided water and wastewater services to about 5 million people in PA, OH, TX, IL, NC, NJ, IN, VA NS WS. Employs 3,211. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 52% of revenues in 2021; residential, 30%; commercial, 8.0%; industrial, wastewater & other, 14%. Gas 46%; other, 2.0%. Off. & dir. own less than 1% of the common stock; BlackRock, 10.6%; Vanguard, 9.7%; Can. Pen. Plan 8.6% (3/22 proxy). Pres. & CEO: Christopher Franklin. Inc.: PA Addr.: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.

Essential Utilities had a strong finish in 2021. Share earnings of $0.44 represented a 10% increase over the similar year-earlier period, and $0.02 above our estimate. For the full year, the bottom line appears to have turned the corner and has easily surpassed profit levels that were posted last decade.

Earnings and dividend growth will likely remain strong. We think the utility's share earnings can increase by 8% in both 2022 and 2023. A decision on a major rate case is expected midyear, however. Our projections are based on the assumption that the ruling will be constructive. Dividends will probably rise almost 10%, over the same time frame. Cost savings from the merger that created Essential two years ago ought to contribute much to the good showing.

Future capital expenditures will remain large. The company expects to spend close to $1 billion annually upgrading its water and natural gas infrastructure over the next three years. (The company is among the nation's largest replacers of pipelines.) Last year, most of the funds were targeted toward the water segment of the business. It will remain tilted in the former's favor in the years ahead, but gas ought to start getting a larger share of the outlays.

Finances will likely stay in the average range. At 53% of total capital, long-term debt is manageable. Over the next two years, this percentage may well rise slightly before stabilizing later in the decade.

Inflation remains a question mark. While there are measures that exist to recoup higher expenses, state authorities can often delay reimbursements to utilities. Hence, should costs continue to spike at the current pace, more of Essentials' fate will be determined by regulators.

These shares have outperformed others in the Water Industry this year. The price of the equity has fallen less than 7% in 2022. While this is slightly worse that the broader markets, it is much better than the double-digits losses posted by most in this group. Our ranking system pegs AWK to lag most stocks in the year ahead. Moreover, its total return potential through 2025-2027 is below average.

James A. Flood *April 8, 2022*

(A) Diluted egs. Excl. nonrec. gains: '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. Quarterly EPS do not add in '19 due to a large change in the number of shares outstanding in the Dec. period. Next earnings report early May. (B) Dividends historically paid in early March, June, Sept., & Dec. ■ Div'd. reinvestment plan available (5% discount).
(C) In millions, adjusted for stock split.
(D) Includes intangibles: 12/31/21, $1.231 bill./$4.67 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	65
Earnings Predictability	60

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MIDDLESEX WATER NDQ-MSEX

RECENT PRICE 102.71 | P/E RATIO 48.7 (Trailing: 49.6 Median: 24.0) | RELATIVE P/E RATIO 2.72 | DIV'D YLD 1.1% | VALUE LINE 1786

TIMELINESS 3 Lowered 6/4/21
SAFETY 2 New 10/21/11
TECHNICAL 3 Raised 4/8/22
BETA .70 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$63-$117 $90 (-10%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(-10%)	-2%
Low	65	(-35%)	-9%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	71	101	93
to Sell	65	66	84
Hld's(000)	10852	12996	12685

High:	19.4	19.6	22.5	23.7	28.0	44.5	46.7	60.3	67.7	76.1	121.4	121.1
Low:	16.5	17.5	18.6	19.1	21.2	25.0	32.2	34.0	51.0	48.8	67.1	94.6

LEGENDS
— 1.20 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2025 | 2026 | 2027

