

2013 SUSTAINABILITY REPORT

AQUASM



ABOUT MESSAGE FROM THE CHAIRMAN

Water is the foundation of all life and the ultimate sustainable resource. It is the most important and recycled natural resource on the planet. At Aqua America, Inc. water is our business and we are committed to its collection, treatment and delivery in ways that are both sustainable and beneficial for today's society.

A lot has changed in how we manage and maintain our growing network of pipes, plants, tanks and customers since our beginnings 127 years ago (1886). While the basics of water treatment and delivery have not changed, technology has made the processes more efficient than ever before. Access to today's technology requires capital and we understand that a key component to our sustainability is our capital investment program that has allowed us to continue to provide quality drinking water and reliable service to an increasing number of customers for the past century. During the past five years (2008–2012), we have invested \$1.8 billion in capital improvements in water quality and service reliability. As a result of our commitment to making necessary and prudent investments, we fully expect to provide services to a continuously growing number of customers well into the future.

The benefits of our infrastructure investments were perhaps never more clear than during Super Storm Sandy, which struck the Mid-Atlantic states with a vengeance in October 2012. While many utilities suffered widespread and prolonged outages, with rare exception, the half million Aqua America customers in Pennsylvania, New Jersey and Virginia experienced no interruption to their water or wastewater service. Of our total 435,000 Pennsylvania customers, fewer than 400 were without water at any time during the storm. None of our 56,000 New Jersey customers were without water during the storm thanks to 10 standby electric generators. Our 30,000 Virginia customers fared equally well as the impact was limited to fewer than 50 customers who might have experienced lower-than-normal pressure for a very limited time. Most importantly, water quality was never compromised by the storm, and no precautionary boil water advisories were required or issued as a result of the storm.

Sustainability is a multi-faceted concept that requires being mindful of human impacts on the environment. One widely used definition comes from the 1987 Brundtland Report from the World Commission on Environment and Development. It defines sustainability as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." During the early part of my career both as a former environmental secretary and director of economic development for the Commonwealth of Pennsylvania, I had the opportunity to manage those sometimes-competing interests.

The federal Safe Drinking Water Act and the Clean Water Act establish criteria and standards for drinking water and wastewater discharges, respectively. Aqua America's ability to comply with these federal regulations has not only allowed us to be in business for as long as we have; it has been key to our ability to grow our customer base. We have worked hard to earn our reputation as a "go-to" utility for other smaller, under-capitalized systems when they find that they can no longer operate in today's more stringent regulatory environment.

Included in our 2013 Sustainability Report are details of the continued improvement in our fleet fuel economy, the efficient handling of lime residuals in our Ohio operations, how our role in the natural gas drilling industry is removing tanker trucks from rural roadways, and health and wellness programs to nurture a sustainable workforce. The report also cites the metrics by which we measure our own performance toward these goals for comparison to other utilities.

As you read through our 2013 Sustainability Report, you will find myriad examples of our efforts to continually improve on our responsibility to foster a sustainable business role as well as our role as environmental stewards. We continue to be proud of our accomplishments and remain committed to building upon them to improve sustainability for the future.



Nicholas DeBenedictis, Chairman and Chief Executive Officer



ABOUT CORPORATE PROFILE



Aqua America provides water and wastewater services to approximately 3 million people in 10 states: Pennsylvania, Ohio, Texas, Illinois, North Carolina, New Jersey, Indiana, Virginia, Florida and Georgia. It owns and operates more than 20 surface water treatment plants, 3,000 wells, 200 wastewater treatment facilities and more than 12,000 miles of water and sewer mains. The company employs about 1,700 people.

Aqua America traces its roots to the Springfield Water Company, which was founded in 1886 by professors from Swarthmore College in southeastern Pennsylvania. The utility built one of the nation's first water filtration plants on the Crum Creek in Delaware County. Springfield Water changed its name to Philadelphia Suburban Water Company (PSW) in May 1925 and in 1968 created a holding company — Philadelphia Suburban Corporation (PSC) — which was listed on the New York Stock Exchange in July 1971.

Following its expansion into several other states, in January 2004, PSC changed its name to Aqua America, PSW changed its name to Aqua Pennsylvania and the Aqua "state name" became the name of all of Aqua America's state utility operating companies.

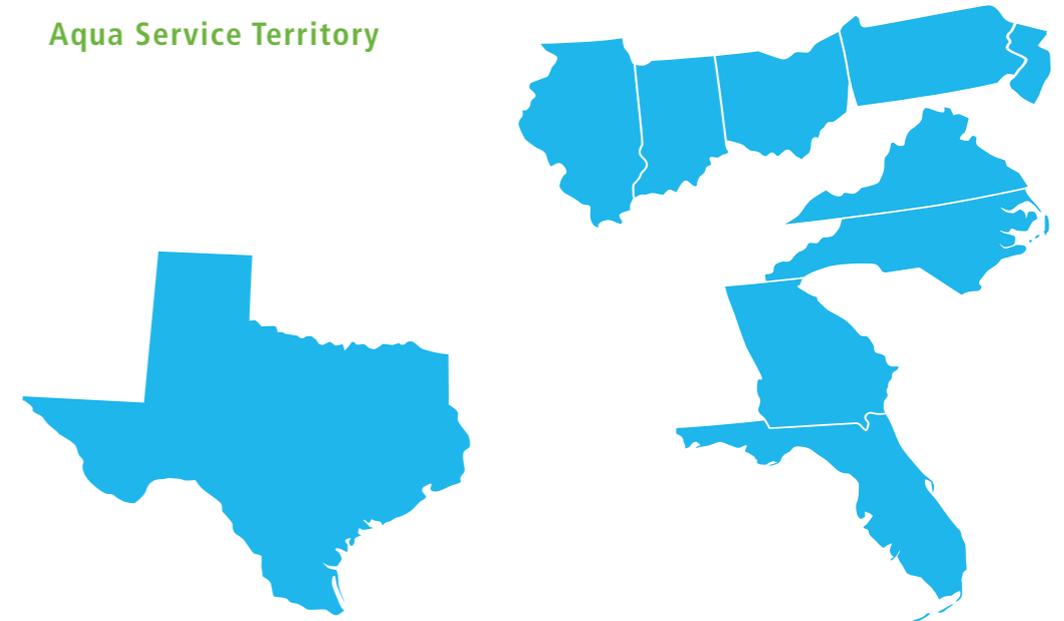
Aqua America is the second largest publicly traded water utility in the United States and trades on the New York Stock Exchange under the ticker WTR.

Basis of Research

In preparing data for the first version of this report in 2009, Aqua America found that few water utilities had comparable documents that contained substantive metrics and data. Some Aqua America business units, particularly those which acquired new systems in the past decade, lacked the historical information and records needed for inclusion in this report.

As a result, this and past reports are largely based on data from Aqua Pennsylvania — the company's largest and oldest business unit, which represents roughly 55 percent of operating revenues. An effort was made this year to include data from throughout Pennsylvania, instead of only the Southeastern part of the state. Information from other states and other units has been added where available, as appropriate.

Aqua Service Territory



ABOUT SUSTAINABLE BUSINESS PRACTICES

Structural Reorganization — In 2012, Aqua America underwent a structural reorganization of the company. The Board of Directors appointed three members of the senior management team as executive vice presidents, each reporting directly to CEO Nicholas DeBenedictis. The purpose of this move was to further drive value for the company's customers and shareholders in three distinct areas of the company.

Chris Franklin – assumed role of president and chief operating officer of all regulated operations of the entire company. This change has helped ensure superior service to customers, while sharing best practices and technology from various states' operations. All state presidents now report directly to Franklin.

Dave Smeltzer – remains in his role as chief financial officer, but in addition to his previous duties has expanded his involvement in the management of the company's retirement plans and programs to improve investor relations and build shareholder value.

Karl Kyriss – now heads a new division: Aqua Capital Ventures. In this new role, Kyriss pursues acquisitions of municipal and private regulated water and wastewater companies, while also spearheading non-regulated projects. He has also assumed responsibility for the growing Aqua Resources, Inc. subsidiary and the company's business venture into fulfilling the water needs of natural gas drillers in Pennsylvania, Ohio, and Texas.

Aqua America's management team continues to be recognized by investors as one of the best in the water utility industry and with these strategic changes, are well positioned to continue its industry-leadership role.

Acquisitions and Divestitures

In January of 2012, Aqua America sold its regulated water operations in Maine, which served approximately 16,000 customers to Connecticut Water Services, Inc. In May of 2012, Aqua America acquired all of American Water Works Company, Inc.'s (American Water) regulated water and wastewater operations in Ohio, (which served approximately 50,730 water and approximately 6,550 wastewater connec-

tions) and simultaneously sold its water operations in New York, which served 50,520 customers, to American Water.

These transactions concluded Aqua America's regulated operations in Maine and New York. The Ohio acquisition made Ohio the company's second largest operating state and further increased its operations efficiency through economies of scale.

In March 2013, the company completed the sale of 57 water systems and 23 wastewater systems in 12 Florida counties to the Florida Governmental Utility Authority (FGUA). In separate transactions, nine water systems and four wastewater systems in five counties were sold to U.S. Water, and one water system and one wastewater system in Alachua County were sold to YES Communities Companies, LLC. Collectively, these sales represented 65 percent of the company's Florida customers.

Credit Rating

Access to capital is crucial to execute an adequate capital reinvestment program. In the utility business sectors, Standard & Poor's (S&P) analyzes quantitative and qualitative business and operating characteristics to determine bond ratings that serve as a benchmark for evaluating the relative credit risk of the issuer/utility.

Aqua Pennsylvania has an "A+" corporate credit rating, a "stable" outlook, and ranks in the top 5 percent of all investor-owned utility companies. Strong credit ratings increase a company's access to capital at lower interest rates. Aqua Pennsylvania's first mortgage bonds have a senior secured debt rating of "AA-" with a recovery rating of "1+" indicating a full recovery of principal under the rating agency's default scenario models.

Aqua America performed well financially in 2012 marking its 20th year for record earnings of the last 21. Net income was up 37 percent for the year, revenues were up 10 percent to \$758 million from \$687 million in 2011. Aqua's quarterly dividend increased to \$.175 from \$.165. This is the company's 22nd dividend increase in 21 years.

ABOUT SUSTAINABLE EMPLOYEE PRACTICES

A company is only as good as the people who work for it, and at Aqua America, our employees' knowledge, experience and effort have allowed the company to achieve greatness.

Aqua America understands this and is dedicated to creating a sustainable working atmosphere. Aqua America offers a number of programs to attract and retain employees, understanding that a satisfied employee provides long-term value, dedication, trust and superior performance, distinguishing the company from other employers.

And because Aqua America subsidiaries are producing such a vital resource distributed to hundreds of thousands of homes and businesses daily, the company wants to hire and retain quality employees.

Benefits and Pay

Aqua America offers competitive salaries and benefit packages. One-third of its workforce is unionized, so wage rates, benefit packages and other terms of employment are negotiated with the unions representing their employees. Non-union employee salaries are developed based on a grade structure that considers job requirements and local market values. Each year, the company reviews the grade structure and adjusts low, mid and high points to determine salary ranges. This is decided within pre-determined geographic zones because salaries vary by location. Aqua America provides an employee match to 401k saving accounts with company stock, and annual profit sharing based on company profits.

Bonuses

Aqua America maintains an Employee Recognition Program called the Chairman's Award. This rewards non-union employees for superior performance that contains costs, improves efficiency and productivity of the workforce, or better serves its customers. Awards may also be given for special heroic actions, or for a project that positively impacts the performance or image of the company.

Professional Development

Aqua America offers a wide array of training and development programs to enhance the skills of its workforce through ongoing educational seminars. Training is

made available to all levels of employees. The company provides workshops on skill-related topics, self-improvement, project management, diversity, respect in the workplace, and management training. Some classes, are required. Other optional courses feature a series of "how to" lessons such as managing people, communicating better and managing multiple locations, projects, deadlines and priorities. There are also classes that supplement business writing skills. Employees may take approved business-related seminars outside of the office, the cost of which is paid by the company. Aqua encourages all staff to stay up to date with required licenses, certificates, and continuing education credits.

For those seeking higher education, there is a tuition reimbursement plan of up to 100 percent for approved classes at a maximum amount of \$5,250 per calendar year. The company also routinely partners with local colleges, establishing strong co-op and internship opportunities for students interested in a water industry career.

Aqua 360 Assessment

The 360 degree assessment identifies key employee strengths that can be leveraged to the benefit of the organization, as well as develop effective communication between individuals and teams, which is crucial to the company's success. This 360 assessment is a benchmark for how Aqua America's managers are viewed by their peers, employees, managers and internal/external clients. The overall, long-term goal is to improve in needed areas of leadership and management in order to cultivate stronger leaders.

It is Aqua America's hope that recipients will learn from this assessment and coaching and be better prepared for the challenges they face in their daily interactions. The information gleaned from the 360 degree assessments will also be critical for the training initiatives planned for the upcoming year. Quarterly two-day training sessions will be held throughout 2013.



Skill Management

Specific jobs within Aqua America require extensive training and certification. To date, Aqua America currently employs more than 265 licensed water operators and 106 licensed wastewater operators.

Employees receive annual performance reviews based on previously established professional development goals. Job postings are offered internally before being made public. Promotions in all job categories are based on the knowledge, skills and abilities of the candidates.

