Growing Together. Improving Communities.

2018

Annual Report

NYSE: WTR Aqua America Inc.

AQUA

At Aqua America,

Water Is Just the Beginning

Water plays a critical role in sustaining life. As stewards of this precious resource, Aqua America is committed to ensuring sustainable business practices and investing in technology and infrastructure, all in an effort to provide safe and reliable water and wastewater services to its communities. Aqua is also committed to being a caring partner that gives back and believes in contributing to economic prosperity.

Over the past three years, Aqua's growth strategy has resulted in a significant increase in the number of customers and communities that are part of the Aqua family. In addition to technical expertise, financial resources and community service, Aqua brings new possibilities through economic development and other financial benefits. A partnership with Aqua can translate into a host of improvements that enhance quality of life for residents and stimulate business opportunities.

320 Market Café
Media, Pennsylvania

> **“A lot of this would not be possible if we weren’t able to solve our one big problem: our infrastructure and water system.”**

Bob McMahon
Mayor
Media, Pennsylvania

Aqua’s decades-long relationship has helped transform the nearly 170-year-old Borough of Media, Pennsylvania into a bustling hub for retail and business. The system purchase has also been responsible for funding transportation projects and other important municipal priorities.

“A lot of this would not be possible if we weren’t able to solve our one big problem: our infrastructure and water system,” said Mayor Bob McMahon.

In Manteno, Illinois, Mayor Timothy Nugent is proud of the improvements made possible by investment from Aqua, including a promenade where residents regularly gather. He points out that Manteno residents see dollar value savings in their monthly municipal services that will likely go on for decades because of the sale, and the ongoing relationship with Aqua.

Aqua is proud to help the communities it serves flourish and will continue to seek more opportunities to make a positive impact for many years to come.

A Message from the Chairman & CEO

I believe 2018 will stand out as a momentous year in Aqua's story. In the span of a year, Aqua closed on six municipal acquisitions, welcomed our 1-millionth customer connection, and announced our entry into the natural gas distribution business through our acquisition of Pittsburgh-based natural gas company Peoples for $4.275 billion, which we expect to close in mid-2019.

Today, Aqua is a leader in rebuilding infrastructure and delivering safe and reliable water and wastewater services to our customers. We remain committed to delivering on our promise to our customers, the communities where we live and work, our shareholders and our employees.

Uniting across utilities

Aqua will always remain dedicated to our mission of protecting and providing Earth's most essential resource - water. And while we are committed to continuing our growth and as a result, strengthening communities, by acquiring municipal water and wastewater systems, we have been looking at complementary opportunities over the last several years. As we explored those opportunities, it became clear that a natural gas distribution company could seamlessly transition into the Aqua family.

Both water and natural gas utilities specialize in delivering a natural resource, under pressure, through pipes and meters into customers' homes and businesses.

Both provide customers with an essential service and are subject to the same regulatory process for establishing customer rates. Both water and natural gas utilities invest significant capital each year on infrastructure rehabilitation, primarily on pipe and main replacements. Operationally, water and natural gas utilities are very similar.

In addition, natural gas is essential to reducing our carbon footprint and improving air quality. Movement in the U.S. toward clear-burning natural gas, plentiful and inexpensive, plays an important role in our country's energy independence.

With all this in mind, on Oct. 23, 2018, Aqua announced our plans to acquire Peoples. Both these organizations are rooted in Pennsylvania, each with more than 130 years of exceptional history. When we close the Peoples transaction, we will add 740,000 customers and 1,500 employees in western Pennsylvania, Kentucky and West Virginia to our family of companies. The transaction will increase our rate base by nearly 50 percent and provide a second platform for organic growth and infrastructure investment. Bringing together these two companies will position us to make an even more positive contribution to infrastructure challenges and ensure service reliability across the 10 states in the communities we serve, for generations to come.

Expanding municipal partnerships

Aqua was proud to welcome more than 13,700 new water and wastewater customers in 2018, through six completed municipal acquisitions: Village of Manteno, Illinois; Limerick Township, Pennsylvania; Village of Peotone, Illinois (water and wastewater systems); East Bradford Township, Pennsylvania; and Tredyffrin Township Municipal Authority's Valley Creek Trunk Sewer System, Pennsylvania. The closing of Peotone by Aqua Illinois was a particularly exciting milestone, as it brought Aqua to our 1 million customer-connection mark.

As a result of the acquisitions, the company added over $100 million of new rate base in 2018. The pipeline of future municipal transactions remains strong.

I expect to see increased activity in the municipal space. In 2018 and early 2019, North Carolina, Illinois, and Ohio passed or extended what is known as fair market value legislation, removing the regulatory barrier to sale and allowing companies like Aqua to be a viable solution for more municipal water and wastewater utilities than ever before.

Continuing our investment in infrastructure

2018 was also a landmark year for capital investments across our eight states. Aqua's subsidiaries invested more than $515 million replacing water mains and upgrading treatment plants and related infrastructure across our footprint.

By partnering with communities facing water quality or compliance issues, critical infrastructure investment needs, or budgetary constraints, the Aqua team makes essential infrastructure investments in the areas we serve. This helps improve service reliability for our customers, ensures regulatory compliance and enhances environmental stewardship. In addition, proceeds from system sales allow municipalities to invest in their neighborhoods, attract businesses, and create jobs. For Aqua, purchasing municipally owned systems is about more than growth — it also allows us to play a part in meeting the infrastructure challenge facing our country.

At Aqua, we're deeply involved in the neighborhoods where we operate, because these are the same communities where our employees live and work. So, while we are investing in repairing and replacing the infrastructure in these municipalities, we are also investing in the success of the people who live there.

And through Aqua's Ripple Effect initiative and our Aqua Charitable Trust, Aqua employees support nonprofit organizations through volunteer efforts, including protecting and restoring watersheds by planting trees and cleaning up streams. In fact, we protect more than 7,600 acres of lands and habitats across our eight-state footprint. And for a second year, our team participated in a companywide United Way campaign, where funds raised stay local and help the communities where our customers and employees live and work. Employees also volunteer at local food banks, work with Habitat for Humanity, the American Red Cross and many other nonprofits. Giving back is a key part of the culture at Aqua and we strive to work with organizations that have a ripple effect in the communities we serve. Plus, all these activities contribute to building camaraderie among employees who already know each other well, and those meeting for the first time, at events like a canoe stream cleanup or a charity 5K.

Commitment to excellence

Looking ahead, 2019 is poised to be another exciting and important year for Aqua, as we continue to successfully operate and grow our water and wastewater business, while also leveraging our new position in the natural gas industry. We understand the responsibility and opportunity we have to protect the environment and the health of our customers each and every day. Across the organization, our team of 1,600 professionals works together to provide safe and reliable water to our customers, and to return treated wastewater to the environment in better condition than when we removed it. And this year, we look forward to welcoming and getting to know the employees and customers of Peoples. On closing, the Aqua and Peoples brands will continue to serve their respective customers and communities, and a new holding company will be established to ensure alignment of aspects like culture and process, consistency and efficient shared services.

On behalf of the leadership team, board of directors, and our team of employees, who all support Aqua's mission every day, thank you to our shareholders for your confidence, trust and support.

Our future has never been brighter.

Sincerely,

Christopher H. Franklin
Chairman, President and Chief Executive Officer

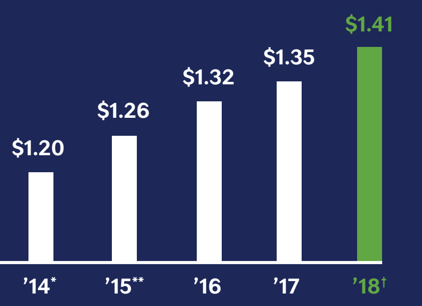
Forward-Looking Information

This document includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward-looking statements are based on management's beliefs and assumptions. Various factors may cause actual results to be materially different than the suggested outcomes within forward-looking statements. Accordingly, there is no assurance that such results will be realized. For details on the uncertainties that may cause the Company's actual future results to be materially different than those expressed in our forward-looking statements, see our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q filed with the Securities and Exchange Commission ("SEC") and available on the SEC's website at www.sec.gov. In light of these risks, uncertainties, and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than described. Forward-looking statements speak only as of the date they are made. Aqua America Inc. expressly disclaims an obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

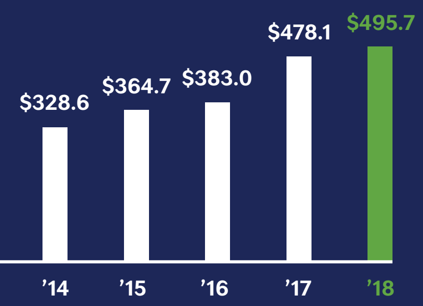
Financial Highlights

In thousands of dollars, except per-share amounts	2018	2017	% Change
Operating revenues	$838,091	$809,525	3.5%
Regulated segment:			
Operating revenues	$834,638	$804,905	3.7%
Operating and maintenance expense	$292,232	$282,009	3.6%
Net income	$191,988	$239,738	(19.9%)
Diluted net income per common share	$1.08	$1.35	(20.0%)
Exclude:			
Transaction costs and other items related to the Peoples acquisition	$73,963	–	
Tax effect	$(15,127)	–	
Adjusted income (a) (Non-GAAP financial measure)	$250,824	$239,738	4.6%
Adjusted income per common share (a) (Non-GAAP financial measure)	$1.41	$1.35	4.4%
Annualized dividend rate per common share (12/31)	$0.8760	$0.8188	7.0%
Total assets	$6,964,496	$6,332,463	10.0%
Number of utility customers served	1,005,590	982,849	2.3%

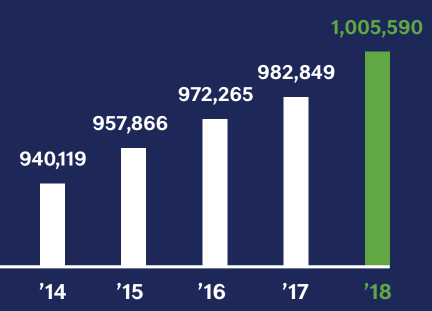
Diluted Adjusted Income per Common Share



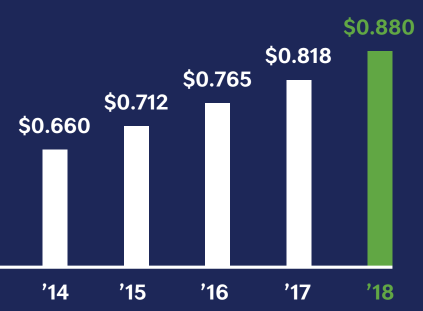
Capital Spending
(existing operations, millions)



Utility Customer Connections
(continuing operations)



Dividend per Share
(annualized)



(a)The GAAP financial measures are net income and net income per share.
*Represents 2014 Income from Continuing Operations. 2014 Net income per share was $1.31.
**2015 Income adjusted for joint venture impairment charge (a Non-GAAP Financial Measure). 2015 Net Income per share was $1.14.
†2018 Income adjusted for Peoples transaction-related expenses (a Non-GAAP Financial Measure). 2018 Net Income per share was $1.08.
Please see the investor relations page of AquaAmerica.com for a reconciliation of GAAP to non-GAAP financial measures.

2018 Additions to the Aqua Family

In 2018, Aqua gained strong momentum in finalizing purchases of municipal water and wastewater systems. The sale of these systems will help local governments benefit from Aqua's expertise in infrastructure investment, compliance, large-scale purchasing power and the efficiencies inherent in being part of a larger, regional operation. It will also allow local officials to direct attention and capital to other priorities, like human services, public safety, roads and bridges, and economic development.

In Pennsylvania and Illinois, fair market value legislation contributed to acquisition activity, as it enabled municipal leaders to sell their water and wastewater assets at a current market value, providing much-needed proceeds for their communities' many priorities.

Village of Manteno, Ill.

Wastewater system

- **Connections:** 3,890
- **Serving more than:** 9,000 people
- **Acquired for:** $25 million
- Investing more than $7.5 million over the next 10 years

Limerick Township, Pa.

Wastewater system

- **Connections:** 5,497
- **Serving more than:** 16,000 people
- **Acquired for:** $75 million

Tredyffrin Township Municipal Authority, Pa.

Valley Creek Trunk Sewer System

- **Serving six area municipalities**
- **Acquired for:** $28.3 million

AQUA Resources

East Bradford Township, Pa.

Wastewater system

- **Connections:** 1,240
- **Serving more than:** 3,500 people
- **Acquired for:** $5 million

Village of Peotone, Ill.

Water and wastewater systems

- **Connections:** 3,083
- **Serving more than:** 4,100 people
- **Acquired for:** $12.3 million
- Investing more than $8 million over the next five years

Manteno Community
Fire & Rescue

Knowledgeable Additions to the Aqua Team

Municipal leaders considering the sale of a water or wastewater system are often concerned about future employment for their municipal workers. In almost all cases, Aqua offers long-term employment opportunities for these field and office personnel. It's a win-win situation. Workers bring valuable institutional knowledge of the systems to Aqua, and Aqua brings the resources they need to do a thorough job and provides opportunities for professional growth. Here are a few recent examples of how employment with Aqua is helping these employees grow.

Frank Rodden
Field Supervisor
Limerick, Pennsylvania

MEET Frank

Prior to Aqua Pennsylvania acquiring Limerick Township's wastewater system, Frank Rodden was the superintendent of sewers. This is what he shared about his experience as a new member of Aqua's team.

> **"We are really, really safe. Safety is number one. Aqua gives us everything we need: procedures, safety training and awareness, and better equipment. We didn't have that before. Some of my co-workers had no prior safety training. It's great knowing we have the time and resources to go about doing business the right way."**

Terry Wilson
Wastewater Supervisor
Manteno, Illinois

MEET Terry

Terry Wilson worked as Manteno's supervisor of water and wastewater operations for 18 years before the systems were acquired by Aqua. In his first 6 months as an Aqua employee, Terry has been amazed by the support and access he now has.

> **"When you're a supervisor working for a municipality, you're on your own, you have nowhere to turn. With Aqua, I have support all around—from engineering, quality control, human resources, safety officers, rules and regulations—everything. I can call anywhere within the state or outside the state to get support for anything I'm dealing with."**

Mega Milestone:

1-Millionth Customer Connection Complete

On Oct. 1, 2018, Aqua Illinois completed the purchase of the Village of Peotone's water and wastewater systems, adding over 3,000 new connections and reaching a significant milestone of 1 million customer connections.

Peotone is a small, rural community located just south of Chicago. It is filled with history and culture, and its residents enjoy the tranquility of a country lifestyle. It's a great place to live, work, and play—and has plans of becoming even better with the sale of its water and wastewater systems to Aqua.

Aqua is proud to serve the residents and businesses of Peotone and to help the village flourish economically like its neighboring community of Manteno, Illinois, which Aqua began serving in 2007. As part of their agreement, Aqua Illinois is constructing an interconnect to deliver award-winning water from its Kankakee plant to Peotone, replacing the existing wells. The sale of the systems will enable Peotone to offer quality water and wastewater services to the community, entice developers and attract new retail and other economic opportunities.

Oct. 1, 2018 – Peotone, Illinois
3,000 Customer Connections

“It’s wonderful for Peotone to be recognized in such a significant way and we look forward to the service Aqua will provide now and in the future.”

Steven Cross
Mayor
Peotone, Illinois

“We’re excited to add Peotone’s residents and businesses as Aqua water and wastewater customers and thrilled they can mark this important occasion with us.”

Craig Blanchette
President
Aqua Illinois

An Important Commitment to Corporate Social Responsibility

Aqua has been an environmental steward, protecting and providing Earth's most essential resource, since 1886. With this role comes an inherent responsibility to ensure water is carefully treated, delivered and returned to rivers and streams using the most sustainable and environmentally friendly processes.

Aqua's commitment extends to all aspects of its business, from reducing energy consumption and lowering greenhouse gas emissions to a belief in supplier diversity and providing an inclusive and safe workplace for its 1,600 employees.

Aqua serves as an educational resource for customers on water topics ranging from frozen pipe prevention to water conservation.

Its team also engages in its communities through corporate giving, volunteerism and its work to preserve local waterways and protect natural habitats.

In 2018, we published our first corporate social responsibility report. This report includes baseline metrics as well as new standards and additional programs that further enhance Aqua's commitments and accountability.

To read the full report, visit CSR.AquaAmerica.com.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report (the "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," "anticipates," "plans," "future," "potential," "probably," "predictions," "intends," "will," "continue," "in the event" or the negative of such terms or similar expressions.

Because forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including but not limited to:

- our ability to integrate and otherwise realize all of the anticipated benefits of businesses, technologies or services which we may acquire;
- our ability to manage the expansion of our business, including our ability to manage our expanded operations following the closing of the Peoples Gas Acquisition;
- changes in general economic, business, credit and financial market conditions;
- changes in governmental laws, regulations and policies, including those dealing with taxation, the environment, health and water quality, and public utility regulation;
- our ability to treat and supply water or collect and treat wastewater;
- the profitability of future acquisitions;
- changes to the rules or our assumptions underlying our determination of what qualifies for an income tax deduction for qualifying utility asset improvements;
- conditions to the completion of the Peoples Gas Acquisition may not be satisfied or waived on a timely basis, or at all;
- the decisions of governmental and regulatory bodies, including decisions on rate increase requests and decisions regarding potential acquisitions;
- our ability to file rate cases on a timely basis to minimize regulatory lag;
- abnormal weather conditions, including those that result in water use restrictions;
- changes in, or unanticipated, capital requirements;
- changes in our credit rating or the market price of our common stock;
- changes in valuation of strategic ventures;
- the extent to which we are able to develop and market new and improved services;
- the effect of the loss of major customers;
- our ability to retain the services of key personnel and to hire qualified personnel as we expand;
- the diversion of our management's time and resources caused by the pendency of the Peoples Gas Acquisition;
- labor disputes;
- increasing difficulties in obtaining insurance and increased cost of insurance;
- cost overruns relating to improvements to, or the expansion of, our operations;
- increases in the costs of goods and services;
- civil disturbance or terroristic threats or acts;
- the continuous and reliable operation of our information technology systems, including the impact of cyber security attacks or other cyber-related events;
- changes in accounting pronouncements;
- litigation and claims; and
- changes in environmental conditions, including the effects of climate change.

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 *Risk Factors* included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

OVERVIEW

The following discussion and analysis of our financial condition and results of operations should be read together with our Consolidated Financial Statements and related Notes included in this Annual Report. This discussion contains forward-looking statements that are based on management's current expectations, estimates and projections about our business, operations and financial performance. All dollar amounts are in thousands of dollars, except per share amounts.

The Company

Aqua America, Inc., (referred to as "Aqua America", the "Company", "we", "us", or "our"), a Pennsylvania corporation, is the holding company for regulated utilities providing water or wastewater services to an estimated three million people in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, and Virginia. Our largest operating subsidiary is Aqua Pennsylvania, Inc., which accounted for approximately 53% of our operating revenues and approximately 71% of our Regulated segment's income for 2018. As of December 31, 2018, Aqua Pennsylvania provided water or wastewater services to approximately one-half of the total number of people 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 utility subsidiaries provide similar services in seven other states. In addition, the Company's market-based activities are conducted through Aqua Infrastructure, LLC and Aqua Resources, Inc. Aqua Infrastructure provides non-utility raw water supply services for firms in the natural gas drilling industry. Aqua Resources provides water service through operating and maintenance contracts with a municipal authority and another party close to our utility companies' service territory; and offers, through a third-party, water and sewer line protection solutions and repair services to households. In 2017, we completed the sale of business units that were reported within the Company's market-based subsidiary, Aqua Resources, one which installed and tested devices that prevent the contamination of potable water and another that constructed, maintained, and repaired water and wastewater systems. During 2016 we completed the sale of business units within Aqua Resources, which were reported as assets held for sale in the Company's consolidated balance sheets, which provided liquid waste hauling and disposal services, and inspection, and cleaning and repair of storm and sanitary wastewater lines.

Industry Mission

The mission of the regulated water utility industry is to provide quality and reliable water service at reasonable rates to customers, while earning a fair return for shareholders. A number of challenges face the industry, including:

- strict environmental, health and safety standards;
- aging utility infrastructure and the need for substantial capital investment;
- economic regulation by state, and/or, in some cases, local government;
- declining consumption per customer as a result of conservation;
- lawsuits and the need for insurance; and
- the impact of weather and sporadic drought conditions on water sales demand.

Economic Regulation

Most of our water and wastewater utility operations are subject to regulation by their respective state utility commissions, which have broad administrative power and authority to regulate billing rates, determine franchise areas and conditions of service, approve acquisitions, and authorize the issuance of securities. The utility commissions also generally establish uniform systems of accounts and approve the terms of contracts with affiliates and customers, business combinations with other utility systems, and loans and other financings. The policies of the utility commissions often differ from state to state and may change over time. A small number of our operations are subject to rate regulation by county or city government. Over time, the regulatory party in a particular state may change, as was the case for our Texas operations where, in 2014, economic regulation changed from the Texas Commission on Environmental Quality to the Public Utility Commission of Texas. The profitability of our utility operations is influenced to a great extent by the timeliness and adequacy of rate allowances in the various states in which we operate. One consideration we may undertake in evaluating which states to focus our growth and investment strategy is whether a state provides for consolidated rates, a surcharge for replacing and rehabilitating infrastructure, fair value treatment of acquired utility systems, and other regulatory policies that promote infrastructure investment and efficiency in processing rate cases.

Rate Case Management Capability – We strive to achieve the industry's mission by effective planning, efficient investments, and productive use of our resources. We maintain a rate case management capability to pursue timely and adequate returns on the capital investments that we make in improving our distribution system, treatment plants, information technology systems, and other infrastructure. This capital investment creates assets that are used and useful in providing utility service and is commonly referred to as rate base. Timely and adequate rate relief is important to our continued profitability and in providing a fair return to our shareholders; thus, providing access to capital markets to help fund these investments. Accordingly, the objective of our rate case management strategy is to provide that the rates of our utility operations reflect, to the extent practicable, the timely recovery of increases in costs of operations (primarily labor and employee benefits, electricity, chemicals, transportation, maintenance expenses, insurance and claims costs, and costs to comply with environmental regulations), capital, and taxes. In pursuing our rate case strategy, we consider the amount of net utility plant additions and replacements made since the previous rate decision, the changes in the cost of capital, changes in our capital structure, and changes in operating and other costs. Based on these assessments, our utility operations periodically file rate increase requests with their respective state utility commissions or local regulatory authorities. In general, as a regulated enterprise, our water and wastewater rates are established to provide full recovery of utility operating costs, taxes, interest on debt used to finance capital investments, and a return on equity used to finance capital investments. Our ability to recover our expenses in a timely manner and earn a return on equity employed in the business helps determine the profitability of the Company. As of December 31, 2018, the Company's rate base is estimated to be $4,500,000, which is comprised of:

- $4,278,000 filed with respective state utility commissions or local regulatory authorities; and
- $222,000 not yet filed with respective state utility commissions or local regulatory authorities.

Our water and wastewater operations are composed of 44 rate divisions, each of which requires a separate rate filing for the evaluation of the cost of service and recovery of investments in connection with the establishment of tariff rates for that rate division. When feasible and beneficial to our utility customers, we have sought approval from the applicable state utility commission to consolidate rate divisions to achieve a more even distribution of costs over a larger customer base. All of the eight states in which we operate currently permit us to file a revenue requirement using some form of consolidated rates for some or all of the rate divisions in that state.

Revenue Surcharges – Seven states in which we operate water utilities, and six states in which we operate wastewater utilities, permit us to add an infrastructure rehabilitation surcharge to their respective bills to offset the additional depreciation and capital costs associated with capital expenditures related to replacing and rehabilitating infrastructure systems. In our other states, water and wastewater utilities absorb all of the depreciation and capital costs of these projects between base rate increases without the benefit of additional revenues. The gap between the time that a capital project is completed and the recovery of its costs in rates is known as regulatory lag. This surcharge is intended to substantially reduce regulatory lag, which often acts as a disincentive to water and wastewater utilities to rehabilitate their infrastructure. In addition, some states permit our subsidiaries to use a surcharge or credit on their bills to reflect allowable changes in costs, such as changes in state tax rates, other taxes and purchased water costs, until such time as the new costs are fully incorporated in base rates.

Effects of Inflation – Recovery of the effects of inflation through higher water and wastewater rates is dependent upon receiving adequate and timely rate increases. However, rate increases are not retroactive and often lag increases in costs caused by inflation. On occasion, our regulated utility companies may enter into rate settlement agreements, which require us to wait for a period of time to file the next base rate increase request. These agreements may result in regulatory lag whereby inflationary increases in expenses may not yet be reflected in rates, or a gap may exist between when a capital project is completed and the start of its recovery in rates. Even during periods of moderate inflation, the effects of inflation can have a negative impact on our operating results.

Growth-Through-Acquisition Strategy

Part of our strategy to meet the industry challenges is to actively explore opportunities to expand our utility operations through acquisitions of water and wastewater and other utilities either in areas adjacent to our existing service areas or in new service areas, and to explore acquiring market-based businesses that are complementary to our regulated water and wastewater operations. To complement our growth strategy, we routinely evaluate the operating performance of our individual utility systems, and in instances where limited economic growth opportunities exist or where we are unable to achieve favorable operating results or a return on equity that we consider acceptable, we will seek to sell the utility system and reinvest the proceeds in other utility systems. Consistent with this strategy, we are focusing our acquisitions and resources in states where we have critical mass of operations in an effort to achieve economies of scale and increased efficiency. Our growth-through-acquisition strategy allows us to operate more efficiently by sharing operating expenses over more utility customers and provides new locations for future earnings growth through capital investment. Another element of our growth strategy is the consideration of opportunities to expand by acquiring other utilities, including those that may be in a new state if they provide promising economic growth opportunities and a return on equity that we consider acceptable. Our ability to successfully execute this strategy historically and to meet the industry challenges has largely been due to our core competencies, financial position, and our qualified and trained workforce, which we strive to retain by treating employees fairly and providing our employees with development and growth opportunities.

On October 22, 2018, we entered into a purchase agreement to acquire, from LDC Funding LLC, the parent company of PNG Companies, a natural gas distribution company consisting of Peoples Natural Gas Company LLC, Peoples Gas Company LLC, Peoples Gas West Virginia, Inc., Peoples Gas Kentucky, Inc., and Delta Natural Gas Company Inc. ("Peoples") expanding the Company's regulated utility business to include natural gas distribution. Peoples serves approximately 740,000 gas utility customers in western Pennsylvania, West Virginia, and Kentucky. The Peoples Gas Acquisition, once consummated, will expand our regulated utility business to include natural gas distribution. At the closing of the Peoples Gas Acquisition, the Company will pay $4,275,000 in cash, subject to adjustments for working capital, certain capital expenditures, transaction expenses and closing indebtedness as set forth in the acquisition agreement. The Company expects to assume approximately $1,300,000 of Peoples' indebtedness upon the closing of the Peoples Gas Acquisition, which would reduce the cash purchase by approximately $1,300,000. The acquisition is subject to regulatory approvals and other customary closing conditions set forth in the acquisition agreement, and is expected to close in mid-2019.

During 2018, we completed nine acquisitions, which along with the organic growth in our existing systems, represents 22,741 new customers. During 2017, we completed four acquisitions, which along with the organic growth in our existing systems, represents 10,584 new customers. During 2016, we completed nineteen acquisitions, which along with the organic growth in our existing systems, represents 15,282 new customers.

We believe that utility acquisitions, organic growth, and a potential expansion of our market-based business will continue to be the primary sources of growth for us. With approximately 50,000 community water systems in the U.S., 81% of which serve less than 3,300 customers, the water industry is the most fragmented of the major utility industries (telephone, natural gas, electric, water, and wastewater). In the states where we operate regulated utilities, we believe there are approximately 14,000 community water systems of widely-varying size, with the majority of the population being served by government-owned water systems.

Although not as fragmented as the water industry, the wastewater industry in the U.S. also presents opportunities for consolidation. According to the U.S. Environmental Protection Agency's ("EPA") most recent survey of wastewater treatment facilities (which includes both government-owned facilities and regulated utility systems) in 2012, there were approximately 15,000 such facilities in the nation serving approximately 76% of the U.S. population. The remaining population represents individual homeowners with their own treatment facilities; for example, community on-lot disposal systems and septic tank systems. The vast majority of wastewater facilities are government-owned rather than regulated utilities. The EPA survey also indicated that, in 2012, there were approximately 4,000 wastewater facilities in operation in the states where we operate regulated utilities.

Because of the fragmented nature of the water and wastewater utility industries, we believe that there are many potential water and wastewater system acquisition candidates throughout the United States. We believe the factors driving the consolidation of these systems are:

- the benefits of economies of scale;
- the increasing cost and complexity of environmental regulations;
- the need for substantial capital investment;
- the need for technological and managerial expertise;
- the desire to improve water quality and service;
- limited access to cost-effective financing;
- the monetizing of public assets to support, in some cases, the declining financial condition of municipalities; and
- the use of system sale proceeds by a municipality to accomplish other public purposes.