% TOT. RETURN 2/22

	THIS STOCK	VL ARITH.* INDEX
1 yr.	54.3	6.9
3 yr.	85.0	49.6
5 yr.	201.8	71.1

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.00	8.42	7.72	8.10	8.17	*8.45*	*8.70*	Revenues per sh	*9.15*
1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	1.97	2.17	2.24	2.89	2.90	3.25	3.28	*3.20*	*3.45*	"Cash Flow" per sh	*3.85*
.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	1.38	1.38	1.96	2.01	2.18	2.07	*2.25*	*2.45*	Earnings per sh A	*2.75*
.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	.98	1.04	1.11	*1.18*	*1.25*	Div'd Decl'd per sh B■	*1.40*
2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.59	2.91	3.08	4.40	5.11	6.04	4.53	*5.00*	*5.25*	Cap'l Spending per sh	*6.00*
9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	14.02	15.17	18.57	19.81	20.99	*21.15*	*21.55*	Book Value per sh	*22.20*
13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	16.35	16.40	17.43	17.47	17.52	*17.75*	*17.85*	Common Shs Outst'g C	*18.00*
22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.4	22.2	29.7	30.1	44.3	*Bold figures are*		Avg Ann'l P/E Ratio	*28.0*
1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.34	1.43	1.20	1.58	1.55	2.43	*Value Line*		Relative P/E Ratio	*1.30*
3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	2.2%	2.1%	1.6%	1.6%	1.2%	*estimates*		Avg Ann'l Div'd Yield	*1.8%*
110.4	114.8	117.1	126.0	132.9	130.8	138.1	134.6	141.6	143.1	*150*	*155*	Revenues ($mill)	*165*
14.4	16.6	18.4	20.0	22.7	22.8	32.5	33.9	38.4	36.5	*42.0*	*44.0*	Net Profit ($mill)	*49.5*
33.9%	34.1%	35.0%	34.5%	34.0%	32.7%	2.8%	--	2.8%	2.8%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
3.4%	1.9%	1.7%	1.9%	2.7%	3.1%	1.4%	3.4%	3.9%	3.9%	*2.5%*	*2.5%*	AFUDC % to Net Profit	*2.5%*
41.5%	40.4%	40.5%	39.4%	37.9%	37.5%	37.8%	41.5%	44.0%	45.3%	*40.5%*	*39.0%*	Long-Term Debt Ratio	*38.5%*
57.4%	58.7%	58.8%	59.8%	61.5%	61.8%	61.6%	58.2%	55.7%	54.4%	*59.5%*	*60.5%*	Common Equity Ratio	*61.5%*
316.5	321.4	335.8	345.4	355.4	370.7	404.1	556.7	621.5	676.3	*630*	*640*	Total Capital ($mill)	*655*
435.2	446.5	465.4	481.9	517.8	557.2	618.5	705.7	796.6	865.4	*875*	*885*	Net Plant ($mill)	*915*
5.4%	5.9%	6.3%	6.6%	7.1%	6.9%	8.9%	6.7%	6.8%	6.0%	*6.5%*	*7.5%*	Return on Total Cap'l	*8.0%*
7.8%	8.7%	9.2%	9.6%	10.3%	9.8%	12.9%	10.4%	11.0%	9.9%	*10.5%*	*11.5%*	Return on Shr. Equity	*12.5%*
7.8%	8.7%	9.3%	9.6%	10.3%	9.9%	13.0%	10.4%	11.1%	9.9%	*10.5%*	*11.5%*	Return on Com Equity	*12.5%*
1.4%	2.4%	3.1%	3.5%	4.3%	3.8%	7.0%	5.4%	5.8%	4.6%	*5.0%*	*5.5%*	Retained to Com Eq	*6.0%*
83%	73%	67%	63%	58%	62%	46%	48%	48%	53%	*52%*	*51%*	All Div'ds to Net Prof	*51%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $313.2 mill. Due in 5 Yrs $43.7 mill.
LT Debt $306.5 mill. LT Interest $7.5 mill.
(Total interest coverage: 6.0x)
(45% of Cap'l)

Pension Assets-12/21 $100.8 mill.
Oblig. $113.7 mill.
Pfd Stock $2.4 mill. Pfd Div'd: $.1 mill.
Common Stock 17,520,000 shs.

MARKET CAP: $1.8 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	2.2	4.5	3.5
Other	26.9	29.6	30.9
Current Assets	29.1	34.1	34.4
Accts Payable	23.3	30.4	21.1
Debt Due	27.2	9.3	6.7
Other	14.5	17.1	28.8
Current Liab.	65.0	56.8	56.6

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	2.0%	.5%	*2.5%*
"Cash Flow"	8.0%	9.5%	*3.5%*
Earnings	9.5%	11.0%	*4.5%*
Dividends	3.5%	6.0%	*5.0%*
Book Value	6.0%	9.0%	*2.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	30.7	33.4	37.8	32.7	134.6
2020	31.8	35.3	39.9	34.6	141.6
2021	32.5	36.7	39.9	34.0	143.1
2022	*34.0*	*38.0*	*41.0*	*37.0*	*150*
2023	*36.0*	*39.0*	*42.0*	*38.0*	*155*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	.39	.49	.66	.46	2.01
2020	.44	.55	.72	.47	2.18
2021	.39	.62	.65	.41	2.07
2022	*.39*	*.56*	*.75*	*.55*	*2.25*
2023	*.50*	*.60*	*.77*	*.58*	*2.45*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.22375	.22375	.22375	.24	.91
2019	.24	.24	.24	.2562	.98
2020	.2562	.2562	.2562	.2725	1.04
2021	.2725	.2725	.2725	.29	1.11
2022	.29				

BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2021, the Middlesex System accounted for 59% of operating revenues. At 12/31/21, the company had 347 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 2.0% of the com. stock; BlackRock Inst. Trust Co., 7.8% (4/21 proxy). Add.: 485 C Route 1 South, Suite 400, Iselin, NJ 08830. Tel.: 732-634-1500. Int.: www.middlesexwater.com.

Middlesex Water reported lackluster share earnings in the December period. The New Jersey-based regulated water utility delivered fourth-quarter earnings of $0.41 per share, down 13% from the previous-year figure. Despite decent water consumption and customer base growth in its Delaware water system, headwinds, such as higher labor and transportation fuel costs, along with an uptick in operation and maintenance expense, were a drag on the bottom line.

But a recently effected rate hike (January) should provide some relief amidst a relatively challenging operating backdrop. While burdensome fuel inputs are not likely to abate in the near term, higher revenues from the abovementioned rate increase ought to largely offset rising expenses. A notable recovery in economic activity levels post-pandemic augurs well, too. All things considered, based on our model, 2022 revenues and earnings are poised to expand 5% and 9% this year, to $150 million and $2.25 per share, respectively.