Rotating Assistant Superintendent Program

The Rotating Assistant Superintendent Program was initiated in 2008 as part of a succession plan for anticipated retirements at key management positions. The objective is to expose existing assistant superintendents to different management styles, source water and treatment systems.

Rotations last about one year across all southeast Pennsylvania surface water treatment plants. The program has been a success in its key objective, but also offers near-term benefits by helping standardize operational plans across all water treatment plants and making a greater number of managers available to cover vacations and other short-term coverage.

Call Center

Aqua America operates a state-of-the-art, consolidated customer service operation that includes three customer service centers servicing calls from all utility business operations. Call centers are located in Bryn Mawr, Pennsylvania; Cary, North Carolina and Kankakee, Illinois, but operate as a single virtual entity.

Customers from all states can call the same toll-free number 1.877.WTR.AQUA (1.877.987.2782), and calls from any service territory can be taken by any customer service representative regardless of their location. This approach significantly reduces the possibility of the entire customer contact system being offline at the same time.



The call centers were created to better serve Aqua America's customers on all fronts. Customers have the ability to check their account balance or pay their bill through a voice-recognition and touch-tone based system. The call centers represent an important human link between Aqua America and its customers, allowing a large company to service individual customer needs.

Typical customer inquiries involve establishing or terminating service, bill explanations, high water usage questions, customer delinquency, bill payment and emergencies. Staffed by

approximately 75 full-time and part-time customer service representatives, the centers are open during normal business hours and handle approximately one million calls per year. Each customer service representative handles between 80–100 phone calls daily.

After business, an automated system routes emergency calls to local field operators and emergency dispatchers. Customer service representatives receive intensive and frequent training to be able to handle all call types. With standardized training and systems, Aqua is able to deliver consistent service to all of its customers.

Since 2007, customer satisfaction ratings have increased by 30 percent, and call timeliness has improved by 41 percent. In 2012, call quality scores averaged in the 95 percentile across all three locations.

Caught Doing the Right Thing

To foster a culture of positive reinforcement, accountability, and continuous improvements, call center managers created the "Caught Doing the Right Thing" program. An electronic intranet site recognizes peer-nominated employees for going above and beyond expectations, awarding them with public recognition and desktop awards. The program is meant to focus on the good things the customer service team does for Aqua America's customers and each other each day.

Pour it On

Launched in early 2011, "Pour it On" is a company wide website that promotes and encourages employees volunteerism.

The site provides Aqua America employees with the information and tools to raise awareness, support causes and become involved in non-profit initiatives and events in their local community. Through the site, employees can connect with other employees looking to form "teams" for volunteer efforts.

All volunteers are given an official "Pour it On" t-shirt to commemorate the event.



pour it on logo

ABOUT SUSTAINABLE HEALTH PRACTICES

Maintaining a sustainable working atmosphere is more than just training the mind, it is also important to keep the body healthy. At Aqua America, employee welfare is our number one priority, with regard to living a healthy life, as well as safety in the workplace. In 2012, the company worked diligently to create and introduce several new initiatives to give employees healthier options and educational resources.

Wellness Blueprint

The health of any organization begins with its people. Worksite wellness programs are being implemented in companies across the country and show impressive results. Promoting health and fitness in the workplace can reduce absenteeism, lower health care costs, improve employee morale, reduce employee turnover and strengthen recruitment efforts while enhancing employee quality of life. Aqua America joined the wellness wave with its new employee wellness program – Wellness Blueprints, which officially launched July 30, 2012.

The program is designed to lay a foundation for a healthier work force by educating employees about making personal choices that promote good health and fitness. Thanks to a \$74,000 approved grant made possible through Healthcare Reform, the Wellness Blueprint program can provide more comprehensive tools of which employees can take advantage.

Mission: Recognizing that the health of any organization begins with its people, Wellness Blueprints is designed to inspire an interest in wellness, create a culture of health and encourage employees and their families to adopt healthier, safer lifestyles.

Wellness Blueprint initiatives included: Summer Fitness Friday's at Aqua America's and Aqua Pennsylvania's corporate headquarters; a Stretch and Strength Program for all maintenance and construction employees at three southeast Pennsylvania operations centers; Global Hand Washing Day; Woman's Health Pledge; 2013 Wellness Calendar; Wellness Blueprint for a tobacco-free life, which included complimentary hypnosis and, smoking Cessation Quit kits.

2013 Tobacco-Free Workplace Policy

Aqua America strives to provide the healthiest environment possible for its employees and visitors and recognizes the health problems associated with tobacco use and second-hand smoke. As part of its commitment to providing employees with a safe, clean and healthful workplace, Aqua America is implementing a tobacco-free policy across all company locations in 2013. Aqua America's corporate headquarters in Bryn Mawr, PA will adhere to the tobacco-free policy for all office employees, customers and visitors effective May 15, 2013. The policy will be effective company-wide August 15, 2013. The company has established and made available multiple assistance initiatives and resources to help its smoking employees who wish to quit smoking.

Health & Wellness Fairs

Three health and wellness fairs were scheduled for employees at the company's offices in Bryn Mawr, PA, Kankakee, IL and Cary, NC.

2013 Medical Wellness Plan

Aqua employees were provided the opportunity to enroll in a medical plan designed to give them the options to earn Wellness Credits that can be used towards their medical deductible. Currently, 102 employees have elected to partake in the wellness plan.

Walking Works Challenge

Walking Works is a six-week challenge that encourages employees to incorporate walking into their day. The program was developed in cooperation with the President's Council on Physical Fitness and Sports and uses pedometers to track daily walking activity.

Aqua America provided complimentary pedometers and participant guides to participating employees to track the number of miles they walk. More than 225 employees registered to participate in the 2012 Spring Challenge.



Nobody Gets Hurt Today – Safety Initiative

In the water industry, work-related injuries are unfortunately all too common. Many Aqua America employees routinely work long hours at odd hours and face a number of job-related hazards including: extreme temperatures, large construction equipment, deep in trenches, caustic chemicals, and other types of machinery.

Aqua America has renewed its commitment to its employees, and has set a goal to reduce job-related injuries and occupational illnesses to below the national average. To better address and keep track of employee safety and help reach its goal, it created a new company-wide safety program, “Nobody Gets Hurt Today,” which was unveiled at the beginning of 2012.

The “Nobody Gets Hurt Today” program included several key components. First was a new safety training program, prioritized by state. Secondly, Aqua America is making capital investments in additional safety equipment for its employees in the field. Safety councils, made up of senior managers, are being rolled out in all states, and will help determine safety priorities and objectives, and ensure that they are achieved.

Finally, Aqua America created a new Safety Resource Center accessible online. The site includes additional documents, metrics and safety videos, as well as important updates. It has become a very valuable resource. Incident report totals, broken down by state, are posted online monthly, so every employee can see how so their state and the company are measuring against industry averages.

The screenshot shows the Aqua America Safety Resource Center website. The header includes the Aqua logo and the slogan "NOBODY GETS HURT TODAY". The page is organized into several sections:

- Documents:** Test Video Section
- Safety Resources:** Safety Documents, Safety Training Videos, Safety Metrics Archive
- Chemical Emergency Resource Links:** NIOSH, OSHApendium, e-MSDS, Emergency Response Safety and Health Online Database, WISER-Wireless Information System for Emergency Responders Downloads, US Department of Transportation Emergency Response Guide Book
- Talking Points:** Frequently Asked Questions

The main content area features three sections:

- MISSION:** The mission of the Nobody Gets Hurt Today program is to prevent job-related injuries and occupational illnesses at Aqua America and provide the safest work environment possible for all of our employees, contractors and customers.
- VISION:** Through the Nobody Gets Hurt Today program, Aqua America strives to foster a workplace culture where health and safety is always the number one priority. As a company, we are collectively accountable for the safety of our employees. Our vision is that all Aqua America employees return home to their families safely at the end of each work day.
- VALUES:** At Aqua America, we value our employees, and their safety is always our primary concern. We are committed to providing our employees with ongoing training, equipment resources to support safe workplace protocols and procedures. We expect our employees to take responsibility for everyone's safety through the use of these resources.

On the right side, there are two widgets:

- March 2013 OSHA Safety Metrics:** A table showing safety metrics for March 2013, with a "click to review" link.
- NOBODY GETS HURT TODAY Questions, Comments, Concerns?:** A contact box with the email address safety@aquaamerica.com.

At the bottom right, there is a "Family Safety & Health" poster titled "Back to basics" with a "Click Here to read the" link.

ENVIRONMENTAL SUSTAINABILITY SUSTAINABLE INFRASTRUCTURE

Distribution and Collection Systems — In 2013, the American Society of Civil Engineers issued a report card on America's infrastructure giving a grade of D to the nation's drinking water and wastewater systems.

Environmental Protection Agency (EPA) needs survey released to Congress in 2006 states that replacing the nation's infrastructure is the third largest category of expenditure (behind defense spending and Social Security) facing the country, Bloomberg New Energy Finance Water Analyst Sue Gao explained, "A new study suggests the U.S. needs to invest at least \$1 trillion in water infrastructure by 2035, and that's money most utilities don't have."

In his February State of the Union speech, President Obama spoke of "an aging infrastructure badly in need of repair." Though he didn't specifically mention water, he very clearly spoke about "public-private partnerships." With much of the nation's distribution pipes nearing the end of their useful life, many of the 55,000 community water systems in the U.S. will have difficulty raising the necessary capital to invest in these projects. About 85 percent of U.S. residents get water from companies owned or managed by government and public entities.

Aqua America is a leader among U.S. water suppliers in infrastructure replacement and rehabilitation investments and is proud to have built, rebuilt and rehabilitated much of the environmental infrastructure that continues to sustain the regions it has served throughout its 127-year history.

In 2012 alone, Aqua America invested a record \$348 million in infrastructure in its capital program. Collectively, Aqua America's utility subsidiaries have invested more than \$1.8 billion in water and wastewater infrastructure between 2008 and 2012.

A typical water utility rehabilitates or replaces less than half of one percent of its distribution system each year. Aqua America is a leader in infrastructure renewal. For example, in some divisions of Pennsylvania, and Texas, Aqua is replacing more than 2 percent of the distribution system annually. In Aqua New Jersey, renewal rates for mains is expected to increase from 0.2 percent to 1 percent in 2013. Replacing aged water mains is important to service reliability. Emergency outages disrupt water service, cause inconveniences to customers, create traffic congestion, increase costs and non-revenue water, can adversely affect local streams and aquatic life, and disrupt treatment process in our distribution system.

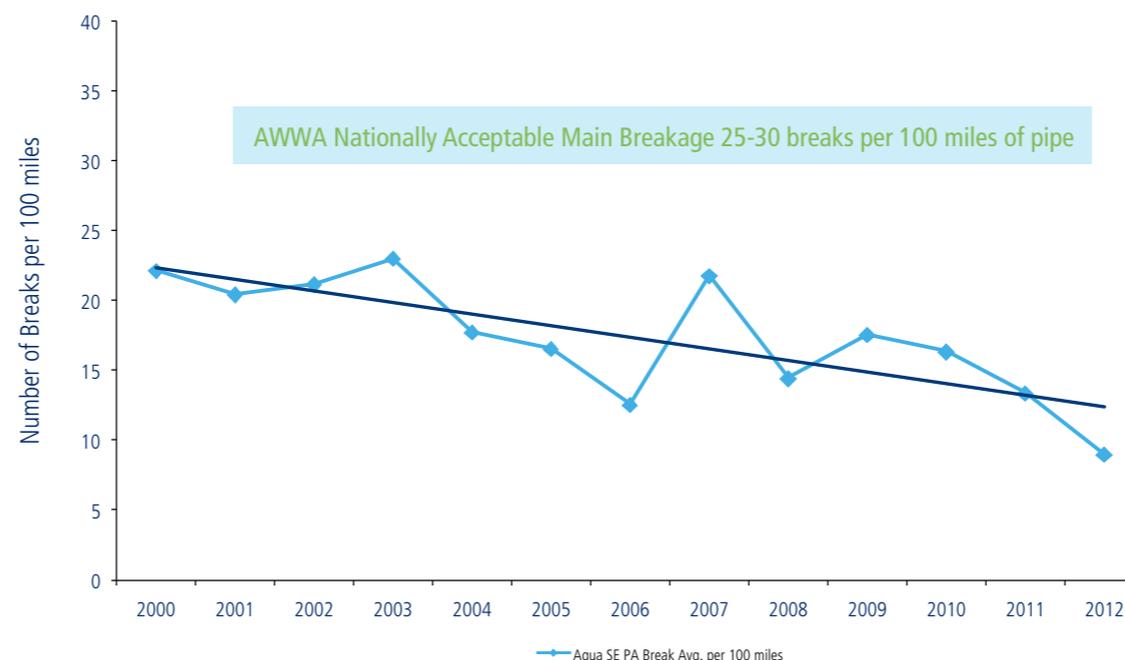
Aqua America takes a strategic approach to determine what pipe to replace and when, based on the age, material, size and location of the main, its break history, and water quality in the area. According to the American Water Works Association (AWWA), the national average for water main break occurrence is 25 to 30 main breaks per 100 miles of pipe per year. Break rates vary from system to system, and most of Aqua's water systems have break rates that are within or below this range.