We are actively exploring opportunities to expand our water and wastewater utility operations through regulated utility acquisitions or otherwise, including the management of publicly-owned facilities in a public-private partnership. We intend to continue to pursue acquisitions of government-owned and regulated water and wastewater utility systems that provide services in areas near our existing service territories or in new service areas. It is our intention to focus on growth opportunities in states where we have critical mass, which allows us to improve economies of scale through spreading our fixed costs over more customers – this cost efficiency should enable us to reduce the size of future rate increases. Currently, the Company seeks to acquire businesses in the U.S. regulated sector, which includes water and wastewater utilities and other regulated utilities, and to pursue growth ventures in market-based activities, by acquiring businesses that provide water and wastewater or other utility-related services and investing in infrastructure projects.

Sendout

Sendout represents the quantity of treated water delivered to our distribution systems. We use sendout as an indicator of customer demand. Weather conditions tend to impact water consumption, particularly during the late spring, summer, and early fall when discretionary and recreational use of water is at its highest. Consequently, a higher proportion of annual operating revenues are realized in the second and third quarters. In general, during this period, an extended period of hot and dry weather increases water consumption, while above-average rainfall and cool weather decreases water consumption. Conservation efforts, construction codes that require the use of low-flow plumbing fixtures, as well as mandated water use restrictions in response to drought conditions can reduce water consumption. We believe an increase in conservation awareness by our customers, including the increased use of more efficient plumbing fixtures and appliances, may continue to result in a long-term structural trend of declining water usage per customer. These gradual long-term changes are normally taken into account by the utility commissions in setting rates, whereas significant short-term changes in water usage, resulting from drought warnings, water use restrictions, or extreme weather conditions, may not be fully reflected in the rates we charge between rate proceedings. In Illinois, our operating subsidiary has adopted a revenue stability mechanism which allows us to recognize state PUC-authorized revenue for a period which is not based upon the volume of water sold during that period, and effectively lessens the impact of weather and consumption variability.

On occasion, drought warnings and water use restrictions are issued by governmental authorities for portions of our service territories in response to extended periods of dry weather conditions, regardless of our ability to meet unrestricted customer water demands. The timing and duration of the warnings and restrictions can have an impact on our water revenues and net income. In general, water consumption in the summer months is affected by drought warnings and restrictions to a higher degree because discretionary and recreational use of water is highest during the summer months, particularly in our northern service territories. At other times of the year, warnings and restrictions generally have less of an effect on water consumption. Currently, portions of our northern and central Texas service areas have conservation water restrictions. Drought warnings and watches result in the public being asked to voluntarily reduce water consumption.

The geographic diversity of our utility customer base reduces the effect of our exposure to extreme or unusual weather conditions in any one area of the country. During the year ended December 31, 2018, our operating revenues were derived principally from the following states: approximately 53% in Pennsylvania, 13% in Ohio, 9% in Texas, 9% in Illinois, and 6% in North Carolina.

Performance Measures Considered by Management

We consider the following financial measures (and the period to period changes in these financial measures) to be the fundamental basis by which we evaluate our operating results:

- earnings per share;
- operating revenues;
- income from continuing operations;
- earnings before interest, taxes, and depreciation ("EBITD");
- earnings before income taxes as compared to our operating budget;
- net income; and
- the dividend rate on common stock.

In addition, we consider other key measures in evaluating our utility business performance within our Regulated segment:

- our number of utility customers;
- the ratio of operations and maintenance expense compared to operating revenues (this percentage is termed "operating expense ratio");
- return on revenues (income from continuing operations divided by operating revenues);
- rate base growth;
- return on equity (net income divided by stockholders' equity); and
- the ratio of capital expenditures to depreciation expense.

Some of these measures, like EBITD, are non-GAAP financial measures. The Company believes that the non-GAAP financial measures provide management the ability to measure the Company's financial operating performance across periods and as contrasted to historical financial results, which are more indicative of the Company's ongoing performance and more comparable to measures reported by other companies. When the Company discloses such non-GAAP financial measures, we believe they are useful to investors as a more meaningful way to compare the Company's operating performance against its historical financial results. We believe EBITD from continuing operations is a relevant and useful indicator of operating performance, as we measure it for management purposes because it provides a better understanding of our results of operations by highlighting our operations and the underlying profitability of our core business. Furthermore, we review the measure of earnings before unusual items that are not directly related to our core business, such as the measure of adjusted earnings to remove the Peoples Gas Acquisition expenses, such as transaction expenses and the change in fair value of interest rate swap agreements, which were recognized in 2018, as well as the joint venture impairment charge (noncash), which was recognized in 2015. Refer to Note 10 – *Long-term Debt and Loans Payable* in this Annual Report for information regarding the interest rate swap agreements and "Management's Discussion and Analysis of Financial Condition and Results of Operations – *Liquidity and Capital Resources – Joint Venture"* in this Annual Report for information regarding the impairment charge. We review these measurements regularly and compare them to historical periods, to our operating budget as approved by our Board of Directors, and to other publicly-traded water utilities.

Our operating expense ratio is one measure that we use to evaluate our operating efficiency and management effectiveness of our regulated operations. Our operating expense ratio is affected by a number of factors, including the following:

- ***Regulatory lag –*** Our rate filings are designed to provide for the recovery of increases in costs of operations (primarily labor and employee benefits, electricity, chemicals, transportation, maintenance expenses, insurance and claim costs, and costs to comply with environmental regulations), capital, and taxes. The revenue portion of the operating expense ratio can be impacted by the timeliness of recovery of, and the return on capital investments. The operating expense ratio is further influenced by regulatory lag (increases in operations and maintenance expenses not yet recovered in rates or a gap between the time that a capital project is completed and the start of its cost recovery in rates). The operating expense ratio is also influenced by decreases in operating revenues without a commensurate decrease in operations and maintenance expense, such as changes in customer water consumption as impacted by adverse weather conditions, or conservation trends. Commencing in 2012, as a result of utility rates incorporating the effects of income tax benefits derived from deducting qualifying utility asset improvements for tax purposes that are capitalized for book purposes in Aqua Pennsylvania and consequently forgoing operating revenue increases until its next rate case becomes effective in May 2019. During periods of inflation, our operations and maintenance expenses may increase, impacting the operating expense ratio, as a result of regulatory lag, since our rate cases may not be filed timely and are not retroactive.

- ***Acquisitions –*** In general, acquisitions of smaller undercapitalized utility systems in some areas may initially increase our operating expense ratio if the operating revenues generated by these operations do not reflect the true cost of service and are accompanied by a higher ratio of operations and maintenance expenses as compared to other operational areas of the company that are more densely populated and have integrated operations. In these cases, the acquired operations are characterized as having relatively higher operating costs to fixed capital costs, in contrast to the majority of our operations, which generally consist of larger, interconnected systems, with higher fixed capital costs (utility plant investment) and lower operating costs per customer. For larger acquisitions, such as the Peoples Gas Acquisition, we may incur significant transaction expenses, which increase operations and maintenance expenses in periods prior to and in the period of the closing of the acquisition. In addition, we operate market-based subsidiary companies, Aqua Resources and Aqua Infrastructure. The cost-structure of these market-based companies differs from our utility companies in that, although they may generate free cash flow, these companies have a higher ratio of operations and maintenance expenses to operating revenues and a lower capital investment and, consequently, a lower ratio of fixed capital costs versus operating revenues in contrast to our regulated operations. As a result, the operating expense ratio is not comparable between the businesses. These market-based subsidiary companies are not a component of our Regulated segment.

We continue to evaluate initiatives to help control operating costs and improve efficiencies.

(In thousands of dollars, except per share amounts)

Consolidated Selected Financial and Operating Statistics

Our selected five-year consolidated financial and operating statistics follow:

Years ended December 31,	2018	2017	2016	2015	2014
Utility customers:					
Residential water	815,663	807,872	801,190	791,404	779,665
Commercial water	41,532	40,956	40,582	40,151	39,614
Industrial water	1,340	1,338	1,349	1,353	1,357
Other water	19,273	19,430	19,036	17,420	17,412
Wastewater	127,782	113,253	110,108	107,538	102,071
Total utility customers	1,005,590	982,849	972,265	957,866	940,119
Operating revenues:					
Residential water	$ 482,946	$ 483,865	$ 484,901	$ 477,773	$ 460,013
Commercial water	133,753	130,373	131,170	126,677	122,795
Industrial water	28,848	27,880	27,916	28,021	27,369
Other water	85,894	65,324	62,983	56,997	59,474
Wastewater	94,170	87,560	82,780	79,399	76,472
Other utility	9,027	9,903	10,357	10,746	9,934
Regulated segment total	834,638	804,905	800,107	779,613	756,057
Other and eliminations	3,453	4,620	19,768	34,591	23,846
Consolidated operating revenues	$ 838,091	$ 809,525	$ 819,875	$ 814,204	$ 779,903
Operations and maintenance expense	$ 308,478	$ 282,253	$ 297,184	$ 308,416	$ 289,244
Change in fair value of interest rate swap agreements (1)	$ 47,225	$ -	$ -	$ -	$ -
Joint venture impairment charge (2)	$ -	$ -	$ -	$ 21,433	$ -
Income from continuing operations	$ 191,988	$ 239,738	$ 234,182	$ 201,790	$ 213,884
Net income	$ 191,988	$ 239,738	$ 234,182	$ 201,790	$ 233,239
Capital expenditures	$ 495,737	$ 478,089	$ 382,996	$ 364,689	$ 328,605
Operating Statistics					
Selected operating results as a percentage of operating revenues:					
Operations and maintenance	36.8%	34.9%	36.2%	37.9%	37.1%
Depreciation and amortization	17.5%	16.9%	16.2%	15.8%	16.2%
Taxes other than income taxes	7.1%	7.0%	6.9%	6.8%	6.5%
Interest expense, net	11.8%	10.9%	9.8%	9.4%	9.8%
Income from continuing operations	22.9%	29.6%	28.6%	24.8%	27.4%
Return on Aqua America stockholders' equity	9.6%	12.2%	12.7%	11.7%	14.1%
Ratio of capital expenditures to depreciation expense	3.4	3.5	2.9	2.9	2.7
Effective tax rate	(7.7%)	6.6%	8.2%	6.9%	10.5%

(1) Represents a mark-to-market fair value adjustment expense of $47,225 ($59,779 pre-tax) associated with our interest rate swap agreements that were entered into to mitigate interest rate risk associated with our planned issuance of long-term debt to fund a portion of the Peoples Gas Acquisition.

(2) Represents a $21,433 ($32,975 pre-tax) joint venture impairment charge. This amount represents our share of the impairment charge recognized by our joint venture that operates a private pipeline to supply raw water to firms with natural gas well drilling operations.

RESULTS OF OPERATIONS

Net income varies over time as a result of increases in operating income, timing of transaction expenses for acquisitions, including fluctuations in fair value adjustments for interest rate swap agreements entered into in connection with planned acquisitions, and other factors described below. During the past five years, our operating revenues grew at a compound rate of 1.9% and operating expenses grew at a compound rate of 2.3%. Operating revenues have not increased over the past five years at the same levels historically experienced due to two factors. The Company's Pennsylvania operating subsidiary, Aqua Pennsylvania, has not filed a base rate case for an increase since 2011. It filed a base rate case in August 2018, and new customer rates are expected to be implemented in May 2019. Also, the Tax Cuts and Jobs Act of 2017 ("TCJA") reduced income tax expense as a result of a reduction in the corporate federal income tax rate. Operating revenues for 2018 were reduced by income tax savings in our Regulated segment, so as to provide our utility customers with the benefits of the lower income tax expense.

Operating Segments

We have identified ten operating segments and we have one reportable segment based on the following:

- Eight segments are composed of our water and wastewater regulated utility operations in the eight states where we provide these services. These operating segments are aggregated into one reportable segment since each of these operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution and/or wastewater collection methods, and the nature of the regulatory environment. Our single reportable segment is named the Regulated segment.

- Two segments are not quantitatively significant to be reportable and are composed of Aqua Resources and Aqua Infrastructure. These segments are included as a component of "Other," in addition to corporate costs that have not been allocated to the Regulated segment, because they would not be recoverable as a cost of utility service, and intersegment eliminations. Corporate costs include general and administrative expenses, and interest expense.

(In thousands of dollars, except per share amounts)

The following table provides the Regulated segment and consolidated information for the years ended December 31, 2018, 2017, and 2016:

	2018			2017		
	Regulated	Other and Eliminations	Consolidated	Regulated	Other and Eliminations	Consolidated
Operating revenues	$ 834,638	$ 3,453	$ 838,091	$ 804,905	$ 4,620	$ 809,525
Operations and maintenance expense	292,232	16,246	308,478	282,009	244	282,253
Taxes other than income taxes	57,140	2,622	59,762	54,524	2,104	56,628
Earnings (loss) before interest, taxes, depreciation and amortization	$ 485,266	$ (15,415)	469,851	$ 468,372	$ 2,272	470,644
Depreciation and amortization			146,673			136,724
Operating income			323,178			333,920
Other expense (income):						
Interest expense, net			98,902			88,341
Allowance for funds used during construction			(13,023)			(15,211)
Change in fair value of interest rate swap agreements			59,779			-
Gain on sale of other assets			(714)			(484)
Equity earnings in joint venture			(2,081)			(331)
Other			1,996			4,953
Provision for income taxes (benefit)			(13,669)			16,914
Net income			$ 191,988			$ 239,738

	2016		
	Regulated	Other and Eliminations	Consolidated
Operating revenues	$ 800,107	$ 19,768	$ 819,875
Operations and maintenance expense	277,634	19,550	297,184
Taxes other than income taxes	53,916	2,469	56,385
Earnings before interest, taxes, depreciation and amortization	$ 468,557	$ (2,251)	466,306
Depreciation and amortization			133,008
Operating income			333,298
Other expense (income):			
Interest expense, net			80,594
Allowance for funds used during construction			(8,815)
Gain on sale of other assets			(378)
Equity earnings in joint venture			(976)
Other			7,713
Provision for income taxes			20,978
Net income			$ 234,182

Consolidated Results

Operating Revenues – Operating revenues totaled $838,091 in 2018, $809,525 in 2017, and $819,875 in 2016. Our Regulated segment's revenues totaled $834,638 in 2018, $804,905 in 2017, and $800,107 in 2016. The growth in our Regulated segment's revenues over the past three years is a result of increases in our water and wastewater rates and our customer base. Rate increases implemented during the past three years have provided additional operating revenues of $8,362 in 2018, $6,143 in 2017, and $4,319 in 2016. Additionally, in 2018 our wastewater revenues increased by $2,909 primarily due to an increase in the volume of treated wastewater flows from the City of Ft. Wayne, Indiana at our Indiana wastewater treatment plant. In 2018, revenues were negatively impacted due to the reduction in the corporate income tax rate from 35% to 21% due to the TCJA. As a result, revenues were reduced by $5,123 for amounts refundable to utility customers associated with the TCJA. Negatively impacting revenues in 2017 was a decrease in customer water consumption primarily due to unfavorable weather conditions during the year. The number of customers increased at an annual compound rate of 1.7% over the past three years due to acquisitions and organic growth, adjusted to exclude customers associated with utility system dispositions. Acquisitions in our Regulated segment have provided additional water and wastewater revenues of $3,877, in 2018, $1,695 in 2017, and $8,201 in 2016.

On June 7, 2012, Aqua Pennsylvania reached a settlement agreement in its rate filing with the Pennsylvania Public Utility Commission, which in addition to a water rate increase, provided for a reduction in current income tax expense as a result of the recognition of qualifying income tax benefits upon Aqua Pennsylvania changing its tax accounting method to permit the expensing of qualifying utility asset improvement costs that historically had been capitalized and depreciated for book and tax purposes. In December 2012, Aqua Pennsylvania implemented this change which provides for the flow-through of income tax benefits that resulted in a substantial reduction in income tax expense and greater net income and cash flow. As a result, Aqua Pennsylvania was able to suspend its water Distribution System Improvement Charges from January 1, 2013 to September 30, 2017, when it resumed the use of a water Distribution System Improvement Charge on October 1, 2017. Aqua Pennsylvania was able to lengthen the amount of time until its next base rate case, which was filed in August 2018. During 2018, 2017, and 2016, the income tax accounting change resulted in income tax benefits of $64,183, $84,766, and $78,530 that reduced the Company's current income tax expense and increased net income. The Company recognized a tax deduction on its 2012 Federal tax return of $380,000 for qualifying capital expenditures made prior to 2012. Based on the 2012 settlement agreement, beginning in 2013, the Company began to amortize 1/10th of these expenditures, or $38,000 annually, which reduced income tax expense and increased the Company's net income by $16,734, which is included in the income tax benefits noted previously. In accordance with the 2012 settlement agreement, this amortization is expected to reduce income tax expense during periods when qualifying parameters are met. In August 2018, Aqua Pennsylvania filed for a base rate increase in water and wastewater rates for its customers. In February 2019, Aqua Pennsylvania filed a settlement for this base rate case. Rates from this settlement for approximately $47,000 are expected to go into effect in May 2019. This settlement agreement is subject to approval by the administrative law judge and the Pennsylvania Public Utilities Commission.

Our operating subsidiaries received rate increases representing estimated annualized revenues of $11,558 in 2018 resulting from five base rate decisions, $7,558 in 2017 resulting from five base rate decisions, and $3,434 in 2016 resulting from six rate decisions. Revenues from these increases realized in the year of grant were $7,270 in 2018, $6,343 in 2017, and $1,788 in 2016. As of December 31, 2018, our operating subsidiaries have filed two rate requests, which are being reviewed by the state utility commissions, proposing an aggregate increase of $78,971 in annual revenues, which includes our August 2018 rate case filing in Pennsylvania. In February 2019, Aqua Pennsylvania filed a settlement for this base rate case. Rates from this settlement for approximately $47,000 are expected to go into effect in May 2019. This settlement agreement is subject to approval by the administrative law judge and the Pennsylvania Public Utilities Commission. During 2019, we intend to file five additional rate requests proposing an aggregate of approximately $696 of increased annual revenues; the timing and extent to which our rate increase requests may be granted will vary by state.

Currently, New Jersey allows for an infrastructure rehabilitation surcharge for water utilities, while Pennsylvania, Illinois, Ohio, Indiana, and North Carolina allow for the use of an infrastructure rehabilitation surcharge for both water and wastewater utility systems, and Aqua Virginia is piloting an infrastructure rehabilitation surcharge for its water and wastewater utilities to be implemented in 2019, pursuant to the final order issued in Aqua Virginia's 2018 rate case. The rate increases under this surcharge typically adjust periodically based on additional qualified capital expenditures completed or anticipated in a future period. This surcharge is capped as a percentage of base rates, generally at 5% to 12.75% of base rates, and is reset to zero when new base rates that reflect the costs of those additions become effective or when a utility's earnings exceed a regulatory benchmark. These surcharges provided revenues of $31,836 in 2018, $10,255 in 2017, and $7,379 in 2016.

Our Regulated segment also includes operating revenues of $9,427 in 2018, $9,903 in 2017, and $10,357 in 2016 associated with contract operations that are integrated into the regulated utility business and operations. These amounts vary over time according to the level of activity associated with the utility contract operations.

In addition to the Regulated segment operating revenues, we recognized market-based revenues that are associated with Aqua Resources and Aqua Infrastructure of $3,590 in 2018, $4,798 in 2017, and $20,091 in 2016. The decrease in revenues in 2018 and 2017 is due to the disposition of business units within Aqua Resources.

Operations and Maintenance Expenses – Operations and maintenance expenses totaled $308,478 in 2018, $282,253 in 2017, and $297,184 in 2016. Most elements of operating costs are subject to the effects of inflation and changes in the number of customers served. Several elements are subject to the effects of changes in water consumption, weather, and the degree of water treatment required due to variations in the quality of the raw water. The principal elements of operating costs are labor and employee benefits, electricity, chemicals, transportation, maintenance expenses, insurance and claims costs, and costs to comply with environmental regulations. Electricity and chemical expenses vary in relationship to water consumption, raw water quality, and price changes. Maintenance expenses are sensitive to extremely cold weather, which can cause water mains to rupture, resulting in additional costs to repair the affected main.

Operations and maintenance expenses increased in 2018, as compared to 2017, by $26,225 or 9.3%, primarily due to:

- transaction expenses of $14,184 for our planned Peoples Gas Acquisition, primarily representing expenses associated with obtaining regulatory approvals, investment banking fees, legal expenses, and integration planning;
- an increase in labor and benefits expenses of $8,301, primarily due to additional overtime expenses for increased maintenance activities and wage increases;
- additional operating costs associated with acquired utility systems of $1,363;
- the prior year effect of a favorable settlement for a disputed contract of $1,062; and
- the prior year effect of the favorable treatment of a regulatory asset of $1,000 due to a rate proceeding that occurred in 2017;
- offset by a reduction in operating expenses for our market-based activities of $2,441 primarily associated with the completion of the disposition of business units within Aqua Resources, which was finalized in June 2017; and
- a favorable net change in regulatory assets and liabilities of $615 resulting from rate proceedings in 2018.

Operations and maintenance expenses decreased in 2017, as compared to 2016, by $14,931 or 5.0%, primarily due to:

- decreases in market-based activities expenses of $15,933 due to the disposition of business units within Aqua Resources;
- a decrease in water production costs of $6,301 primarily due to a reduction in purchased water expense of $4,794 due to replacing a purchased water supply with the Company's own water supply source; and
- a decrease in the Company's self-insured employee medical benefit program expense of $4,838;
- offset by $4,102 for the timing of expenses incurred for the maintenance of our utility systems and the purchase of supplies, as well as other increases in operations and maintenance expenses.

Depreciation and Amortization Expenses – Depreciation expense was $146,032 in 2018, $136,302 in 2017, and $130,987 in 2016, and has increased principally as a result of the significant capital expenditures made to expand and improve our utility facilities, and our acquisitions of new utility systems.

Amortization expense was $641 in 2018, $422 in 2017, and $2,021 in 2016, and decreased in 2017 primarily due to the completion of the recovery of our costs associated with various rate filings. Expenses associated with filing rate cases are deferred and amortized over periods that generally range from one to three years.

Taxes Other than Income Taxes – Taxes other than income taxes totaled $59,762 in 2018, $56,628 in 2017, and $56,385 in 2016. The increase in 2018 was primarily due to an increase in property taxes of $1,659 primarily resulting from the prior year effect of the reversal of a reserve due to a favorable property tax appeal in Ohio, and an increase in gross receipts, excise and franchise taxes of $1,063. The increase in 2017 was primarily due to an increase in gross receipts, excise and franchise taxes of $949, and an increase in taxes assessed resulting from the pumping of ground water in Texas of $486 due to higher water production volume and rates, offset by a $978 decrease in property taxes primarily due to a favorable ruling on a property tax appeal in Ohio.

Interest Expense, net – Net interest expense was $98,902 in 2018, $88,341 in 2017, and $80,594 in 2016. Interest income of $152 in 2018, $202 in 2017, and $217 in 2016 was netted against interest expense. Net interest expense increased in 2018 due to an increase in average borrowings of $335,028 and an increase in short-term and long-term interest rates. Net interest expense increased in 2017 due to an increase in average borrowings of $157,768 and an increase in short-term and long-term interest rates. Interest income decreased in 2018 and 2017 due to lower investment rates. The weighted average cost of fixed rate long-term debt was 4.31% at December 31, 2018, 4.35% at December 31, 2017, and 4.26% at December 31, 2016. The weighted average cost of fixed and variable rate long-term debt was 4.23% at December 31, 2018, 4.29% at December 31, 2017, and 4.23% at December 31, 2016.

Allowance for Funds Used During Construction – The allowance for funds used during construction ("AFUDC") was $13,023 in 2018, $15,211 in 2017, and $8,815 in 2016, and varies as a result of changes in the average balance of utility plant construction work in progress, to which AFUDC is applied, changes in the AFUDC rate which is based predominantly on short-term interest rates, changes in the balance of short-debt, and changes in the amount of AFUDC related to equity. The decrease in 2018 is primarily due to a decrease in the AFUDC rate as a result of a decrease in the amount of AFUDC related to equity and a decrease in the average balance of utility plant construction work in progress, to which AFUDC is applied. The increase in 2017 is primarily due to an increase in the AFUDC rate as a result of an increase in the amount of AFUDC related to equity, and an increase in the average balance of utility plant construction work in progress, to which AFUDC is applied. The amount of AFUDC related to equity was $9,691 in 2018, $11,633 in 2017, and $6,561 in 2016.

Change in Fair Value of Interest Rate Swap Agreements – The change in fair value of interest rate swap agreements of $59,779 represents the mark-to-market adjustment of our interest rate swap agreements that were entered into on October 23, 2018 to mitigate interest rate risk associated with an anticipated $850,000 of future debt issuances to fund a portion of the Peoples Gas Acquisition. The interest rate swap agreements do not qualify for hedge accounting, and any changes in the fair value of the swaps are included in earnings.

Gain on Sale of Other Assets – Gain on sale of other assets totaled $714 in 2018, $484 in 2017, and $378 in 2016, and consists of the sales of property, plant and equipment and marketable securities.

Equity Earnings in Joint Venture – Equity earnings in joint venture totaled $2,081 in 2018, $331 in 2017, and $976 in 2016. The equity earnings in 2018 and 2017 primarily resulted from the sale of raw water to firms in the natural gas drilling industry. The equity earnings in 2016 resulted from the recognition of a connection fee earned by the joint venture in 2016 for which our share was $1,831, which did not recur in 2017 or 2018.

Other – Other totaled $1,996 in 2018, $4,953 in 2017, and $7,713 in 2016, and represents our net periodic pension and postretirement benefit costs and, commencing in 2018, the change in fair value of our equity investments in the non-qualified pension plan. The decrease in 2018 and 2017 is primarily due to a decrease in the non-service cost components of our net benefit cost for pension and postretirement benefits. On January 1, 2018 the Company adopted the FASB's updated accounting guidance on the presentation of net periodic pension and postretirement benefit cost and the FASB's updated accounting guidance on the recognition and measurement of financial assets and financial liabilities. Refer to

(In thousands of dollars, except per share amounts)

Note 1 – Summary of Significant Accounting Policies – Recent Accounting Pronouncements for further information on our adoption of these updates.

Income Taxes – Our effective income tax rate was (7.7)% in 2018, 6.6% in 2017, and 8.2% in 2016. The effective income tax rate for 2018, 2017, and 2016 was affected by the 2012 income tax accounting change for qualifying utility asset improvements at Aqua Pennsylvania which resulted in a $64,183, $84,766, and $78,530 net reduction to the Company's 2018, 2017, and 2016 Federal and state income tax expense, respectively. As of December 31, 2018, the Company has an unrecognized tax benefit related to the Company's change in its tax accounting method for qualifying utility asset improvement costs, of which up to $26,990 of these tax benefits would further reduce the Company's effective income tax rate in the event the Company does sustain all, or a portion, of its tax position in the period this information is determined. Offsetting this reduction was the effect of the revaluation, in 2017, of our deferred income tax assets and liabilities, triggered by the TCJA, which resulted in the recognition of additional income tax expense of $3,141 to the extent revalued deferred income taxes are not believed to be recoverable in utility customer rates. Additionally, the decrease in our income before income taxes of $78,333 for 2018, as compared to the prior year, which results primarily from the change in fair value of interest rate swap agreements and transaction expenses for our planned acquisition of Peoples discussed above resulted in a decrease in our effective income tax rate for 2018 as compared to the prior year.

Summary –

	Years ended December 31,		
	2018	2017	2016
Operating income	$ 323,178	$ 333,920	$ 333,298
Net income	191,988	239,738	234,182
Diluted net income per share	1.08	1.35	1.32

The changes in diluted net income per share in 2018 and 2017 over the previous years were due to the aforementioned changes.

While the importance to the future realization of improved profitability relies on continued adequate rate increases reflecting increased operating costs and new capital improvements, other factors such as transaction expenses for acquisitions will likely cause changes in operating income, net income and diluted net income per share.

Although we have experienced increased income in the recent past, continued adequate rate increases reflecting increased operating costs and new capital investments, are important to the future realization of improved profitability.

(In thousands of dollars, except per share amounts)

Fourth Quarter Results – The following table provides our fourth quarter results:

	Three Months Ended December 31,	
	2018	2017
Operating revenues	$ 205,747	$ 203,312
Operations and maintenance	92,393	78,004
Depreciation	35,995	34,794
Amortization	163	64
Taxes other than income taxes	14,402	12,238
	142,953	125,100
Operating income	62,794	78,212
Other expense (income):		
Interest expense, net	26,349	23,217
Allowance for funds used during construction	(4,513)	(4,641)
Change in fair value of interest rate swap agreements	59,779	-
Gain on sale of other assets	(116)	(162)
Equity (earnings) loss in joint venture	(573)	71
Other	631	1,239
(Loss) income before income taxes	(18,763)	58,488
Provision for income taxes (benefit)	(15,106)	5,015
Net (loss) income	$ (3,657)	$ 53,473

The increase in operating revenues of $2,435 was primarily due to:

- a net increase in water and wastewater rates and infrastructure rehabilitation surcharges of $4,660;
- additional revenues of $1,928 associated with a larger customer base due to utility acquisitions; and
- an increase in sewer revenues of $826 primarily due to an increase in the volume of treated wastewater flows from the City of Ft. Wayne, Indiana at our Indiana wastewater treatment plant;
- offset by a decrease in customer water consumption.