The company ought to continue to execute on its capital investment strategy. On top of completing an ozone treatment facility late last year, several projects are on tap, including upgrades at its Wellfield treatment facility, water infrastructure improvements in Woodbridge Township, and a recently announced lead service line replacement program to extricate any lead-related materials from New Jersey service lines. On balance, we think periodic rate hikes are in the cards over the pull to mid-decade, as the majority of these project costs can be passed along to the consumer pending approval from state regulators.

Middlesex stock has taken a breather since the start of the year. In our view, a combination of broader market turbulence and profit taking (MSEX shares etched an all-time high of $120 in late December) likely weighed on share-price performance over the past three months. Even so, we are not recommending the stock at present. The equity, which is merely an Average (Timeliness: 3) selection for the year ahead, is currently trading beyond the upper end of our 3- to 5-year Target Price Range.

Nicholas P. Patrikis *April 8, 2022*

(A) Diluted earnings. Next earnings report due early May.
(B) Dividends historically paid in mid-Feb., May, Aug., and November. ■ Div'd reinvestment plan available.
(C) In millions.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	80
Earnings Predictability	90

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SJW GROUP NYSE-SJW

RECENT PRICE 67.83 | P/E RATIO 27.7 (Trailing: 33.6 Median: 23.0) | RELATIVE P/E RATIO 1.55 | DIV'D YLD 2.1% | VALUE LINE 1787

TIMELINESS 3 Raised 3/4/22
SAFETY 3 New 4/22/11
TECHNICAL 3 Raised 4/8/22
BETA .80 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$59-$100 $80 (15%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	100	(+45%)	*12%*
Low	65	(-5%)	*1%*

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	81	81	98
to Sell	64	53	68
Hld's(000)	21472	22567	21890

High:	26.8	26.9	30.1	33.7	35.7	56.9	69.3	68.4	74.5	75.0	73.7	73.4
Low:	20.9	22.6	24.5	25.5	27.5	28.6	45.4	51.3	53.9	45.6	58.0	61.3

LEGENDS
— 1.50 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2025 | 2026 | 2027

% TOT. RETURN 2/22

	THIS STOCK	VL ARITH.* INDEX
1 yr.	6.8	6.9
3 yr.	13.2	49.6
5 yr.	47.9	71.1

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.97	14.00	14.78	19.77	19.01	*20.15*	*20.85*	Revenues per sh	*22.15*
2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	5.24	3.29	3.13	5.28	5.13	*4.15*	*4.40*	"Cash Flow" per sh	*5.30*
1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.86	1.82	.82	2.14	2.03	*2.50*	*2.75*	Earnings per sh A	*3.65*
.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	1.12	1.20	1.28	1.36	*1.44*	*1.52*	Div'd Decl'd per sh B■	*1.76*
3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	7.26	5.08	6.25	7.44	8.32	*7.50*	*8.00*	Cap'l Spending per sh	*7.75*
12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	22.57	31.31	31.27	32.12	34.28	*36.65*	*39.15*	Book Value per sh	*40.85*
18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	20.52	28.40	28.46	28.56	30.18	*30.00*	*30.00*	Common Shs Outst'g C	*30.00*
23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	18.8	32.7	NMF	30.0	32.9	*Bold figures are*		Avg Ann'l P/E Ratio	*23.0*
1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	.82	.95	1.77	NMF	1.54	1.80	*Value Line*		Relative P/E Ratio	*1.30*
2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	2.0%	1.9%	1.9%	1.9%	2.0%	2.0%	*estimates*		Avg Ann'l Div'd Yield	*2.1%*
261.5	276.9	319.7	305.1	339.7	389.2	397.7	420.5	564.5	573.7	*605*	*625*	Revenues ($mill)	*665*
22.3	23.5	51.8	37.9	52.8	59.2	38.8	23.4	61.5	60.5	*75.0*	*83.0*	Net Profit ($mill)	*110*
41.1%	38.7%	32.5%	38.1%	38.8%	36.7%	20.6%	26.4%	12.0%	12.2%	*21.5%*	*21.0%*	Income Tax Rate	*21.0%*
--	--	--	--	--	--	--	--	2.0%	1.5%	*1.5%*	*1.5%*	AFUDC % to Net Profit	*1.5%*
55.0%	51.1%	51.6%	49.8%	50.7%	48.2%	32.7%	59.1%	58.4%	59.1%	*57.5%*	*54.0%*	Long-Term Debt Ratio	*45.0%*
45.0%	48.9%	48.4%	50.2%	49.3%	51.8%	67.3%	40.9%	41.6%	40.9%	*42.5%*	*46.0%*	Common Equity Ratio	*55.0%*
610.2	656.2	744.5	764.6	855.0	894.3	1320.7	2173.6	2204.7	2527.5	*2575*	*2550*	Total Capital ($mill)	*2225*
831.6	898.7	963.0	1036.8	1146.4	1239.3	1328.8	2206.5	2334.9	2497.5	*2565*	*2650*	Net Plant ($mill)	*2825*
5.0%	5.0%	8.3%	6.3%	7.4%	7.9%	3.9%	1.8%	4.0%	3.5%	*3.5%*	*3.5%*	Return on Total Cap'l	*5.5%*
8.1%	7.3%	14.4%	9.9%	12.5%	12.8%	4.4%	2.6%	6.7%	5.8%	*7.0%*	*7.0%*	Return on Shr. Equity	*9.0%*
8.1%	7.3%	14.4%	9.9%	12.5%	12.8%	4.4%	2.6%	6.7%	5.8%	*7.0%*	*7.0%*	Return on Com Equity	*9.0%*
3.3%	2.8%	10.2%	5.7%	8.6%	8.2%	1.8%	NMF	2.7%	2.0%	*3.0%*	*3.0%*	Retained to Com Eq	*4.5%*
59%	62%	29%	42%	31%	36%	60%	NMF	59%	66%	*58%*	*55%*	All Div'ds to Net Prof	*48%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $1532.0 mill. Due in 5 Yrs $39.1 mill.
LT Debt $1492.9 mill. LT Interest $50.0 mill.
(LT Interest Coverage: 4.2x)
(59% of Cap'l)