Aqua's largest distribution system is in Southeast Pennsylvania, and averages fewer than 15 breaks per 100 miles per year — a number that continues to decline. In fact, the break rate for 2012 was the lowest value in the last decade at an average of 9 breaks/100 miles.

In several states, (Ohio, Illinois, and New Jersey) where Aqua has some of its oldest distribution systems, regulators have encouraged investment in distribution system renovation and replacement with programs that minimize regulatory lag in recovering the cost of investment through rates.

In these states, like Pennsylvania, Aqua has made significant progress in reducing the frequency of main breaks.

Aqua Southeastern Pennsylvania Main Break Averages



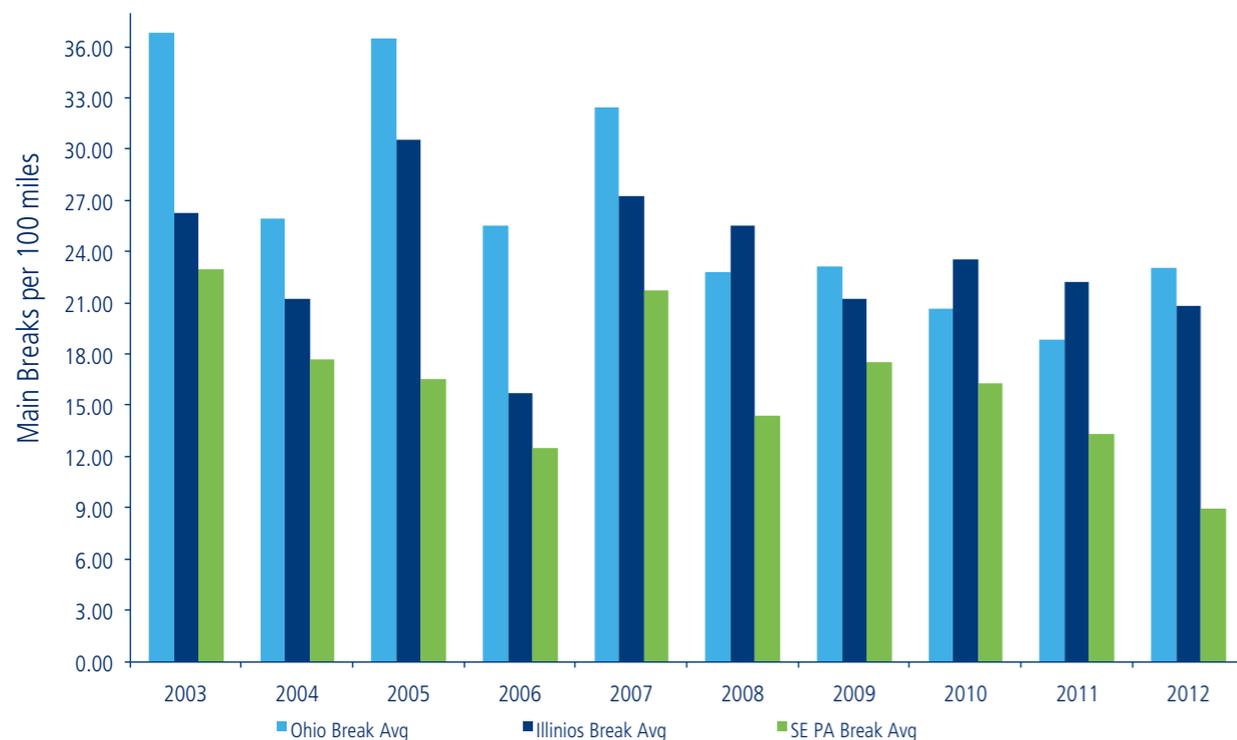
Over the past eight years, the rate of main breaks per year per 100 miles of main has been reduced from:

- 36.81 in 2005 to 23.11 in 2012 - Ohio – a drop of 37 percent
- 26.32 in 2005 to 20.87 in 2012- Illinois – a drop of 21 percent
- 23.00 in 2005 to 9.02 in 2012 – SE Pennsylvania – a drop of 61 percent

The break rate is dependent on the age and characteristics of the pipe, the local environment and soil characteristics, and fluctuating seasonal temperatures.

Aqua America is committed to a proactive — as opposed to a reactive — approach to main replacement and rehabilitation. As regulation continues to strengthen, Aqua America stays ahead of the curve, often beating the most stringent of goals.

Aqua State Main Break Averages



Infrastructure Upgrades

Numerous infrastructure upgrades have been made throughout Aqua America's territory to better serve its customers and reduce costs.

Below are just a few highlights.

- Aqua Ohio – Negotiated a contract for water supply to Lawrence county that will reduce purchased water costs by 50 percent
- Aqua North Carolina – Completed a \$375,000 project to renovate a 25-year-old, 250,000-gallon water storage tank in Raleigh
- Aqua Texas – began construction on a \$3 million wastewater treatment plant in Chambers County to provide treatment to 300,000 gallons of wastewater per day
- Aqua Illinois – Invested more than \$14 million in infrastructure upgrades

statewide to improve water service reliability, water quality, and enhance fire flow.

- Aqua New Jersey – completed restoration of the Bloomsbury reservoir
- Aqua Indiana – System improvements reduced sewer overflows which prevent potential contamination of surface water resources in South Haven.
- Aqua Pennsylvania – Overhauled multiple booster stations, built a new 300,000-gallon elevated sphere tank in West Brandywine Township.

Bensalem Upgrades — Aqua Pennsylvania

Bensalem Township has been the focus of several large-scale infrastructure improvements within the last year. Aqua Pennsylvania erected a new 2-million-gallon, 150-foot tall, elevated storage tank, the company's largest.

The new tank, along with several booster upgrades at its nearby Croydon facility, a new larger 24-inch transmission main, and scheduled flushing is all part of an effort to reduce daily purchased water by 4 million gallons a day.

The new infrastructure and additional storage provides better fire protection, better water quality, and increased pressure for the surrounding neighborhoods.

Tank Painting

Aqua Pennsylvania implemented "green" tank painting program long ago. Tanks in Pennsylvania need to be repainted roughly every 15-to-20 years. Painting contractors perform inspections while the tank are service rather than drain them, saving millions of gallons of water.

All maintenance decisions are based on a long-term perspective to minimize disruptions and maximize tank life. An overcoat of existing paint will be applied when applicable.

Aqua Pennsylvania has been working with its tank painting contractors to implement the use of zero-VOC (Volatile Organic Compounds) paints for all interior potable water tank applications. The use of zero-VOC paints eliminates harmful emissions into the atmosphere during the application and drying process. Recyclable blast material is always used during tank rehabilitations.

Aqua America is currently standardizing the process in Pennsylvania with plans to deploy the same procedure throughout its operations in other states.



Marcellus Shale

With the development of vast new natural resources all across the America, the United States is poised to be the world's biggest energy exporter within the next decade. One of these discoveries — the Marcellus and Utica shale formations which span across large parts of Ohio, Pennsylvania and New York — provides an exciting opportunity for Aqua America. The company has the chance to optimally manage water resources in a responsible and sustainable way to meet the demands of this new enterprise, known to most as hydraulic fracturing. Millions of gallons of water are required to “frac” each well, so the proper movement of that water is necessary to minimize environmental impact, such as numerous tank trucks on local roads.

Until recently, the only feasible way to deliver the millions of gallons of water to these remote drill sites was to truck it over miles of rural roads and through residential communities. With 5 million gallons of water needed to drill one well, more than 1,000 truck trips would be required. This “bucket brigade” creates heavy traffic in small towns, and a heavy toll on already neglected roads, logistic nightmares for bridge crossings, and the burning of thousands of gallons of diesel fuel.

In September 2011, Aqua America and Penn Virginia Resource Partners, L.P. formed a joint venture among certain of their operating subsidiaries, Aqua — PVR Water Services, LLC, to construct and operate a private pipeline system to supply raw (untreated) water to natural gas producers drilling in the Marcellus Shale in north-central Pennsylvania. The initial 18-mile steel pipeline began servicing certain drillers in north-central Pennsylvania on an as-needed basis in April of 2012. Phase II construction of a second 18-mile stretch began in June 2012 and went into service in December.

This second phase included the construction of a new river intake and pump station located along the West Branch of the Susquehanna River in Piatt Township. This pump station can supply the pipeline with 3 million gallons of raw water per day. Phase III construction, which extends the pipeline another 20 miles into Tioga County, was completed during the first quarter of 2013. To date, the pipeline has pumped 120 million gallons of water to the gas producers, eliminating the need for 24,000 water truck trips over rural Pennsylvania roads.



ENVIRONMENTAL SUSTAINABILITY

TRACKING WATER PRODUCTION AND DELIVERY

In several states, Aqua America uses efficient and modern technologies to monitor its distribution network and measure water production and delivery in two distinct ways.

Unaccounted Water

Water utilities have two methods of tracking water once it leaves the water treatment plant. Non-revenue water (NRW) is water that is sent from the treatment plant (sendout), but cannot be identified as having been sold to a customer. It includes both metered and unmetered water. Examples include water lost from identified and unidentified leaks and breaks in the distribution system and water used for public services like firefighting or flushing. Some lost water, like leaks, can be accounted for after discovery using AWWA-accepted estimating protocol. A subset of NRW, unaccounted water (UAW), is much more difficult to accurately measure. UAW is water the utility has no way to track and includes unknown leaks and breaks, malfunctioning meters and theft. Aqua America closely monitors available UAW data to target main replacements across all its states.

The national average for UAW among large water suppliers across the U.S. is just over 20 percent and is considerably higher in many older systems. Aqua America on average has been able to consistently maintain unaccounted water below the national average since 2002, despite acquiring operating systems that contain many water mains well over 100 years old. Aqua New Jersey's Lawrenceville system reduced UAW by 12 percent, a savings of roughly 25 million gallons per year in lost water. Improvements in infrastructure have improved Aqua Illinois' metered ratio by almost 4 percent in the last 4 years. The Laurel Lakes system in Aqua Pennsylvania's Whitehaven division had an average UAW of more than 50 percent four years ago. However, after careful monitoring, research, more efficient equipment and targeted infrastructure investment, that value has been reduced to 25 percent.

Wimberly Valley — Aqua Texas

One of the best current examples of improved UAW efficiency resulted from a two-phase main replacement project in the Woodcreek development near the City of Wimberly in central Texas. Aqua Texas is the sole supplier for this area of nearly 1,650 residents. Water loss percentage for the area of Phase I prior to construction

was 31 percent and was 39 percent for the area of Phase II. The high lost water percentages were compounded by the fact that the area is drought-prone. Aqua Texas is currently in the second year of this 5-year main replacement project. Once completed, more than 104,000 feet (nearly 20 miles) of main have been replaced at a cost of \$4.8 million. Water loss is expected to be less than 10 percent. Aqua Texas expects to realize annual cost savings of roughly \$53,000 from maintenance and water production costs. The table below outlines the project.

	Phase I	Phase II
Starting UAW	31%	39%
Replaced Main	42,000 ft	62,000 ft
Percent of system	67%	74%
Cost	\$2 million	\$ 2.8 Million
UAW Goal	10%	10%

Understanding the inconveniences that can occur as a result of such a large-scale construction project as well as the anticipated rates needed to cover the costs, Aqua Texas worked with the local community to educate them about the need to make such improvements through a series of town hall and municipal meetings.

PUC Audit Participation

Aqua Pennsylvania participated in a Pennsylvania Public Utility Commission (PUC) audit that employed American Water Works Association methodology to more closely track the company's sendout and customer consumption in its older and smaller distribution systems. In 2012, Aqua Pennsylvania performed these audits on all its water systems in Pennsylvania. The audits have highlighted the benefits of the Asset Information Management System (AIMS) and Geographic Information System (GIS) currently used primarily in Southeastern Pennsylvania, and have support decisions to expand the use of this technology to small systems throughout the state and in other states.

Leak Detection

Aqua Pennsylvania Southeast currently employs three full-time employees dedicated to the detection of distribution system leaks. They perform block-by-block

surveys of the entire 4,400-mile distribution system using advanced acoustic leak detection equipment. On a rotating basis, they are able to cover the entire distribution system every four years. Pipeline stream crossings are also monitored on an annual basis, as are major transmission mains, valve-by-valve. The team finds hundreds of leaks each year, preventing substantial water loss and avoiding more costly emergency repairs. Contractors and leak detection crews perform the same services for Aqua America subsidiaries in the rest of Pennsylvania and several other states.

Infrastructure Management Software

The ability to track and monitor its 4,000-square-mile service area is critical for Aqua Pennsylvania's growing business strategy. This spurred the creation of two cutting edge asset management software programs beginning in 2005. The Asset Information Management System (AIMS) and Geographic Information System (GIS) programs have replaced outdated hard-copy maps.

In 2008, Aqua Pennsylvania won the "Management Innovation" award from the National Association of Water Companies for its AIMS and GIS programs. AIMS allows users to electronically retrieve detailed information on pipes, hydrants, main breaks, customer taps, and plans from the past 50 years. It also provides a link to more than 50,000 scanned images of as-built construction plans, providing "one-stop shopping" for distribution system information.

AIMS is combined with a robust GIS that allows users to retrieve and display visual information about the distribution system network with a web-based map application. Both initiatives were designed to meet Aqua Pennsylvania's need for a formal and efficient means to prioritize infrastructure projects while optimizing the use of capital to replace or upgrade the company's distribution system infrastructure.