The increase in operations and maintenance expense of $14,389 was primarily due to:

- transaction expenses of $14,184 for our planned Peoples Gas Acquisition, primarily representing expenses associated with obtaining regulatory approvals, investment banking fees, legal expenses, and integration planning;
- the write-off of $3,284 of regulatory assets resulting from rate proceedings; and
- additional operating costs associated with acquired utility systems of $622;
- offset by a decrease in maintenance expenses of $1,762 due to the effect of work performed in the prior year for dredging, clearing, and disposal services performed at some of our Pennsylvania water treatment facilities.

Depreciation expense increased by $1,201 primarily due to the utility plant placed in service since December 31, 2017, offset by a decrease in the depreciation rates for our Illinois subsidiary due to a deprecation study that was performed.

The increase in other taxes of $2,164 is primarily due to an increase in property taxes of $1,724 primarily resulting from the prior year effect of the reversal of a reserve due to a favorable property tax appeal in Ohio, and an increase in gross receipts, excise and franchise taxes of $576, offset by a decrease in taxes assessed resulting from the pumping of ground water in Texas of $273 due to lower water production volume associated with unfavorable weather conditions.

(In thousands of dollars, except per share amounts)

Interest expense increased by $3,132 due to an increase in the average outstanding debt balance, offset by a decrease in our effective interest rate.

The change in fair value of interest rate swap agreements of $59,779 represents the mark-to-market of our interest rate swap agreements that were entered into on October 23, 2018 to mitigate interest rate risk associated with our future debt issuances to fund a portion of the Peoples Gas Acquisition. The interest rate swap agreements do not qualify for hedge accounting and any changes in the fair value of the swaps are included in earnings.

Equity (earnings) loss in joint venture totaled $(573) for the fourth quarter of 2018 and $71 for the fourth quarter of 2017. The increase in equity earnings of $644 is due to an increase in the sale of raw water to firms in the natural gas drilling industry.

Other decreased by $608 primarily due to a decrease in the non-service costs components of our net benefit cost for pension and postretirement benefits.

The provision for income taxes decreased by $20,121 primarily as a result of our loss in income before income taxes, and additional tax deductions recognized in the fourth quarter of 2018 for certain qualifying infrastructure improvements for Aqua Pennsylvania.

LIQUIDITY AND CAPITAL RESOURCES

Consolidated Cash Flow and Capital Expenditures

Net operating cash flows from continuing operations, dividends paid on common stock, capital expenditures used in continuing operations, including allowances for funds used during construction, and expenditures for acquiring water and wastewater systems for our continuing operations for the five years ended December 31, 2018 were as follows:

	Net Operating Cash Flows	Dividends	Capital Expenditures	Acquisitions
2014	$ 364,888	$ 112,106	$ 328,605	$ 14,616
2015	370,794	121,248	364,689	28,989
2016	396,163	130,923	382,996	9,423
2017	381,318	140,660	478,089	5,860
2018	368,522	150,736	495,737	145,693
	$ 1,881,685	$ 655,673	$ 2,050,116	$ 204,581

Net cash flows from operating activities decreased from 2017 to 2018 primarily due to a reduction in deferred income taxes and a change in working capital. Net income in 2018 was comparable to 2017, when excluding the after-tax effect of the change in the fair value of the interest rate swap agreements. Net cash flows from operating activities decreased from 2016 to 2017 due to an increase in pension and other postretirement benefits contributions, changes in deferred income taxes and an increase in the amount of AFUDC related to equity funds of $5,072 in 2017 compared to 2016. Net cash flows from operating activities increased from 2015 to 2016 primarily due to an increase in net income, a change in working capital, and a decrease in pension and other postretirement benefits contributions. Net cash flows from operating activities increased from 2014 to 2015 primarily due to a change in working capital.

Included in capital expenditures for the five-year period are: expenditures for the rehabilitation of existing water and wastewater systems, the expansion of our water and wastewater systems, modernization and replacement of existing treatment facilities, water meters, office facilities, information technology, vehicles, and equipment. During this five-year period, we received $34,001 of customer advances and contributions in aid of construction to finance new water mains and related facilities that are not included in the capital expenditures presented in the above table. In addition, during this period, we have made repayments of debt of $886,464 and have refunded $24,521 of customers' advances for construction. Dividends increased during the past five years as a result of annual increases in the dividends declared and paid and increases in the number of shares outstanding.

Our planned 2019 capital program, excluding the costs of new mains financed by advances and contributions in aid of construction, and excluding planned capital expenditures by Peoples after a mid-2019 closing, is estimated to be approximately $550,000 in infrastructure improvements for the communities we serve. The 2019 capital program is expected to include $231,800 for infrastructure rehabilitation surcharge qualified projects. On January 1, 2013, Aqua Pennsylvania reset its water infrastructure rehabilitation surcharge to zero resulting from the change in its tax method of accounting for qualifying utility asset improvements as described below. Although we were not eligible to use an infrastructure rehabilitation surcharge with our Aqua Pennsylvania water customers from January 1, 2013 to September 30, 2017, we were able to use the income tax savings derived from the qualifying utility asset improvements to maintain Aqua Pennsylvania's capital investment program. Our planned 2019 capital program in Pennsylvania is estimated to be approximately $323,000, a portion of which is expected to be eligible as a deduction for qualifying utility asset improvements for Federal income tax purposes. Our overall 2019 capital program, excluding the Peoples Gas Acquisition, along with $144,545 of debt repayments and $242,020 of other contractual cash obligations, as reported in the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations – *Contractual Obligations*", has been, or is expected to be, financed through internally-generated funds, our revolving credit facilities, and the issuance of long-term debt.

Future utility construction in the period 2020 through 2021, including recurring programs, such as the ongoing replacement or rehabilitation of water meters and water mains, water treatment plant upgrades, storage facility renovations, and additional transmission mains to meet customer demands, excluding the costs of new mains financed by advances and contributions in aid of construction, is estimated to require aggregate expenditures of approximately $883,000. We anticipate that approximately one-half of these expenditures will require external financing. We expect to refinance $131,319 of long-term debt during this period as they become due with new issues of long-term debt, internally-generated funds, and our revolving credit facilities. The estimates discussed above do not include any amounts for possible future acquisitions of water and wastewater systems or the financing necessary to support them.

Our primary sources of liquidity are cash flows from operations (including the allowed deferral of Federal income tax payments), borrowings under various short-term lines of credit and other credit facilities, and customer advances and contributions in aid of construction. Our cash flow from operations, or internally-generated funds, is impacted by the timing of rate relief, water consumption, and changes in Federal tax laws with respect to the reduction in the corporate income tax rate, and accelerated tax depreciation or deductions for utility construction projects. We fund our capital and typical acquisitions through internally-generated funds, supplemented by short-term lines of credit. Over time, we partially repay or pay-down our short-term lines of credit with long-term debt. We expect to finance the Peoples Gas Acquisition purchase price, and to refinance certain debt of the Company, with a mix of common equity, equity-linked securities, and debt financing, which could include senior notes issued in capital markets transactions, term loans or other credit facilities or any combination thereof. On October 22, 2018, we obtained a commitment (the "Bridge Commitment") from certain banks to provide senior unsecured bridge loans, which backstops the Peoples Gas Acquisition purchase price, and the refinancing of certain debt of the Company. See "Acquisitions" for a discussion of the Bridge Commitment. The ability to finance our future construction programs, as well as our acquisition activities, depends on our ability to attract the necessary external financing and maintain internally-generated funds. Timely rate orders permitting compensatory rates of return on invested capital will be required by our operating subsidiaries to achieve an adequate level of earnings and cash flow to enable them to secure the capital they will need to operate and to maintain satisfactory debt coverage ratios.

Acquisitions

Pursuant to the Company's growth strategy, on October 22, 2018, the Company entered into a purchase agreement to acquire, from LDC Funding LLC, the parent company of PNG Companies, a natural gas distribution company headquartered in Pittsburgh, Pennsylvania, serving approximately 740,000 gas utility customers in western Pennsylvania, West Virginia, and Kentucky. At the closing of the Peoples Gas Acquisition, the Company will pay $4,275,000 in cash, subject to adjustments for working capital, certain capital expenditures, transaction expenses and closing indebtedness as set forth in the acquisition agreement. The Company expects to assume approximately $1,300,000 of Peoples' indebtedness upon closing of the Peoples Gas Acquisition, which would reduce the cash purchase price by approximately $1,300,000. The Company expects to finance this acquisition with a mix of common equity, equity-linked securities, and debt financing, which could include senior notes issued in capital markets transactions, term loans or other credit facilities or any combination thereof. On October 22, 2018, the Company obtained the Bridge Commitment from certain banks to provide senior unsecured bridge loans in an aggregate amount of up to $5,100,000 to, among other things, backstop the Peoples Gas Acquisition purchase price and the refinancing of certain debt of the Company and of Peoples. As of December 31, 2018, we had terminated approximately $1,633,000 of commitments under the Bridge Commitment in connection with, among other things, the replacement of our unsecured revolving credit facility and the expected maintenance of certain Peoples' indebtedness. The obligations of the lenders to fund the remaining amount under the Bridge Commitment are subject to the satisfaction of customary closing conditions. On October 23, 2018, the Company entered into interest rate swap agreements to mitigate interest rate risk associated with our planned issuance of long-term debt to fund a portion of the Peoples Gas Acquisition. The interest rate swaps will be settled upon issuance of the debt to be used to finance a portion of the purchase price of this acquisition. The interest rate swap agreements do not qualify for hedge accounting and any changes in the fair value of the swaps is included in our earnings. The Peoples Gas Acquisition is subject to regulatory approvals, including by the public utility commissions in Pennsylvania, Kentucky, and West Virginia, and other customary closing conditions set forth in the acquisition agreement. This acquisition is expected to close in mid-2019, once regulatory approvals are obtained, and it is anticipated that this transaction will result in the recording of goodwill. The acquisition agreement may be terminated at any time prior to the closing of the Peoples Gas Acquisition by mutual written consent of the Company and Seller, or by either party in the event the acquisition is not completed by October 22, 2019, subject to extension to April 22, 2020 to obtain necessary regulatory approvals, and in other customary circumstances. In the event that this acquisition is terminated due to certain breaches by the Company, a fee of $120,000 would be payable to the Seller as liquidated damages.

During the past five years, we have expended cash of $204,581 and issued 439,943 shares of common stock, valued at $12,845 at the time of acquisition, related to the acquisition of both water and wastewater utility systems.

In July 2018, the Company acquired the wastewater utility system assets of Limerick Township, Pennsylvania which serves 5,497 customers. The total cash purchase price for the utility system was $74,836. The purchase price allocation for this acquisition consisted primarily of acquired property, plant and equipment of $64,759 and goodwill of $10,790. Additionally, during 2018, we completed seven acquisitions of water and wastewater utility systems for $42,519 in cash in three of the states in which we operate, adding 8,661 customers. Further, in December 2018, the Company acquired the Valley Creek Trunk Sewer System, serving area municipalities in Pennsylvania, from the Tredyffrin Township Municipal Authority for $28,300. The system receives untreated wastewater from area municipalities, which is conveyed to the Valley Forge Treatment Plan. The system consists of 49,000 linear feet of gravity sewers, pump stations, and force mains.

In November 2018, the Company entered into a purchase agreement to acquire the wastewater utility system assets of East Norriton Township, Pennsylvania, which serves approximately 4,950 customers for $21,000. The purchase price for this pending acquisition is subject to certain adjustments at closing, and is subject to regulatory approval, including the final determination of the fair value of the rate base acquired.

In July 2018, the Company entered into a purchase agreement to acquire the wastewater utility system assets of Cheltenham Township, Pennsylvania, which serves approximately 10,500 customers for $50,250. The purchase price for this pending acquisition is subject to certain adjustments at closing, and is subject to regulatory approval, including the final determination of the fair value of the rate base acquired.

In addition to the Company's pending acquisitions in East Norriton and Cheltenham Townships, Pennsylvania, as part of the Company's growth-through-acquisition strategy, the Company has entered into purchase agreements to acquire the water or wastewater utility system assets of four municipalities for a total combined purchase price in cash of $38,950. The purchase price for these pending acquisitions is subject to certain adjustments at closing, and the pending acquisitions are subject to regulatory approvals, including the final determination of the fair value of the rate base acquired. Closings for these acquisitions are expected to occur by the end of 2019, which is subject to the timing of the regulatory approval process. These acquisitions are expected to add approximately 4,000 customers in two of the states in which the Company operates. We intend to fund these pending acquisitions by the issuance of long-term debt.

In 2017, we completed four acquisitions of water and wastewater utility systems for $5,860 in cash in two of the states in which we operate, adding 1,003 customers.

In January 2016, we acquired the water utility system assets of Superior Water Company, Inc., which provided public water service to 4,108 customers in portions of Berks, Chester, and Montgomery counties in Pennsylvania. The total purchase price for the utility system was $16,750, which consisted of the issuance of 439,943 shares of the Company's common stock and $3,905 in cash. Additionally, during 2016, we completed 18 acquisitions of water and wastewater utility systems for $5,518 in cash in eight of the states in which we operate, adding 2,469 customers.

In April 2015, we acquired the water and wastewater utility system assets of North Maine Utilities, located in the Village of Glenview, Illinois serving 7,409 customers. The total purchase price consisted of $23,079 in cash. Additionally, during 2015, we completed 14 acquisitions of water and wastewater utility systems for $5,210 in cash in six of the states in which we operate, adding 3,170 customers.

During 2014, we completed 16 acquisitions of water and wastewater utility systems for $10,530 in cash in seven of the states in which we operate, adding 6,148 customers. Further, in 2014, we acquired two market-based businesses that specialized in inspecting, cleaning and repairing storm and sanitary sewer lines, as well as providing water distribution system services and training to waterworks operators. The total purchase price in aggregate was $4,810 and both these businesses were subsequently sold in November 2016 and January 2017.

We continue to pursue the acquisition of water and wastewater utility systems and explore other utility acquisitions that may be in a new state. Our typical acquisitions are expected to be financed with short-term debt with subsequent repayment from the proceeds of long-term debt, retained earnings, or equity issuances.

Joint Venture

Aqua Infrastructure, LLC is a partner in a joint venture with a firm that operates natural gas pipelines and processing plants for the operation of a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale in north-central Pennsylvania (the "Joint Venture"). We own 49% of the Joint Venture. The 56 mile pipeline construction and permitted intake on the Susquehanna River cost $109,000. As of December 31, 2018, our capital contributions since inception in 2011 totaled $53,643 in cash. This investment has been financed through the issuance of long-term debt. Our 49% investment in the Joint Venture is an unconsolidated affiliate and is accounted for under the equity method of accounting. Our initial investment is carried at cost. Subsequently, the carrying amount of our investment is adjusted to reflect capital contributions or distributions, our equity in earnings and losses since the commencement of the system's operations, and a decline in the fair value of our investment. In 2015, an impairment charge was recognized by the joint venture on its long-lived assets, of which the Company's share totaled $32,975 ($21,433 after-tax), representing our share of the noncash impairment charge as further described in Note 1 – *Summary of Significant Accounting Policies – Investment in Joint Venture* in this Annual Report.

Dispositions

We routinely review and evaluate areas of our business and operating divisions and, over time, may sell utility systems or portions of systems. In 2017, the Company sold two business units within Aqua Resources, which resulted in total proceeds of $867, and recognized a net loss of $324. In 2016, the Company sold two business units within Aqua Resources, which resulted in total proceeds of $4,459, and recognized a net loss of $543.

In December 2014, we completed the sale of our water utility system in southwest Allen County Indiana to the City of Fort Wayne, Indiana for $67,011, which is comprised of $50,100 in addition to $16,911 the city initially paid the Company towards its water and wastewater system assets in the northern part of Fort Wayne in 2008. We recognized a gain on sale of $29,210 ($17,611 after-tax) in 2014. In addition, as a result of this transaction, Aqua Indiana expanded its sewer customer base by accepting new wastewater flows from the City. Additionally, in March 2014, we completed the sale of our wastewater treatment facility in Georgia.

Despite these transactions, one of our primary strategies continues to be to acquire additional utility systems, to maintain our existing systems where there is a strategic business benefit, and to actively oppose unilateral efforts by municipal governments to acquire any of our operations.

Sources of Capital

Since net operating cash flow plus advances and contributions in aid of construction have not been sufficient to fully fund our cash requirements including capital expenditures and our growth through acquisitions program, we issued $2,089,206 of long-term debt and obtained other short-term borrowings during the past five years. At December 31, 2018, we have a $550,000 long-term revolving credit facility that expires in December 2023, of which $20,825 was designated for letter of credit usage, $159,175 was available for borrowing, and $370,000 of borrowings were outstanding at December 31, 2018. Additionally, the facility expands by $150,000 of capacity upon closing of the Peoples Gas Acquisition, which amount will be available to repay certain outstanding indebtedness and fees to close an existing credit facility of Peoples and for general corporate purposes. Further, the Company may request to expand the facility by an additional amount of up to $300,000 upon the closing of the Peoples Gas Acquisition. In addition, we have short-term lines of credit of $135,500, of which $120,051 was available as of December 31, 2018. These short-term lines of credit are subject to renewal on an annual basis. Although we believe we will be able to renew these facilities, there is no assurance that they will be renewed, or what the terms of any such renewal will be.

In October 2018, we entered into a $5,100,000 syndicated, committed bridge facility to support our agreement to acquire Peoples. Subsequently, $1,633,000 has been terminated as no longer required, and we expect to terminate portions of the bridge facility as a result of equity and debt issuances, including equity-linked financings, are entered into to fund our acquisition. The bridge facility expires the earlier of closing of the acquisition or October 2019.

We expect to finance our pending acquisition of Peoples and refinance certain debt with a mix of common equity, mandatory convertible equity units, debt financing, which could include senior notes issued in capital markets transactions, term loans or other credit facilities or any combination thereof. The purchase price for this acquisition is $4,275,000, which will be reduced by the amount of outstanding indebtedness at closing, which is estimated to be approximately $1,300,000.

Our consolidated balance sheet historically has had a negative working capital position, whereby routinely our current liabilities exceed our current assets. Management believes that internally-generated funds along with existing credit facilities and the proceeds from the issuance of long-term debt will be adequate to provide sufficient working capital to maintain normal operations and to meet our financing requirements for at least the next twelve months.

Our loan and debt agreements require us to comply with certain financial covenants, which among other things, subject to specific exceptions, limit the Company's ratio of consolidated total indebtedness to consolidated total capitalization, and require a minimum level of earnings coverage over interest expense. During 2018, we were in compliance with our debt covenants under our credit facilities. Failure to comply with our debt covenants could result in an event of default, which could result in us being required to repay or refinance our borrowings before their due date, possibly limiting our future borrowings, and increasing our borrowing costs.

The Company has a universal "pay as you go" shelf registration statement, filed with the SEC in February 2018, which allows for the potential future offer and sale by us, from time to time, in one or more public offerings, of an indeterminate amount of our common stock, preferred stock, debt securities, and other securities specified therein at indeterminate prices. The Company has not issued any securities to date under this universal shelf registration statement.

In addition, we have an acquisition shelf registration statement, which was filed with the SEC on February 27, 2015, to permit the offering from time to time of an aggregate of $500,000 of our common stock and shares of preferred stock in connection with acquisitions. During 2016, we issued 439,943 shares of common stock totaling $12,845 to acquire a water system. The balance remaining available for use under the acquisition shelf registration as of December 31, 2018 is $487,155.

We will determine the form and terms of any securities issued under the universal shelf registration statement and the acquisition shelf registration statement at the time of issuance.

We offer a Dividend Reinvestment and Direct Stock Purchase Plan (the "Plan") that provides a convenient and economical way to purchase shares of the Company. Under the direct stock purchase portion of the Plan, shares are issued throughout the year. The dividend reinvestment portion of the Plan offers a five percent discount on the purchase of shares of common stock with reinvested dividends. As of the December 2018 dividend payment, holders of 9.4% of the common shares outstanding participated in the dividend reinvestment portion of the Plan. The shares issued under the Plan are either original issue shares or shares purchased by the Company's transfer agent in the open-market. During the past five years, we have sold 277,099 original issue shares of common stock for net proceeds of $8,681 through the dividend reinvestment portion of the Plan, and we used the proceeds to invest in our operating subsidiaries, to repay short-term debt, and for general corporate purposes. In 2018, 2017, and 2016, 321,585, 447,753, and 484,645 shares of common stock were purchased under the dividend reinvestment portion of the Plan by the Company's transfer agent in the open-market for $11,343, $15,168, and $14,916, respectively.

The Company's Board of Directors had authorized us to repurchase our common stock, from time to time, in the open market or through privately negotiated transactions. In 2014, we repurchased 560,000 shares of our common stock in the open market for $13,280. In December 2014, the Company's Board of Directors authorized a share buyback program of up to 1,000,000 shares to minimize share dilution through timely and orderly share repurchases. In December 2015, the Company's Board of Directors added 400,000 shares to this program. In 2015, we repurchased 805,000 shares of our common stock in the open market for $20,502. In 2016, we did not repurchase any shares of our common stock in the open market under this program. This program expired on December 31, 2016.

Off-Balance Sheet Financing Arrangements

We do not engage in any off-balance sheet financing arrangements. We do not have any interest in entities referred to as variable interest entities, which includes special purpose entities and other structured finance entities. For risk management purposes, the Company uses interest rate swap agreements. Refer to *Note 10 – Long-term Debt and Loans Payable* for further information regarding these agreements.

(In thousands of dollars, except per share amounts)

Contractual Obligations

The following table summarizes our contractual cash obligations as of December 31, 2018:

		Payments Due By Period			
	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Long-term debt	$ 2,563,660	$ 144,545	$ 131,319	$ 423,010	$ 1,864,786
Interest on fixed-rate, long-term debt (1)	1,305,866	84,428	138,371	126,252	956,815
Operating leases (2)	23,584	2,224	3,123	2,067	16,170
Unconditional purchase obligations (3)	32,191	5,506	9,811	8,802	8,072
Other purchase obligations (4)	140,634	140,634	-	-	-
Pension plan obligation (5)	8,222	8,222	-	-	-
Other obligations (6)	10,824	1,006	2,074	2,147	5,597
Total	$ 4,084,981	$ 386,565	$ 284,698	$ 562,278	$ 2,851,440

(1) Represents interest payable on fixed rate, long-term debt. Amounts reported may differ from actual due to future refinancing of debt.

(2) Represents operating leases that are noncancelable, before expiration, for the lease of motor vehicles, buildings, land and other equipment.

(3) Represents our commitment to purchase minimum quantities of water as stipulated in agreements with other water purveyors. We use purchased water to supplement our water supply, particularly during periods of peak customer demand. Our actual purchases may exceed the minimum required levels.

(4) Represents an approximation of the open purchase orders for goods and services purchased in the ordinary course of business.

(5) Represents contributions to be made to pension plan.

(6) Represents expenditures estimated to be required under legal and binding contractual obligations.

In addition to these obligations, we pay refunds on customers' advances for construction over a specific period of time based on operating revenues related to developer-installed water mains or as new customers are connected to and take service from such mains. After all refunds are paid, any remaining balance is transferred to contributions in aid of construction. The refund amounts are not included in the above table because the refund amounts and timing are dependent upon several variables, including new customer connections, customer consumption levels and future rate increases, which cannot be accurately estimated. Portions of these refund amounts are payable annually through 2028 and amounts not paid by the contract expiration dates become non-refundable.

Additionally, excluded from the table above, are the Company's interest rate swap agreements to mitigate interest rate risk associated with an anticipated $850,000 of future debt issuances to fund a portion of the Peoples Gas Acquisition and refinance a portion of the Company's borrowings. The interest rate swaps will be settled upon issuance of the debt to be used to finance a portion of the purchase price of this acquisition. The interest rate swap agreements do not qualify for hedge accounting and any changes in the fair value of the swaps is included in our earnings. In 2018, we recognized a mark-to-market adjustment liability of $59,779 for our interest rate swap agreements.

Lastly, in addition to the obligations disclosed in the contractual obligations table above, we have uncertain tax positions of $17,792. Although we believe our tax positions comply with applicable law, we have made judgments as to the sustainability of each uncertain tax position based on its technical merits. Due to the uncertainty of future cash outflows, if any, associated with our uncertain tax positions, we are unable to make a reasonable estimate of the timing or amounts that may be paid. See Note 7 – *Income Taxes* in this Annual Report for further information on our uncertain tax positions.

(In thousands of dollars, except per share amounts)

We will fund these contractual obligations with cash flows from operations and liquidity sources held by or available to us.

The Company is routinely involved in legal matters, including both asserted and unasserted legal claims, during the ordinary course of business. See Note 9 – *Commitments and Contingencies* in this Annual Report for a discussion of the Company's legal matters. It is not always possible for management to make a meaningful estimate of the potential loss or range of loss associated with such litigation. Also, unanticipated changes in circumstances and/or revisions to the assessed probability of the outcomes of legal matters could result in expenses being incurred in future periods as well as an increase in actual cash required to resolve the legal matter.

Capitalization

The following table summarizes our capitalization during the past five years:

December 31,	2018	2017	2016	2015	2014
Long-term debt (1)	56.1%	52.3%	50.8%	50.8%	49.4%
Aqua America stockholders' equity	43.9%	47.7%	49.2%	49.2%	50.6%
	100.0%	100.0%	100.0%	100.0%	100.0%

(1) Includes current portion, as well as our borrowings under a variable rate revolving credit agreement of $370,000 at December 31, 2018, $60,000 at December 31, 2017, $25,000 at December 31, 2016, $60,000 at December 31, 2015, and $72,000 at December 31, 2014.

Over the past five years, the changes in the capitalization ratios primarily resulted from the issuance of debt to finance our acquisitions and capital program, changes in net income, the issuance of common stock, and the declaration of dividends.

INCOME TAX MATTERS

Tax Cuts and Jobs Act of 2017

On December 22, 2017, President Trump signed the TCJA into law. Substantially all of the provisions of the TCJA are effective for tax years beginning after December 31, 2017, except as noted below. The TCJA includes significant changes to the Code and the taxation of business entities, and includes specific provisions related to regulated public utilities. Significant changes include a reduction in the corporate federal income tax rate from 35% to 21%, and a limitation on the utilization of NOLs arising after December 31, 2017 to 80% of taxable income with an indefinite carryforward. The specific provisions related to regulated public utilities in the TCJA generally allow for the continued deductibility of interest expense, the elimination of full expensing for tax purposes of certain property acquired after September 27, 2017 and the continuation of certain rate normalization requirements for accelerated depreciation benefits. Our market-based companies still qualify for 100% deductibility of qualifying property acquired after September 27, 2017.

The Company's regulated operations accounting for income taxes are impacted by the FASB's accounting guidance for regulated operations. Reductions in accumulated deferred income tax balances due to the reduction in the corporate income tax rates to 21% under the provisions of the TCJA results in amounts previously collected from utility customers for these deferred taxes to be refundable to such customers, generally through reductions in future rates. The TCJA includes provisions that stipulate how these excess deferred taxes are to be passed back to customers for certain accelerated tax depreciation benefits. Potential refunds of other deferred taxes will be determined by our state regulators. The Company has reserved $4,593 for amounts expected to be refundable to utility customers. In 2018, Illinois, Virginia, Texas, New Jersey, and two operating divisions in Ohio which operate under locally-negotiated contractual rates with their respective counties, the Company's base rates have been adjusted or surcredits have been added to customer bills to reflect the lower corporate income tax rate. In North Carolina, Indiana, and our regulated operations in Ohio, no surcredits have been added to customer bills to reflect the lower corporate income tax rate in 2018. These adjustments will be reflected in customer bills beginning January 1, 2019. In Pennsylvania, no procedural order has been received in 2018 but is expected to be received in 2019. In addition, through a reduction in base rates or surcredits, the Company has refunded approximately $9,600 to utility customers during 2018. The December 31, 2017 consolidated balance sheet reflects the impact of the TCJA on our regulatory assets and liabilities, which reduced our regulatory assets by $357,262 and increased our regulatory liabilities by $303,320. These adjustments had no impact on our 2017 cash flows.

As of December 31, 2017, resulting from the TCJA enactment, our deferred income tax assets and liabilities were revalued based upon the new corporate income tax rate of 21%. The revaluation of our deferred income tax assets and liabilities resulted in the recognition of additional income tax expense of $3,141 in 2017 to the extent revalued deferred income taxes are not believed to be recoverable in utility customer rates.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our financial condition and results of operations are impacted by the methods, assumptions, and estimates used in the application of critical accounting policies. The following accounting policies are particularly important to our financial condition or results of operations and require estimates or other judgments of matters of uncertainty. Changes in the estimates or other judgments included within these accounting policies could result in a significant change to the financial statements. We believe our most critical accounting policies include revenue recognition, the use of regulatory assets and liabilities, the valuation of our long-lived assets (which consist primarily of utility plant in service, regulatory assets, and goodwill) our accounting for post-retirement benefits, and our accounting for income taxes. We have discussed the selection and development of our critical accounting policies and estimates with the Audit Committee of the Board of Directors.