Pension Assets-12/21 $310.2 mill.
Oblig. $383.8 mill.
Pfd Stock None.
Common Stock 30,181,000 shs.

MARKET CAP: $2.0 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2019	2020	12/31/21
Cash Assets	17.9	9.3	10.9
Accts Receivable	36.3	58.1	53.7
Other	67.8	59.9	69.5
Current Assets	122.0	127.3	134.1
Accts Payable	34.9	34.2	30.4
Debt Due	22.3	76.2	39.1
Other	177.4	240.4	133.8
Current Liab.	234.6	350.8	203.3

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	4.0%	2.5%	*3.5%*
"Cash Flow"	6.0%	.5%	*2.5%*
Earnings	6.0%	-6.5%	*14.0%*
Dividends	6.5%	10.5%	*5.5%*
Book Value	9.0%	11.5%	*4.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	77.7	103.0	114.0	126.0	420.5
2020	115.8	147.2	165.9	135.6	564.5
2021	114.8	152.2	166.9	139.8	573.7
2022	*125*	*155*	*175*	*150*	*605*
2023	*130*	*160*	*180*	*155*	*625*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	.21	.47	.33	d.19	.82
2020	.08	.69	.91	.46	2.14
2021	.09	.69	.64	.60	2.03
2022	*.18*	*.77*	*.90*	*.65*	*2.50*
2023	*.23*	*.82*	*.95*	*.75*	*2.75*

Cal-endar	QUARTERLY DIVIDENDS PAID BD■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.28	.28	.28	.28	1.12
2019	.30	.30	.30	.30	1.20
2020	.32	.32	.32	.32	1.28
2021	.34	.34	.34	.34	1.36
2022	.36				

BUSINESS: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 231,000 connections with a total population of roughly one million people in the San Jose area and 16,000 connections that reach about 49,000 residents in the region between San Antonio and Austin, Texas. The company merged with Connecticut Water (10/19) which provides service to approx. 138,000 connections with a total population of 450,000 people. Has 751 employees. Officers and directors own about 8.0% of outstanding shares (3/22 proxy). Chairman & CEO: Eric Thornburg. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group ended 2021 on a decent note. Fourth-quarter revenues clocked in at nearly $140 million, registering a modest year-over-year improvement. Water rate increases helped offset a reduction in consumer consumption during the period. Meanwhile, December-period share profits of $0.60 came in above consensus estimates. Slimmer operating expenses and a one-time gain on the sale of a nonutility property were largely behind the outperformance.

We expect SJW to return to growth mode this year. Our fairly upbeat revenue forecast stems from a projected uptick in consumer water consumption, particularly in California, as economic conditions still have room to recover from pandemic-related shutdowns. Elsewhere, profitability ought to benefit from further operating efficiencies.

The company and its subsidiaries have been active on the regulatory front. First, San Jose Water Company has an application pending with the California Public Utilities Commission for higher rates for the 2022-2024 window. On the East Coast, Connecticut Water Company recently received approval to recoup nearly $2.0 million in excess deferred income taxes via increased rates. In addition, Connecticut regulators gave the nod for a 2.5% rate increase (went in to effect on January 1, 2022) which is linked to infrastructure-related projects. Lastly, Maine Water Company is now allowed to gradually lift rates, as state regulators recently approved a rate-hike request associated with a $60 million treatment facility project.

Amidst recent broader market turbulence, SJW's stock price has held up well relative to industry peers. The equity is roughly flat compared to where it was trading three months ago, versus an approximate 10% decline among other regulated water utilities. That said, investment appeal is limited at recent levels. Shares of SJW are ranked to move in line with the year-ahead broader market averages (Timeliness: 3). Moreover, total return potential three to five years hence is lackluster. All told, investors would be wise to wait for a more attractive entry point before starting a position here, in our view.

Nicholas P. Patrikis *April 8, 2022*

(A) Diluted earnings. Excludes nonrecurring losses: '06, $16.36; '08, $1.22; '10, $0.46. GAAP accounting as of 2013. Next earnings report due early May. Quarterly egs. may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.
(C) In millions.
(D) Paid special dividend of $0.17 per share on 11/17.

Company's Financial Strength	B+
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	45

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The Brokers & Exchanges Industry is no stranger to market turbulence. And even though these financial companies have been tempest tossed by macroeconomic headwinds, overall, the group has persisted over the last few months, more than recouping ground lost during the early days of the COVID-19 pandemic. In fact, the group is now ranked near the top of the *Value Line* investment universe for year-ahead relative price performance.