AIMS currently includes data on:

- 24,419 hydrants
- 35,300 water main breaks and leaks over 50 years
- 491,700 tap (service) records
- 29,907 extensions (pipe projects).

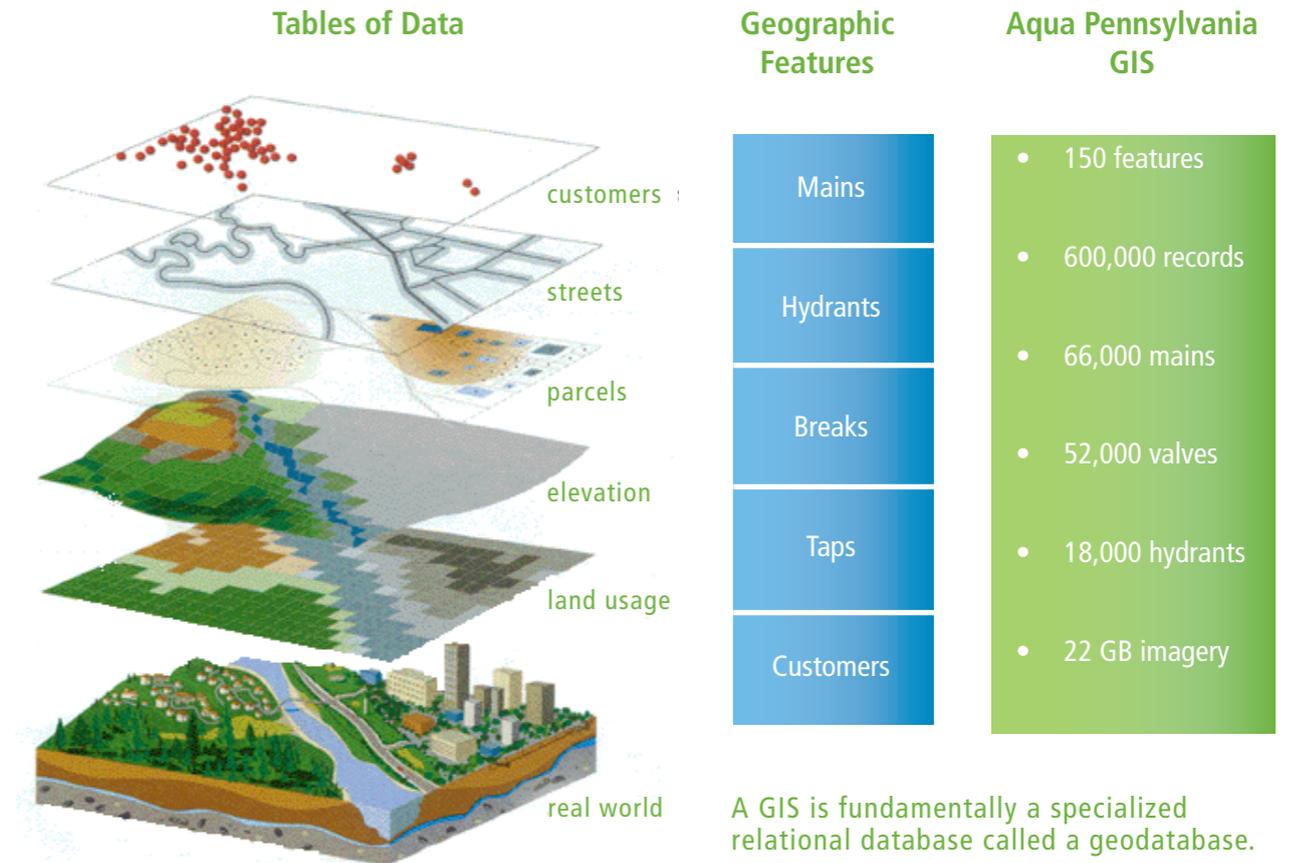
The GIS was created with existing scanned distribution system maps and data acquired from the past 50 years. The GIS database currently includes:

- 5,706 miles of pipe
- 71,173 valves
- 280 pressure zones
- Aerial photos of the entire service area
- Tax parcel maps for the five southeastern Pennsylvania counties served.

In addition to serving as critical management and organization tools, AIMS and GIS have also proven their value in day-to-day operations. Aqua Pennsylvania field personnel regularly use laptops equipped with secure wireless Internet access to pull up detailed construction drawings from the central server. Emergency crews can access the necessary drawings any time, locate leaks at the service line, and have a plan in place for dealing with the situation before they even reach the site, saving

thousands of dollars in repairs and man hours. Currently there are more than 450 AIMS and GIS users including engineering, operations, laboratory, customer service, meter shop and field personnel.

In 2010, the use of AIMS and GIS was expanded to include all Aqua Pennsylvania systems. Similar GIS efforts began in Aqua Ohio in 2010 and Aqua Illinois in 2011.



Neighborhood map of the GIS outlining current pipe and valve locations. This system allows workers to quickly locate and identify pipe breaks and leaks while in the field.

Customer Usage

Hach Water Information Management System Software

In 2010, Aqua Pennsylvania began using Hach's Water Information Management System software (WIMS) — a full-function water quality data integration/data management and analysis system. WIMS automatically imports and integrates water quality data from multiple sources and stores it in a single, easy-to-access database. The software has built-in functionality that automatically prepares compliance reports and contains more than 100 built-in formulas that perform complex calculations for the end user. The software enhances Aqua America's predictive and preventive troubleshooting, and problem identification potential with specific emphasis on water quality. It also enables the timely completion of regulatory compliance reporting.

Asset Management Software

In 2009, Aqua Pennsylvania employed new asset management software at its Southeast Pennsylvania, Roaring Creek and Shenango division production facilities. The software is a repository for all of the divisions' production assets, which captures and records all preventive, predictive and corrective maintenance. The information is used to identify patterns which help the company make key maintenance decisions.

In the fall of 2011, the asset management software was implemented in North Carolina, Texas, Virginia, Illinois, Indiana and Ohio. In 2012, Aqua America's New Jersey subsidiary, Pennsylvania's wastewater and Northeast divisions began initial use of the software. Currently the database contains information on nearly 56,000 assets in eight states. As of April 2013, the system had generated more than 487,800 routine/preventive work orders and nearly 27,000 corrective work orders.

The company remains focused on expanding the use of the system through further data collection, as well as preventive and corrective maintenance work orders. In 2013, the company is providing in-depth training on the use of the program to all operations personnel, including the rollout of tablets for an improved user experience.

Aqua Illinois achieved 98 percent compliance with required work orders in all divisions. Since its inception, employees across the company have entered more than 61,000 assets and completed more than 450,000 work orders

OUT Project – Aqua North Carolina

Aqua North Carolina, has implemented a technological solution to provide 24/7 monitoring of key operational parameters at more than 700 well stations scattered throughout the state. Called the OUT (Over-Underfeed Telemetry) project, this solution provides greater reliability than conventional periodic visits to well stations, while reducing travel time, fuel and wear-and-tear on vehicles.

The technology has already provided valuable feedback on system operations, which were previously unattainable from periodic operator visits. It has

reduced use of chemicals by allowing optimization of the chemical feeds at each station.

Remote Meter Reader Technology

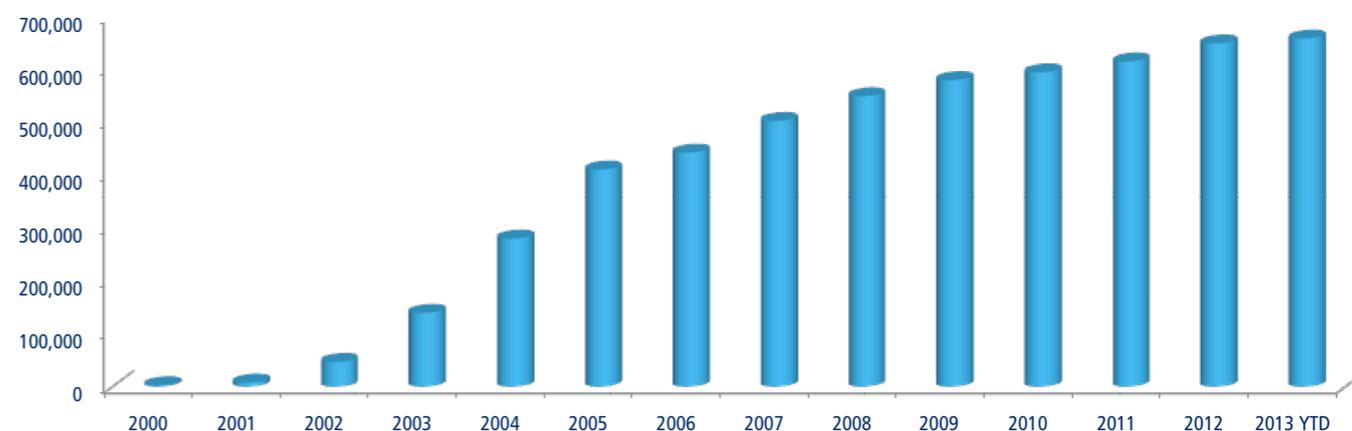
Water meters accurately track and display customer usage. Aqua America employs advanced metering technology to accurately track both water production and consumption. Production meters are monitored and data is recorded in the company's Supervisory Control and Data Acquisition (SCADA) systems. To ensure accuracy, production meters are calibrated every six months. Seventy-nine percent of Aqua America's customers' meters are outfitted with radio frequency (RF) remote read meters.

The transition to the RF devices began in 2000 for efficiency purposes. Unlike gas and electric, water meters in many states must be protected from freezing, so are often located indoors. Historically, this limited the location for placement of meters and complicated the task of meter reading. RF systems have eliminated these problems. A specially configured RF meter-reading vehicle remotely collects and records more than 8,000 accurate meter readings in a day, compared to approximately 350 reads from manual meter recording. The current system has been installed for nearly 637,000 customers and continues to grow.

The RF program reduces personnel and fuel costs, while allowing Aqua America to cost-effectively provide monthly bills based on actual usage. Monthly billing makes water usage easier to track, and therefore increases customers' opportunities to find leaks. RF also allows for readings to be taken the same day each month, eliminating delays resulting from multiple trips, weather or conflicting customer schedules.

The automated process reduces the chance of human error due to "missed reads" or inaccuracy, and pinpoints problems faster. The process is safer and more convenient for customers and staff. Readings are taken remotely, so customers do not need to be home. Meter readers no longer need to enter premises, eliminating the chance of accidents and animal attacks. The more than 637,000 RF meters installed represent 79 percent of Aqua's total active customer accounts.

Installed Radio Frequency Meter Reading Devices (thousands)



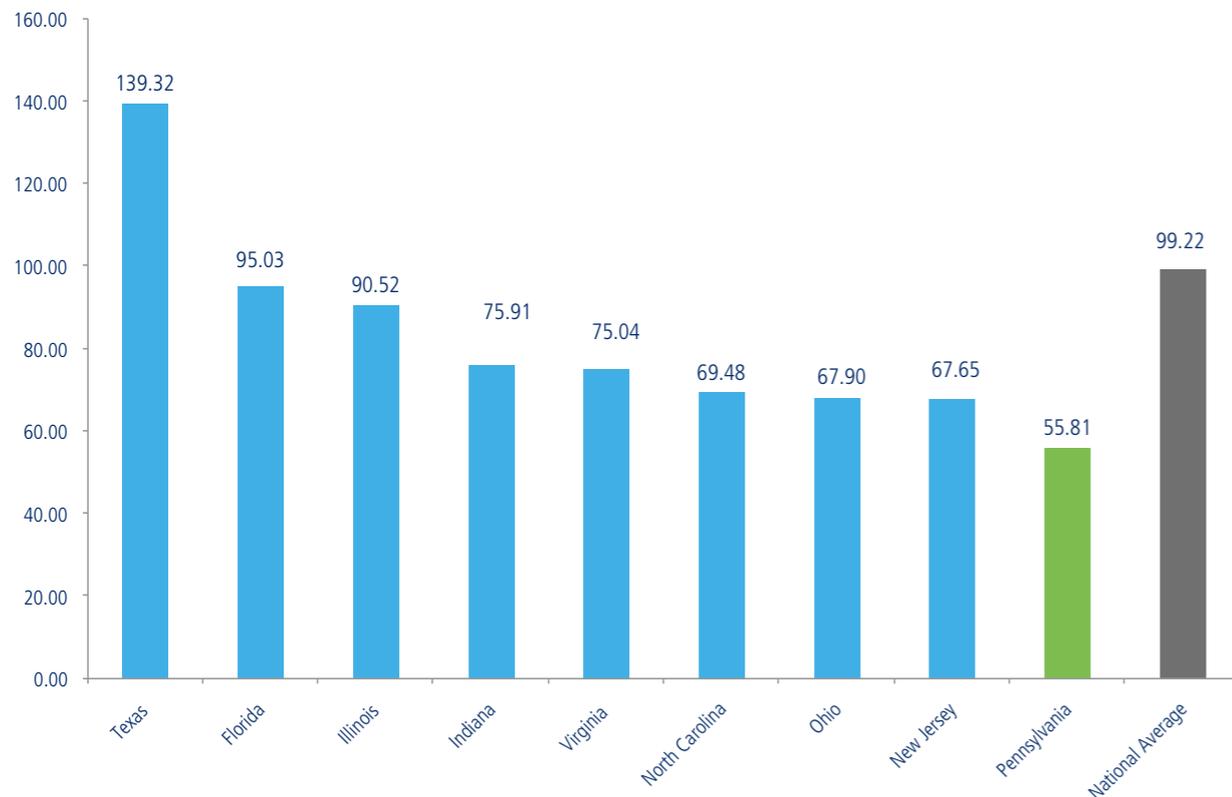
Water Use Metrics and Trends

To understand sustainable water practices, it is helpful to establish guidelines for making comparisons. Since 1995, the U.S. Geological Survey has reported detailed aggregate water use in the United States every five years. The most recent and available USGS report from 2005, confirms the trend that total water use, specifically residential usage, has been flat or declining for more than a decade. According to the USGS, the average U.S. family of 3.5 people uses roughly 350 gallons of water a day. The average water consumption for a family in Pennsylvania is significantly less at around 195 gallons a day.