Revenue Recognition — Our utility revenues recognized in an accounting period include amounts billed to customers on a cycle basis and unbilled amounts based on estimated usage from the last billing to the end of the accounting period. The estimated usage is based on our judgment and assumptions; our actual results could differ from these estimates, which would result in operating revenues being adjusted in the period that the revision to our estimates is determined.
In Virginia, we commence the billing of our utility customers, under new rates, upon authorization from the respective utility commission and before the final commission rate order is issued. The revenue recognized reflects an estimate based on our judgment of the final outcome of the commission's ruling. We monitor the applicable facts and circumstances regularly and revise the estimate as required. The revenue billed and collected prior to the final ruling is subject to refund based on the commission's final ruling.

Regulatory Assets and Liabilities — We defer costs and credits on the balance sheet as regulatory assets and liabilities when it is probable that these costs and credits will be recognized in the rate-making process in a period different from when the costs and credits were incurred. These deferred amounts, both assets and liabilities, are then recognized in the income statement in the same period that they are reflected in our rates charged for water or wastewater service. In the event that our assessment as to the probability of the inclusion in the rate-making process is incorrect, the associated regulatory asset or liability would be adjusted to reflect the change in our assessment or change in regulatory approval.

Valuation of Long-Lived Assets, Goodwill and Intangible Assets — We review our long-lived assets for impairment, including utility plant in service and investment in joint venture. We also review regulatory assets for the continued application of the Financial Accounting Standards Board's ("FASB") accounting guidance for regulated operations. Our review determines whether there have been changes in circumstances or events, such as regulatory disallowances, or abandonments, that have occurred that require adjustments to the carrying value of these assets. Adjustments to the carrying value of these assets would be made in instances where their inclusion in the rate-making process is unlikely.
For utility plant in service, we would recognize an impairment loss for any amount disallowed by the respective utility commission. For our equity method investment in joint venture, the Company evaluates whether it has experienced a decline in the value of its investment that is other than temporary in nature. We would recognize an impairment loss if the fair value of our investment is less than the carrying amount of the investment, and the decline in value is considered other than temporary. Additionally, the Company would recognize its share of an impairment loss if the joint venture determines that the carrying amount of the joint venture's assets exceeds the sum of the joint venture's undiscounted estimated cash flows.

Our long-lived assets, which consist primarily of utility plant in service, regulatory assets and investment in joint venture, are reviewed for impairment when changes in circumstances or events occur. These circumstances or events could include a decline in the market value or physical condition of a long-lived asset, an adverse change in the manner in which long-lived assets are used or planned to be used, a change in historical trends, operating cash flows associated with the long-lived assets, changes in macroeconomic conditions, industry and market conditions, or overall financial performance. When these circumstances or events occur, we determine whether it is more likely than not that the fair value of those assets is less than their carrying amount. If we determine that it is more likely than not (that is, the likelihood of more than 50 percent), we would recognize an impairment charge if it is determined that the carrying amount of an asset exceeds the sum of the undiscounted estimated cash flows. In this circumstance, we would recognize an impairment charge equal to the difference between the carrying amount and the fair value of the asset. Fair value is estimated to be the present value of future net cash flows associated with the asset, discounted using a discount rate commensurate with the risk and remaining life of the asset. This assessment requires significant management judgment and estimates that are based on budgets, general strategic business plans, historical trends and other data and relevant factors. These estimates include significant inherent uncertainties, since they involve forecasting future events. If changes in circumstances or events occur, or estimates and assumptions that were used in this review are changed, we may be required to record an impairment charge on our long-lived assets.

We have an investment in a joint venture, for which we own 49%, and use the equity method of accounting to account for this joint venture. The joint venture operates a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale in north central Pennsylvania. Refer to Note 1 – *Summary of Significant Accounting Policies – Property, Plant and Equipment and Depreciation*, and *Investment in Joint Venture* in this Annual Report for additional information regarding the review of long-lived assets for impairment.

We test the goodwill attributable for each of our reporting units for impairment at least annually on July 31, or more often, if circumstances indicate a possible impairment may exist. When testing goodwill for impairment, we may assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, and entity specific events, for some or all of our reporting units to determine whether it's more likely than not that the fair value of a reporting unit is less than its carrying amount. Alternatively, based on our assessment of the qualitative factors previously noted, we may perform a quantitative goodwill impairment test by determining the fair value of a reporting unit based on a discounted cash flow analysis. If we perform a quantitative test and determine that the fair value of a reporting unit is less than its carrying amount, we would record an impairment loss for the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. The assessment requires significant management judgment and estimates that are based on budgets, general strategic business plans, historical trends and other data and relevant factors. If changes in circumstances or events occur, or estimates and assumptions that were used in our impairment test change, we may be required to record an impairment charge for goodwill. Refer to Note 1 – *Summary of Significant Accounting Policies – Goodwill* in this Annual Report for information regarding the results of our annual impairment test.

Accounting for Post-Retirement Benefits **─** We maintain a qualified and a non-qualified defined benefit pension plan and plans that provide for post-retirement benefits other than pensions. Accounting for pension and other post-retirement benefits requires an extensive use of assumptions about the discount rate, expected return on plan assets, the rate of future compensation increases received by our employees, mortality, turnover and medical costs. Each assumption is reviewed annually with assistance from our actuarial consultant, who provides guidance in establishing the assumptions. The assumptions are selected to represent the average expected experience over time and may differ in any one year from actual experience due to changes in capital markets and the overall economy. These differences will impact the amount of pension and other post-retirement benefits expense that we recognize.

Our discount rate assumption, which is used to calculate the present value of the projected benefit payments of our post-retirement benefits, was determined by selecting a hypothetical portfolio of high quality corporate bonds appropriate to match the projected benefit payments of the plans. The selected bond portfolio was derived from a universe of Aa-graded corporate bonds, all of which were noncallable (or callable with make-whole provisions) and have at least $50,000 in outstanding value. The discount rate was then developed as the rate that equates the market value of the bonds purchased to the discounted value of the projected benefit payments of the plans. A decrease in the discount rate would increase our post-retirement benefits expense and benefit obligation. After reviewing the hypothetical portfolio of bonds, we selected a discount rate of 4.30% for our pension plan and 4.34% for our other post-retirement benefit plans as of December 31, 2018, which represent a 64 and 61 basis-point increase as compared to the discount rates selected at December 31, 2017, respectively. Our post-retirement benefits expense under these plans is determined using the discount rate as of the beginning of the year, which was 3.66% for our pension plan and 3.73% for our other-postretirement benefit plans for 2018, and will be 4.30% for our pension plan and 4.34% for our other post-retirement benefit plans for 2019.

Our expected return on plan assets is determined by evaluating the asset class return expectations with our advisors as well as actual, long-term, historical results of our asset returns. The Company's market-related value of plan assets is equal to the fair value of the plans' assets as of the last day of its fiscal year and is a determinant for the expected return on plan assets, which is a component of post-retirement benefits expense. The allocation of our plans' assets impacts our expected return on plan assets. The expected return on plan assets is based on a targeted allocation of 50% to 70% return seeking assets and 30% to 50% liability hedging assets. Our post-retirement benefits expense increases as the expected return on plan assets decreases. We believe that our actual long-term asset allocations on average will approximate our targeted allocations. Our targeted allocations are driven by our investment strategy to earn a reasonable rate of return while maintaining risk at acceptable levels through the diversification of investments across and within various asset categories. For 2018, we used a 6.75% expected return on plan assets assumption which will decrease to 6.50% for 2019.

Funding requirements for qualified defined benefit pension plans are determined by government regulations and not by accounting pronouncements. In accordance with funding rules and our funding policy, during 2019 our pension contribution is expected to be $8,222. Future years' contributions will be subject to economic conditions, plan participant data and the funding rules in effect at such time as the funding calculations are performed, though we expect future changes in the amount of contributions and expense recognized to be generally included in customer rates.

Accounting for Income Taxes ─ We estimate the amount of income tax payable or refundable for the current year and the deferred income tax liabilities and assets that results from estimating temporary differences resulting from the treatment of specific items, such as depreciation, for tax and financial statement reporting. Generally, these differences result in the recognition of a deferred tax asset or liability on our consolidated balance sheet and require us to make judgments regarding the probability of the ultimate tax impact of the various transactions we enter into. Based on these judgments, we may record tax reserves or adjustments to valuation allowances on deferred tax assets to reflect the expected realization of future tax benefits. Actual income taxes could vary from these estimates and changes in these estimates can increase income tax expense in the period that these changes in estimates occur.

Our determination of what qualifies as a capital cost versus a tax deduction, for qualifying utility asset improvements, as it relates to our income tax accounting method change beginning in 2012, is subject to subsequent adjustment as well as IRS audits, changes in income tax laws, including regulations regarding tax-basis depreciation as it applies to our capital expenditures, or qualifying utility asset improvements, the expiration of a statute of limitations, or other unforeseen matters could impact the tax benefits that have already been recognized. We establish reserves for uncertain tax positions based upon management's judgment as to the sustainability of these positions. These accounting estimates related to the uncertain tax position reserve require judgments to be made as to the sustainability of each uncertain tax position based on its technical merits. We believe our tax positions comply with applicable law and that we have adequately recorded reserves as required. However, to the extent the final tax outcome of these matters is different than our estimates recorded, we would then need to adjust our tax reserves which could result in additional income tax expense or benefits in the period that this information is known.

IMPACT OF RECENT ACCOUNTING PRONOUNCEMENTS

We describe the impact of recent accounting pronouncements in Note 1 – *Summary of Significant Accounting Policies* in this Annual Report.

AQUA AMERICA, INC. AND SUBSIDIARIES
Management's Report On Internal Control Over Financial Reporting

Management of Aqua America, Inc. (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. The Company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In assessing the effectiveness of internal control over financial reporting, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework* (2013). As a result of management's assessment and based on the criteria in the framework, management has concluded that, as of December 31, 2018, the Company's internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Christopher H. Franklin	Daniel J. Schuller
Chairman, President and Chief Executive Officer	*Executive Vice President and Chief Financial Officer*

February 26, 2019

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Aqua America, Inc.:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets and statements of capitalization of Aqua America, Inc. and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of net income, comprehensive income, equity, and cash flows for each of the three years in the period ended December 31, 2018, including the related notes and schedule of condensed parent company financial statements (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
February 26, 2019

We have served as the Company's auditor since 2000.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands of dollars, except per share amounts)

	December 31, 2018	December 31, 2017
Assets		
Property, plant and equipment, at cost	$ 7,648,469	$ 7,003,993
Less: accumulated depreciation	1,718,143	1,604,133
Net property, plant and equipment	5,930,326	5,399,860
Current assets:		
Cash and cash equivalents	3,627	4,204
Accounts receivable and unbilled revenues, net	101,225	98,596
Inventory, materials and supplies	15,844	14,361
Prepayments and other current assets	23,337	12,542
Assets held for sale	3,139	1,543
Total current assets	147,172	131,246
Regulatory assets	788,076	713,971
Deferred charges and other assets, net	39,237	38,485
Investment in joint venture	6,959	6,671
Goodwill	52,726	42,230
Total assets	$ 6,964,496	$ 6,332,463
Liabilities and Equity		
Aqua America stockholders' equity:		
Common stock at $.50 par value, authorized 300,000,000 shares, issued 181,151,827 and 180,700,251 in 2018 and 2017	$ 90,576	$ 90,350
Capital in excess of par value	820,378	807,135
Retained earnings	1,174,245	1,132,556
Treasury stock, at cost, 3,060,206 and 2,986,308 shares in 2018 and 2017	(75,835)	(73,280)
Accumulated other comprehensive income	-	860
Total stockholders' equity	2,009,364	1,957,621
Long-term debt, excluding current portion	2,419,115	2,029,358
Less: debt issuance costs	20,651	21,605
Long-term debt, excluding current portion, net of debt issuance costs	2,398,464	2,007,753
Commitments and contingencies (See Note 9)		
Current liabilities:		
Current portion of long-term debt	144,545	113,769
Loans payable	15,449	3,650
Accounts payable	77,331	59,165
Book overdraft	8,950	21,629
Accrued interest	23,300	21,359
Accrued taxes	22,234	23,764
Interest rate swap agreements	59,779	-
Other accrued liabilities	47,389	41,152
Total current liabilities	398,977	284,488
Deferred credits and other liabilities:		
Deferred income taxes and investment tax credits	845,403	769,073
Customers' advances for construction	93,343	93,186
Regulatory liabilities	531,027	541,910
Other	97,182	107,341
Total deferred credits and other liabilities	1,566,955	1,511,510
Contributions in aid of construction	590,736	571,091
Total liabilities and equity	$ 6,964,496	$ 6,332,463

See accompanying notes to consolidated financial statements.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF NET INCOME

(In thousands, except per share amounts)

	Years ended December 31,		
	2018	2017	2016
Operating revenues	$ 838,091	$ 809,525	$ 819,875
Operating expenses:			
Operations and maintenance	308,478	282,253	297,184
Depreciation	146,032	136,302	130,987
Amortization	641	422	2,021
Taxes other than income taxes	59,762	56,628	56,385
Total operating expenses	514,913	475,605	486,577
Operating income	323,178	333,920	333,298
Other expense (income):			
Interest expense, net	98,902	88,341	80,594
Allowance for funds used during construction	(13,023)	(15,211)	(8,815)
Change in fair value of interest rate swap agreements	59,779	-	-
Gain on sale of other assets	(714)	(484)	(378)
Equity earnings in joint venture	(2,081)	(331)	(976)
Other	1,996	4,953	7,713
Income before income taxes	178,319	256,652	255,160
Provision for income taxes (benefit)	(13,669)	16,914	20,978
Net income	$ 191,988	$ 239,738	$ 234,182
Net income per common share:			
Basic	$ 1.08	$ 1.35	$ 1.32
Diluted	$ 1.08	$ 1.35	$ 1.32
Average common shares outstanding during the period:			
Basic	177,904	177,612	177,273
Diluted	178,399	178,175	177,846

See accompanying notes to consolidated financial statements.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands of dollars)

	Years ended December 31,		
	2018	2017	2016
Net income	$ 191,988	$ 239,738	$ 234,182
Other comprehensive income, net of tax:			
Unrealized holding gain on investments, net of tax expense of $102, and $21 for the years ended December 31, 2017, and 2016, respectively	-	191	39
Reclassification of gain on sale of investment to net income, net of tax expense of $30 (1)	-	-	(57)
Comprehensive income	$ 191,988	$ 239,929	$ 234,164

See accompanying notes to consolidated financial statements.

Refer to *Note 1 – Summary of Significant Accounting Policies – Recent Accounting Pronouncements* for information on our adoption on January 1, 2018, of the FASB's updated accounting guidance on the recognition and measurement of financial assets and financial liabilities, which results in the changes in fair value of certain equity investments measured at fair value being recognized in net income.

(1) Amount of pre-tax gain of $87 reclassified from accumulated other comprehensive income to gain on sale of other assets on the consolidated statement of net income.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CAPITALIZATION

(In thousands of dollars, except per share amounts)

		December 31, 2018	December 31, 2017
Aqua America stockholders' equity:			
Common stock, $.50 par value		$ 90,576	$ 90,350
Capital in excess of par value		820,378	807,135
Retained earnings		1,174,245	1,132,556
Treasury stock, at cost		(75,835)	(73,280)
Accumulated other comprehensive income		-	860
Total stockholders' equity		2,009,364	1,957,621
Long-term debt of subsidiaries (substantially collateralized by utility plant):			
Interest Rate Range	Maturity Date Range		
0.00% to 0.99%	2023 to 2033	3,732	4,196
1.00% to 1.99%	2019 to 2035	11,588	12,914
2.00% to 2.99%	2019 to 2033	17,488	19,254
3.00% to 3.99%	2019 to 2056	497,426	475,232
4.00% to 4.99%	2020 to 2057	831,066	631,599
5.00% to 5.99%	2019 to 2043	154,788	205,578
6.00% to 6.99%	2026 to 2036	31,000	44,000
7.00% to 7.99%	2022 to 2027	31,564	32,335
8.00% to 8.99%	2021 to 2025	5,581	6,092
9.00% to 9.99%	2020 to 2026	20,000	25,700
10.00% to 10.99%	-	-	6,000
		1,604,233	1,462,900
Notes payable to bank under revolving credit agreement, variable rate, due 2023		370,000	60,000
Unsecured notes payable:			
Bank notes at 2.48% and 3.50% due 2019 and 2020		100,000	100,000
Notes ranging from 3.01% to 3.59%, due 2027 through 2041		245,000	245,000
Notes ranging from 4.62% to 4.87%, due 2019 through 2024		112,000	122,800
Notes ranging from 5.20% to 5.95%, due 2020 through 2037		132,427	152,427
Total long-term debt		2,563,660	2,143,127
Current portion of long-term debt		144,545	113,769
Long-term debt, excluding current portion		2,419,115	2,029,358
Less: debt issuance costs		20,651	21,605
Long-term debt, excluding current portion, net of debt issuance costs		2,398,464	2,007,753
Total capitalization		$ 4,407,828	$ 3,965,374

See accompanying notes to consolidated financial statements.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF EQUITY

(In thousands of dollars, except per share amounts)

	Common stock	Capital in excess of par value	Retained earnings	Treasury stock	Accumulated Other Comprehensive Income	Total
Balance at December 31, 2015	$ 89,682	$ 773,585	$ 930,061	$ (68,085)	$ 687	$ 1,725,930
Net income	-	-	234,182	-	-	234,182
Other comprehensive loss, net of income tax benefit of $9	-	-	-	-	(18)	(18)
Dividends declared ($0.7386 per share)	-	-	(130,923)	-	-	(130,923)
Stock issued for acquisition (439,943 shares)	220	12,625	-	-	-	12,845
Issuance of common stock under dividend reinvestment plan (47,478 shares)	24	1,364	-		-	1,388
Repurchase of stock (97,400 shares)	-	-	-	(3,028)	-	(3,028)
Equity compensation plan (231,502 shares)	115	(115)	-	-	-	-
Exercise of stock options (228,762 shares)	114	4,146	-	-	-	4,260
Stock-based compensation	-	5,390	(476)	-	-	4,914
Employee stock plan tax benefits	-	1,329	-	-	-	1,329
Other	-	(811)	-	-	-	(811)
Balance at December 31, 2016	90,155	797,513	1,032,844	(71,113)	669	1,850,068
Net income	-	-	239,738	-	-	239,738
Other comprehensive income, net of income tax of $102	-	-	-	-	191	191
Dividends declared ($0.7920 per share)	-	-	(140,660)	-	-	(140,660)
Issuance of common stock under dividend reinvestment plan (45,121 shares)	23	1,430	-	-	-	1,453
Repurchase of stock (69,339 shares)	-	-	-	(2,167)	-	(2,167)
Equity compensation plan (169,258 shares)	85	(85)	-	-	-	-
Exercise of stock options (174,527 shares)	87	2,786	-	-	-	2,873
Stock-based compensation	-	6,342	(348)	-	-	5,994
Cumulative effect of change in accounting principle - windfall tax benefit	-	-	982	-	-	982
Other	-	(851)	-	-	-	(851)
Balance at December 31, 2017	90,350	807,135	1,132,556	(73,280)	860	1,957,621
Net income	-	-	191,988	-	-	191,988
Dividends declared ($0.8474 per share)	-	-	(150,736)	-	-	(150,736)
Issuance of common stock under dividend reinvestment plan (158,205 shares)	79	5,084	-	-	-	5,163
Repurchase of stock (73,898 shares)	-	-	-	(2,555)	-	(2,555)
Equity compensation plan (201,563 shares)	101	(101)	-	-	-	-
Exercise of stock options (91,808 shares)	46	1,413	-	-	-	1,459
Stock-based compensation	-	7,567	(423)	-	-	7,144
Cumulative effect of change in accounting principle - financial instruments	-	-	860	-	(860)	-
Other	-	(720)	-	-	-	(720)
Balance at December 31, 2018	$ 90,576	$ 820,378	$ 1,174,245	$ (75,835)	$ -	$ 2,009,364

See accompanying notes to consolidated financial statements.

Refer to *Note 1 – Summary of Significant Accounting Policies – Recent Accounting Pronouncements* for information on our adoption on January 1, 2018, of the FASB's updated accounting guidance on the recognition and measurement of financial assets and financial liabilities.

AQUA AMERICA, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands of dollars)

	Years ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	$ 191,988	$ 239,738	$ 234,182
Adjustments to reconcile net income to net cash flows from operating activities:			
Depreciation and amortization	146,673	136,724	133,008
Deferred income taxes	(14,950)	13,780	17,250
Provision for doubtful accounts	5,305	4,986	5,505
Stock-based compensation	7,567	6,342	5,390
Loss (gain) on sale of utility system and market-based business unit	-	774	(744)
Gain on sale of other assets	(714)	(484)	(378)
Interest rate swap agreements	59,779	-	-
Net change in receivables, inventory and prepayments	(18,024)	(6,458)	(3,974)
Net change in payables, accrued interest, accrued taxes and other accrued liabilities	567	(763)	4,756
Pension and other postretirement benefits contributions	(14,216)	(16,240)	(9,505)
Other	4,547	2,919	10,673
Net cash flows from operating activities	368,522	381,318	396,163
Cash flows from investing activities:			
Property, plant and equipment additions, including the debt component of allowance for funds used during construction of $3,332, $3,578, and $2,220	(495,737)	(478,089)	(382,996)
Acquisitions of utility systems and other, net	(145,693)	(5,860)	(9,423)
Net proceeds from the sale of utility systems and other assets	716	1,342	7,746
Other	899	2,223	1,464
Net cash flows used in investing activities	(639,815)	(480,384)	(383,209)
Cash flows from financing activities:			
Customers' advances and contributions in aid of construction	7,458	7,312	7,263
Repayments of customers' advances	(6,217)	(6,536)	(3,763)
Net proceeds (repayments) of short-term debt	11,799	(2,885)	(10,186)
Proceeds from long-term debt	1,331,868	591,024	503,586
Repayments of long-term debt	(914,125)	(359,068)	(373,087)
Change in cash overdraft position	(12,678)	9,012	(8,076)
Proceeds from issuing common stock	5,163	1,453	1,388
Proceeds from exercised stock options	1,459	2,873	4,260
Share-based compensation windfall tax benefits	-	-	1,332
Repurchase of common stock	(2,555)	(2,167)	(3,028)
Dividends paid on common stock	(150,736)	(140,660)	(130,923)
Other	(720)	(851)	(1,186)
Net cash flows from (used in) financing activities	270,716	99,507	(12,420)
Net (decrease) increase in cash and cash equivalents	(577)	441	534
Cash and cash equivalents at beginning of year	4,204	3,763	3,229
Cash and cash equivalents at end of year	$ 3,627	$ 4,204	$ 3,763
Cash paid during the year for:			
Interest, net of amounts capitalized	$ 93,630	$ 81,771	$ 72,662
Income taxes	2,103	3,177	2,739
Non-cash investing activities:			
Property, plant and equipment additions purchased at the period end, but not yet paid	$ 65,285	$ 45,385	$ 35,145
Non-cash customer advances for construction	24,660	39,220	26,234

See accompanying notes to consolidated financial statements.

Refer to Note 2 – *Acquisitions,* Note 10 – *Long-term Debt and Loans Payable*, and Note 14 – *Employee Stock and Incentive Plan* for a description of non-cash activities.

Note 1 – ***Summary of Significant Accounting Policies***

Nature of Operations ─ Aqua America, Inc. ("Aqua America," the "Company," "we," "our", or "us") is the holding company for regulated utilities providing water or wastewater services concentrated in Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, and Virginia. Our largest operating subsidiary is Aqua Pennsylvania, Inc., which accounted for approximately 53% of our operating revenues and approximately 71% of our Regulated segment's income for 2018. As of December 31, 2018, Aqua Pennsylvania provided water or wastewater services to approximately one-half of the total number of people we serve. Aqua Pennsylvania's service territory is located in the suburban areas north and west of the City of Philadelphia and in 27 other counties in Pennsylvania. The Company's other regulated utility subsidiaries provide similar services in seven other states. In addition, the Company's market-based activities are conducted through Aqua Infrastructure LLC and Aqua Resources, Inc. Aqua Infrastructure provides non-utility raw water supply services for firms in the natural gas drilling industry. Aqua Resources provides water services through operating and maintenance contracts with a municipal authority and another party close to our utility companies' service territory; and offers, through a third-party, water and sewer line protection solutions and repair services to households. In 2017, we completed the sale of business units that were reported within the Company's market-based subsidiary, Aqua Resources, one which installed and tested devices that prevent the contamination of potable water and another that constructed, maintained, and repaired water and wastewater systems. During 2016 we completed the sale of business units within Aqua Resources, which were reported as assets held for sale in the Company's consolidated balance sheets, which provided liquid waste hauling and disposal services, and inspection, and cleaning and repair of storm and sanitary wastewater lines.

The Company has identified ten operating segments and has one reportable segment named the Regulated segment. The reportable segment is comprised of eight operating segments for our water and wastewater regulated utility companies which are organized by the states where we provide these services. These operating segments are aggregated into one reportable segment since each of the Company's operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution or wastewater collection methods, and the nature of the regulatory environment. In addition, Aqua Resources and Aqua Infrastructure are not quantitatively significant to be reportable and are included as a component of "Other," in addition to corporate costs that have not been allocated to the Regulated segment, because they would not be recoverable as a cost of utility service, and intersegment eliminations.

Regulation ─ Most of the operating companies that are regulated public utilities are subject to regulation by the utility commissions of the states in which they operate. The respective utility commissions have jurisdiction with respect to rates, service, accounting procedures, issuance of securities, acquisitions and other matters. Some of the operating companies that are regulated public utilities are subject to rate regulation by county or city government. Regulated public utilities follow the Financial Accounting Standards Board's ("FASB") accounting guidance for regulated operations, which provides for the recognition of regulatory assets and liabilities as allowed by regulators for costs or credits that are reflected in current rates or are considered probable of being included in future rates. The regulatory assets or liabilities are then relieved as the cost or credit is reflected in rates.

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

Basis of Presentation – The consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated. Certain prior period amounts have been reclassified to conform to the current period presentation in the consolidated statements of net income as a result of the adoption, in 2018, of the Financial Accounting Standards Board's ("FASB") accounting guidance on the presentation of net periodic pension and postretirement benefit cost (refer to Note 1 – *Recent Accounting Pronouncements*).

(In thousands of dollars, except per share amounts)

Recognition of Revenues **—** The Company recognizes revenue as water and wastewater services are provided to our customers, which happens over time as the service is delivered and the performance obligation is satisfied. The Company's utility revenues recognized in an accounting period include amounts billed to customers on a cycle basis and unbilled amounts based on estimated usage from the last billing to the end of the accounting period. Unbilled amounts are calculated by deriving estimates based on average usage of the prior month. The Company's actual results could differ from these estimates, which would result in operating revenues being adjusted in the period that the revision to our estimates is determined. Unbilled amounts are included in accounts receivable and unbilled revenues, net on the consolidated balance sheet.

Generally, payment is due within 30 days once a bill is issued to a customer. Sales tax and other taxes we collect on behalf of government authorities, concurrent with our revenue-producing activities, are primarily excluded from revenue. The Company has determined that its revenue recognition is not materially different under the FASB's new accounting standard for revenue from contracts with customers. The Company's revenues are being reported identical in the consolidated statements of net income to how they were reported under the FASB's former accounting standard for revenue recognition. The following table presents our revenues disaggregated by major source and customer class:

	Year ended December 31, 2018		
	Water Revenues	Wastewater Revenues	Other Revenues
Revenues from contracts with customers:			
Residential	$ 482,946	$ 73,418	$ -
Commercial	133,753	13,147	-
Fire protection	32,236	-	-
Industrial	28,848	1,857	-
Other water	53,658	-	-
Other wastewater	-	5,748	-
Other utility	-	-	9,427
Revenues from contracts with customers	731,441	94,170	9,427
Alternative revenue program	(708)	308	-
Other and eliminations	-	-	3,453
Consolidated	$ 730,733	$ 94,478	$ 12,880

Revenues from Contracts with Customers **–** These revenues are composed of three main categories: water, wastewater, and other. Water revenues represent revenues earned for supplying customers with water service. Wastewater revenues represent revenues earned for treating wastewater and releasing it into the water supply. Other revenues are associated fees that relate to the regulated business but are not water and wastewater revenues. See description below for a discussion on the performance obligation for each of these revenue streams:

- Tariff Revenues **–** These revenues are categorized by customer class: residential, commercial, fire protection, industrial, and other water and other wastewater. The rates that generate these revenues are approved by the respective state utility commission, and revenues are billed cyclically and accrued for when unbilled. Other water and other wastewater revenues consist primarily of fines, penalties, surcharges, and availability lot fees. Our performance obligation for tariff revenues is to provide potable water or wastewater treatment service to customers. This performance obligation is satisfied over time as the services are rendered. The amounts that the Company has a right to invoice for tariff revenues reflect the right to consideration from the customers in an amount that corresponds directly with the value transferred to the customer for the performance completed to date. The Company elected to use the right to invoice practical expedient for these revenues as the Company recognizes revenue in the amount for which the Company has the right to invoice the customer.

- Other Utility Revenues – Other utility revenues represent revenues earned primarily from: antenna revenues, which represent fees received from telecommunication operators that have put cellular antennas on our water towers, operation and maintenance and billing contracts, which represent fees earned from municipalities for our operation of their water or wastewater treatment services or performing billing services, and fees earned from developers for accessing our water mains. The performance obligations vary for these revenues, but all are primarily recognized over time as the service is delivered.