Looking ahead, we envision the brokerages and exchange operators will rely on internal improvements to better position themselves for the long haul.

INDUSTRY TIMELINESS: 8 (of 97)

The Macroeconomic Backdrop

The COVID-19 pandemic, and the emergence of variants, has continued to sway the global markets. Nevertheless, the consequences of the virus, especially on the labor markets, and the lingering impact of other economic factors could hinder results in the near term.

Market volatility is not necessarily a bad thing for the brokerages and exchange operators. Increased trading activity, regardless of bullish or bearish trends, and stronger demand for the companies' products and services can drive top-line growth.

Many companies here have been struggling owing to inflationary pressures and rising operating costs. What's more, tensions between Russia and Ukraine will likely further exacerbate supply-chain factors, and the geopolitical situation has led to increased volatility in energy valuations.

The Interest-Rate Environment

Back on our shores, the Federal Reserve has been taking a close eye on inflation and the labor markets, and evaluating its monetary policies.

At the March Federal Open Market Committee (FOMC) meeting, the central bank raised the benchmark short-term interest rate by 25 basis points, marking the first increase since late 2018. Higher borrowing costs dampen demand, thereby slowing the pace of price inflation. And the Fed may implement further interest-rate hikes in the next few months.

The Fed may also shrink its asset base (which currently stands at $9 trillion), which would reduce the United States' money supply and liquidity, to further combat inflation.

Lower interest rates generally support consumer spending, and make equities more appealing. Still, many here have well-diversified portfolios, including exposure to fixed-income assets, and can benefit from rising interest rates.

Business Improvements

These companies operate in a very competitive space, and many have pursued strategic growth efforts to capture additional market share.

Some have relied on acquisitions or joint ventures in order to widen their geographic reach or to better diversify their rosters, and these merger synergies have led some to reorganize their operations. A few have implemented restructuring programs following these asset additions, in order to better position themselves over the long haul, and some have divested assets to better streamline their portfolios. And most have relied on cost controls to counteract rising operating costs and to bolster margins.

In the meantime, some companies have ramped up their technology spending, using innovation to strengthen their platforms or to improve their offerings and services. Likewise, these moves have helped others maximize efficiencies, thereby aiding profits. Plus, others have ramped up advertising and marketing efforts in order to attract new customers or increase client retention.

Conclusion

Many members in the Brokers & Exchanges group have gained momentum over the past few quarters, and several issues herein are ranked to outpace the broader market averages in the year ahead.

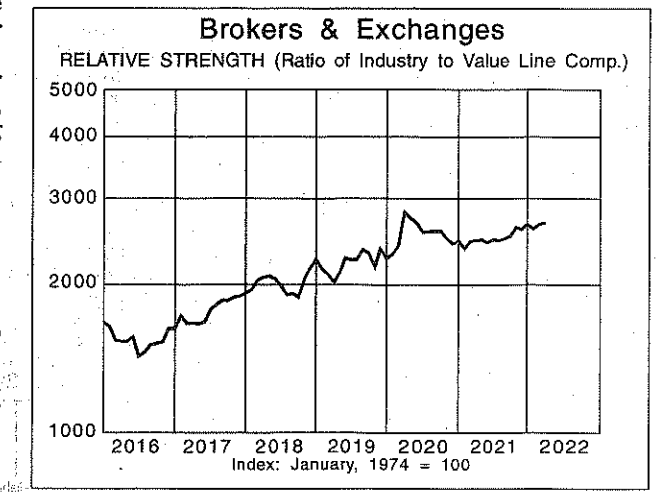
On the other hand, thanks to their recent rally, much of the good news we anticipate over the 2025-2027 pull is already baked into their recent quotations. As a result, patient investors may want to wait for a pullback in price and a better entry point.

Several here have long histories and stable finances, and possess good marks for Financial Strength and Safety. Even though the companies are often at the center of market turbulence, these characteristics often shield them and their stocks from the brunt of the volatility.

What's more, a few here offer ample dividend programs and above-average yields, which may tempt investors seeking decent risk-adjusted income streams.

As always, we caution investors from taking too broad a view, and recommend evaluating each individual stock report before making any capital commitments.

Orly Seidman



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YORK WATER NDQ-YORW

RECENT PRICE 44.63 | P/E RATIO 34.3 (Trailing: 34.3 / Median: 31.0) | RELATIVE P/E RATIO 1.92 | DIV'D YLD 1.7% | VALUE LINE 1788

TIMELINESS 3 Lowered 1/15/21
SAFETY 3 Lowered 7/17/15
TECHNICAL 5 Lowered 3/18/22
BETA .85 (1.00 = Market)