Despite population growth, total consumption continues to decline as people use less water per household. Reasons for the decline could include legislation requiring more efficient water appliances and fixtures, as well as a more ecological and sustainable mind-set concerning natural resources nationwide. Changing weather patterns also have an effect on water use, as the Northeast experienced the wettest year on record in 2011. Meanwhile, 2012 was one of the hottest years on record in the Midwest and South where there was record-breaking heat and drought. Most of Aqua America's eastern states still saw average water use decline. The chart below shows the national average for residential daily water use per person in states in which Aqua America operates. Pennsylvania ranks as one of the lowest consumers of water.

While Aqua America makes infrastructure improvements and uses the latest technology to improve water use efficiency, its customers are taking their own initiatives to reduce water consumption in their homes and businesses.

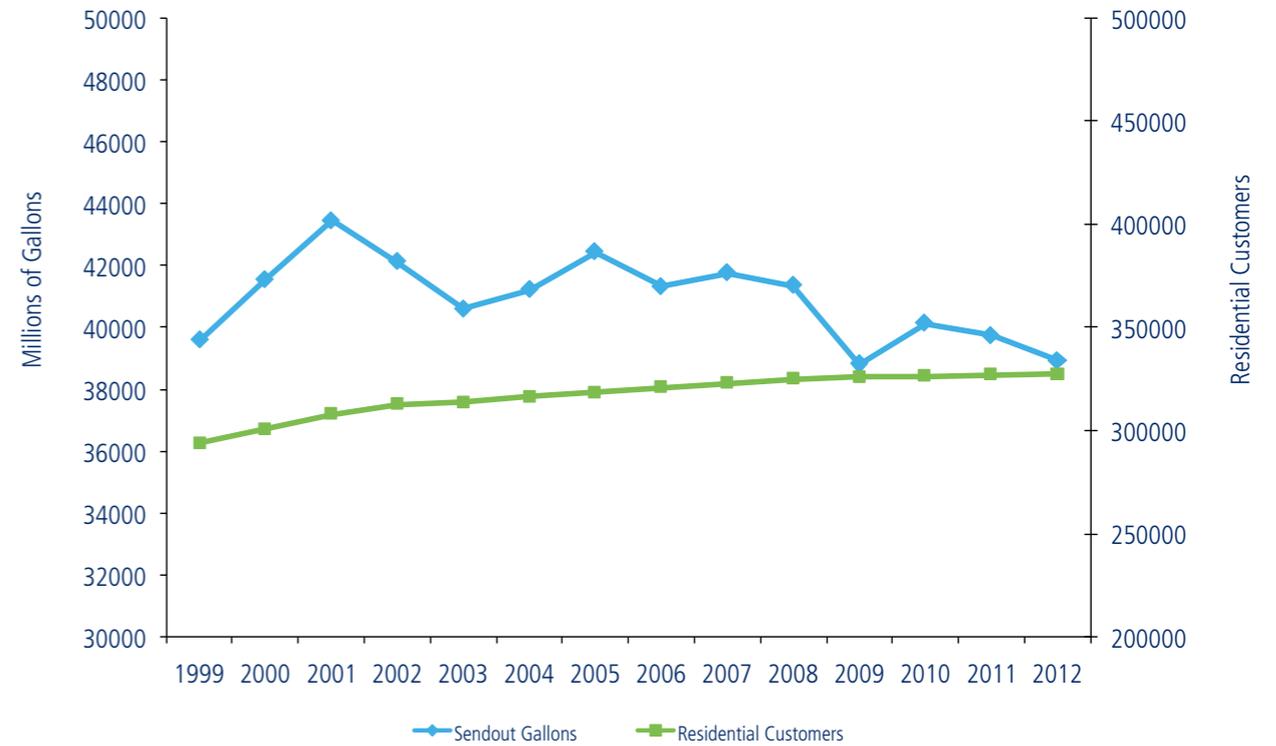
National Per Capita Water Consumption Per Day



Water Sendout

Despite a downward trend in total water use, Aqua America's business continues to grow. Water production (sendout) for Aqua Pennsylvania has been relatively flat for the past 10 years, at about 46 billion gallons annually, while its customer base and revenue have grown (see sendout graph below). Despite disruptions from droughts, floods, economic and weather cycles, Aqua America strives to consistently provide the same level of service to its expanding customer base, without negatively affecting local source waters or the environment.

Aqua Pennsylvania Southeast Sendout Water vs. Customers



ENVIRONMENTAL SUSTAINABILITY

SUSTAINABLE TREATMENT METHODS

Aqua America's team of professional engineers and production and treatment technicians have collectively made Aqua America an industry leader in renovating older, less efficient water facilities with state-of-the-art technology. Across Aqua Pennsylvania, a number of treatment upgrades have been undertaken.

Neshaminy Treatment Plant

The Neshaminy Surface Water Treatment Plant has already undergone two major upgrades totaling \$14 million. Phase I included the installation of an ultraviolet light and hydrogen peroxide treatment system which better removes up to 90 percent of taste and odor causing compounds without generating any additional waste sludge. The system can be turned on and off to treat issues seasonally. Phase II was completed in 2012 and included the construction of new raw-water pumps, self-cleaning screens, plate settlers, and pre-treatment chemicals, all which will help aid coagulation and help reduce disinfection byproducts. Upgrades to the sedimentation tanks improve water quality, filtration and filter performance, and overall plant performance.

The final phase will be completed in 2013 and includes a newly constructed solids handling facility. A duplicate system already in service at Aqua Pennsylvania's Crum Creek treatment plant makes operation, maintenance, and spare parts familiar and readily available. This facility includes all new thickeners, basins, mixing tanks, and belt filter presses. The reduced volume of residuals from this project is expected to extend the life of the existing onsite quarry. This is a more cost-effective and sustainable way of disposing solids as compared to trucking them to a landfill.

Ridley Treatment Plant

The Ridley Surface Water Treatment Plant is currently undergoing improvements through 2013. The first three phases were completed in 2012, and included the installation of new electronic switchgear to provide better protection to maintenance staff when working on the system. The second phase included installation of three plate settlers in the sedimentation basins to allow reliable treatment capacity of at least 8 MGD. These improvements will result in better water quality, longer filter run times, and the ability to recycle backwash water. This will improve the overall performance of residual handling.

The third phase includes a new 644,000-gallon clearwell, which will provide additional system storage and disinfection contact time. The final phase will include new backwash pumps, motor controls, new facilities for employees, and five new high service pumps that will replace four existing pumps that are nearing the end of their useful lives.

Bristol Treatment Plant

In 2006, Aqua Pennsylvania received an EPA award for sustainable public health protection for rehabilitating the 130-year-old Bristol water treatment plant. Aqua Pennsylvania acquired the system in 1996 and invested \$10 million to rebuild and upgrade the facility within the existing footprint of the old structure. The plant serves a population of approximately 30,000. The EPA commended Aqua Pennsylvania for its ability and willingness to tackle the challenge of neglected water systems.

Kankakee Treatment Plant – Aqua Illinois

Aqua Illinois coordinated site preparation and construction of a pilot microfiltration membrane plant at the Kankakee water treatment plant to evaluate the feasibility of membrane technology at the facility and to potentially gain Illinois EPA approval of the technology so Aqua Illinois can continue to supply quality drinking water to all customers well into the future.

Ultra Violet Light Disinfection Technology

A number of Aqua America facilities are employing a new treatment technology to improve water treatment. Ultra Violet Oxidation (UV) helps treat taste and odor issues, including the earthy or musty tastes from naturally occurring seasonal algae blooms along local waterways. Traditional methods called for the addition of carbon, which provided a 55 percent reduction rate of taste and odor compounds. UV-oxidation guarantees a minimum 90 percent reduction of the same compounds, while using significantly less chemicals and significantly reducing carbon dioxide output. According to a 20-year lifetime



Neshaminy: UV Oxidation Technology

cycle assessment, the installation and operation of UV-oxidation system releases 74 percent fewer carbon dioxide equivalents. This equates to 23,670 less tons of carbon dioxide being released into the atmosphere, equivalent to the fossil fuel emissions released by driving nearly 5,000 cars for one year.

Aqua Indiana is using UV disinfection to treat wastewater, eliminating the need for chlorine and sulfur dioxide.

Hall Road, a 1-million-gallon per day well site in Bucks County, Pennsylvania completed a full-scale UV-light disinfection demonstration project in 2012. This is one of the first UV light well facility to comply with the Pennsylvania Groundwater Rule.

Chemical Inventory

Despite newer treatment methods that help reduce chemical usage, a routine cost for water treatment is chemicals. Competitive bidding methods, consolidation of vendors, long-term contracts, and better planning of chemical applications help ensure savings. Aqua North Carolina's OUT Project technology has saved more than \$251,000 in chemical costs in 2012.

Disinfection Practices

The traditional use of chlorine gas as a disinfectant has been replaced at many of Aqua America's facilities. Chlorine gas is toxic and must be transported, stored and handled very carefully. OSG systems eliminate this risk, using water and food-grade salt to produce nonhazardous solutions. In 2007, Aqua Pennsylvania installed its first on-site sodium hypochlorite generator (OSG) at an Upper Merion well. This OSG system replaced the traditional disinfection system that used chlorine gas. In the OSG process, a brine solution passes through an electrode where an electrical charge is applied producing a nonhazardous liquid chlorine that disinfects the water.

In 2008, Aqua Pennsylvania embarked on a program to replace gaseous chlorine at its wells and boosters with hypochlorite. To date, Aqua Pennsylvania has converted 14 wells and booster stations to OSG systems.

Wastewater Reuse

A small (just over 10 percent based on revenue) but important part of Aqua America's business is wastewater treatment and disposal. Wastewater recycling and reuse represents an opportunity to promote sustainable practices and technology. Traditional methods of wastewater disposal have relied on stream discharge or, for private and small community septic systems, subsurface disposal with minimal treatment. But properly treated wastewater can be applied as spray or drip irrigation to fields, woodlands and recreational landscaping.

Nutrients that are not removed during the treatment process can be beneficial to plants instead of being a detriment to water bodies. The additional energy and chemicals that would be required to remove the last increments of nutrients during the treatment process can be avoided. For customers with high demand for irrigation water, wastewater reuse can lower costs by replacing more expensive

water resources and reducing stress on limited high-quality resources, while completely eliminating the discharge of nutrients into streams, lakes or estuaries. Aqua America currently has more than 250 wastewater plants, about 15 percent of which provide high-quality treated effluent for reuse.

Hawthorne Woods and Ivanhoe

Aqua Illinois' Hawthorn Woods and Ivanhoe wastewater treatment facilities produce high-quality treated wastewater effluent for reuse for golf course irrigation.

ENVIRONMENTAL SUSTAINABILITY

RESIDUALS MANAGEMENT AND TREATMENT

Residual waste is created during the water treatment process. Aqua America owns and operates 20 such water treatment facilities in Pennsylvania, Virginia Ohio and Illinois. Residuals must be adequately treated and properly disposed. Aqua employs a number of sustainable, environmentally friendly means for disposal.

Types of Residuals

Two main types of residuals are generated by Aqua America's largest water treatment facilities: coagulant residuals and lime residuals, with the latter coming from plants that soften water in the treatment process.

Coagulant Residuals

Coagulant residuals are the most common residual and form when a metal salt is added to the water as a "coagulant" that causes impurities to stick together and settle out of the water being treated. The resulting residuals are a viscous liquid. Ten of Aqua America's 14 largest water treatment facilities produce coagulant residuals.

Lime Residuals

Lime residuals are produced at the remaining four large water treatment facilities as a result of softening the water. These "lime softening" plants primarily add lime to remove calcium and magnesium hardness, as well as other impurities. The resulting residuals are made up almost exclusively of lime, have a consistency similar to coagulant residuals but weigh more, and are white.

Treatment

Residual treatment involves removing a sufficient amount of water to change the waste from a liquid to a solid, making it easier and less costly to transport and dispose. Aqua America's subsidiaries' treatment processes commonly use lagoons for drying residual waste and mechanical dewatering to thicken the residual.

Belt Filter Presses

Once tens of millions of gallons of water have been cleaned and readied for the distribution system, there is the question of what to do with the residual waste. Optimal residual treatment involves maximizing removal of water from the residuals, making it easier and less costly to transport and dispose. Until 2010, waste from most of Aqua Pennsylvania's treatment plants was dried in lagoons before being hauled to a waste disposal facility. The introduction of belt filter presses at two of Aqua Pennsylvania's largest water treatment facilities has decreased the volume

of material requiring disposal by reducing the amount of water in the waste material.