- Alternative Revenue Program – These revenues represent the difference between the actual billed utility water and wastewater revenues for Aqua Illinois and the revenues set in the last Aqua Illinois rate case. We recognize revenues based on the target amount established in the last rate case, and then record either a regulatory asset or liability based on the cumulative annual difference between the target and actual, which results in either a refund due to customers or a payment from customers. The cumulative annual difference is either refunded to customers or collected from customers over a nine-month period. This revenue program represents a contract between the utility and its regulators, not customers, and therefore is not within the scope of the FASB's accounting guidance for recognizing revenue from contracts with customers.

- Other and Eliminations – Other and eliminations consist of our market-based revenues, which comprises: Aqua Infrastructure and Aqua Resources (described below), and intercompany eliminations for revenue billed between our subsidiaries. Aqua Infrastructure is the holding company for our 49% investment in a joint venture that operates a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale of north central Pennsylvania. The joint venture earns revenues through providing non-utility raw water supply services to natural gas drilling companies which enter into water supply contracts. The performance obligation is to deliver non-potable water to the joint venture's customers. Aqua Infrastructure's share of the revenues recognized by the joint venture is reflected, net, in equity earnings in joint venture on our consolidated statements of net income. Aqua Resources earns revenues by providing non-regulated water and wastewater services through operating and maintenance contracts, and third-party water and sewer service line repair. The performance obligations are performing agreed upon services in the contract, most commonly operation of third-party water or wastewater treatment services, or billing services, or allowing the use of our logo to a third-party water and sewer service line repair. Revenues are primarily recognized over time as service is delivered. The Company's market-based subsidiaries recognized revenues of $3,590 in 2018, $4,798 in 2017, and $20,091 in 2016.

Property, Plant and Equipment and Depreciation – Property, plant and equipment consist primarily of utility plant. The cost of additions includes contracted cost, direct labor and fringe benefits, materials, overheads, and for additions meeting certain criteria, allowance for funds used during construction. Water and wastewater systems acquired are typically recorded at estimated original cost of utility plant when first devoted to utility service and the applicable depreciation is recorded to accumulated depreciation. Further, water and wastewater systems acquired under fair value regulations would be recorded based on the valuation of the utility plant. The difference between the estimated original cost, less applicable accumulated depreciation, and the purchase price is recorded as goodwill, or as an acquisition adjustment within utility plant as permitted by the applicable regulatory jurisdiction. At December 31, 2018, utility plant includes a net credit acquisition adjustment of $20,832, which is generally being amortized from 2 to 59 years. Amortization of the acquisition adjustments totaled $2,645 in 2018, $2,774 in 2017, and $2,223 in 2016.

Utility expenditures for maintenance and repairs, including major maintenance projects and minor renewals and betterments, are charged to operating expenses when incurred in accordance with the system of accounts prescribed by the utility commissions of the states in which the company operates. The cost of new units of property and betterments are capitalized. Utility expenditures for water main cleaning and relining of pipes are deferred and recorded in net property, plant and equipment in accordance with the FASB's accounting guidance for regulated operations. As of December 31, 2018, $16,382 of these costs have been incurred since the last respective rate proceeding and the Company expects to recover these costs in future rates.

The cost of software upgrades and enhancements are capitalized if they result in added functionality, which enables the software to perform tasks it was previously incapable of performing. Information technology costs associated with major system installations, conversions and improvements, such as software training, data conversion and business process reengineering costs, are deferred as a regulatory asset if the Company expects to recover these costs in future rates. If these costs are not deferred, then these costs are charged to operating expenses when incurred. As of December 31, 2018, $34,614 of these costs have been deferred since the last respective rate proceeding as a regulatory asset, and the deferral is reported as a component of net property, plant and equipment.

When units of utility property are replaced, retired or abandoned, the recorded value thereof is credited to the asset account and such value, together with the net cost of removal, is charged to accumulated depreciation. To the extent the Company anticipates recovery of the cost of removal or other retirement costs through rates after the retirement costs are incurred, a regulatory asset is recorded as those costs are incurred. In some cases, the Company recovers retirement costs through rates during the life of the associated asset and before the costs are incurred. These amounts, which are not yet utilized, result in a regulatory liability being reported based on the amounts previously recovered through customer rates.

The straight-line remaining life method is used to compute depreciation on utility plant. Generally, the straight-line method is used with respect to transportation and mechanical equipment, office equipment and laboratory equipment.

Long-lived assets of the Company, which consist primarily of utility plant in service, regulatory assets, and investment in joint venture, are reviewed for impairment when changes in circumstances or events occur. These circumstances or events could include a disallowance of utility plant in service or regulatory assets by the respective utility commission, a decline in the market value or physical condition of a long-lived asset, an adverse change in the manner in which long-lived assets are used or planned to be used, a change in historical trends, operating cash flows associated with the long-lived assets, changes in macroeconomic conditions, industry and market conditions, or overall financial performance. When these circumstances or events occur, the Company determines whether it is more likely than not that the fair value of those assets is less than their carrying amount. If the Company determines that it is more likely than not (that is, the likelihood of more than 50 percent), the Company would recognize an impairment charge if it is determined that the carrying amount of an asset exceeds the sum of the undiscounted estimated cash flows. In this circumstance, the Company would recognize an impairment charge equal to the difference between the carrying amount and the fair value of the asset. Fair value is estimated to be the present value of future net cash flows associated with the asset, discounted using a discount rate commensurate with the risk and remaining life of the asset. During the period there has been no change in circumstances or events that have occurred that require adjustments to the carrying values of the Company's long-lived assets.

Allowance for Funds Used During Construction **─** The allowance for funds used during construction ("AFUDC") represents the capitalized cost of funds used to finance the construction of utility plant. In general, AFUDC is applied to construction projects requiring more than one month to complete. No AFUDC is applied to projects funded by customer advances for construction, contributions in aid of construction, or applicable state-revolving fund loans. AFUDC includes the net cost of borrowed funds and a rate of return on other funds when used and is recovered through water rates as the utility plant is depreciated. The amount of AFUDC related to equity funds in 2018 was $9,691, 2017 was $11,633, and 2016 was $6,561. No interest was capitalized by our market-based businesses.

Cash and Cash Equivalents **─** The Company considers all highly liquid investments with an original maturity of three months or less, which are not restricted for construction activity, to be cash equivalents.

The Company had a book overdraft, which represents transactions that have not cleared the bank accounts at the end of the period, for specific disbursement cash accounts of $8,950 and $21,629 at December 31, 2018 and 2017, respectively. The Company transfers cash on an as-needed basis to fund these items as they clear the bank in subsequent periods. The balance of the book overdraft is reported as book overdraft and the change in the book overdraft balance is reported as cash flows from financing activities, due to our ability to fund the overdraft with the Company's credit facility.

Accounts Receivable **─** Accounts receivable are recorded at the invoiced amounts, which consists of billed and unbilled revenues. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in our existing accounts receivable and is determined based on historical write-off experience and the aging of account balances. The Company reviews the allowance for doubtful accounts quarterly. Account balances are written off against the allowance when it is probable the receivable will not be recovered. When utility customers request extended payment terms, credit is extended based on regulatory guidelines, and collateral is not required.

Inventories, Materials and Supplies **─** Inventories are stated at cost. Cost is determined using the first-in, first-out method.

Regulatory Assets, Deferred Charges and Other Assets **─** Deferred charges and other assets consist primarily of assets held to compensate employees in the future who participate in the Company's deferred compensation plan and other costs. Other costs, for which the Company has received or expects to receive prospective rate recovery, are deferred as a regulatory asset and amortized over the period of rate recovery in accordance with the FASB's accounting guidance for regulated operations. See Note – 6 *Regulatory Assets and Liabilities* for further information regarding the Company's regulatory assets.

Marketable equity securities are carried on the balance sheet at fair market value, and changes in fair value are included in other comprehensive income.

Investment in Joint Venture **–** The Company uses the equity method of accounting to account for our 49% investment in a joint venture with a firm in the natural gas industry for the construction and operation of a private pipeline system to supply raw water to natural gas well drilling operations in the Marcellus Shale in north-central Pennsylvania, which commenced operations in 2012. Our initial investment is carried at cost. Subsequently, the carrying amount of our investment is adjusted to reflect capital contributions or distributions, and our equity in earnings or losses since the commencement of the system's operations, as well as a decline in the fair value of our investment. Our share of equity earnings in the joint venture is reported in the consolidated statements of net income as equity earnings in joint venture. During 2018 and 2017 we received distributions of $1,793 and $686, respectively. For our equity method investment in joint venture, the Company evaluates whether it has experienced a decline in the value of its investment that is other than temporary in nature. We would recognize an impairment loss if the fair value of our investment is less than the carrying amount of the investment, and the decline in value is considered other than temporary. Additionally, the Company would recognize its share of an impairment loss if the joint venture determines that the carrying amount of the joint venture's assets exceeds the sum of the joint venture's undiscounted estimated cash flows.

(In thousands of dollars, except per share amounts)

***Goodwill* —** Goodwill represents the excess cost over the fair value of net tangible and identifiable intangible assets acquired through acquisitions. Goodwill is not amortized but is tested for impairment annually, or more often, if circumstances indicate a possible impairment may exist. When testing goodwill for impairment, we may assess qualitative factors, including macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, and entity specific events, for some or all of our reporting units to determine whether it's more likely than not that the fair value of a reporting unit is less than its carrying amount. Alternatively, based on our assessment of the qualitative factors previously noted, we may perform a quantitative goodwill impairment test by determining the fair value of a reporting unit based on a discounted cash flow analysis. If we perform a quantitative test and determine that the fair value of a reporting unit is less than its carrying amount, we would record an impairment loss for the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. The Company performed a qualitative assessment for its annual test of the goodwill attributable for each of our reporting units for impairment as of July 31, 2018, and concluded that the estimated fair value of each reporting unit, which has goodwill recorded, exceeded the reporting unit's carrying amount, indicating that none of the Company's goodwill was impaired. The following table summarizes the changes in the Company's goodwill:

	Regulated Segment	Other	Consolidated
Balance at December 31, 2016	$ 37,367	$ 4,841	$ 42,208
Goodwill acquired	72	-	72
Reclassifications to utility plant acquisition adjustment	(50)	-	(50)
Balance at December 31, 2017	37,389	4,841	42,230
Goodwill acquired	10,790	-	10,790
Reclassifications to utility plant acquisition adjustment	(139)	-	(139)
Other	(155)	-	(155)
Balance at December 31, 2018	$ 47,885	$ 4,841	$ 52,726

The reclassification of goodwill to utility plant acquisition adjustment results from a mechanism approved by the applicable utility commission. The mechanism provides for the transfer over time, and the recovery through customer rates, of goodwill associated with some acquisitions upon achieving specific objectives.

***Income Taxes* —** The Company accounts for some income and expense items in different time periods for financial and tax reporting purposes. Deferred income taxes are provided on specific temporary differences between the tax basis of the assets and liabilities, and the amounts at which they are carried in the consolidated financial statements. The income tax effect of temporary differences not currently recovered in rates is recorded as deferred taxes with an offsetting regulatory asset or liability. These deferred income taxes are based on the enacted tax rates expected to be in effect when such temporary differences are projected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount more likely than not to be realized. Investment tax credits are deferred and amortized over the estimated useful lives of the related properties. Judgment is required in evaluating the Company's Federal and state tax positions. Despite management's belief that the Company's tax return positions are fully supportable, the Company establishes reserves when it believes that its tax positions are likely to be challenged and it may not fully prevail in these challenges. The Company's provision for income taxes includes interest, penalties and reserves for uncertain tax positions.

In 2012, the Company changed its tax method of accounting for qualifying utility asset improvement costs in Aqua Pennsylvania effective with the tax year ended December 31, 2012 and for prior tax years. The tax accounting method was changed to permit the expensing of qualifying utility asset improvement costs that were previously being capitalized and depreciated for book and tax purposes. This change was implemented in response to a June 2012 rate order issued by the Pennsylvania Public Utility Commission to Aqua Pennsylvania, which provides for a reduction in current income tax expense as a result of the recognition of income tax benefits for qualifying utility asset improvements. This change results in a significant reduction in the effective income tax rate, a reduction in current income tax expense, and reduces the amount of taxes currently payable. For qualifying capital expenditures made prior to 2012, the resulting tax benefits have been deferred as of December 31, 2012 and, in accordance with the rate order, a ten-year amortization of the income tax benefits, which reduces future income tax expense, commenced in 2013.

Customers' Advances for Construction and Contributions in Aid of Construction ─ Water mains, other utility property or, in some instances, cash advances to reimburse the Company for its costs to construct water mains or other utility property, are contributed to the Company by customers, real estate developers and builders in order to extend utility service to their properties. The value of these contributions is recorded as customers' advances for construction. Over time, the amount of non-cash contributed property will vary based on the timing of the contribution of the non-cash property and the volume of non-cash contributed property received in connection with development in our service territories. The Company makes refunds on these advances over a specific period of time based on operating revenues related to the property, or as new customers are connected to and take service from the applicable water main. After all refunds are made, any remaining balance is transferred to contributions in aid of construction. Contributions in aid of construction include direct non-refundable contributions and the portion of customers' advances for construction that become non-refundable.

Based on regulatory conventions in states where the Company operates, generally our subsidiaries depreciate contributed property and amortize contributions in aid of construction at the composite rate of the related property. Contributions in aid of construction and customers' advances for construction are deducted from the Company's rate base for rate-making purposes, and therefore, no return is earned on contributed property.

Stock-Based Compensation ─ The Company records compensation expense in the financial statements for stock-based awards based on the grant date fair value of those awards. Stock-based compensation expense includes an estimate for pre-vesting forfeitures and is recognized over the requisite service periods of the awards on either a straight-line basis, or the graded vesting method, which is generally commensurate with the vesting term.

Fair Value Measurements – The Company follows the FASB's accounting guidance for fair value measurements and disclosures, which defines fair value and establishes a framework for using fair value to measure assets and liabilities. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

- Level 1: unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access;

- Level 2: inputs other than Level 1 that are observable, either directly or indirectly, such as quoted market prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in non-active markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; or

- Level 3: inputs that are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. Additionally, assets that are measured at fair value using the net asset value ("NAV") per share practical expedient are not classified in the fair value hierarchy. There have been no changes in the valuation techniques used to measure fair value or asset or liability transfers between the levels of the fair value hierarchy for the years ended December 31, 2018 and 2017.

Recent Accounting Pronouncements –

Pronouncements to be adopted upon the effective date:

In August 2018, the FASB issued updated accounting guidance on accounting for cloud computing arrangements. The updated guidance requires entities that are customers in cloud computing arrangements to defer implementation costs if they would be capitalized by the entity in software licensing arrangements under the internal-use software guidance. The guidance may be applied retrospectively or prospectively to implementation costs incurred after the date of adoption. The updated accounting guidance is effective for fiscal years beginning after December 15, 2019 and interim periods within those fiscal years. The Company is evaluating the requirements of the updated guidance to determine the impact of adoption.

In August 2018, the FASB issued updated accounting guidance, which modifies the disclosures required for defined benefit pension and other postretirement benefit plans. The modifications in this update remove disclosures that are no longer considered cost beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. The updated accounting guidance is effective for fiscal years ending after December 15, 2020, with early adoption available. The Company is evaluating the requirements of the updated guidance to determine the impact of adoption.

In August 2018, the FASB issued updated accounting guidance, which modifies the disclosure requirements on fair value measurements. The modifications in this update eliminates, amends, and adds disclosure requirements for fair value measurements, which is expected to reduce costs for preparers while providing more decision-useful information for financial statement users. The updated accounting guidance is effective for fiscal years ending after December 15, 2019, with early adoption available. The Company is evaluating the requirements of the updated guidance to determine the impact of adoption.

In June 2016, the FASB issued updated accounting guidance on accounting for impairments of financial instruments, including trade receivables, which requires companies to estimate expected credit losses on trade receivables over their contractual life. Historically, companies reserve for expected credit losses by applying historical loss percentages to respective aging categories. Under the updated accounting guidance, companies will use a forward-looking methodology that incorporates lifetime expected credit losses, which will result in an allowance for expected credit losses for receivables that are either current or not yet due, which historically have not been reserved for. The updated accounting guidance is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption available. The Company is evaluating the requirements of the updated guidance to determine the impact of adoption.

In February 2016, the FASB issued updated accounting guidance on accounting for leases, which requires lessees to establish a right-of-use asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. For income statement purposes, leases will be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. The updated accounting guidance is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years, with early adoption available. The Company is implementing a process to address the requirements of the updated guidance and as of January 1, 2019, anticipates recording, on the Company's consolidated balance sheet, a right-of-use asset and lease liability of approximately $13,700.

Pronouncements adopted during the fiscal year:

In March 2017, the FASB issued updated accounting guidance on the presentation of net periodic pension and postretirement benefit cost (net benefit cost). Historically, net benefit cost is reported as an employee cost within operating income, net of amounts capitalized. The guidance requires the bifurcation of net benefit cost. The service cost component will be presented with other employee compensation costs in operating income and the other components of net benefit cost will be reported separately outside of operating income and will not be eligible for capitalization. On January 1, 2018, the Company adopted the updated guidance, which did not have a material impact on its results of operations or financial position, and resulted in the reclassification, for the years ended December 31, 2017 and 2016 of $4,953 and $7,713 respectively, for the other components of net benefit cost from operations and maintenance expense to other in the consolidated statements of net income. The updated guidance was applied retrospectively for the presentation of the service cost component and the other components of net periodic benefit costs, and on a prospective basis for the capitalization of only the service cost component of net benefit cost.

In January 2017, the FASB issued updated accounting guidance that provides a new framework for determining whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This update creates an initial screening test for which an entity would evaluate if substantially all the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, the set of assets is not considered a business; however, if the threshold is not met, the entity evaluates whether the set of assets meets the requirement that a business included, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. The update also narrows the definition of outputs by more closely aligning it with how outputs are described in the new revenue guidance. On January 1, 2018, as required the Company adopted the updated guidance, which will cause us to assess if future acquisitions are businesses or assets under this guidance.

In January 2016, the FASB issued updated accounting guidance on the recognition and measurement of financial assets and financial liabilities, which amends certain aspects of recognition, measurement, presentation, and disclosure of financial instruments, including the requirement to measure certain equity investments at fair value with changes in fair value recognized in net income. The updated guidance is effective for interim and annual periods beginning after December 31, 2017. On January 1, 2018, the Company adopted the updated guidance, which did not have a material impact on its results of operations or financial position.

In May 2014, the FASB issued updated accounting guidance on recognizing revenue from contracts with customers, which outlines a single comprehensive model that an entity will apply to determine the measurement of revenue and timing of recognition. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. In 2017, the American Institute of Certified Public Accountants ("AICPA") power and utility entities revenue recognition task force determined that contributions in aid of construction are not in the scope of the new standard, which was approved by the AICPA's revenue recognition working group. The Company implemented the updated guidance using the modified retrospective approach on January 1, 2018, which did not result in a change in the Company's measurement of revenue, and reached the following conclusions:

- The Company's tariff sale contracts, including those with lower credit quality customers, are generally deemed to be probable of collection, and thus the timing of revenue recognition will continue to be concurrent with the delivery of water and wastewater services, consistent with our current practice.
- Contributions in aid of construction are outside of the scope of the standard and will continue to be accounted for as a noncurrent liability.

Note 2 – *Acquisitions*

Pursuant to the Company's growth strategy, on October 22, 2018, the Company entered into a purchase agreement with LDC Parent LLC ("Seller"), to acquire its interests in LDC Funding LLC ("LDC"). LDC is the parent of LDC Holdings LLC ("LDC Holdings"), and LDC Holdings is the parent of five natural gas public utility companies, which includes Peoples Natural Gas Company, Peoples Gas Company, and Delta Natural Gas Company as well as other operating subsidiaries. Collectively these businesses are referred to as "Peoples," a natural gas distribution company headquartered in Pittsburgh, Pennsylvania, serving approximately 740,000 gas utility customers in western Pennsylvania, West Virginia, and Kentucky. At the closing of the Peoples Gas Acquisition, the Company will pay $4,275,000, in cash subject to adjustments for working capital, certain capital expenditures, transaction expenses and closing indebtedness as set forth in the acquisition agreement. The Company expects to assume approximately $1,300,000 of Peoples' indebtedness upon the closing of the Peoples Gas Acquisition, which would reduce the cash purchase price by approximately $1,300,000. The Company expects to finance the Peoples Gas Acquisition purchase price and to refinance certain debt of the Company with a mix of common equity, equity-linked securities, and debt financing, which could include senior notes issued in capital markets transactions, term loans or other credit facilities or any combination thereof. On October 22, 2018, the Company obtained a commitment (the "Bridge Commitment") from certain banks to provide senior unsecured bridge loans in an aggregate amount of up to $5,100,000 to, among other things, backstop the Peoples Gas Acquisition purchase price and the refinancing of certain debt of the Company and of Peoples. As of December 31, 2018, the Company had terminated approximately $1,633,000 of commitments under the Bridge Commitment in connection with, among other things, the replacement of the Company's unsecured revolving credit facility. On October 23, 2018, the Company entered into interest rate swap agreements to mitigate interest rate risk associated with an anticipated $850,000 of future debt issuances to fund a portion of the Peoples Gas Acquisition. The interest rate swaps will be settled upon issuance of the debt to be used to finance a portion of the purchase price of this acquisition. The interest rate swap agreements do not qualify for hedge accounting and any changes in the fair value of the swaps is included in our future earnings. The Peoples Gas Acquisition is subject to regulatory approvals, including by the public utility commissions in Pennsylvania, Kentucky, and West Virginia, and other customer closing conditions set forth in the acquisition agreement. This acquisition is expected to close in mid-2019, once regulatory approvals are obtained, and it is anticipated that this transaction will result in the recording of goodwill. In the event that this acquisition is terminated due to certain breaches by the Company, a fee of $120,000 would be payable to the Seller as liquidated damages.

In July 2018, the Company acquired the wastewater utility systems assets of Limerick Township, Pennsylvania which serves 5,497 customers. The total cash purchase price for the utility system was $74,836. The purchase price allocation for this acquisition consisted primarily of acquired property, plant and equipment of $64,759, and goodwill of $10,790. Additionally, during 2018, the Company completed seven acquisitions of water and wastewater utility systems in three states adding 8,661 customers. The total purchase price of these utility systems consisted of $42,519 in cash. The purchase price allocation for these acquisitions consisted primarily of acquired property, plant and equipment. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for the utility systems acquired in 2018 are $3,308. Further, in December 2018, the Company acquired the Valley Creek Trunk Sewer System, serving area municipalities in Pennsylvania, from the Tredyffrin Township Municipal Authority for $28,300. The system receives untreated wastewater from area municipalities, which is conveyed to the Valley Forge Treatment Plant. The system consists of 49,000 linear feet of gravity sewers, pump stations, and force mains.

In November 2018, the Company entered into a purchase agreement to acquire the wastewater utility system assets of East Norriton Township, Pennsylvania, which serves approximately 4,950 customers for $21,000. The purchase price for this pending acquisition is subject to certain adjustments at closing, and is subject to regulatory approval, including the final determination of the fair value of the rate base acquired.

In July 2018, the Company entered into a purchase agreement to acquire the wastewater utility system assets of Cheltenham Township, Pennsylvania, which serves approximately 10,500 customers for $50,250. The purchase price for this pending acquisition is subject to certain adjustments at closing, and is subject to regulatory approval, including the final determination of the fair value of the rate base acquired.

In addition to the Company's pending acquisition in East Norriton and Cheltenham Townships, as part of the Company's growth-through-acquisition strategy, the Company has entered into purchase agreements to acquire the water or wastewater utility system assets of four municipalities for a total combined purchase price in cash of $38,950. The purchase price for these pending acquisitions is subject to certain adjustments at closing, and the pending acquisitions are subject to regulatory approvals, including the final determination of the fair value of the rate base acquired. Closings for these acquisitions are expected to occur by the end of 2019, which is subject to the timing of the regulatory approval process. These acquisitions are expected to add approximately 4,000 customers in two of the states in which the Company operates.

In 2017, the Company completed four acquisitions of water and wastewater utility systems in two states adding 1,003 customers. The total purchase price of these utility systems consisted of $5,860 in cash, which resulted in $72 of goodwill being recorded. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for the utility systems acquired were $846 in 2018 and in 2017 are $461. The pro forma effect of the businesses acquired is not material either individually or collectively to the Company's results of operations.

In January 2016, the Company acquired Superior Water Company, Inc., which provides public water service to 4,108 customers in portions of Berks, Chester, and Montgomery counties in Pennsylvania. The total purchase price for the utility system was $16,750, which consisted of the issuance of 439,943 shares of the Company's common stock and $3,905 in cash. The purchase price allocation for this acquisition consisted primarily of acquired property, plant and equipment of $25,167, contributions in aid of construction of $16,565, and goodwill of $8,622. Additionally, during 2016, the Company completed 18 acquisitions of water and wastewater utility systems in various states adding 2,469 customers. The total purchase price of these utility systems consisted of $5,518 in cash. The operating revenues included in the consolidated financial statements of the Company during the period owned by the Company for the utility systems acquired were $4,966 in 2018, $4,896 in 2017, and $3,809 in 2016. The pro forma effect of the businesses acquired is not material either individually or collectively to the Company's results of operations.

Note 3 –*Dispositions*

The following dispositions have not been presented as discontinued operations in the Company's consolidated financial statements as they do not qualify as discontinued operations, since their disposal does not represent a strategic shift that has a major effect on our operations or financial results. The gains or loss disclosed below are reported in the consolidated statements of net income as a component of operations and maintenance expense. These business units were reported within the Company's market-based subsidiary, Aqua Resources, and were included in "Other" in the Company's segment information.

Dispositions Completed in 2017 and 2016

In the second quarter of 2016, the Company decided to market for sale two business units that are reported within the Company's market-based subsidiary, Aqua Resources. One business unit installed and tested devices that prevent the contamination of potable water, for which the sale was completed in January 2017. The other business unit constructed, repaired, and performed maintenance on water and wastewater systems, for which the sale was completed in June 2017. These business units were reported as assets held for sale in the Company's December 31, 2016 consolidated balance sheet included in this Annual Report. These transactions resulted in total proceeds of $867 and the recognition of a net loss of $324.

In the third quarter of 2016, the Company marketed for sale a business unit which inspects, cleans and repairs storm and sanitary wastewater lines. In November 2016, this business unit was sold for $1,059 in cash and resulted in a loss on sale of $1,081. Further, in December 2015, the Company decided to sell a business unit which provides liquid waste hauling and disposal services. During the second quarter of 2016, this business unit was sold for $3,400 in cash and resulted in a gain on sale of $537.

(In thousands of dollars, except per share amounts)

Dispositions Reported as Assets Held for Sale at December 31, 2018

In the fourth quarter of 2018, the Company decided to market for sale a water system in Virginia that serves approximately 500 customers. This water system is reported as assets held for sale in the Company's consolidated balance sheet, and the sale is expected to close in the second quarter of 2019.

In the first quarter of 2017, the Company decided to market for sale a water system in Texas that serves approximately 265 customers. This water system is reported as assets held for sale in the Company's consolidated balance sheet, and the sale is expected to close in the second quarter of 2019.

Note 4 – *Property, Plant and Equipment*

	December 31, 2018	December 31, 2017	Approximate Range of Useful Lives	Weighted Average Useful Life
Utility plant and equipment:				
Mains and accessories	$ 3,344,910	$ 3,134,900	33 - 93 years	82 years
Services, hydrants, treatment plants and reservoirs	1,984,164	1,753,433	5 - 89 years	54 years
Operations structures and water tanks	313,531	296,736	14 - 85 years	47 years
Miscellaneous pumping and purification equipment	847,279	768,962	9 - 76 years	39 years
Meters, data processing, transportation and operating equipment	806,978	768,655	5 - 84 years	26 years
Land and other non-depreciable assets	107,537	103,357	-	-
Utility plant and equipment	7,404,399	6,826,043		
Utility construction work in progress	235,979	201,902	-	-
Net utility plant acquisition adjustment	(20,832)	(24,550)	2 - 59 years	30 years
Non-utility plant and equipment	28,923	598	2 - 50 years	49 years
Total property, plant and equipment	$ 7,648,469	$ 7,003,993		

Note 5 – *Accounts Receivable*

	December 31, 2018	December 31, 2017
Billed utility revenue	$ 68,347	$ 65,695
Unbilled revenue	35,400	35,042
Other	4,392	4,930
	108,139	105,667
Less allowance for doubtful accounts	6,914	7,071
Net accounts receivable	$ 101,225	$ 98,596

The Company's utility customers are located principally in the following states: 47% in Pennsylvania, 15% in Ohio, 10% in North Carolina, 8% in Texas, and 8% in Illinois. No single customer accounted for more than one percent of the Company's regulated operating revenues during the years ended December 31, 2018, 2017, and 2016. The following table summarizes the changes in the Company's allowance for doubtful accounts:

	2018	2017	2016
Balance at January 1,	$ 7,071	$ 7,095	$ 5,873
Amounts charged to expense	5,305	4,986	5,500
Accounts written off	(6,587)	(6,135)	(5,410)
Recoveries of accounts written off	1,125	1,125	1,132
Balance at December 31,	$ 6,914	$ 7,071	$ 7,095

(In thousands of dollars, except per share amounts)

Note 6 – *Regulatory Assets and Liabilities*

The regulatory assets represent costs that are probable to be fully recovered from customers in future rates while regulatory liabilities represent amounts that are expected to be refunded to customers in future rates or amounts recovered from customers in advance of incurring the costs. Except for income taxes, regulatory assets and regulatory liabilities are excluded from the Company's rate base and do not earn a return. The components of regulatory assets and regulatory liabilities are as follows:

	December 31, 2018		December 31, 2017	
	Regulatory Assets	Regulatory Liabilities	Regulatory Assets	Regulatory Liabilities
Income taxes	$ 657,378	$ 414,787	$ 584,067	$ 438,750
Customer refunds resulting from TCJA	-	4,593	-	-
Utility plant retirement costs	6,743	38,435	5,367	35,249
Post-retirement benefits	110,719	71,285	112,532	65,964
Accrued vacation	2,447	-	2,198	-
Water tank painting	2,864	1,855	3,259	1,855
Fair value adjustment of long-term debt assumed in acquisition	2,533	-	2,901	-
Rate case filing expenses and other	5,392	72	3,647	92
	$ 788,076	$ 531,027	$ 713,971	$ 541,910

Items giving rise to deferred state income taxes, as well as a portion of deferred Federal income taxes related to specific differences between tax and book depreciation expense, are recognized in the rate setting process on a cash basis or as a reduction in current income tax expense and will be recovered as they reverse. Amounts include differences that arise between specific utility asset improvement costs capitalized for book and deducted as an expense for tax purposes. Additionally, the recording of AFUDC for equity funds results in the recognition of a regulatory asset for income taxes, which represents amounts due related to the revenue requirement.