18-Month Target Price Range

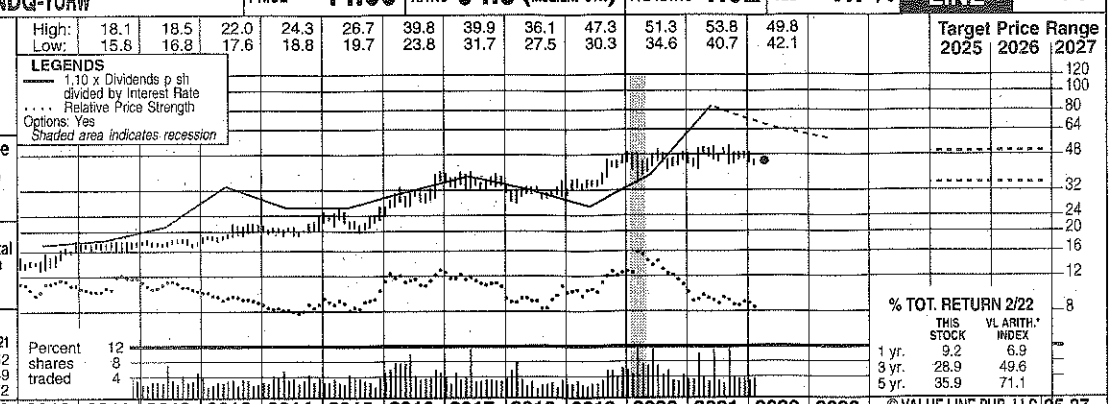
Low-High	Midpoint (% to Mid)
$36-$66	$51 (15%)

2025-27 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+10%)	5%
Low	35	(-20%)	-4%

Institutional Decisions

	2Q2021	3Q2021	4Q2021
to Buy	51	61	52
to Sell	43	39	49
Hld's(000)	5416	5241	5272



2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.58	3.68	3.70	3.77	3.74	3.96	4.12	4.20	*4.40*	*4.50*	Revenues per sh	*5.10*
.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.36	1.45	1.42	1.53	1.58	1.70	1.90	1.97	*2.05*	*2.15*	"Cash Flow" per sh	*2.45*
.58	.57	.57	.64	.71	.71	.72	.75	.89	.97	.92	1.01	1.04	1.11	1.27	1.30	*1.35*	*1.45*	Earnings per sh [A]	*1.65*
.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	.63	.65	.67	.70	.73	.76	*.79*	*.83*	Div'd Decl'd per sh [B]	*1.00*
1.85	1.69	2.17	1.18	.83	.74	.94	.76	1.10	1.11	1.03	1.95	--	.16	.09	.91	*1.25*	*1.35*	Cap'l Spending per sh	*1.75*
5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.95	8.15	8.51	8.88	9.28	9.75	10.31	10.97	11.64	*11.90*	*12.30*	Book Value per sh	*12.90*
11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.83	12.81	12.85	12.87	12.94	13.02	13.06	13.11	*13.00*	*13.00*	Common Shs Outst'g [C]	*12.80*
31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	23.1	23.5	32.8	34.6	30.3	33.8	35.7	36.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*25.0*
1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.22	1.18	1.72	1.74	1.64	1.80	1.83	2.01			Relative P/E Ratio	*1.40*
2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%	2.6%	2.1%	1.9%	2.1%	1.9%	1.6%	1.6%			Avg Ann'l Div'd Yield	*2.4%*
						41.4	42.4	45.9	47.1	47.6	48.6	48.4	51.6	53.9	55.1	*57.0*	*58.5*	Revenues ($mill)	*65.0*
						9.3	9.7	11.5	12.5	11.8	13.0	13.4	14.4	16.6	17.0	*17.6*	*18.9*	Net Profit ($mill)	*21.0*
						37.6%	37.6%	29.8%	27.5%	31.3%	25.9%	15.7%	13.5%	10.8%	6.2%	*21.0%*	*21.0%*	Income Tax Rate	*21.0%*
						1.1%	.8%	1.8%	1.6%	1.9%	6.7%	1.7%	2.5%	3.2%	7.2%	*3.5%*	*2.5%*	AFUDC % to Net Profit	*1.5%*
						46.0%	45.1%	44.8%	44.4%	42.6%	43.0%	42.5%	41.3%	46.3%	47.6%	*44.5%*	*43.0%*	Long-Term Debt Ratio	*37.5%*
						54.0%	54.9%	55.2%	55.6%	57.4%	57.0%	57.5%	58.7%	53.7%	52.4%	*55.5%*	*57.0%*	Common Equity Ratio	*62.5%*
						184.8	188.4	189.4	196.3	198.7	209.5	219.5	228.7	266.8	291.5	*280*	*280*	Total Capital ($mill)	*265*
						240.3	244.2	253.2	261.4	270.9	288.8	299.2	313.2	343.6	382.9	*390*	*400*	Net Plant ($mill)	*425*
						6.4%	6.5%	7.4%	7.6%	7.2%	7.5%	7.3%	7.4%	7.1%	6.7%	*7.0%*	*7.5%*	Return on Total Cap'l	*9.0%*
						9.3%	9.3%	11.0%	11.5%	10.4%	10.9%	10.6%	10.7%	11.6%	11.1%	*11.5%*	*12.0%*	Return on Shr. Equity	*13.0%*
						9.3%	9.3%	11.0%	11.5%	10.4%	10.9%	10.6%	10.7%	11.6%	11.1%	*11.5%*	*12.0%*	Return on Com Equity	*13.0%*
						2.4%	2.4%	3.9%	4.4%	3.4%	4.0%	3.8%	4.0%	5.0%	4.7%	*4.5%*	*5.0%*	Retained to Com Eq	*5.0%*
						74%	74%	64%	62%	67%	63%	64%	62%	57%	58%	*58%*	*57%*	All Div'ds to Net Prof	*61%*

CAPITAL STRUCTURE as of 12/31/21
Total Debt $146.4 mill. **Due in 5 Yrs** $42.5 mill.
LT Debt $138.9 mill. **LT Interest** $5.5 mill.
(48% of Cap'l)
Pension Assets12/21 $65.6 mill.
Oblig. $51.5 mill.
Pfd Stock None
Common Stock 13,113,000 shs.
MARKET CAP: $575 million (Small Cap)

CURRENT POSITION ($MILL.)