The belt filter presses literally press the waste material between two belts that roll over a drum before proceeding through a series of rollers squeezing water from the residual waste. Three of the new machines are in operation at Aqua Pennsylvania's Pickering facility and two are at work at the company's Crum Creek Plant. The belt filter press operation reduces the volume of solids produced, resulting in fewer truck trips to the disposal sites, which equate to fuel savings. At Pickering, prior to the belt filter presses, the company was hauling just 12 percent solids. The belt filter presses produce approximately 26 percent solids (24 percent at Crum), cutting the volume hauled to disposal in half and extending the life of the disposal sites.

Sustainable Disposal

Depending upon the location and type of waste, Aqua Pennsylvania disposes (or reuses) its residuals in a number of ways. Aqua Pennsylvania owns several quarries that are permitted to accept residuals and are close to its water treatment facilities, keeping transportation costs low. Because water treatment residuals are an inert waste material, reclaiming abandoned quarries is a good reuse practice. A second form of residual reuse is through land applications. Lime residuals from two of Aqua America's water treatment facilities are applied to farmland as a substitute for agricultural grade lime. In one case, coagulant residuals are mixed with wastewater bio-solids (sewage sludge) from a wastewater treatment plant and applied as a fertilizer to farmland. At one Aqua Ohio plant, coagulant residuals are blended with other materials and used in the manufacture of compost.

Central Ohio Farmers' Co-Op – Aqua Ohio

A second form of residual reuse is through land applications. Since 1962, the Marion Ohio Water treatment plant has stored lime residuals in a nearby company-owned quarry. With the quarry running out of space, Aqua Ohio faced the need to pay \$50 per ton to haul the waste to a landfill. The company instead developed a mutually beneficial partnership with local farmers at the Central Ohio Farmer's Co-op, who invested more than \$1 million at the quarry to harvest the lime sludge, and use it to balance the soil pH and improve field production. This saved Aqua Ohio nearly \$500,000 in hauling costs in 2012, with annual savings forecasted at \$450,000 going forward. The sustainable partnership not only was a creative solution to an expensive problem, but the nearly full quarry is now being dredged faster than it is being filled, area farms are more productive using a local fertilizer, and the Marion plant operation and maintenance costs have been significantly reduced. Innovative and mutually beneficial ideas like this is just one of the benefits enjoyed by the local communities Aqua America serves.

ENVIRONMENTAL SUSTAINABILITY WATERSHED PROTECTION

Aqua America depends on reliable and high-quality natural water sources to provide its services. The preservation efforts of the native vegetation and wildlife surrounding streams, rivers and reservoirs help maintain water quality. Aqua Pennsylvania's watershed protection initiatives have preserved large tracts of land, providing a home for wildlife and opportunities for recreation.

Bucks County, Pennsylvania

In May 2002, the Bucks County Department of Parks and Recreation, with a grant from the Pennsylvania Department of Conservation and Natural Resources (DCNR), purchased 44 acres of land from Aqua Pennsylvania. The land is located in parts of Bensalem, Middletown and Lower Southampton townships.

East Bradford Township, Pennsylvania

In February 2004, Aqua Pennsylvania donated 36 acres of land to East Bradford Township along the East Branch of the Brandywine Creek near the Ingram's Mill Water Treatment Plant, preserving the land as open space.

Brush Valley Preservation Project, Pennsylvania

In January 2003, Aqua Pennsylvania announced an agreement to transfer 9,000 acres of woodlands to the protective care of DCNR. This conservation achievement offered a rare opportunity for large, uninterrupted and unspoiled woodland with a self-contained watershed to be preserved for both the benefit of the public water supply and public recreation.

The project was financed and transferred through multiple interstate partnerships. The Richard King Mellon Foundation and a land trust grant to The Conservation Fund from DCNR's Community Conservation Partnership Program each provided half of the project funding. DCNR acquired 7,000 acres through this agreement, and Aqua Pennsylvania donated the remaining 2,000 acres. The property represented a natural oasis for the entire region, being protected for more than 100 years by water company ownership. It remains one of the largest, most intact watersheds in the Commonwealth.

The property, east of Shamokin, stretches more than 10 miles along a valley between Big and Little mountains in Coal and Mount Carmel townships in Northumberland County and Conyngham Township in Columbia County. This land contains several reservoirs including the entire Roaring Creek Watershed. DCNR has since incorporated the land as part of the Wyoming State Forest, managed by the Bloomsburg district office. The property was dedicated in October 2003 by Governor Edward Rendell for public recreational use.

Mt. Carmel Dam Removal, Pennsylvania

Aqua Pennsylvania acquired Mount Carmel #1 & #2 dams as part of the Consumers Water Company merger in 1999. These dams were constructed in 1883 to supply water to the nearby Borough of Mount Carmel. Although the reservoirs behind the dams were quite small, the Pennsylvania Department of Environmental Protection classified the dams as "high hazard" because if either dam failed, residents and property in the borough would be at risk. Aqua Pennsylvania had never used these reservoirs for water supply and in 2008, decided to remove the dams.

Once approvals were obtained, removal was a simple process of emptying the water behind the dams, demolishing the dams, regrading the site, and constructing a stream channel to carry the flows through the site just as the original stream flowed before the dams were constructed. The project was completed at the end of 2010.

Moscow Dam Removal, Pennsylvania

The Moscow Dam (near Scranton, Pennsylvania) was obtained by Aqua Pennsylvania as part of its acquisition of Northeastern Utilities, Inc., in 2000. The dam was in poor condition, and Aqua Pennsylvania removed it in 2008. Prior to its removal, Aqua Pennsylvania had not used this facility for water supply.

Valley Forge Stream Crossing

Aqua Pennsylvania's engineering team collaborated with Gannett Fleming, Inc., to develop an innovative and environmentally friendly solution to restore a stream at Valley Forge National Park and protect a major transmission main exposed by erosion over a 55-year period.

Aqua Pennsylvania's team constructed six 25-foot overflowing pools and raised and flattened the 400-foot stream bed upstream to reduce the overall slope and pro-

mote a slower, less erosive water velocity in the stream. Coir logs, fascines and live stakes (all natural materials) were installed along the stream banks, and native trees and shrubs were planted for further stabilization and to maintain natural beauty.

This design preserved the character of Valley Forge National Park and stabilized the eroded creek channel to prevent a future recurrence of the erosion problem. The project earned Aqua Pennsylvania and Gannett Fleming the 2011 Diamond Award from the American Council of Engineering Companies of Pennsylvania. It also earned Aqua Pennsylvania the Award of Excellence in the conservation and environmental category from the Association of Conservation Engineers at their 17th annual Carl Anderson Conservation Project Engineering Awards program.

Pine Lake Wetland Preservation, Ohio

In 2009, Aqua Ohio completed a transaction with the Mill Creek Metropolitan Park District in Beaver Township, Mahoning County, Ohio. South Range School District wanted to construct a new school that would require developing in a wetland area near Pine Lake.

Aqua Ohio worked with South Range and provided an environmental covenant, granting them 5.4 acres of land to mitigate the environmental effects of the construction. The result was a wetland banking program that expanded the wetland, increasing the biodiversity of the area.

Heron Sanctuary, Illinois

Aqua Illinois owns and operates the 1,000-acre Lake Vermilion in Danville, Illinois, as a water supply for local residents. The lake is a home to natural wildlife and is a popular recreational attraction for locals and visitors. In 1992, the water level was raised by 4.5 feet resulting in the creation of a nearby wetland, now called Heron County Park. The park is home to muskrats, egrets, bald eagles, river otters (released in 1996) and the park's most popular residents, blue herons. It is home to a big heron rookery — one of only five known in the entire country. In 2004, Aqua Illinois donated more than 83 acres of land in four separate parcels to the Vermillion County Conservation District, creating the organization's fourth community park. Visitors to the Heron County Park can enjoy a stroll across the 950-foot floating walkway that traverses the park, watching animals in their natural habitats.

In 2012, Aqua Illinois completed their 11th Annual Lake Vermillion Cleanup Day, involving several volunteers from the community and the Vermillion County Conservation District, as well as Aqua Illinois employees.

TreeVitalize

Aqua Pennsylvania has supported the TreeVitalize Watershed program since 2005. Working closely with the Pennsylvania Horticultural Society and the five county conservation districts, Aqua Pennsylvania has been involved with the planting of thousands of trees along the banks of Pennsylvania's local source water rivers and streams. The goal of the TreeVitalize program is to reforest the riparian buffers, reducing the potential for sediment erosion decreasing water quality.

The TreeVitalize program is locally driven, relying on volunteers of the local communities in the watershed. Aqua Pennsylvania aims to educate the public about the program, and the importance of a sustainable balance between nature and human activity. Community involvement promotes local ownership and pride in the projects, and reinforces a sense of community. Additional trees also create a net carbon sink, sequestering greenhouse gas in the air, while improving the aesthetic appeal of the community.

Stream Cleanups

Each spring, Aqua America sponsors several stream cleanups on the many waterways that feed the source waters of surface water treatment plants. The annual cleanups depend on volunteers to walk the banks of streams and rivers to pick up tons of trash. In addition to financial sponsorship, Aqua America employees volunteer year-after-year to participate in the events. In 2012, the collective stream cleanups removed 38 tons of debris from area streams.



Aqua Pennsylvania sponsored a stream cleanup of the Perkiomen Creek watershed, which was also supported by the U.S. Coast Guard.

ENVIRONMENTAL SUSTAINABILITY

ENERGY RESOURCES AND FLEET

Aqua America has considered how environmental changes, including climate change, might affect its utilities. The water and wastewater businesses are heavily influenced by weather conditions and seasonal fluctuations.

Drought conditions and government-imposed water use restrictions have affected Aqua America's systems in the past, and will continue to do so in the future. These have been, and will continue to be, addressed with reservoir storage, conjunctive use of water resources, and emergency conservation and water use restrictions.

GHG Footprint

For 2012, Aqua America has updated its Green House Gas (GHG) emissions to include all of Aqua Pennsylvania. As data becomes more streamlined and readily available, Aqua America will be able to more accurately estimate its impact on the environment across all our service states. Like any other water utility, electricity is the company's largest expense and therefore, emission source.

Power Management

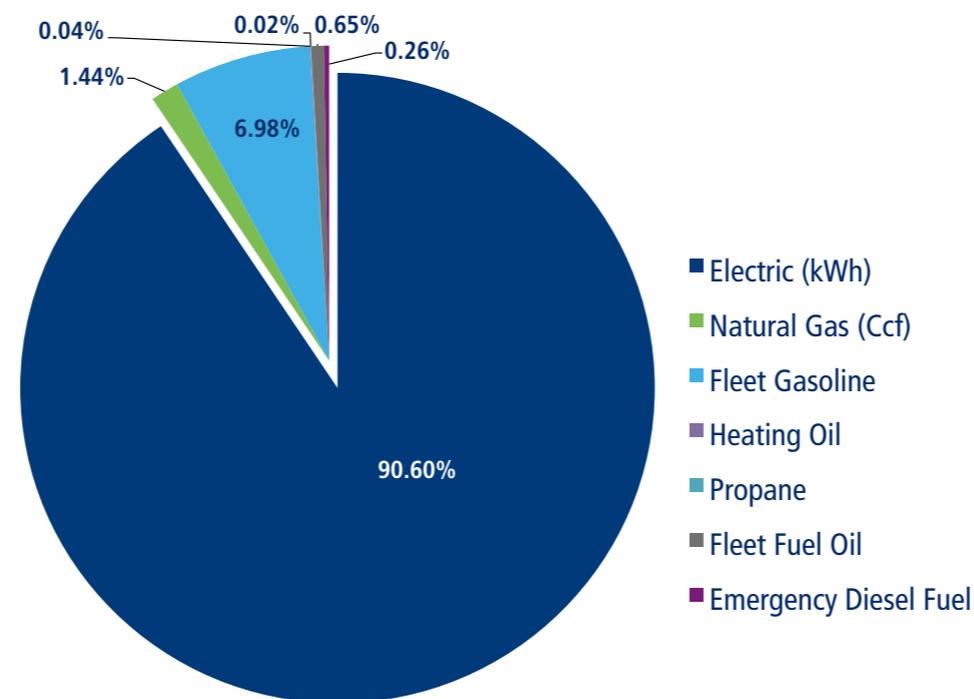
Aqua America's electricity providers have provided an energy breakdown of electrical generation sources. Based on the energy sources used, percentage breakdown and emission rates of fossil fuel vs. non-fossil fuel materials, the company is able to better estimate its emissions. In the past, Aqua America used EPA default emission standards to estimate its total emissions.

The graph shows that Pennsylvania business operations created the CO₂ equivalent of 83,465 metric tons. Of that amount, almost 91 percent is electricity used for pumping and treating water and wastewater. Aqua Southeastern Pennsylvania's 2012 electric demand saw a reduction of 1,612

metric tons, or more than 2.8 million kWh from 2011 use through reduced water pumping and other measures.