A portion of the regulatory liability for income taxes is related to Aqua Pennsylvania's income tax accounting change for the tax benefits realized on the Company's 2012 tax return, which have not yet reduced current income tax expense due to the ten-year amortization period which began in 2013. This amortization was stipulated in a June 2012 rate order issued to Aqua Pennsylvania and is subject to specific parameters being met each year. Beginning in 2013, the Company amortized $38,000, annually, of its deferred income tax benefits, which reduced current income tax expense and increased the Company's net income by $16,734.

On December 22, 2017, President Trump signed the TCJA into law, which reduced the Federal corporate income tax rate from 35% to 21%. Reductions in accumulated deferred income tax balances due to the reduction in the corporate income tax rate to 21% under the provisions of the TCJA will result in amounts previously collected from utility customers for these deferred taxes to be refundable to such customers, generally through reductions in future rates. The TCJA includes provisions that stipulate how these excess deferred taxes relating to certain accelerated tax depreciation benefits are to be passed back to customers. Potential refunds of other deferred taxes will be determined by our state regulators. The December 31, 2017 consolidated balance sheet reflects the impact of the TCJA on our regulatory assets and liabilities and reduces our regulatory assets by $357,262 and increases our regulatory liabilities by $303,320. These adjustments had no impact on our 2017 cash flows. The regulatory liability for customer refunds resulting from the TCJA represents a revenue reserve for potential customer refunds associated with the reduction in the Federal corporate income tax rate under the provisions of the TCJA.

The regulatory asset for utility plant retirement costs, including cost of removal, represents costs already incurred that are expected to be recovered in future rates over a five-year recovery period. The regulatory liability for utility plant retirement costs represents amounts recovered through rates during the life of the associated asset and before the costs are incurred.

(In thousands of dollars, except per share amounts)

The regulatory asset for accrued vacation represents costs that would otherwise be charged to operations and maintenance expense for vacation that is earned by employees, which is recovered as a cost of service.

The regulatory asset for post-retirement benefits, which includes pension and other post-retirement benefits, primarily reflects a regulatory asset that has been recorded for the costs that would otherwise be charged to stockholders' equity for the underfunded status of the Company's pension and other post-retirement benefit plans. The Company also has a regulatory asset related to post-retirement benefits costs that represent costs already incurred which are now being recovered in rates over 10 years. The regulatory liability for post-retirement benefits represents costs recovered in rates in excess of post-retirement benefits expense.

Expenses associated with water tank painting are deferred and amortized over a period of time as approved in the regulatory process. Water tank painting costs are generally being amortized over a period ranging from 1 to 15 years. The regulatory liability for water tank painting costs represents amounts recovered through rates and before the costs are incurred.

The Company recorded a fair value adjustment for fixed rate, long-term debt assumed in acquisitions that matures in various years ranging from 2022 to 2029. The regulatory asset or liability results from the rate setting process continuing to recognize the historical interest cost of the assumed debt.

The regulatory asset related to rate case filing expenses and other represents the costs associated with filing for rate increases that are deferred and amortized over periods that generally range from one to five years, and costs incurred by the Company for which it has received or expects to receive rate recovery.

The regulatory asset related to the costs incurred for information technology software projects and water main cleaning and relining projects are described in Note 1 – *Summary of Significant Accounting Policies – Property, Plant and Equipment and Depreciation*.

Note 7 – *Income Taxes*

The provision for income taxes consists of:

	Years Ended December 31,		
	2018	2017	2016
Current:			
Federal	$ -	$ 1,297	$ 2,046
State	1,281	1,837	1,682
	1,281	3,134	3,728
Deferred:			
Federal	(8,721)	21,376	21,489
State	(6,229)	(7,596)	(4,239)
	(14,950)	13,780	17,250
Total tax expense (benefit)	$ (13,669)	$ 16,914	$ 20,978

The statutory Federal tax rate is 21% for 2018, and 35% for 2017 and 2016. For states with a corporate net income tax, the state corporate net income tax rates range from 3% to 9.99% for all years presented.

(In thousands of dollars, except per share amounts)

The reasons for the differences between amounts computed by applying the statutory Federal corporate income tax rate to income before income tax expense are as follows:

	Years Ended December 31,		
	2018	2017	2016
Computed Federal tax expense at statutory rate	$ 37,447	$ 89,828	$ 89,306
Decrease in Federal tax expense related to an income tax accounting change for qualifying utility asset improvement costs	(44,089)	(69,325)	(62,831)
State income taxes, net of Federal tax benefit	(4,964)	(3,743)	(1,662)
Increase in tax expense for depreciation expense to be recovered in future rates	328	199	199
Stock-based compensation	(414)	(595)	(227)
Deduction for Aqua America common dividends paid under employee benefit plan	(312)	(455)	(455)
Amortization of deferred investment tax credits	(373)	(376)	(405)
Federal tax rate change	(313)	3,141	-
Other, net	(979)	(1,760)	(2,947)
Actual income tax expense (benefit)	$ (13,669)	$ 16,914	$ 20,978

In 2012, the Company changed its tax method of accounting for qualifying utility system repairs in Aqua Pennsylvania effective with the tax year ended December 31, 2012 and for prior tax years. The tax accounting method was changed to permit the expensing of qualifying utility asset improvement costs that were previously being capitalized and depreciated for book and tax purposes. This change was implemented in response to a June 2012 rate order issued by the Pennsylvania Public Utility Commission to Aqua Pennsylvania which provides for a reduction in current income tax expense as a result of the flow-through recognition of some income tax benefits due to the income tax accounting change. The Company recorded income tax benefits of $64,183, $84,766, and $78,530 during 2018, 2017, and 2016, respectively. The Company recognized a tax deduction on its 2012 Federal tax return of $380,000 for qualifying capital expenditures made prior to 2012, and based on the rate order, in 2013, the Company began to amortize 1/10th of these expenditures. In accordance with the rate order, the amortization is expected to reduce current income tax expense during periods when qualifying parameters are met. Beginning in 2013, the Company amortized the qualifying capital expenditures made prior to 2012 and recognized $38,000, annually, of deferred income tax benefits, which reduced current income tax expense and increased the Company's net income by $16,734. The Company's effective income tax rate for 2018, 2017, and 2016 was (7.7)%, 6.6%, and 8.2%, respectively.

The Company establishes reserves for uncertain tax positions based upon management's judgment as to the sustainability of these positions. These accounting estimates related to the uncertain tax position reserve require judgments to be made as to the sustainability of each uncertain tax position based on its technical merits. The Company believes its tax positions comply with applicable law and that it has adequately recorded reserves as required. However, to the extent the final tax outcome of these matters is different than the estimates recorded, the Company would then adjust its tax reserves or unrecognized tax benefits in the period that this information becomes known. The Company has elected to recognize accrued interest and penalties related to uncertain tax positions as income tax expense.

(In thousands of dollars, except per share amounts)

The following table provides the changes in the Company's unrecognized tax benefits:

	2018	2017
Balance at January 1,	$ 17,583	$ 28,099
Additions based on tax position related to the current year	209	705
Effect of Federal tax rate change	-	(11,221)
Balance at December 31,	$ 17,792	$ 17,583

The unrecognized tax benefits relate to the income tax accounting change, and the tax position is attributable to a temporary difference. The Company does not anticipate material changes to its unrecognized tax benefits within the next year. As a result of the regulatory treatment afforded by the income tax accounting change in Pennsylvania and despite this position being a temporary difference, as of December 31, 2018 and 2017, $26,990 and $24,243 and, respectively, of these tax benefits would have an impact on the Company's effective income tax rate in the event the Company does sustain all, or a portion, of its tax position.

The following table provides the components of net deferred tax liability:

	December 31,	
	2018	2017
Deferred tax assets:		
Customers' advances for construction	$ 13,188	$ 17,123
Costs expensed for book not deducted for tax, principally accrued expenses	27,711	12,956
Utility plant acquisition adjustment basis differences	1,053	1,752
Post-retirement benefits	39,515	36,353
Tax loss and credit carryforwards	43,637	56,642
Other	2,761	2,348
	127,865	127,174
Less valuation allowance	18,082	11,623
	109,783	115,551
Deferred tax liabilities:		
Utility plant, principally due to depreciation and differences in the basis of fixed assets due to variation in tax and book accounting	837,057	795,537
Deferred taxes associated with the gross-up of revenues necessary to recover, in rates, the effect of temporary differences	72,258	46,143
Tax effect of regulatory asset for post-retirement benefits	39,515	36,353
Deferred investment tax credit	6,356	6,591
	955,186	884,624
Net deferred tax liability	$ 845,403	$ 769,073

At December 31, 2018, the Company has a cumulative Federal NOL of $10,835. The Company believes the Federal NOLs are more likely than not to be recovered and require no valuation allowance. The Company's Federal NOLs do not begin to expire until 2032.

At December 31, 2018, the Company has a cumulative state NOL of $650,286, a portion of which is offset by a valuation allowance because the Company does not believe these NOLs are more likely than not to be realized. The state NOLs do not begin to expire until 2023.

The Company has unrecognized tax positions that result in the associated tax benefit being unrecognized. The Company's Federal and state NOL carryforwards are reduced by an unrecognized tax position, on a gross basis, of $69,047 and $85,672, respectively, which results from the Company's adoption in 2013 of the FASB's accounting guidance on the presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The amounts of the Company's Federal and state NOL carryforwards prior to being reduced by the unrecognized tax positions are $79,882 and $735,958, respectively. The Company records its unrecognized tax benefit as a reduction to its deferred income tax liability.

As of December 31, 2018, the Company's Federal income tax returns for all years through 2011 have been closed. Tax years 2012 through 2018 remain open to Federal examination. The statute remains open for the Company's state income tax returns for tax years 2015 through 2018 in the various states in which it conducts business.

On December 22, 2017, President Trump signed the TCJA into law. The TCJA includes significant changes to the Code and the taxation of business entities, and includes specific provisions related to regulated public utilities. Significant changes that impact the Company included in the TCJA are a reduction in the corporate federal income tax rate from 35% to 21%, effective January 1, 2018, and a limitation of the utilization of NOLs arising after December 31, 2017 to 80% of taxable income with an indefinite carryforward. The specific TCJA provisions related to our regulated entities generally allow for the continued deductibility of interest expense, the elimination of full expensing for tax purposes of certain property acquired after September 27, 2017 and the continuation of certain rate normalization requirements for accelerated depreciation benefits. Our market-based companies still qualify for 100% deductibility of qualifying property acquired after September 27, 2017.

At the date of enactment, the Company's deferred taxes were re-measured based upon the new tax rate. For our regulated entities, the change in deferred taxes was recorded as either an offset to a regulatory asset or liability. In instances where the deferred tax balances are not in ratemaking, such as the Company's market-based operations, the change in deferred taxes was recorded as an adjustment to our deferred tax provision. To the extent the revalued deferred income tax assets and liabilities were outside of our regulated operations and are not believed to be recoverable in utility customer rates, the revalued amount of $3,141 was recognized as additional deferred income tax expense during the quarter ended December 31, 2017.

The staff of the SEC has recognized the complexity of reflecting the impacts of the TCJA, and on December 22, 2017 issued guidance, which clarifies accounting for income taxes if information is not yet available or complete and provides for up to a one year period in which to complete the required analyses and accounting (the measurement period). The guidance describes three scenarios (or "buckets") associated with a company's status of accounting for income tax reform: (1) a company is complete with its accounting for certain effects of tax reform, (2) a company is able to determine a reasonable estimate for certain effects of tax reform and records that estimate as a provisional amount, or (3) a company is not able to determine a reasonable estimate and therefore continues to apply the FASB's accounting guidance, based on the provisions of the tax laws that were in effect immediately prior to the TCJA being enacted. The one-year measurement period concluded in the fourth quarter of 2018, and there were no material changes in the Company's accounting for the TCJA.

One of our states, Pennsylvania, has not issued an accounting or procedural order addressing how the TCJA changes are to be reflected in our utility customer rates. As of December 31, 2017, the Company has provisionally estimated that $175,108 of deferred income tax liabilities for our Pennsylvania subsidiary will be a regulatory liability. In August 2018, Aqua Pennsylvania filed for a base rate increase in water and wastewater rates for its customers. In February 2019, Aqua Pennsylvania filed a settlement for this base rate case, and there has been no change in the Company's estimate of its regulatory liability. Overall, the Company has applied a reasonable interpretation of the impact of the TCJA and a reasonable estimate of the regulatory resolution. Further clarification of the TCJA and regulatory resolution may change the amounts estimated of the deferred income tax provision and the accumulated deferred income tax liability.

(In thousands of dollars, except per share amounts)

The Company's regulated operations accounting for income taxes are impacted by the FASB's accounting guidance for regulated operations. Reductions in accumulated deferred income tax balances due to the reduction in the Federal corporate income tax rates to 21% under the provisions of the TCJA will result in amounts previously collected from utility customers for these deferred taxes to be refundable to such customers, generally through reductions in future rates. The TCJA includes provisions that stipulate how these excess deferred taxes related to certain accelerated tax depreciation deduction benefits are to be passed back to customers. Potential refunds of other deferred taxes will be determined by our state regulators. The Company has reserved $4,593 for amounts expected to be refundable to utility customers. In 2018, Illinois, Virginia, Texas, New Jersey, and two operating divisions in Ohio which operate under locally-negotiated contractual rates with their respective counties, the Company's base rates have been adjusted or surcredits have been added to customer bills to reflect the lower corporate income tax rate. In North Carolina, Indiana, and our regulated operations in Ohio, no surcredits have been added to customer bills to reflect the lower corporate income tax rate in 2018. These adjustments will be reflected in customer bills beginning January 1, 2019. In Pennsylvania, no procedural order has been received in 2018 but is expected to be received in 2019. In addition, we have two rate cases currently in progress in two states in which the TCJA is expected to be addressed in the new base rates. The December 31, 2017 consolidated balance sheet reflects the impact of the TCJA on our regulatory assets and liabilities which reduced our regulatory assets by $357,262 and increased our regulatory liabilities by $303,320. These adjustments had no impact on our 2017 cash flows.

Note 8 – *Taxes Other than Income Taxes*

The following table provides the components of taxes other than income taxes:

	Years Ended December 31,		
	2018	2017	2016
Property	$ 27,469	$ 25,810	$ 26,788
Gross receipts, excise and franchise	14,521	13,458	12,510
Payroll	9,789	9,477	9,772
Regulatory assessments	2,752	2,552	2,630
Pumping fees	4,978	5,057	4,571
Other	253	274	114
Total taxes other than income taxes	$ 59,762	$ 56,628	$ 56,385

Note 9 – *Commitments and Contingencies*

Commitments – The Company leases motor vehicles, buildings and other equipment under operating leases that are noncancelable. The future annual minimum lease payments due are as follows:

2019	2020	2021	2022	2023	Thereafter
$ 1,557	$ 1,018	$ 779	$ 557	$ 184	$ 137

The Company leases parcels of land on which treatment plants and other facilities are situated and adjacent parcels that are used for watershed protection. The operating leases are noncancelable, expire between 2020 and 2095, and contain renewal provisions. Some leases are subject to an adjustment every five years based on changes in the Consumer Price Index. Subject to the aforesaid adjustment, during each of the next five years, an average of $664 of annual lease payments for land is due, and the aggregate of the years remaining approximates $16,033.

(In thousands of dollars, except per share amounts)

The Company maintains agreements with other water purveyors for the purchase of water to supplement its water supply, particularly during periods of peak demand. The agreements stipulate purchases of minimum quantities of water to the year 2026. The estimated annual commitments related to such purchases through 2023 are expected to average $4,824 and the aggregate of the years remaining approximates $8,072.

The Company has entered into purchase obligations, in the ordinary course of business, that include agreements for water treatment processes at some of its wells in a small number of its divisions. The 20 year term agreement provides for the use of treatment equipment and media used in the treatment process and are subject to adjustment based on changes in the Consumer Price Index. The future contractual cash obligations related to these agreements are as follows:

2019	2020	2021	2022	2023	Thereafter
$ 1,006	$ 1,027	$ 1,047	$ 1,070	$ 1,077	$ 5,597

Rent expense under operating leases, purchased water expense, and water treatment expenses under these agreements were as follows:

	Years Ended December 31,		
	2018	2017	2016
Operating lease expense	$ 2,569	$ 2,241	$ 2,776
Purchased water under long-term agreements	6,065	8,558	13,955
Water treatment expense under contractual agreement	970	945	940

Contingencies – The Company is routinely involved in various disputes, claims, lawsuits and other regulatory and legal matters, including both asserted and unasserted legal claims, in the ordinary course of business. The status of each such matter, referred to herein as a loss contingency, is reviewed and assessed in accordance with applicable accounting rules regarding the nature of the matter, the likelihood that a loss will be incurred, and the amounts involved. As of December 31, 2018, the aggregate amount of $17,681 is accrued for loss contingencies and is reported in the Company's consolidated balance sheet as other accrued liabilities and other liabilities. These accruals represent management's best estimate of probable loss (as defined in the accounting guidance) for loss contingencies or the low end of a range of losses if no single probable loss can be estimated. For some loss contingencies, the Company is unable to estimate the amount of the probable loss or range of probable losses. While the final outcome of these loss contingencies cannot be predicted with certainty, and unfavorable outcomes could negatively impact the Company, at this time in the opinion of management, the final resolution of these matters are not expected to have a material adverse effect on the Company's financial position, results of operations or cash flows. Further, Aqua America has insurance coverage for a number of these loss contingencies, and as of December 31, 2018, estimates that approximately $6,108 of the amount accrued for these matters are probable of recovery through insurance, which amount is also reported in the Company's consolidated balance sheet as deferred charges and other assets, net.

Although the results of legal proceedings cannot be predicted with certainty, there are no pending legal proceedings to which the Company or any of its subsidiaries is a party or to which any of its properties is the subject that are material or are expected to have a material effect on the Company's financial position, results of operations or cash flows.

Additionally, the Company self-insures its employee medical benefit program, and maintains stop-loss coverage to limit the exposure arising from these claims. The Company's reserve for these claims totaled $1,515 and $1,451 at December 31, 2018 and 2017 and represents a reserve for unpaid claim costs, including an estimate for the cost of incurred but not reported claims.

(In thousands of dollars, except per share amounts)

Note 10 – *Long-term Debt and Loans Payable*

Long-term Debt – The consolidated statements of capitalization provide a summary of long-term debt as of December 31, 2018 and 2017. The supplemental indentures with respect to specific issues of the first mortgage bonds restrict the ability of Aqua Pennsylvania and other operating subsidiaries of the Company to declare dividends, in cash or property, or repurchase or otherwise acquire the stock of these companies. Loan agreements for Aqua Pennsylvania and other operating subsidiaries of the Company have restrictions on minimum net assets. As of December 31, 2018, restrictions on the net assets of the Company were $1,613,139 of the total $2,009,363 in net assets. Included in this amount were restrictions on Aqua Pennsylvania's net assets of $1,215,475 of their total net assets of $1,695,380. As of December 31, 2018, $1,497,417 of Aqua Pennsylvania's retained earnings of $1,517,417 and $181,400 of the retained earnings of $246,400 of other subsidiaries were free of these restrictions. Some supplemental indentures also prohibit Aqua Pennsylvania and some other subsidiaries of the Company from making loans to, or purchasing the stock of, the Company.

Sinking fund payments are required by the terms of specific issues of long-term debt. Excluding amounts due under the Company's revolving credit agreement, the future sinking fund payments and debt maturities of the Company's long-term debt are as follows:

Interest Rate Range	2019	2020	2021	2022	2023	Thereafter
0.00% to 0.99%	$ 464	$ 462	$ 463	$ 466	$ 460	$ 1,417
1.00% to 1.99%	1,222	1,158	910	888	767	6,643
2.00% to 2.99%	51,814	1,863	1,913	1,965	2,017	7,916
3.00% to 3.99%	2,758	52,553	2,591	2,538	1,910	730,076
4.00% to 4.99%	50,403	16,616	15,297	237	11,055	849,458
5.00% to 5.99%	36,183	18,178	8,456	18,029	10,807	195,562
6.00% to 6.99%	-	-	-	-	-	31,000
7.00% to 7.99%	527	615	666	366	-	29,390
8.00% to 8.99%	474	613	1,665	721	784	1,324
9.00% to 9.99%	700	700	6,600	-	-	12,000
Total	$ 144,545	$ 92,758	$ 38,561	$ 25,210	$ 27,800	$ 1,864,786

In November 2018, Aqua Pennsylvania issued $125,000 of first mortgage bonds, of which $65,000 is due in 2047, $30,000 is due in 2052, and $30,000 is due in 2053 with interest rates of 4.44%, 4.49%, and 4.51%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.
In June 2018, Aqua Pennsylvania issued $100,000 of first mortgage bonds, of which $25,000 is due in 2042, $10,000 is due in 2045, and $65,000 is due in 2048 with interest rates of 3.99%, 4.04%, and 4.09%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

In July 2018, Aqua Pennsylvania redeemed $49,660 of tax-exempt bonds at 5.25% that were originally maturing in 2042 and 2043, respectively.

In October 2017, Aqua Pennsylvania issued $75,000 of first mortgage bonds, of which $35,000 is due in 2054, $20,000 is due in 2055, and $20,000 is due in 2057 with interest rates of 4.06%, 4.07%, and 4.09%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

(In thousands of dollars, except per share amounts)

In July 2017 Aqua Illinois issued $100,000 of first mortgage bonds consisting of the following:

Amount	Interest Rate	Maturity
$25,000	3.64%	2032
$6,000	3.89%	2037
$15,000	3.90%	2038
$10,000	4.18%	2047
$22,000	4.22%	2049
$22,000	4.24%	2050

The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

In July 2017, Aqua Pennsylvania issued $80,000 of first mortgage bonds, of which $40,000 is due in 2055 and $40,000 is due in 2057 with interest rates of 4.04% and 4.06%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

In January 2017, Aqua Pennsylvania issued $50,000 of first mortgage bonds, of which $10,000 is due in 2042 and $40,000 is due in 2044 with interest rates of 3.65% and 3.69%, respectively. The proceeds from these bonds were used to repay existing indebtedness and for general corporate purposes.

As of December 31, 2018 and 2017, the Company did not have any funds restricted for construction activity.

The weighted average cost of long-term debt at December 31, 2018 and 2017 was 4.23% and 4.29%, respectively. The weighted average cost of fixed rate long-term debt at December 31, 2018 and 2017 was 4.31% and 4.36%, respectively.

In December 2018, the Company entered into a five-year $550,000 unsecured revolving credit facility, which replaced the Company's prior five-year $500,000 unsecured revolving credit facility. The Company's new unsecured revolving credit facility will be used to repay all indebtedness and fees under our prior unsecured revolving credit facility, and for other general corporate purposes. Additionally, the facility expands by $150,000 of capacity, upon closing of the Peoples Gas Acquisition, which amount will be available to repay certain outstanding indebtedness and fees to close an existing credit facility of Peoples and for general corporate purposes. Further, the Company may request to expand the facility by an additional amount of up to $300,000, upon the closing of the Peoples Gas Acquisition. The facility includes a $25,000 sublimit for daily demand loans. Funds borrowed under this facility are classified as long-term debt and are used to provide working capital as well as support for letters of credit for insurance policies and other financing arrangements. As of December 31, 2018, the Company has the following sublimits and available capacity under the credit facility: $50,000 letter of credit sublimit, $29,503 of letters of credit available capacity, $0 borrowed under the swing-line commitment, and $370,000 of funds borrowed under the agreement. Interest under this facility is based at the Company's option, on the prime rate, an adjusted Euro-Rate, an adjusted federal funds rate or at rates offered by the banks. A facility fee is charged on the total commitment amount of the agreement. Under these facilities the average cost of borrowings was 2.92% and 1.91%, and the average borrowing was $207,277 and $48,333, during 2018 and 2017, respectively.

The Company is obligated to comply with covenants under some of its loan and debt agreements. These covenants contain a number of restrictive financial covenants, which among other things limit, subject to specific exceptions, the Company's ratio of consolidated total indebtedness to consolidated total capitalization, and require a minimum level of earnings coverage over interest expense. During 2018, the Company was in compliance with its debt covenants under its loan and debt agreements. Failure to comply with the Company's debt covenants could result in an event of default, which could result in the Company being required to repay or finance its borrowings before their due date, possibly limiting the Company's future borrowings, and increasing its borrowing costs.

Loans Payable – In November 2018, Aqua Pennsylvania renewed its $100,000 364-day unsecured revolving credit facility with four banks. The funds borrowed under this agreement are classified as loans payable and used to provide working capital. As of December 31, 2018 and 2017, funds borrowed under the agreement were $15,449 and $3,650, respectively. Interest under this facility is based, at the borrower's option, on the prime rate, an adjusted federal funds rate, an adjusted London Interbank Offered Rate corresponding to the interest period selected, an adjusted Euro-Rate corresponding to the interest period selected or at rates offered by the banks. This agreement restricts short-term borrowings of Aqua Pennsylvania. A commitment fee of 0.05% is charged on the total commitment amount of Aqua Pennsylvania's revolving credit agreement. The average cost of borrowing under the facility was 2.68% and 1.78%, and the average borrowing was $22,056 and $21,913, during 2018 and 2017, respectively. The maximum amount outstanding at the end of any one month was $45,000 and $66,466 in 2018 and 2017, respectively.

(In thousands of dollars, except per share amounts)

At December 31, 2018 and 2017, the Company had other combined short-term lines of credit of $35,500. Funds borrowed under these lines are classified as loans payable and are used to provide working capital. As of December 31, 2018 and 2017, funds borrowed under the short-term lines of credit were $0, respectively. The average borrowing under the lines was $0 and $908 during 2018 and 2017, respectively. The maximum amount outstanding at the end of any one month was $0 in 2018 and $990 in 2017, respectively. Interest under the lines is based at the Company's option, depending on the line, on the prime rate, an adjusted Euro-Rate, an adjusted federal funds rate or at rates offered by the banks. The average cost of borrowings under all lines during 2018 and 2017 was 2.68% and 1.81%, respectively.

Interest Income and Expense– Interest income of $152, $202, and $217 was netted against interest expense on the consolidated statement of net income for the years ended December 31, 2018, 2017, and 2016, respectively. The total interest cost was $99,054, $88,543, and $80,811 in 2018, 2017, and 2016, including amounts capitalized for borrowed funds of $3,332, $3,578, and $2,220, respectively.

Unsecured Bridge Loan Commitment – On October 22, 2018, the Company obtained the Bridge Commitment from certain banks to provide senior unsecured bridge loans in an aggregate amount of up to $5,100,000 to, among other things, backstop the Peoples Gas Acquisition purchase price and the refinancing of certain debt of the Company and of Peoples. As of December 31, 2018, the Company had terminated approximately $1,633,000 of commitments under the Bridge Commitment in connection with, among other things, the replacement of the Company's unsecured revolving credit facility and the expected maintenance of certain Peoples' indebtedness.

Interest Rate Swap Agreements – In October 2018, the Company entered into interest rate swap agreements to mitigate interest rate risk associated with an anticipated $850,000 of future debt issuances to fund a portion of the Peoples Gas Acquisition and refinance a portion of the Company's borrowings. The interest rate swaps will be settled upon issuance of the debt to be used to finance a portion of the purchase price of this acquisition. The interest rate swaps do not qualify for hedge accounting and any changes in the fair value of the swaps is included in our future earnings. The interest rate swaps are classified as financial derivatives used for non-trading activities. Other than the interest rate swaps, the Company has no other derivative instruments. The Company records the fair value of the interest rate swaps by discounting the future net cash flows associated with anticipated future debt issuance and recognizes either an asset or liability at the balance sheet date.