	2019	2020	12/31/21
Cash Assets	--	5.0	--
Accounts Receivable	4.4	5.2	4.6
Inventory (Avg. Cost)	1.0	1.0	1.9
Other	4.0	5.1	4.8
Current Assets	9.4	16.3	11.3
Accts Payable	3.4	6.5	6.7
Debt Due	6.5	--	7.5
Other	5.3	5.5	5.9
Current Liab.	15.2	12.0	20.1

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27
Revenues	3.0%	2.5%	*3.5%*
"Cash Flow"	6.0%	5.5%	*4.5%*
Earnings	6.0%	6.0%	*5.0%*
Dividends	3.5%	4.0%	*5.5%*
Book Value	4.5%	5.0%	*2.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	11.8	13.0	13.7	13.1	51.6
2020	12.9	13.3	14.3	13.4	53.9
2021	13.1	13.8	14.5	13.7	55.1
2022	*13.7*	*14.3*	*15.0*	*14.0*	*57.0*
2023	*14.0*	*14.5*	*15.3*	*14.7*	*58.5*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2019	.22	.28	.35	.26	1.11
2020	.31	.32	.36	.28	1.27
2021	.28	.35	.36	.31	1.30
2022	*.27*	*.34*	*.38*	*.36*	*1.35*
2023	*.31*	*.37*	*.40*	*.37*	*1.45*

QUARTERLY DIVIDENDS PAID [B]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.1666	.1666	.1666	.1733	.673
2019	.1733	.1733	.1733	.1802	.70
2020	.1802	.1802	.1802	.1874	.73
2021	.1874	.1874	.1874	.1949	.76
2022	.1949				

BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2021, the company's average daily availability was 39.6 million gallons and its service territory had an estimated population of 204,000. Has more than 72,600 customers. Residential customers accounted for 65% of 2021 revenues; commercial and industrial (27%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 110 full-time employees at 12/31/21. President/Chief Executive Officer: J.T. Hand. Officers/directors own 1.3% of the common stock (3/21 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.

York Water ended 2021 on a decent note. Fourth-quarter revenues of $13.7 million improved 2% year over year, thanks largely to recently implemented rate hikes approved by Pennsylvania regulators, as well as an expanded customer base. On point, York's acquisition of West Manheim Township wastewater collection system (completed in the second half of last year) bolstered its customer base by approximately 1,800. Meanwhile, December-period earnings of $0.31, despite falling slightly short of our call, rose three cents compared to the previous-year period. An uptick in operation and maintenance expenses of late can be linked to higher transportation (fuel related) and labor costs.

Modest top- and bottom-line growth is probable this year. The latter may remain under some pressure, as the abovementioned cost headwinds may take some time to subside. Nevertheless, we expect 2022 revenues to advance 3%, to $57.0 million, while earnings are poised to jump a nickel, to $1.35 per share.

Management has unveiled its capital investment budget for 2022 and 2023. Last year, the company spent nearly $35 million on routine infrastructure replacements and upgrades, a software system update, and an elevated water tank. For this year and next, leadership plans to invest about $44 million and $50 million, respectively, with a primary focus on pipe and service line upgrades, additional water main extensions, and water treatment plant construction, to name a few. Consequently, these improvements suggest that additional rate hike relief, which is frequently granted by state regulators to offset infrastructure-related upgrade and replacement costs, is likely to be pursued by York Water.

Investment appeal is limited at the recent quotation. Looking at the 3- to 5-year window, total return potential is uninspiring. To that end, income-seeking accounts should note that the current yield pales in comparison to the average utility payer. Moreover, the equity is ranked to mirror the broader market averages over the coming six to 12 months (Timeliness: 3), and offers lackluster appreciation potential over the 18-month horizon.

Nicholas P. Patrikis *April 8, 2022*

(A) Diluted earnings. Next earnings report due early May.
(B) Dividends historically paid in late February, June, September, and December.
(C) In millions, adjusted for split.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	70
Earnings Predictability	100