The company is committed to lowering electricity consumption as well as associated environmental implications through a number of innovative methods. For instance, Aqua Pennsylvania is reducing the level of energy required to move water through its transmission mains and distribution system by replacing aging and undersized mains with new pipes that have greater capacity and smoother interior walls, thereby reducing friction (less resistance) and the pumping power required. Additionally, Aqua Pennsylvania's four solar installations produce approximately 4 million kilowatt hours of greenhouse-gas-free power in 2012.

2012 Pennsylvania GHG Sources



In 2012, Aqua Pennsylvania used just under 135 million kWh of electricity to treat and deliver just over 46 billion gallons of water. Since 2010, Southeastern Pennsylvania has seen a total reduction of almost 5 million kWh of electricity usage, with an average power use of about 2.88 kWh per 1,000 gallons of water delivered. All of Pennsylvania computes to a power use of about 2.89 kWh per 1,000 gallons. This marks the third continuous year of reduced electrical consumption, and higher production efficiency. The company continues to invest in projects to improve motor and pump efficiency and to use alternative, sustainable sources of electric power.

Energy Tracking Software

Aqua America has begun the implementation of a utility bill management system that will allow for the automated tracking of electricity and natural gas consumption across Aqua America's operating states and divisions.

The system will allow Aqua America personnel direct access to uniform reporting, measuring historical energy consumption while automatically raising exceptions for further investigation. Aqua Pennsylvania will be the first Aqua America opera-

tion to implement the new utility bill management system in 2013 with other states implementing the system in 2014.

Peak and Demand Response – Aqua Pennsylvania

In the summer of 2012, the distribution department in Southeastern Pennsylvania worked with the production and engineering departments to participate in three different PJM power management programs with Constellation Energy and PJM to reduce Peak Load Capacity, or electrical demand during the hottest days of the year, when electric use and prices are at their highest levels.

Aqua America's active participation in curtailing its consumption from the electric grid during high-demand periods has cut its peak load contribution by close to 50 percent in Pennsylvania.

Networked Light Control

In an effort to control energy costs, Aqua America teamed up with a lighting control technology company to reduce wasted power from lighting. Installed at the corporate office, the program uses an integrated electricity management lighting control program designed to save energy while optimizing the workplace environment. The photo sensor system can automatically execute demand-responsive load shedding by monitoring natural light levels, and reducing wattage during peak energy demand periods.

The monitoring system and more efficient lighting are estimated to save Aqua Pennsylvania roughly 916,000 kWh annually, without sacrificing safety, productivity or employee comfort.

Facilities in Aqua Indiana have installed sensors and timers to limit electrical use to blowers and equipment during low-flow or low-demand periods.

Laboratory Equipment

All laboratory instruments are connected to an Uninterruptible Power Supply (UPS), increasing reliability and minimizing demand loads and the need to rerun samples. Most lab instruments come equipped with auto-samplers, allowing them to run unattended. Automatic sampling speeds up testing, while decreasing human error. An analytical method called "micro extraction," allows for 98 percent less testing chemicals and solvents to get sufficient data and minimizes hazardous waste by-products while simultaneously decreasing test run times.

Alternative Energy

Green Power Partnership

Aqua America has qualified for membership in the U.S. Environmental Protection Agency's (EPA's) Green Power Partnership due to the volume of its green power purchases in 2013. The Green Power Partnership is a voluntary program that



encourages organizations to use green power as a way to reduce the environmental impacts associated with electricity use. The Partnership currently has more than 1,400 Partner organizations voluntarily purchasing billions of kilowatt-hours of green power annually. Partners include a wide variety of leading organizations such as Fortune 500® companies, small and medium-sized businesses, local, state, and federal governments, and colleges and universities. The company is now using nearly 13 million kilowatt-hours (kWh) of green power annually, which is enough green power to meet 4 percent of the organization's electricity use and qualify it as a Green Power Partner.

Aqua America is buying Green-e Energy Certified renewable energy certificates (RECs) from Constellation, one of Aqua America's competitive energy suppliers. All of the certificates are derived from U.S.-based wind energy. According to the U.S. EPA, Aqua America's annual green power use of nearly 13 million kWh is equivalent to avoiding the carbon dioxide (CO₂) emissions of nearly 2,000 passenger vehicles per year, or the CO₂ emissions from the electricity use of more than 1,000 average American homes.

Solar Power

Aqua America employs solar-powered equipment where applicable. Its Pennsylvania and New Jersey subsidiaries now have four solar farms at their treatment facilities.

Aqua Pennsylvania uses solar-powered directional traffic boards instead of diesel operating systems. In addition, the company now has solar-powered mixers at eight water storage tanks including the Upper Merion Reservoir. Water inside these large storage tanks can become stratified during periods of low demand. The solar-powered mixers continually mix the water thereby sustaining water quality without having to provide additional chemicals or electrical costs.

Pickering Solar Farm, Pennsylvania

Aqua Pennsylvania is one of the largest producers of solar power in the Commonwealth of Pennsylvania and is the largest water utility producer of solar energy in the state. Pennsylvania's Governor Tom Corbett joined Aqua Pennsylvania Chairman Nicholas DeBenedictis and other state, local and environmental officials to cut the ribbon for the newest and largest solar farm in April 2012.

The 1.8 megawatt (MW) DC photovoltaic \$6.5 million, 6.5-acre solar farm provides power to the Pickering plant, Aqua's largest water treatment facility, serving nearly 500,000 residents of 27 municipalities in Chester, Delaware and Montgomery counties. It is the 8th largest solar installation in Pennsylvania.

The solar farm consists of more than 7,500 high-efficiency panels that convert sunlight into useful power, thereby reducing the region's power generation requirements. The construction contract was partially funded with a \$1.5 million grant disbursement from the Pennsylvania Commonwealth Financing Authority (CFA).

The solar farm will reduce Aqua's grid-tied usage by 2.3 million kWh annually

resulting in a direct economic benefit of more than \$200,000 per year in energy savings. In addition, the project will alleviate congestion on the PECO grid resulting in additional savings to all consumers by reducing line losses and congestion charges.

The annual environmental benefits of the new facility are that it:

- Avoids the equivalent of 51,450 gallons of gasoline, thereby reducing CO2 emissions by 4.3 million pounds each year which is the equivalent emissions from 380 passenger cars; or
- offsets the equivalent need for 1,400 barrels of oil each year.

Ingram's Mill Solar Farm, Pennsylvania

Aqua's first solar facility was constructed in 2009 at its Ingram's Mill water treatment plant in East Bradford Township, Chester County. The 1 MW farm was built on 4.5 acres of land and has reduced grid-tied usage by more than 1.3 million kilowatt-hours annually resulting in a direct economic benefit of \$130,000 in yearly energy savings.

In recognition of Aqua Pennsylvania's commitment to the environment, the company received the 2010 Pennsylvania Governor's Award for Environmental Excellence, the Greater Valley Forge 2010 Environmental Leadership Award and the Green Power: Turn it On! award from Citizens for Pennsylvania's Future (PennFuture), which recognizes individuals and organizations annually for their work in promoting the clean energy economy in Pennsylvania.

Lopatocong and Gloucester Townships Solar Farms – Aqua New Jersey

In 2011, Aqua New Jersey constructed two solar farms at treatment facilities in Lopatcong Township, Warren County and in Gloucester Township, Camden County. The 0.4 MW facility in Lopatcong powers the company's ultraviolet light water treatment plant and saved the company more than \$72,000 in electricity costs.

The smaller .07 MW solar farm in Gloucester Township powers a well station and saved approximately \$13,000 annually in electrical costs. Since inception, the two solar fields have produced more than 660,000 kWh of power, and saved more than 475 metric tons of CO2 or the equivalent of reducing more than 926,000 car miles annually.

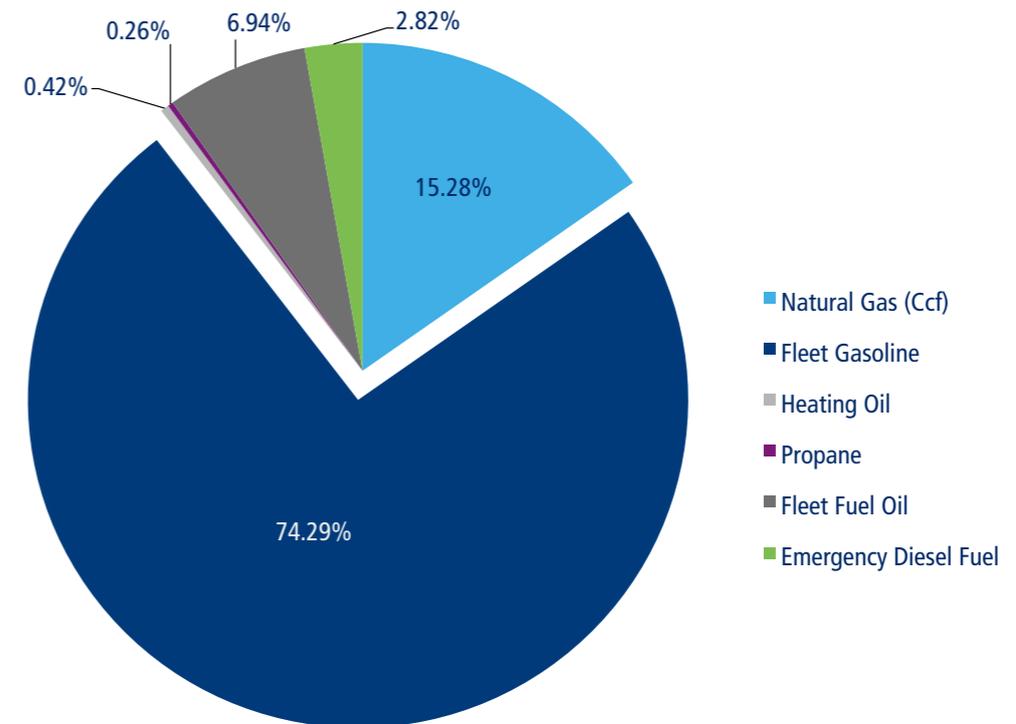
All four of the solar projects in Pennsylvania and New Jersey alleviate congestion on the PJM grid resulting in additional savings to all consumers by reducing line losses and congestion charges during daytime hours.

Direct GHG Sources

Purchased electricity accounted for 91 percent of Aqua Pennsylvania's GHG 2012 footprint. These emissions should be attributed to the electric supplier burning the fossil fuels, not the end user to avoid double counting. Of the remaining 9 percent for which Aqua Pennsylvania is directly responsible, 74 percent came from gasoline to power its fleet, while the remainder can be attributed to general heating of facilities and emergency power generation. Aqua Pennsylvania improved in almost every category from 2011, except for an increase in emergency diesel fuel, mostly

due to Super Storm Sandy. In 2012, Aqua Pennsylvania drove 136,000 fewer miles, saving more than 30,000 gallons of gasoline. That's a combined savings of more than 50,000 gallons since 2010, while adding more vehicles.

2012 Direct GHG Sources



Fuel Consumption and Efficiency

Aqua America operates a total of 1,230 service vehicles, 470 of which serve Aqua Pennsylvania. The fleet management team has taken significant steps to reduce fuel consumption and vehicle emission for its vehicles, regularly monitoring vehicles and investigating new technologies. Specific adaptations, where applicable, might be tested regionally, then implemented across the whole of Aqua America. The company is employing a combination of fuel efficiency vehicle technologies and behavior modifications to reduce its impact on the environment. In 2012, Aqua America operations improved its fuel mileage to 12.53 MPG from 12.31 MPG in 2011. This marks the third continuous year of fuel mileage improvements. Aqua America is making great strides to lower its fuel demand. In 2012, the company reduced fuel consumption by 26,265 gallons and vehicle miles driven by 131,905. Five states saw improved fuel mileage.

Sustainable Adaptations Vehicle Alternative Fuels

Aqua Pennsylvania purchased seven CNG compressed natural gas vehicles and three hybrid vehicles in 2012 for pilot study purposes. The projects included building two CNG filling stations at one of Pennsylvania's division branch offices. Initial analysis indicates good results.

The company is also exploring E85 Fuel Flex vehicles where practical. Fleet management replaced 60 existing vehicles with fuel flex technology where fuel sources were available.

Aqua Pennsylvania Southeast is continuing to transition all diesel-powered vehicles and equipment to B5 biodiesel, which requires no engine modifications or capital investment. Aqua Pennsylvania continued transitioning its entire gasoline-powered forklift fleet to propane and electric. Three hybrids purchased in 2012 represent an estimated 10 percent yearly savings in fuel economy.

Right-Size Vehicles

Aqua America's fleet department diligently works with area managers to ensure the use of the most fuel efficient replacement vehicles. More than 20 vehicles were downsized in 2012.

Green Bodies by Reading Manufacturing

Two large aluminum utility bodies replaced more inefficient frames in 2012 with good results. The lighter material allows a larger payload resulting in fewer trips and better fuel economy while traveling empty.

Lubricants

Aqua Pennsylvania has made a transition to using only synthetic oils in all fleet engines, leading to less wear on engines and increased fuel economy. A corporate-wide decision was made to extend oil-change maintenance intervals on most cars and light trucks from 6,000 to 12,000 miles on vehicles serviced in-house and from 4,000 miles to 7,500 miles on vehicles with outsourced maintenance. The company also increased the oil change intervals for the class 8 trucks from 10,000 miles to 12,000 miles and increased the new Volvo trucks to 20,000-mile oil change intervals. Aqua America's fleet department consistently analyzes the lubricants, maintenance intervals and maintenance procedures it uses to ensure cost-effective and environmentally responsible practices.