The following table provides a summary of the fair value of our interest rate swap agreements:

	Derivative Assets		Derivative Liabilities	
	December 31,		December 31,	
	Balance Sheet Location	2018	Balance Sheet Location	2018
Derivatives not designated as hedging instrument:				
Interest rate swaps	Current assets	$ -	Current liabilities	$ 59,779

(In thousands of dollars, except per share amounts)

The following table provides a summary of the amounts recognized in earnings for our interest rate swap agreements:

	Location of Gain (Loss) Recognized	Amount of Gain (Loss) Recognized in Income on Derivatives Year Ended December 31, 2018
Derivatives not designated as hedging instrument:		
Interest rate swaps	Other (expense) income	$ (59,779)

Note 11 – *Fair Value of Financial Instruments*

Financial instruments are recorded at carrying value in the financial statements and approximate fair value, with the exception of long-term debt, as of the dates presented. The fair value of these instruments is disclosed below in accordance with current accounting guidance related to financial instruments.

The fair value of loans payable is determined based on its carrying amount and utilizing level 1 methods and assumptions. As of December 31, 2018 and 2017, the carrying amount of the Company’s loans payable was $15,449 and $3,650, which equates to their estimated fair value. The fair value of the interest rate swap agreements is determined by discounting the future net cash flows utilizing level 2 methods and assumptions. As of December 31, 2018, the fair value of the Company’s interest rate swap agreements represented a liability of $59,779. The fair value of cash and cash equivalents, which is comprised of uninvested cash, is determined based on level 1 methods and assumptions. As of December 31, 2018 and 2017, the carrying amounts of the Company's cash and cash equivalents were $3,627 and $4,204, which equates to their fair value. The Company’s assets underlying the deferred compensation and non-qualified pension plans are determined by the fair value of mutual funds, which are based on quoted market prices from active markets utilizing level 1 methods and assumptions. As of December 31, 2018 and 2017, the carrying amount of these securities was $20,388 and $21,776, which equates to their fair value, and is reported in the consolidated balance sheet in deferred charges and other assets.

Unrealized gains and losses on equity securities held in conjunction with our non-qualified pension plan is as follows:

	2018
Net loss recognized during the period on equity securities	$ (95)
Less: net gain / loss recognized during the period on equity securities sold during the period	-
Unrealized loss recognized during the reporting period on equity securities still held at the reporting date	$ (95)

(In thousands of dollars, except per share amounts)

The net loss recognized on equity securities is presented on the consolidated statements of net income on the line item "Other." Additionally, the unrealized gain recognized during 2017 and 2016 was reported on the consolidated statements of comprehensive income.

The carrying amounts and estimated fair values of the Company's long-term debt is as follows:

	December 31,	
	2018	2017
Carrying amount	$ 2,563,660	$ 2,143,127
Estimated fair value	2,588,086	2,262,785

The fair value of long-term debt has been determined by discounting the future cash flows using current market interest rates for similar financial instruments of the same duration utilizing level 2 methods and assumptions. The Company's customers' advances for construction have a carrying value of $93,343 and $93,186 at December 31, 2018 and 2017, respectively. Their relative fair values cannot be accurately estimated because future refund payments depend on several variables, including new customer connections, customer consumption levels and future rate increases. Portions of these non-interest bearing instruments are payable annually through 2028 and amounts not paid by the respective contract expiration dates become non-refundable. The fair value of these amounts would, however, be less than their carrying value due to the non-interest bearing feature.

Note 12 – *Stockholders' Equity*

At December 31, 2018, the Company had 300,000,000 shares of common stock authorized; par value $0.50. Shares outstanding and treasury shares held were as follows:

	December 31,		
	2018	2017	2016
Shares outstanding	178,091,621	177,713,943	177,394,376
Treasury shares	3,060,206	2,986,308	2,916,969

At December 31, 2018, the Company had 1,770,819 shares of authorized but unissued Series Preferred Stock, $1.00 par value.

In February 2018, the Company filed a universal shelf registration statement with the SEC to allow for the potential future sale by the Company, from time to time, in one or more public offerings, of an indeterminate amount of our common stock, preferred stock, debt securities and other securities specified therein at indeterminate prices.

The Company has an acquisition shelf registration statement on file with the SEC which permits the offering, from time to time, of an aggregate of $500,000 in shares of common stock and shares of preferred stock in connection with acquisitions. During 2016, 439,943 shares of common stock totaling $12,845 were issued by the Company to acquire a water utility system. The balance remaining available for use under the acquisition shelf registration as of December 31, 2018 is $487,155.

The form and terms of any securities issued under the universal shelf registration statement and the acquisition shelf registration statement will be determined at the time of issuance.

The Company has a Dividend Reinvestment and Direct Stock Purchase Plan ("Plan") that allows reinvested dividends to be used to purchase shares of common stock at a five percent discount from the current market value. Under the direct stock purchase program, shares are purchased by investors at a five percent discount from the market price. The shares issued under the Plan are either shares purchased by the Company's transfer agent in the open-market or original issue shares. In 2018, 2017, and 2016, 321,585, 447,753, and 484,645 shares of the Company were purchased under the dividend reinvestment portion of the Plan by the Company's transfer agent in the open-market for $11,343, $15,168, and $14,916, respectively. During 2018 and 2017, under the dividend reinvestment portion of the Plan, 158,205 and 45,121 original issue shares of common stock were sold, providing the Company with proceeds of $5,163 and $1,453, respectively.

The Company's accumulated other comprehensive income is reported in the stockholders' equity section of the consolidated balance sheets, the consolidated statements of equity, and the related components of other comprehensive income are reported in the consolidated statements of comprehensive income. The Company recorded a regulatory asset for its underfunded status of its pension and other post-retirement benefit plans that would otherwise be charged to other comprehensive income, as it anticipates recovery of its costs through customer rates.

Note 13 – *Net Income per Common Share and Equity per Common Share*

Basic net income per share is based on the weighted average number of common shares outstanding. Diluted net income per share is based on the weighted average number of common shares outstanding and potentially dilutive shares. The dilutive effect of employee stock-based compensation is included in the computation of diluted net income per share. The dilutive effect of stock-based compensation is calculated by using the treasury stock method and expected proceeds upon exercise or issuance of the stock-based compensation. The treasury stock method assumes that the proceeds from stock-based compensation are used to purchase the Company's common stock at the average market price during the period. The following table summarizes the shares, in thousands, used in computing basic and diluted net income per share:

	Years ended December 31,		
	2018	2017	2016
Average common shares outstanding during the period for basic computation	177,904	177,612	177,273
Effect of dilutive securities:			
Employee stock-based compensation	495	563	573
Average common shares outstanding during the period for diluted computation	178,399	178,175	177,846

For the year ended December 31, 2018, the Company's employee stock options to purchase 8,596 shares of common stock were excluded from the calculation of diluted net income per share as the calculated cost to exercise the stock options was greater than the average market price of the Company's common stock during this period. For the years ended December 31, 2017, and 2016, all of the Company's employee stock options were included in the calculation of diluted net income per share as the calculated cost to exercise the stock options was less than the average market price of the Company's common stock during these periods.

Equity per common share was $11.28 and $11.02 at December 31, 2018 and 2017, respectively. These amounts were computed by dividing Aqua America stockholders' equity by the number of shares of common stock outstanding at the end of each year.

Note 14 – *Employee Stock and Incentive Plan*

Under the Company's 2009 Omnibus Equity Compensation Plan, as amended as of February 27, 2014 (the "2009 Plan"), as approved by the Company's shareholders to replace the 2004 Equity Compensation Plan (the "2004 Plan"), stock options, stock units, stock awards, stock appreciation rights, dividend equivalents, and other stock-based awards may be granted to employees, non-employee directors, and consultants and advisors. No further grants may be made under the 2004 Plan. The 2009 Plan authorizes 6,250,000 shares for issuance under the plan. A maximum of 3,125,000 shares under the 2009 Plan may be issued pursuant to stock award, stock units and other stock-based awards, subject to adjustment as provided in the 2009 Plan. During any calendar year, no individual may be granted (i) stock options and stock appreciation rights under the 2009 Plan for more than 500,000 shares of common stock in the aggregate or (ii) stock awards, stock units or other stock-based awards under the 2009 Plan for more than 500,000 shares of Company stock in the aggregate, subject to adjustment as provided in the 2009 Plan. Awards to employees and consultants under the 2009 Plan are made by a committee of the Board of Directors, except that with respect to awards to the Chief Executive Officer, the committee recommends those awards for approval by the non-employee directors of the Board of Directors. In the case of awards to non-employee directors, the Board of Directors makes such awards. At December 31, 2018, 3,374,238 shares underlying stock-based compensation awards were still available for grant under the 2009 Plan.

(In thousands of dollars, except per share amounts)

Performance Share Units – During 2018, 2017, and 2016, the Company granted performance share units. A performance share unit ("PSU") represents the right to receive a share of the Company's common stock if specified performance goals are met over the three year performance period specified in the grant, subject to exceptions through the respective vesting periods, generally three years. Each grantee is granted a target award of PSUs, and may earn between 0% and 200% of the target amount depending on the Company's performance against the performance goals.

The performance goals of the 2018, 2017, and 2016 PSU grants consisted of the following metrics:

	Performance Grant of:		
	2018	2017	2016
Metric 1 – Company's total shareholder return ("TSR") compared to the TSR for a specific peer group of investor-owned water companies (a market-based condition)	25.0%	26.47%	27.5%
Metric 2 – Company's TSR compared to the TSR for the companies listed in the Standard and Poor's Midcap Utilities Index (a market-based condition)	25.0%	26.47%	27.5%
Metric 3 – Achievement of a targeted cumulative level of rate base growth as a result of acquisitions (a performance-based condition)	25.0%	23.53%	25.0%
Metric 4 – Achievement of targets for maintaining consolidated operations and maintenance expenses over the three year measurement period (a performance-based condition)	25.0%	23.53%	20.0%

The following table provides the compensation expense and income tax benefit for PSUs:

	Years ended December 31,		
	2018	2017	2016
Stock-based compensation within operations and maintenance expense	$ 4,817	$ 4,351	$ 3,823
Income tax benefit	1,344	1,766	1,552

(In thousands of dollars, except per share amounts)

The following table summarizes nonvested PSU transactions for the year ended December 31, 2018:

	Number of Share Units	Weighted Average Fair Value
Nonvested share units at beginning of period	452,333	$ 26.16
Granted	93,339	37.42
Performance criteria adjustment	44,821	32.52
Forfeited	(20,402)	32.31
Share units vested in prior period and issued in current period	9,400	26.54
Share units issued	(136,081)	31.70
Nonvested share units at end of period	443,410	27.20

A portion of the fair value of PSUs was estimated at the grant date based on the probability of satisfying the market-based conditions associated with the PSUs using the Monte Carlo valuation method, which assesses the probabilities of various outcomes of market conditions. The other portion of the fair value of the PSUs associated with performance-based conditions was based on the fair market value of the Company's stock at the grant date, regardless of whether the market-based condition is satisfied. The fair value of each PSU grant is amortized into compensation expense on a straight-line basis over their respective vesting periods, generally 36 months. The accrual of compensation costs is based on an estimate of the final expected value of the award and is adjusted as required for the portion based on the performance-based condition. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense. As the payout of the PSUs includes dividend equivalents, no separate dividend yield assumption is required in calculating the fair value of the PSUs. The recording of compensation expense for PSUs has no impact on net cash flows. The following table provides the assumptions used in the pricing model for the grant, the resulting grant date fair value of PSUs, and the intrinsic value and fair value of PSUs that vested during the year:

	Years ended December 31,		
	2018	2017	2016
Expected term (years)	3.0	3.0	3.0
Risk-free interest rate	2.43%	1.49%	0.91%
Expected volatility	17.2%	17.9%	17.9%
Weighted average fair value of PSUs granted	$ 37.42	$ 30.79	$ 28.89
Intrinsic value of vested PSUs	$ 4,704	$ 3,926	$ 5,912
Fair value of vested PSUs	$ 3,613	$ 3,207	$ 5,104

As of December 31, 2018, $5,350 of unrecognized compensation costs related to PSUs is expected to be recognized over a weighted average period of approximately 1.8 years. The aggregate intrinsic value of PSUs as of December 31, 2018 was $15,160. The aggregate intrinsic value of PSUs is based on the number of nonvested share units and the market value of the Company's common stock as of the period end date.

(In thousands of dollars, except per share amounts)

Restricted Stock Units – A restricted stock unit ("RSU") represents the right to receive a share of the Company's common stock and is valued based on the fair market value of the Company's stock on the date of grant. RSUs are eligible to be earned at the end of a specified restricted period, generally three years, beginning on the date of grant. In some cases, the right to receive the shares is subject to specific performance goals established at the time the grant is made. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense. As the payout of the RSUs includes dividend equivalents, no separate dividend yield assumption is required in calculating the fair value of the RSUs. The following table provides the compensation expense and income tax benefit for RSUs:

	Years ended December 31,		
	2018	2017	2016
Stock-based compensation within operations and maintenance expense	$ 1,605	$ 1,183	$ 1,061
Income tax benefit	456	489	438

The following table summarizes nonvested RSU transactions for the year ended December 31, 2018:

	Number of Stock Units	Weighted Average Fair Value
Nonvested stock units at beginning of period	116,787	$ 29.46
Granted	68,082	35.15
Stock units vested in prior period and issued in current period	1,467	31.47
Stock units vested and issued	(48,311)	27.06
Forfeited	(7,940)	33.05
Nonvested stock units at end of period	130,085	33.13

The following table summarizes the value of RSUs:

	Years ended December 31,		
	2018	2017	2016
Weighted average fair value of RSUs granted	$ 35.15	$ 30.37	$ 32.08
Intrinsic value of vested RSUs	1,605	896	805
Fair value of vested RSUs	1,268	751	605

As of December 31, 2018, $1,927 of unrecognized compensation costs related to RSUs is expected to be recognized over a weighted average period of approximately 1.4 years. The aggregate intrinsic value of RSUs as of December 31, 2018 was $4,448. The aggregate intrinsic value of RSUs is based on the number of nonvested stock units and the market value of the Company's common stock as of the period end date.

(In thousands of dollars, except per share amounts)

Stock Options – A stock option represents the option to purchase a number of shares of common stock of the Company as specified in the stock option grant agreement at the exercise price per share as determined by the closing market price of our common stock on the grant date. Stock options are exercisable in installments of 33% annually, starting one year from the grant date and expire ten years from the grant date. The vesting of stock options granted in 2018 and 2017 are subject to the achievement of the following performance goal: the Company achieves at least an adjusted return on equity equal to 150 basis points below the return on equity granted by the Pennsylvania Public Utility Commission during the Company's Pennsylvania subsidiary's last rate proceeding. The adjusted return on equity equals net income, excluding net income or loss from acquisitions which have not yet been incorporated into a rate application as of the last year end, divided by equity which excludes equity applicable to acquisitions which are not yet incorporated in a rate application during the award period.

The fair value of each stock option is amortized into compensation expense using the graded vesting method, which results in the recognition of compensation costs over the requisite service period for each separately vesting tranche of the stock options as though the stock options were, in substance, multiple stock option grants. The following table provides compensation expense and income tax benefit for stock options:

	Years ended December 31,		
	2018	2017	2016
Stock-based compensation within operations and maintenance expenses	$ 546	$ 245	$ -
Income tax benefit	184	208	260

There were no stock options granted during the year ended December 31, 2016.

Options under the plans were issued at the closing market price of the stock on the day of the grant. The fair value of options was estimated at the grant date using the Black-Scholes option-pricing model, which relies on assumptions that require management's judgment. The following table provides the assumptions used in the pricing model for grants and the resulting grant date fair value of stock options granted in the period reported:

	Years ended December 31,	
	2018	2017
Expected term (years)	5.46	5.45
Risk-free interest rate	2.72%	2.01%
Expected volatility	17.2%	17.7%
Dividend yield	2.37%	2.51%
Grant date fair value per option	$ 5.10	$ 4.07

Historical information was the principal basis for the selection of the expected term and dividend yield. The expected volatility is based on a weighted-average combination of historical and implied volatilities over a time period that approximates the expected term of the option. The risk-free interest rate was selected based upon the U.S. Treasury yield curve in effect at the time of grant for the expected term of the option. The Company assumes that forfeitures will be minimal, and recognizes forfeitures as they occur, which results in a reduction in compensation expense.

(In thousands of dollars, except per share amounts)

The following table summarizes stock option transactions for the year ended December 31, 2018:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (years)	Aggregate Intrinsic Value
Outstanding, beginning of year	364,932	$ 19.83		
Granted	169,455	34.56		
Forfeited	(19,359)	32.99		
Expired / Cancelled	(248)	30.47		
Exercised	(91,808)	15.90		
Outstanding at end of year	422,972	$ 25.97	5.7	$ 3,534
Exercisable at end of year	196,267	$ 17.50	2.1	$ 3,276

The intrinsic value of stock options is the amount by which the market price of the stock on a given date, such as at the end of the period or on the day of exercise, exceeded the closing market price of stock on the date of grant. The following table summarizes the intrinsic value of stock options exercised and the fair value of stock options which vested:

	Years ended December 31,		
	2018	2017	2016
Intrinsic value of options exercised	$ 1,806	$ 2,767	$ 2,945
Fair value of options vested	156	-	-

The following table summarizes information about the options outstanding and options exercisable as of December 31, 2018:

	Options Outstanding			Options Exercisable	
	Shares	Weighted Average Remaining Life (years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Range of prices:					
$13.00 - 13.99	89,770	1.1	$ 13.72	89,770	$ 13.72
$14.00 - 15.99	68,719	0.2	15.30	68,719	15.30
$16.00 - 30.99	107,095	8.2	30.47	37,778	30.47
$31.00 - 34.99	157,388	9.2	34.56	-	-
	422,972	5.7	25.97	196,267	17.50

As of December 31, 2018, there was $453 of total unrecognized compensation costs related to nonvested stock options granted under the plans. The cost is expected to be recognized over a weighted average period of approximately 1.5 years.

(In thousands of dollars, except per share amounts)

Stock Awards – Stock awards represent the issuance of the Company's common stock, without restriction. Stock awards are granted to the Company's non-employee directors. The issuance of stock awards results in compensation expense which is equal to the fair market value of the stock on the grant date, and is expensed immediately upon grant. The following table provides compensation cost and income tax benefit for stock-based compensation related to stock awards:

	Years ended December 31,		
	2018	2017	2016
Stock-based compensation within operations and maintenance expense	$ 600	$ 563	$ 506
Income tax benefit	173	233	210

The following table summarizes the value of stock awards:

	Years ended December 31,		
	2018	2017	2016
Intrinsic and fair value of stock awards vested	$ 600	$ 563	$ 506
Weighted average fair value of stock awards granted	34.95	34.42	31.87

The following table summarizes stock award transactions for year ended December 31, 2018:

	Number of Stock Awards	Weighted Average Fair Value
Nonvested stock awards at beginning of period	-	$ -
Granted	17,171	34.95
Vested	(17,171)	34.95
Nonvested stock awards at end of period	-	-

Note 15 – *Pension Plans and Other Post-retirement Benefits*

The Company maintains a qualified, defined benefit pension plan that covers its full-time employees who were hired prior to April 1, 2003. Retirement benefits under the plan are generally based on the employee's total years of service and compensation during the last five years of employment. The Company's policy is to fund the plan annually at a level which is deductible for income tax purposes and which provides assets sufficient to meet its pension obligations over time. To offset some limitations imposed by the Internal Revenue Code with respect to payments under qualified plans, the Company has a non-qualified Supplemental Pension Benefit Plan for Salaried Employees in order to prevent some employees from being penalized by these limitations, and to provide certain retirement benefits based on employee's years of service and compensation. The net pension costs and obligations of the qualified and non-qualified plans are included in the tables which follow. Employees hired after April 1, 2003 may participate in a defined contribution plan that provides a Company matching contribution on amounts contributed by participants and an annual profit-sharing contribution based upon a percentage of the eligible participants' compensation.

Effective July 1, 2015, the Company added a permanent lump sum option to the form of benefit payments offered to participants of the qualified defined benefit pension plan upon retirement or termination. The plan paid $14,872 and $8,858 to participants who elected this option during 2018 and 2017.

In addition to providing pension benefits, the Company offers post-retirement benefits other than pensions to employees hired before April 1, 2003 and retiring with a minimum level of service. These benefits include continuation of medical and prescription drug benefits, or a cash contribution toward such benefits, for eligible retirees and life insurance benefits for eligible retirees. The Company funds these benefits through various trust accounts. The benefits of retired officers and other eligible retirees are paid by the Company and not from plan assets due to limitations imposed by the Internal Revenue Code.

In 2018 and 2016, the Company recognized settlement losses of $5,931 and $2,895, respectively, which resulted from lump sum payments from the qualified or non-qualified plans exceeding the threshold of service and interest cost for the period. A settlement loss is the recognition of unrecognized pension benefit costs that would have been incurred in subsequent periods. The Company recorded these settlement losses as regulatory assets, as it is probable of recovery in future rates, which will be amortized into pension benefit costs.

(In thousands of dollars, except per share amounts)

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

	Pension Benefits	Other Post-retirement Benefits
Years:		
2019	$ 19,965	$ 2,326
2020	21,382	2,620
2021	20,331	2,831
2022	21,368	3,043
2023	21,603	3,267
2024-2028	104,822	19,006

The changes in the benefit obligation and fair value of plan assets, the funded status of the plans and the assumptions used in the measurement of the company's benefit obligation are as follows:

	Pension Benefits		Other Post-retirement Benefits	
	2018	2017	2018	2017
Change in benefit obligation:				
Benefit obligation at January 1,	$ 320,979	$ 308,172	$ 75,960	$ 69,312
Service cost	3,249	3,174	1,049	1,020
Interest cost	11,495	12,434	2,831	2,947
Actuarial (gain)/loss	(23,080)	18,516	(8,970)	4,047
Plan participants' contributions	-	-	127	124
Benefits paid	(30,679)	(21,317)	(1,554)	(1,490)
Plan amendments	-	-	-	-
Benefit obligation at December 31,	281,964	320,979	69,443	75,960
Change in plan assets:				
Fair value of plan assets at January 1,	270,353	242,360	47,750	46,085
Actual return on plan assets	(16,852)	33,278	(2,599)	5,188
Employer contributions	16,185	16,032	1,636	500
Benefits paid	(30,679)	(21,317)	(1,365)	(1,323)
Asset transfer	-	-	-	(2,700)
Fair value of plan assets at December 31,	239,007	270,353	45,422	47,750
Funded status of plan:				
Net liability recognized at December 31,	$ 42,957	$ 50,626	$ 24,021	$ 28,210

The following table provides the net liability recognized on the consolidated balance sheets at December 31,:

	Pension Benefits		Other Post-retirement Benefits	
	2018	2017	2018	2017
Current liability	$ 267	$ 396	$ -	$ -
Noncurrent liability	42,690	50,230	24,021	28,210
Net liability recognized	$ 42,957	$ 50,626	$ 24,021	$ 28,210

(In thousands of dollars, except per share amounts)

At December 31, 2018 and 2017, the Company's pension plans had benefit obligations in excess of its plan assets. The following tables provide the projected benefit obligation, the accumulated benefit obligation and fair market value of the plan assets as of December 31,:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets	
	2018	2017
Projected benefit obligation	$ 281,964	$ 320,979
Fair value of plan assets	239,007	270,353

	Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets	
	2018	2017
Accumulated benefit obligation	$ 264,876	$ 301,473
Fair value of plan assets	239,007	270,353

The following table provides the components of net periodic benefit costs for the years ended December 31,:

	Pension Benefits			Other Post-retirement Benefits		
	2018	2017	2016	2018	2017	2016
Service cost	$ 3,249	$ 3,174	$ 3,179	$ 1,049	$ 1,020	$ 1,014
Interest cost	11,495	12,434	13,038	2,831	2,947	2,927
Expected return on plan assets	(18,211)	(17,077)	(16,910)	(2,706)	(2,589)	(2,647)
Amortization of prior service cost (credit)	527	579	578	(509)	(509)	(549)
Amortization of actuarial loss	7,291	8,003	7,153	1,182	1,165	926
Settlement loss	5,931	-	2,895	-	-	-
Special termination benefits	-	-	302	-	-	-
Net periodic benefit cost	$ 10,282	$ 7,113	$ 10,235	$ 1,847	$ 2,034	$ 1,671

The Company records the underfunded status of its pension and other post-retirement benefit plans on its consolidated balance sheets and records a regulatory asset for these costs that would otherwise be charged to stockholders' equity, as the Company anticipates recoverability of the costs through customer rates to be probable. The Company's pension and other post-retirement benefit plans were underfunded at December 31, 2018 and 2017. Changes in the plans' funded status will affect the assets and liabilities recorded on the balance sheet. Due to the Company's regulatory treatment, the recognition of the funded status is recorded as a regulatory asset pursuant to the FASB's accounting guidance for regulated operations.

The following table provides the amounts recognized in regulatory assets that have not been recognized as components of net periodic benefit cost as of December 31,:

	Pension Benefits		Other Post-retirement Benefits	
	2018	2017	2018	2017
Net actuarial loss	$ 85,510	$ 86,750	$ 10,876	$ 15,724
Prior service cost (credit)	2,734	3,262	(1,360)	(1,869)
Total recognized in regulatory assets	$ 88,244	$ 90,012	$ 9,516	$ 13,855

(In thousands of dollars, except per share amounts)

The following table provides the estimated net actuarial loss and prior service cost for the Company's pension plans that will be amortized from regulatory asset into net periodic benefit cost for the year ending December 31, 2018:

	Pension Benefits	Other Post-retirement Benefits
Net actuarial loss	$ 7,927	$ 664
Prior service cost (credit)	620	(464)

Accounting for pensions and other post-retirement benefits requires an extensive use of assumptions about the discount rate, expected return on plan assets, the rate of future compensation increases received by the Company's employees, mortality, turnover and medical costs. Each assumption is reviewed annually with assistance from the Company's actuarial consultant who provides guidance in establishing the assumptions. The assumptions are selected to represent the average expected experience over time and may differ in any one year from actual experience due to changes in capital markets and the overall economy. These differences will impact the amount of pension and other post-retirement benefit expense that the Company recognizes.

The significant assumptions related to the Company's benefit obligations are as follows:

	Pension Benefits		Other Post-retirement Benefits	
	2018	2017	2018	2017
Weighted Average Assumptions Used to Determine Benefit Obligations as of December 31,				
Discount rate	4.30%	3.66%	4.34%	3.73%
Rate of compensation increase	3.0-4.0%	3.0-4.0%	n/a	n/a
Assumed Health Care Cost Trend Rates Used to Determine Benefit Obligations as of December 31,				
Health care cost trend rate	n/a	n/a	6.6%	7.0%
Rate to which the cost trend is assumed to decline (the ultimate trend rate)	n/a	n/a	5.0%	5.0%
Year that the rate reaches the ultimate trend rate	n/a	n/a	2022	2022

n/a – Assumption is not applicable.

(In thousands of dollars, except per share amounts)

The significant assumptions related to the Company's net periodic benefit costs are as follows:

	Pension Benefits			Other Post-retirement Benefits		
	2018	2017	2016	2018	2017	2016
Weighted Average Assumptions Used to Determine Net Periodic Benefit Costs for Years Ended December 31,						
Discount rate	3.66%	4.13%	4.48%	3.73%	4.25%	4.60%
Expected return on plan assets	6.75%	7.00%	7.25%	4.25-6.75%	4.67-7.00%	4.83-7.25%
Rate of compensation increase	3.0-4.0%	3.0-4.0%	3.0-4.0%	n/a	n/a	n/a
Assumed Health Care Cost Trend Rates Used to Determine Net Periodic Benefit Costs for Years Ended December 31,						
Health care cost trend rate	n/a	n/a	n/a	7.0%	6.6%	7.0%
Rate to which the cost trend is assumed to decline (the ultimate trend rate)	n/a	n/a	n/a	5.0%	5.0%	5.0%
Year that the rate reaches the ultimate trend rate	n/a	n/a	n/a	2023	2021	2021

n/a – Assumption is not applicable.

Assumed health-care trend rates have a significant effect on the expense and liabilities for other post-retirement benefit plans. The health care trend rate is based on historical rates and expected market conditions. A one-percentage point change in the assumed health-care cost trend rates would have the following effects:

	1-Percentage-Point Increase	1-Percentage-Point Decrease
Effect on the health-care component of the accrued other post-retirement benefit obligation	$ 4,348	$ (3,917)
Effect on aggregate service and interest cost components of net periodic post-retirement health-care benefit cost	$ 255	$ (233)

The Company's discount rate assumption, which is utilized to calculate the present value of the projected benefit payments of our post-retirement benefits, was determined by selecting a hypothetical portfolio of high quality corporate bonds appropriate to match the projected benefit payments of the plans. The selected bond portfolio was derived from a universe of Aa-graded corporate bonds, all of which were noncallable (or callable with make-whole provisions), and have at least $50,000 in outstanding value. The discount rate was then developed as the rate that equates the market value of the bonds purchased to the discounted value of the plan's benefit payments. The Company's pension expense and liability (benefit obligations) increases as the discount rate is reduced.