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	Company Name	AMERICAN STATES WATER COMPANY	AMERICAN WATER WORKS COMPANY, INC.	ARTESIAN RESOURCES CORPORATION	CALIFORNIA WATER SERVICE GROUP	ESSENTIAL UTILITIES, INC.	MIDDLESEX WATER COMPANY	SJW GROUP	THE YORK WATER COMPANY
2016	Sales-Net[y16]	436.087	3302	79.089	609.37	819.875	132.906	339.706	47.584
2017	Sales-Net[y17]	440.603	3357	82.235	676.113	809.525	130.775	389.225	48.589
2018	Sales-Net[y18]	436.816	3440	80.411	698.196	838.091	138.077	397.699	48.437
2019	Sales-Net[y19]	473.869	3610	83.595	714.557	889.692	134.598	420.482	51.578
2020	Sales-Net[y20]	488.243	3777	88.141	794.307	1462.698	141.592	564.526	53.852
2021	Sales-Net[y21]	498.853	3930	90.859	790.909	1878.144	143.141	573.686	55.119
2016	Cash & Short Term Investment[y16]	0.436	75	0.226	25.492	3.763	3.879	6.349	4.209
2017	Cash & Short Term Investment[y17]	0.214	55	0.952	94.776	4.204	4.937	7.799	0.002
2018	Cash & Short Term Investment[y18]	7.141	130	0.293	47.176	3.627	3.705	420.722	0.002
2019	Cash & Short Term Investment[y19]	1.334	60	0.596	42.653	1868.922	2.23	12.944	0.002
2020	Cash & Short Term Investment[y20]	36.737	547	0.028	44.555	4.827	4.491	5.269	0.002
2021	Cash & Short Term Investment[y21]	4.963	116	0.092	78.38	10.567	3.533	10.908	0.001
2016	Current Assets-Total[y16]	166.875	784	14.635	142.069	128.65	26.716	99.611	12.62
2017	Current Assets-Total[y17]	155.463	720	18.985	227.873	131.246	29.247	66.858	8.611
2018	Current Assets-Total[y18]	131.468	781	16.118	188.702	147.172	30.815	502.722	9.011
2019	Current Assets-Total[y19]	122.456	1285	14.207	184.712	2015.127	29.133	122.046	9.384
2020	Current Assets-Total[y20]	157.115	1906	17.619	266.016	380.22	34.123	127.331	16.29
2021	Current Assets-Total[y21]	138.052	1554	19.16	300.458	437.795	34.355	134.085	11.262
2016	Debt in Current Liabilities[y16]	90.33	1423	8.478	123.308	169.822	18.159	14.325	0.044
2017	Debt in Current Liabilities[y17]	59.324	1230	11.258	291.02	139.048	34.865	25	1.044
2018	Debt in Current Liabilities[y18]	40.32	1049	17.784	170.011	228.723	55.843	100	1.03
2019	Debt in Current Liabilities[y19]	7.193	814	9.24	198.42	142.941	27.178	139.481	6.5
2020	Debt in Current Liabilities[y20]	2.371	1611	28.695	376.884	214.22	9.255	251.335	0
2021	Debt in Current Liabilities[y21]	33.421	653	28.33	41.994	286.709	20.531	102.102	7.5
2016	Current Liabilities-Total[y16]	177.944	2392	19.328	250.23	301.536	47.056	63.573	8.184
2017	Current Liabilities-Total[y17]	156.662	2325	28.461	490.959	284.488	64.537	85.052	9.145
2018	Current Liabilities-Total[y18]	146.585	2094	37.731	321.166	398.977	94.363	163.985	10.841
2019	Current Liabilities-Total[y19]	115.998	2045	25.599	358.721	323.461	64.981	234.567	15.156
2020	Current Liabilities-Total[y20]	118.572	2881	43.724	588.706	603.873	56.848	350.795	11.993
2021	Current Liabilities-Total[y21]	155.574	2141	47.702	256.576	675.063	56.619	203.271	20.086
2016	noncash wkcap	78.825	-260	3.559	-10.345	-6.827	-6.06	44.014	0.271
2017	noncash wkcap	57.911	-430	0.83	-66.842	-18.398	-5.362	-0.993	0.508
2018	noncash wkcap	18.062	-394	-4.122	-9.629	-26.709	-81.032	171.159	10.039
2019	noncash wkcap	12.317	-6	-2.748	-18.242	-34.315	-10.9	14.016	0.726
2020	noncash wkcap	4.177	89	2.562	9.639	-14.26	-17.961	22.602	4.295
2021	noncash wkcap	10.936	-50	-0.304	7.496	38.874	-5.266	22.008	-1.325
2017	Change Non cashWrk Cap	-20.914	-170	-2.729	-56.497	-11.571	0.698	-45.007	0.237
2018	Change Non cashWrk Cap	-39.849	36	-4.952	57.213	-8.311	-75.67	172.152	9.531
2019	Change Non cashWrk Cap	-5.745	388	1.374	-8.613	-7.606	70.132	-157.143	-9.313
2020	Change Non cashWrk Cap	-8.14	95	5.31	27.881	20.055	-7.061	8.586	3.569
2021	Change Non cashWrk Cap	6.759	-139	-2.866	-2.143	53.134	12.695	-0.594	-5.62
2017		-4.75%	-5.06%	-3.32%	-8.36%	-1.43%	0.53%	-11.56%	0.49%
2018	WK cap/sale	-9.12%	1.05%	-6.16%	8.19%	-0.99%	-54.80%	43.29%	19.68%
2019	WK cap/sale	-1.21%	10.75%	1.64%	-1.21%	-0.85%	52.10%	-37.37%	-18.06%
2020	WK cap/sale	-1.67%	2.52%	6.02%	3.51%	1.37%	-4.99%	1.52%	6.63%
2021	WK cap/sale	1.35%	-3.54%	-3.15%	-0.27%	2.83%	8.87%	-0.10%	-10.20%
	Average	-3.08%	1.14%	-0.99%	0.37%	0.18%	0.34%	-0.85%	-0.29%
							Median		-0.05%