The Company's expected return on plan assets is determined by evaluating the asset class return expectations with its advisors as well as actual, long-term, historical results of our asset returns. The Company's market related value of plan assets is equal to the fair value of the plan's assets as of the last day of its fiscal year, and is a determinant for the expected return on plan assets which is a component of post-retirement benefits expense. The Company's pension expense increases as the expected return on plan assets decreases. For 2018, the Company used a 6.75% expected return on plan assets assumption which will decrease to 6.50% for 2019. The Company believes its actual long-term asset allocation on average will approximate the targeted allocation. The Company's investment strategy is to earn a reasonable rate of return while maintaining risk at acceptable levels. Risk is managed through fixed income investments to manage interest rate exposures that impact the valuation of liabilities and through the diversification of investments across and within various asset categories. Investment returns are compared to a total plan benchmark constructed by applying the plan's asset allocation target weightings to passive index returns representative of the respective asset classes in which the plan invests. The Retirement and Employee Benefits Committee meets quarterly to review plan investments and management monitors investment performance quarterly through a performance report prepared by an external consulting firm.

(In thousands of dollars, except per share amounts)

The Company's pension plan asset allocation and the target allocation by asset class are as follows:

		Percentage of Plan Assets at December 31,	
	Target Allocation	2018	2017
Return seeking assets	50 to 70%	58%	64%
Liability hedging assets	30 to 50%	42%	36%
Total	100%	100%	100%

The fair value of the Company's pension plans' assets at December 31, 2018 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Common stock	$ 12,268	$ -	$ -	$ -	$ 12,268
Return seeking assets:					
Global equities	-	-	-	48,040	48,040
Real estate securities	-	-	-	15,766	15,766
Hedge / diversifying strategies	-	-	-	37,591	37,591
Credit	-	-	-	25,772	25,772
Liability hedging assets	-	-	-	97,756	97,756
Cash and cash equivalents	1,814	-	-	-	1,814
Total pension assets	$ 14,082	$ -	$ -	$ 224,925	$ 239,007

(a) Assets that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy.

The fair value of the Company's pension plans' assets at December 31, 2017 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Common stock	$ 26,902	$ -	$ -	$ -	$ 26,902
Return seeking assets:					
Global equities	-	-	-	66,281	66,281
Real estate securities	-	-	-	14,110	14,110
Hedge / diversifying strategies	-	-	-	38,143	38,143
Credit	-	-	-	28,395	28,395
Liability hedging assets	-	-	-	91,872	91,872
Cash and cash equivalents	4,650		-	-	4,650
Total pension assets	$ 31,552	$ -	$ -	$ 238,801	$ 270,353

Equity securities include our common stock in the amounts of $12,393 or 5.1% and 16,471 or 6.1% of total pension plans' assets as of December 31, 2018 and 2017, respectively.

(In thousands of dollars, except per share amounts)

The asset allocation for the Company's other post-retirement benefit plans and the target allocation by asset class are as follows:

	Target Allocation	Percentage of Plan Assets at December 31, 2018	2017
Return seeking assets	50 to 70%	60%	62%
Liability hedging assets	30 to 50%	40%	38%
Total	100%	100%	100%

The fair value of the Company's other post-retirement benefit plans' assets at December 31, 2018 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Return seeking assets:					
Global equities	$ 8,411	$ -	$ -	$ 13,882	$ 22,293
Real estate securities	1,967	-	-	3,065	5,032
Liability hedging assets	5,075	-	-	8,806	13,881
Cash and cash equivalents	4,216	-	-	-	4,216
Total other post-retirement assets	$ 19,669	$ -	$ -	$ 25,753	$ 45,422

(a) Assets that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy.

The fair value of the Company's other post-retirement benefit plans' assets at December 31, 2017 by asset class are as follows:

	Level 1	Level 2	Level 3	Assets measured at NAV (a)	Total
Return seeking assets:					
Global equities	$ 9,477	$ -	$ -	$ 15,158	$ 24,635
Real estate securities	1,731	-	-	3,211	4,942
Liability hedging assets	5,265	-	-	8,961	14,226
Cash and cash equivalents	3,947	-	-	-	3,947
Total other post-retirement assets	$ 20,420	$ -	$ -	$ 27,330	$ 47,750

Valuation Techniques Used to Determine Fair Value

- *Common Stocks* - Investments in common stocks are valued using unadjusted quoted prices obtained from active markets.
- *Return Seeking Assets* – Investments in return seeking assets consists of the following:
    - Global equities, which consist of common and preferred shares of stock, traded on U.S. or foreign exchanges that are valued using unadjusted quoted prices obtained from active markets, or commingled fund vehicles, consisting of such securities valued using NAV, which are not classified within the fair value hierarchy.
    - Real estate securities, which consist of securities, traded on U.S. or foreign exchanges that are valued using unadjusted quoted prices obtained from active markets, or for real estate commingle fund vehicles that are not publicly quoted, the fund administrators value the funds using the NAV per fund share, derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
    - Hedge / diversifying strategies, which consist of a multi-manager fund vehicle having underlying exposures that collectively seek to provide low correlation of return to equity and fixed income markets, thereby offering diversification. As a multi-manager fund investment, NAV is derived from underlying manager NAVs, which are derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
    - Credit, which consist of certain opportunistic, return-oriented credits which primarily include below investment grade bonds (i.e. high yield bonds), bank loans, and securitized debt. Credits are valued using the NAV per fund share, derived from either quoted prices in active markets of the underlying securities, or less active markets, or quotes of similar assets, and are not classified within the fair value hierarchy.
- *Liability Hedging Assets* – Investments in liability hedging assets consist of funds investing in high-quality fixed income (i.e. U.S. Treasury securities and government bonds), and for funds for which market quotations are readily available, are valued at the last reported closing price on the primary market or exchange on which they are traded. Funds for which market quotations are not readily available, are valued using the NAV per fund share, derived from the quoted prices in active markets of the underlying securities and are not classified within the fair value hierarchy.
- *Cash and Cash Equivalents* – Investments in cash and cash equivalents are comprised of both uninvested cash and money market funds. The uninvested cash is valued based on its carrying value, and the money market funds are valued utilizing the net asset value per unit obtained from published market prices.

Funding requirements for qualified defined benefit pension plans are determined by government regulations and not by accounting pronouncements. In accordance with funding rules and the Company's funding policy, during 2019 our pension contribution is expected to be $8,222.

The Company has a 401(k) savings plan, which is a defined contribution plan and covers substantially all employees. The Company makes matching contributions that are based on a percentage of an employee's contribution, subject to specific limitations, as well as, non-discretionary contributions based on eligible hourly wages for certain union employees, discretionary year-end contributions based on an employee's eligible compensation, and employer profit sharing contributions. Participants may diversify their Company matching account balances into other investments offered under the 401(k) savings plan. The Company's contributions, which are recorded as compensation expense, were $6,096, $5,374, and $4,988, for the years ended December 31, 2018, 2017, and 2016, respectively.

Note 16 – *Water and Wastewater Rates*

On June 7, 2012, Aqua Pennsylvania reached a settlement agreement in its rate filing with the Pennsylvania Public Utility Commission, which in addition to a water rate increase, provided for a reduction in current income tax expense as a result of the recognition of qualifying income tax benefits upon Aqua Pennsylvania changing its tax accounting method to permit the expensing of qualifying utility asset improvement costs that historically have been capitalized and depreciated for book and tax purposes. In December 2012, Aqua Pennsylvania implemented this change which provides for the flow-through of income tax benefits that resulted in a substantial reduction in income tax expense and greater net income and cash flow. This change allowed Aqua Pennsylvania to suspend its water Distribution System Improvement Charges in 2013 and lengthen the amount of time until the next Aqua Pennsylvania rate case. Beginning on October 1, 2017, Aqua Pennsylvania initiated a water infrastructure rehabilitation surcharge for the capital invested since the last rate proceeding and in August 2018 filed for a base rate increase in water and wastewater rates for its customers. The base rate case is being reviewed by the Pennsylvania Public Utility Commission. In February 2019, the Company filed a settlement for this base rate case. Rates from this settlement for approximately $47,000 are expected to go into effect in May 2019. The settlement agreement is subject to approval by the administrative law judge and the Pennsylvania Public Utilities Commission.

The Company's operating subsidiaries were allowed annualized rate increases of $11,558 in 2018, $7,558 in 2017, and $3,434 in 2016, represented by five, five, and six rate decisions, respectively. Revenues from these increases realized in the year of grant were approximately $7,270, $6,343, and $1,788 in 2018, 2017, and 2016, respectively.

Seven states in which the Company operates permit water utilities, and in six states wastewater utilities, to add a surcharge to their water or wastewater bills to offset the additional depreciation and capital costs related to infrastructure system replacement and rehabilitation projects completed and placed into service between base rate filings. Currently, New Jersey allows for an infrastructure rehabilitation surcharge for water utilities, while Pennsylvania, Illinois, Ohio, Indiana, and North Carolina allow for the use of an infrastructure rehabilitation surcharge for both water and wastewater utility systems, and Aqua Virginia is piloting an infrastructure rehabilitation surcharge for its water and wastewater utilities to be implemented in 2019, pursuant to the final order issued in Aqua Virginia's 2018 rate case. The surcharge for infrastructure system replacements and rehabilitations is typically adjusted periodically based on additional qualified capital expenditures completed or anticipated in a future period, is capped as a percentage of base rates, generally at 5% to 12.75%, and is reset to zero when new base rates that reflect the costs of those additions become effective or when a utility's earnings exceed a regulatory benchmark. The surcharge for infrastructure system replacements and rehabilitations provided revenues in 2018, 2017, and 2016 of $31,836, $10,255, and $7,379, respectively.

Note 17 – *Segment Information*

The Company has ten operating segments and one reportable segment. The Regulated segment, the Company's single reportable segment, is comprised of eight operating segments representing our water and wastewater regulated utility companies which are organized by the states where we provide water and wastewater services. These operating segments are aggregated into one reportable segment since each of these operating segments has the following similarities: economic characteristics, nature of services, production processes, customers, water distribution or wastewater collection methods, and the nature of the regulatory environment.

Two operating segments are included within the Other category below. These segments are not quantitatively significant and are comprised of Aqua Infrastructure and Aqua Resources. In addition to these segments, Other is comprised of other business activities not included in the reportable segment, including corporate costs that have not been allocated to the Regulated segment, because they would not be recoverable as a cost of utility service, and intersegment eliminations. Corporate costs include general and administrative expenses, and interest expense.

(In thousands of dollars, except per share amounts)

The following table presents information about the Company's reportable segment:

	2018			2017		
	Regulated	Other and Eliminations	Consolidated	Regulated	Other and Eliminations	Consolidated
Operating revenues	$ 834,638	$ 3,453	$ 838,091	$ 804,905	$ 4,620	$ 809,525
Operations and maintenance expense	292,232	16,246	308,478	282,009	244	282,253
Depreciation	145,977	55	146,032	136,246	56	136,302
Amortization	401	240	641	240	182	422
Operating income (loss)	338,388	(15,210)	323,178	331,888	2,032	333,920
Interest expense, net	89,112	9,790	98,902	81,974	6,367	88,341
Allowance for funds used during construction	13,023	-	13,023	15,211	-	15,211
Equity earnings in joint venture	-	2,081	2,081	-	331	331
Provision for income taxes (benefit)	4,158	(17,827)	(13,669)	14,107	2,807	16,914
Net income (loss)	259,160	(67,172)	191,988	246,548	(6,810)	239,738
Capital expenditures	495,730	7	495,737	478,077	12	478,089
Total assets	6,807,960	156,536	6,964,496	6,236,109	96,354	6,332,463

	2016		
	Regulated	Other and Eliminations	Consolidated
Operating revenues	$ 800,107	$ 19,768	$ 819,875
Operations and maintenance expense	277,634	19,550	297,184
Depreciation	131,835	(848)	130,987
Amortization	2,076	(55)	2,021
Operating income (loss)	334,646	(1,348)	333,298
Interest expense, net	76,222	4,372	80,594
Allowance for funds used during construction	8,815	-	8,815
Equity earnings in joint venture	-	976	976
Provision for income taxes (benefit)	24,956	(3,978)	20,978
Net income (loss)	234,922	(740)	234,182
Capital expenditures	381,965	1,031	382,996
Total assets	6,066,477	92,514	6,158,991

Selected Quarterly Financial Data (Unaudited)
Aqua America. Inc. and Subsidiaries
(In thousands of dollars, except per share amounts)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Year
2018					
Operating revenues	$ 194,347	$ 211,860	$ 226,137	$ 205,747	$ 838,091
Operations and maintenance expense	73,946	73,515	68,624	92,393	308,478
Operating income	69,337	86,754	104,293	62,794	323,178
Net income (loss)	50,839	66,590	78,216	(3,657)	191,988
Basic net income (loss) per common share	0.29	0.37	0.44	(0.02)	1.08
Diluted net income (loss) per common share	0.29	0.37	0.44	(0.02)	1.08
Dividend paid per common share	0.2047	0.2047	0.2190	0.2190	0.8474
Dividend declared per common share	0.2047	0.2047	0.2190	0.2190	0.8474
2017					
Operating revenues	$ 187,787	$ 203,418	$ 215,008	$ 203,312	$ 809,525
Operations and maintenance expense	67,890	69,615	66,744	78,004	282,253
Operating income	71,134	85,850	98,724	78,212	333,920
Net income	49,072	60,968	76,225	53,473	239,738
Basic net income per common share	0.28	0.34	0.43	0.30	1.35
Diluted net income per common share	0.28	0.34	0.43	0.30	1.35
Dividend paid per common share	0.1913	0.1913	0.2047	0.2047	0.7920
Dividend declared per common share	0.1913	0.1913	0.2047	0.2047	0.7920

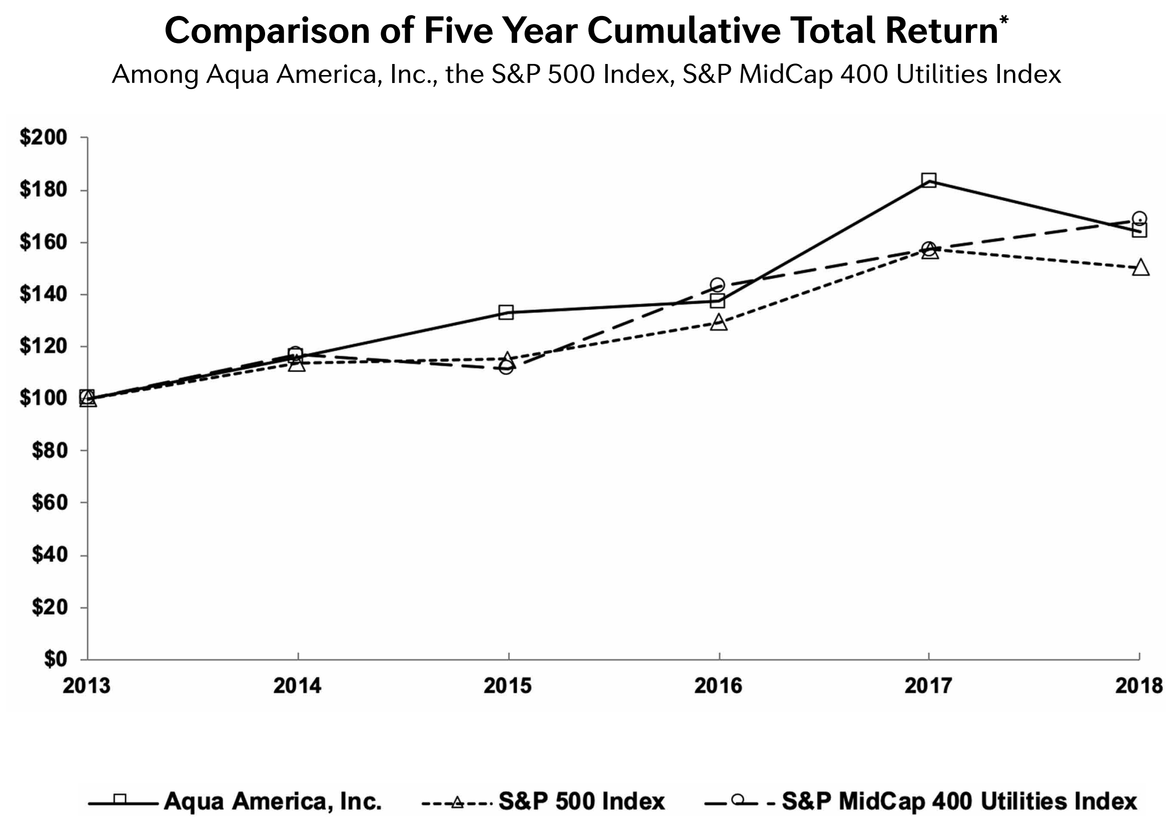
Summary of Selected Financial Data (Unaudited)
Aqua America, Inc. and Subsidiaries
(In thousands of dollars, except per share amounts)

Years ended December 31,	2018	2017	2016	2015	2014
PER COMMON SHARE:					
Income from continuing operations:					
Basic	$ 1.08	$ 1.35	$ 1.32	$ 1.14	$ 1.21
Diluted	1.08	1.35	1.32	1.14	1.20
Income from discontinued operations:					
Basic	-	-	-	-	0.11
Diluted	-	-	-	-	0.11
Net income:					
Basic	1.08	1.35	1.32	1.14	1.32
Diluted	1.08	1.35	1.32	1.14	1.31
Cash dividends declared and paid	0.8474	0.7920	0.7386	0.6860	0.6340
Return on Aqua America stockholders' equity	9.6%	12.2%	12.7%	11.7%	14.1%
Book value at year end	$ 11.28	$ 11.02	$ 10.43	$ 9.78	$ 9.37
Market value at year end	34.19	39.23	30.04	29.80	26.70
INCOME STATEMENT HIGHLIGHTS:					
Operating revenues	$ 838,091	$ 809,525	$ 819,875	$ 814,204	$ 779,903
Depreciation and amortization	146,673	136,724	133,008	128,737	126,535
Interest expense, net	98,902	88,341	80,594	76,536	76,397
Income from continuing operations before income taxes (1) (2)	178,319	256,652	255,160	216,752	239,103
Provision for income taxes (benefit)	(13,669)	16,914	20,978	14,962	25,219
Income from continuing operations (1) (2)	191,988	239,738	234,182	201,790	213,884
Income from discontinued operations	-	-	-	-	19,355
Net income (1) (2)	191,988	239,738	234,182	201,790	233,239
BALANCE SHEET HIGHLIGHTS:					
Total assets	$ 6,964,496	$ 6,332,463	$ 6,158,991	$ 5,717,873	$ 5,383,243
Property, plant and equipment, net	5,930,326	5,399,860	5,001,615	4,688,925	4,401,990
Aqua America stockholders' equity	2,009,364	1,957,621	1,850,068	1,725,930	1,655,343
Long-term debt, including current portion, excluding debt issuance costs (3)	2,563,660	2,143,127	1,910,633	1,779,205	1,619,270
Total debt, excluding debt issuance costs (3)	2,579,109	2,146,777	1,917,168	1,795,926	1,637,668
ADDITIONAL INFORMATION:					
Operating cash flows from continuing operations	$ 368,522	$ 381,318	$ 396,163	$ 370,794	$ 364,888
Capital expenditures	495,737	478,089	382,996	364,689	328,605
Net cash expended for acquisitions of utility systems and other	145,693	5,860	9,423	28,989	14,616
Dividends on common stock	150,736	140,660	130,923	121,248	112,106
Number of utility customers served	1,005,590	982,849	972,265	957,866	940,119
Number of shareholders of common stock	23,476	23,511	24,750	25,269	25,780
Common shares outstanding (000)	178,092	177,714	177,394	176,544	176,753
Employees (full-time)	1,571	1,530	1,551	1,617	1,617

(1) 2018 results include mark-to-market fair value adjustment expense of $47,225 ($59,779 pre-tax) associated with our interest rate swap agreements that were entered into to mitigate interest rate risk associated with our future debt issuances to fund a portion of the Peoples Gas Acquisition
(2) 2015 results include Aqua America's share of a joint venture impairment charge of $21,433 ($32,975 pre-tax)
(3) Debt issuance costs for the years ended December 31, 2018, 2017, 2016, 2015, and 2014 were $20,651, $21,605, $22,357, $23,165, and $23,509, respectively

Stock Price Performance

The graph below matches the cumulative 5-Year total return of holders of Aqua America Inc.'s common stock with the cumulative total returns of the S&P 500 index and the S&P MidCap 400 Utilities index. The graph assumes that the value of the investment in our common stock and in each index (including reinvestment of dividends) was $100 on 12/31/2013 and tracks it through 12/31/2018.



*$100 invested on 12/31/13 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

Years as of December 31

	2013	2014	2015	2016	2017	2018
Aqua America, Inc.	100.00	116.10	132.93	137.21	183.53	163.92
S&P 500 Index	100.00	113.69	115.26	129.05	157.22	150.33
S&P MidCap 400 Utilities Index	100.00	117.19	111.67	142.88	157.23	168.34

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Financial Reports and Investor Relations
Copies of the company's public financial reports, including annual reports and Forms 10–K and 10–Q, are available online and can be downloaded from the investor relations section of our website at AquaAmerica.com. You may also obtain these reports by writing to us at:

Investor Relations Department
Aqua America Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA 19010-3489

Corporate Governance
We are committed to maintaining high standards of corporate governance and are in compliance with the corporate governance rules of the Securities and Exchange Commission (SEC) and the New York Stock Exchange. Copies of our key corporate governance documents, including our Corporate Governance Guidelines, Code of Ethical Business Conduct, and the charters of each committee of our Board of Directors can be obtained from the corporate governance portion of the investor relations section of our website, AquaAmerica.com. Amendments to the Code of Ethical Business, and in the event of any grant of waiver from a provision of the Code of Conduct requiring disclosure under applicable SEC rules will be disclosed on our website.

Annual Meeting
8:00 a.m. Eastern Daylight Time
Thursday, May 2, 2019
Omni Richmond Hotel
100 S. 12th St.
Richmond, VA 23219

Transfer Agent and Registrar
Computershare
P.O. Box 505000
Louisville, KY 40233
800.205.8314 or
www.computershare.com/investor

Independent Registered Public Accounting Firm
PricewaterhouseCoopers LLP
Two Commerce Square
Suite 1800
2001 Market Street
Philadelphia, PA 19103-7042

Stock Exchange
The Common Stock of the company is listed on the New York Stock Exchange and under the ticker symbol **WTR**.

Dividend Reinvestment and Direct Stock Purchase Plan
The company's Dividend Reinvestment and Direct Stock Purchase Plan ("Plan") enables shareholders to reinvest all, or a designated portion of, dividends paid on up to 100,000 shares of Common Stock in additional shares of Common Stock at a discretionary discount from a price based on the market value of the stock. The discount between 0 and 5.0 percent on the shares purchased or issued to meet the dividend reinvestment requirement will be designated by us in our sole discretion prior to the purchase or issuance of such shares. We reserve the right to change, reduce or discontinue any discount at any time without notice. In addition, shareholders may purchase additional shares of Aqua America Common Stock at any time with a minimum investment of $50, up to a maximum of $250,000 annually. Individuals may become shareholders by making an initial investment of at least $500. A Plan prospectus may be obtained by calling Computershare at 800.205.8314 or by visiting www.computershare.com/investor. Please read the prospectus carefully before you invest.

IRA, Roth IRA, Education IRA
An IRA, Roth IRA or Coverdell Education Savings Account may be opened through the Plan to hold shares of Common Stock of the company and to make contributions to the IRA to purchase shares of Common Stock. Participants in the Plan may roll over an existing IRA or other qualified plan distribution in cash into an IRA under the Plan to purchase the company's Common Stock. Participants may also transfer the company's Common Stock from an existing IRA into an IRA under the Plan. A prospectus, IRA forms and a disclosure statement may be obtained by calling Computershare at 800.597.7736. Please read the prospectus carefully before you invest.

Direct Deposit
With direct deposit, Aqua America cash dividends are deposited automatically on the dividend payment date of each quarter. Shareholders will receive confirmation of their deposit in the mail. Shareholders interested in direct deposit should call the company's transfer agent at 800.205.8314.

Delivery of voting materials to shareholders sharing an address
The SEC's rules permit the Company to deliver a Notice of Internet Availability of Proxy Materials or a single set of proxy materials to one address shared by two or more of the Company's shareholders. This is intended to reduce the printing and postage expense of delivering duplicate voting materials to our shareholders who have more than one Aqua America stock account. A separate Notice of Internet Availability or proxy card is included for each of these shareholders. If you received a Notice of Internet Availability you will not receive a printed copy of the proxy materials unless you request it by following the instructions in the notice for requesting printed proxy material.

How to obtain a separate set of voting materials
If you are a registered shareholder who shares an address with another registered shareholder and have received only one Notice of Internet Availability of Proxy Materials or set of proxy material and wish to receive a separate copy for each shareholder in your household for the 2018 annual meeting, you may write or call us to request a separate copy of this material at no cost to you at 610.645.1040 or write us at:

Attn: Investor Relations
Aqua America, Inc.
762 W. Lancaster Avenue
Bryn Mawr, PA, 19010

For future annual meetings, you may request separate voting material by calling Broadridge at 866.540.9095, or by writing to Broadridge Financial Solutions, Inc., Householding Department, 51 Mercedes Way, Edgewood, New York 11717.

Account Access
Aqua America shareholders may access their account by visiting www.computershare.com/investor. Shareholders may view their account, purchase additional shares, and make changes to their account. To learn more, visit www.computershare.com/investor or call 800.205.8314.

Dividends

Aqua America has paid dividends for 74 consecutive years. The normal Common Stock dividend dates for 2019 and the first six months of 2020 are:

Declaration Date	Ex-Dividend Date	Record Date	Payment Date
February 4, 2019	February 13, 2019	February 15, 2019	March 1, 2019
May 6, 2019	May 15, 2019	May 17, 2019	June 1, 2019
August 5, 2019	August 14, 2019	August 16, 2019	September 1, 2019
November 4, 2019	November 13, 2019	November 15, 2019	December 1, 2019
February 3, 2020	February 12, 2020	February 14, 2020	March 1, 2020
May 4, 2020	May 13, 2020	May 15, 2020	June 1, 2020

To be an owner of record, and therefore eligible to receive the quarterly dividend, shares must have been purchased before the ex-dividend date. Owners of any share(s) on or after the ex-dividend date will not receive the dividend for that quarter. The previous owner — the owner of record — will receive the dividend.

Only the Board of Directors may declare dividends and set record dates. Therefore, the payment of dividends and these dates may change at the discretion of the Board.

Dividends paid on the company's Common Stock are subject to Federal and State income tax.

Lost Dividend Checks, Stock Certificates and Escheatment

Dividend checks lost by shareholders, or those that might be lost in the mail, will be replaced upon notification of the lost or missing check. All inquiries concerning lost or missing dividend checks should be made to the company's transfer agent at 800.205.8314. Shareholders should call or write the company's transfer agent to report a lost certificate. Appropriate documentation will be prepared and sent to the shareholder with instructions.

Escheatment is the act of reporting and transferring property to a state when the rightful owner has an invalid address or has not made contact or initiated a transaction during the state's designated dormancy period. Escheated assets are transferred to the state for safekeeping (and often liquidated) until the rightful owner makes a claim on the asset. To keep your shares of stock and uncashed dividends from being escheated, you must maintain contact (recommended at least once a year) with the company's transfer agent, especially if you recently changed your address, changed your marital status or are managing an estate following a death. Unclaimed property laws vary widely from state to state.

Safekeeping of Stock Certificates

Under the Direct Stock Purchase Plan, shareholders may have their stock certificates deposited with the transfer agent for safekeeping free of charge. Stock certificates and written instructions should be forwarded to:

Computershare, N.A.
P.O. BOX 505000
Louisville, KY 40233

Corporate Information

Board of Directors (As of Dec. 31, 2018)

Christopher H. Franklin
Chairman, President, and Chief Executive Officer
Aqua America Inc.
Director since 2015

Elizabeth B. Amato
Senior Vice President and Chief Human Resources Officer
United Technologies Corporation
Director since 2018

Carolyn J. Burke
*Senior Vice President and CFO
CPChem
Director since 2016
*As of Feb. 2019

Nicholas DeBenedictis
Chairman Emeritus
Aqua America Inc.
Director since 1992

William P. Hankowsky
Chairman, President, and Chief Executive Officer
Liberty Property Trust
Director since 2004

Daniel J. Hilferty
President and Chief Executive Officer
Independence Health Group
Director since 2017

Wendell F. Holland, Esq.
Partner
CFSD Group, LLC
Director since 2011

Ellen T. Ruff
Former President
Duke Energy
Director since 2006

Lee C. Stewart
Private Financial Consultant
Director since 2018

Officers

Christopher H. Franklin
Chairman, President, and Chief Executive Officer

Richard S. Fox
Executive Vice President
Chief Operating Officer, Regulated Operations

Christopher P. Luning
Senior Vice President
General Counsel and Secretary

Matthew Rhodes
Executive Vice President
Corporate Development and Strategy

Robert A. Rubin
Senior Vice President
Controller and Chief Accounting Officer

Daniel J. Schuller, Ph.D.
Executive Vice President
Chief Financial Officer

Aqua America Inc.
762 W. Lancaster Avenue
Bryn Mawr, Pennsylvania 19010

877.987.2782
AquaAmerica.com