Recycling

Fleet management is also making efforts to recycle wherever possible. At the Souderton and Springfield garages there are two clean-burning oil furnaces that use 100 percent recycled motor oil that Aqua Pennsylvania mechanics retrieve from its own fleet vehicles. Each year, Aqua Pennsylvania's service garages generate between 3,000 to 4,000 gallons of used motor oil from oil changes, which must be properly disposed. Rather than pay for certified recyclers to haul the oil away, a special heating system recycles the waste oil and uses it to heat the garage. The special oil furnace is capable of burning used motor, transmission, and hydraulic oils, as well as No. 4 heating oil. The heaters are 20-to-50 percent less expensive to operate than with natural gas.



The shop, formerly heated with six natural gas heaters, now has the option of choosing how to heat its facility given current energy market prices. These EPA-approved furnaces meet strict environmental guidelines for "Energy Efficient Commercial Building Property" heating devices. They have reduced annual energy and power costs of the building between 17 and 20 percent. At the Springfield location, the new system has saved approximately \$6,000 in heating costs. The Souderton garage has experienced savings since 2006. As the only source of heat, its free energy has already paid for itself in savings and benefits to the environment.

Aqua America's sustainable practices extend beyond its own operations. Each year Aqua America purchases approximately 1,000 retreaded tires, with no negative impact to its fleet operations. Tire recycling is a very sustainable activity because a large portion of the tire is reused in the retreading process. Recycled tires use one-third of the energy required to produce new tires, saving nearly half a billion gallons of oil each year.

Decreasing Energy Demand through Training

Aqua America is also focusing efforts on teaching employees how to decrease energy demand. The company continues to educate employees on more efficient driving behaviors, as well as enforcing a "no unnecessary idling policy." Fleet management has also implemented GPS tracking technology capabilities. Aqua America has more than 400 vehicles equipped with GPS, enabling employees to perform business more efficiently while reducing miles and lost work time.

The tracking system allows operation managers to view real-time vehicle position and identify the closest vehicle to address customer and maintenance emergencies. The GPS technology prepares fuel-saving reports that allow for more efficient use of vehicles. Fleet management analyzes these findings and consistently monitors the most economical vehicles to match an employee's workload and responsibility.

Paperless Billing

In early 2011, Aqua launched paperless billing to provide customers access to current and previous bills around-the-clock and a more secure way to receive and pay their bills without traditional paper invoices, envelopes and stamps. For customers who prefer a hard copy, water bills are printed on mixed source Forest Stewardship Council-certified paper. Aqua America's stationery and business cards are printed with environmentally friendly vegetable-based inks.

Since its launch, more than 110,000 customers are currently using paperless billing, saving more than 900,000 sheets of paper. At the start of 2013, Aqua also transitioned to paperless pay stubs, so all employees can access their pay history electronically.

CITIZENSHIP PARTNERSHIPS

Helping Hand

Aqua's Helping Hand program works with several agencies to assist low-income Pennsylvania customers who are struggling to pay their water bill by allowing them to make more manageable monthly payments without losing water service. To help customers control their water usage, and therefore their bill, Helping Hand provides customers with a free water conservation and repair kit and, in some cases, arranges for an on-site inspection to identify and repair small leaks and install water-saving fixtures in sinks, showers and toilets.

The repair kit includes leak detection tablets, a low-flow showerhead, kitchen swivel aerators, bathroom aerators, Teflon tape, toilet water saver, a flow meter bag (that allows customers to measure their water usage) and a pamphlet with water-saving tips. Customers who enroll in the program and make monthly good faith payments toward their arrears qualify for a monthly credit to their account for each timely payment they make. Customers who participate in the program learn water conservation tips, save on their monthly bills and eventually eliminate their water utility bill debts.

WaterSense

Aqua America is a proud partner of the EPA-sponsored WaterSense program. WaterSense brings together local water utilities, governments, product manufacturers, retailers and stakeholders who share a common interest in decreasing water use and practicing conservation behavior patterns. WaterSense endorses products that meet the program's high standards and offers free product information to consumers. WaterSense performs its own independent testing and certification, often endorsing products 20 percent more water-efficient than average products in that category. Aqua America's partnership with WaterSense is another example of the company's continual effort to improve the services it provides by helping customers improve water use efficiency.



Partnership for Safe Water

Aqua Pennsylvania joined the Partnership for Safe Drinking Water — a voluntary cooperative effort between the U.S. Environmental Protection Agency, the American Water Works Association (AWWA) and other drinking water organizations. Participating utilities benchmark their water quality from select plants to ensure they not only meet, but surpass federally required standards.

Aqua Pennsylvania's infrastructure investments have enhanced treatment plant performance above regulatory standards at many facilities, including several acquired older facilities. Aqua Pennsylvania now has all 11 of its surface water treatment plants enrolled in the program, joining the list of more than 410 total plants, 116 Pennsylvania plants, serving 85 million people nationwide. Aqua Pennsylvania's Roaring Creek Plant won the Phase III Directors Award of recognition in 2010, and the Ingram's Mill plant won the award in 2012.



The company goes beyond the minimum requirements in other ways to bring its customers water that consistently meets or outperforms all water quality standards. Aqua Pennsylvania's in-house, multi-state-certified laboratory tests for many more water quality parameters than what are required by regulations.

CITIZENSHIP AWARDS AND RECOGNITION

In February 2013, Aqua America, Inc. announced that the volume of its green power purchases have qualified it for membership in the U.S. Environmental Protection Agency's (EPA's) Green Power Partnership. The company is now using nearly 13 million kilowatt-hours (kWh) of green power annually, which is enough green power to meet 4 percent of the organization's electricity use and qualify it as a Green Power Partner.

Aqua America is buying Green-e Energy Certified renewable energy certificates (RECs) from Constellation, a competitive energy supplier, offering electricity, natural gas, solar and renewable energy products and services to homes and businesses across the U.S. and Canada. Aqua America's green power purchase demonstrates a proactive choice to support cleaner renewable energy alternatives. The company's green power purchases are primarily of wind energy.

In 2011 and 2012 respectively, Aqua Pennsylvania's Roaring Creek and Ingram's Mill water treatment plants received the Phase III Directors Award of Recognition from the Partnership for Safe Water, a national volunteer initiative developed by the Environmental Protection Agency (EPA) and other water organizations representing water suppliers striving to provide their communities with drinking water quality that surpasses the required state and federal standards. For several years, Aqua Pennsylvania collected operating data before endeavoring to complete the Phase III self-assessment stage.

Phase III included a thorough review of operations and management to identify opportunities for improvements. The final report identified corrective actions, which were implemented to assure the highest quality water is produced. Aqua's Roaring Creek Plant is just one of 53 surface water treatment plants in Pennsylvania to be presented the award for successfully completing the Self-Assessment and Peer Review phase of the Partnership program, a phase which consists of identifying factors that limit treatment plant performance.

The plants are among 116 surface water treatment plants in Pennsylvania to be presented the award for successfully identifying factors that limit treatment plant performance and taking corrective actions to address the need. All of Aqua Pennsylvania's plants are enrolled in the Partnership. Fewer than one percent of America's utilities receive the Partnership Award.

The Water Resources Association of the Delaware River Basin bestowed its 2011 Business & Industry Award to Aqua Pennsylvania, highlighting several of the utility's accomplishments including the on-line publication of its first Sustainability Report; the installation of a 1.1 megawatt solar farm at its Ingram's Mill water treatment plant, which produces about 30 percent of the electricity needed to power the plant and feeds excess power into the grid on peak hours in the summer; its leadership position in replacing aging distribution system infrastructure, thereby reducing the impact of main breaks and water loss; the development of an award-winning Asset



Aqua Pennsylvania's production staff accepted the EPA's Partnership for Safe Water Phase III Director's Award for the company's Ingrams Mill Treatment Plant.

Information Management System to track its infrastructure and prioritize water main replacement; and the consistent reduction of its fuel usage and emissions over the last three consecutive years — most recently marked by a 10 percent reduction in average fuel usage.

The Ingram's solar farm also won the Green Power: Turn it On! award from Citizens for Pennsylvania's Future (PennFuture), which recognizes individuals and organizations annually for their work in promoting the clean energy economy in Pennsylvania.

Aqua Pennsylvania and Gannett Fleming, Inc., received the American Council of Engineering Companies of Pennsylvania 2011 Diamond Award, which honors outstanding achievements in engineering, for Aqua's innovative, environmentally friendly renovation of a water main in the Valley Forge National Historical Park that had been exposed by erosion over 55 years.

The Valley Forge Park Water Main and Stream Restoration Project also received the Award of Excellence in the conservation and environmental category from the Association of Conservation Engineers at their 17th annual Carl Anderson Conservation Project Engineering Awards program.

Aqua Pennsylvania's environmental stewardship has been recognized by numerous environmental support groups, including:

- Aqua Pennsylvania received an award from the Chester Ridley Crum Watersheds Association (CRC) in 2011 for its 125 years of delivering clean water to residents in the area, and the many investments it has undertaken to provide sustainable management of water resources, state-of-the-art drinking water treatment technology, and conservation of natural resources. The company participated in CRC and Perkiomen watershed cleanups, which removed 22 tons and 10 tons of debris respectively from the waterways and stream banks.
- Water for People, an international group, honored Aqua Pennsylvania for donating time and funds to develop more efficient water systems in developing countries like Honduras and Guatemala.
- Automation Service presented the "Above and Beyond" award to Aqua Pennsylvania for its recycling of old, broken or surplus controls and parts.
- The Perkiomen Watershed Conservancy (PWC) awarded Aqua Pennsylvania the Corporate Award for significant contributions to the preservation and improvement of the Perkiomen Creek Watershed. The following year, PWC recognized two Aqua Pennsylvania employees for their contributions to the preservation and improvement of the Perkiomen Creek Watershed.
- Aqua Pennsylvania received the Northeast Regional Award of Merit from the Association of State Dam Safety Officials for outstanding contributions in the field of dam safety. Aqua Pennsylvania operates 22 dams across the state and has installed instrumentation at all of its large dams to help monitor performance and detect potentially hazardous conditions.
- The Water Resources Association of the Delaware River Basin (WRA) awarded Aqua New Jersey the Business and Industry Award for its installation of an advanced ultraviolet (UV) water treatment plant in Lopatcong Township. Water is disinfected with chlorine, then saturated with UV lights providing two distinct disinfection mechanisms for eliminating micro-organisms from already very clean water. Aqua New Jersey is the first utility in the state to use UV in this particular type of application for approximately 10,600 customers.
- The Greater Valley Forge Transportation Management Association (GVF) awarded Aqua Pennsylvania its 2010 Environmental Leadership Award for its ongoing commitment to the environment. The GVF represents business, municipal, county and state officials who work to alleviate transportation and pollution issues affecting the Greater Valley Forge area.
- The Pennsylvania Environmental Council awarded Aqua Pennsylvania the Governor's Award for Environmental Excellence from the Pennsylvania Department of Environmental Protection in 2010 for its 1.1 megawatt solar farm at the Ingram's Mill Treatment Plant. This award highlights organizations statewide that best demonstrate environmental innovation and protection across the Commonwealth.

Lake Monticello – Aqua Virginia

Aqua Virginia has achieved Environmental Compliance for its Lake Monticello Wastewater system from the Virginia Department of Environmental Quality (DEQ). Since acquiring the Fluvanna County facility in 2003, Aqua Virginia has spent nearly \$16 million on improvements to the treatment plant and collection system which serves about 11,000 customers near Charlottesville. Upgrades have improved the overall reliability of the system for customers by providing new lift stations, generators for backup power to lift stations, and reducing the amount of storm water that makes its way to the treatment plant.

Aqua Virginia has also removed more nutrients from the treated wastewater that's dispersed into the stringently regulated Chesapeake Bay watershed and enhanced safety features around the plant. Aqua Virginia has spent more than \$5 million on improvements to the water treatment plants and distribution system since 2003. The Lake Monticello water treatment plant has received the Bronze Waterworks Performance Award from the State Department of Health's Office of Drinking Water for the seventh consecutive year.

CITIZENSHIP SUSTAINABLE COMMUNITIES

Aqua America is a community leader in the areas where it provides water and wastewater services. The company is committed to civic engagement, supporting local economic development efforts in its service areas and working with business, government, education and non-profit leaders to ensure strong communities with healthy economies.

Many employees serve on the boards of local chambers of commerce and environmentally focused organizations. Given the nature of its business, Aqua America has close working relationships with local utilities, police and fire companies.

Employees contribute their time in a number of ways to help their local communities. But even more impressive are the levels to which Aqua America will go to provide quality service to each and every customer.

Dedication to our Community

Aqua America sponsors the following civic events.

- Local stream cleanup volunteer events to keep its waterways clean of trash and debris.
- Red Cross Blood Drive – Each year employees participate in the 2 to 3 blood drives at its Bryn Mawr headquarters.
- Junior Achievement – Aqua Pennsylvania has continually supported the Junior Achievement annual golf outing for over 10 years and for the past 5 years employees have volunteered their time after work to teach the JA Company Program which lasts about 16 weeks each year.
- Holiday Giving - for the last 10 years employees have donated toys and games to underprivileged children for the Toys for Tots program. Employees also donate annually for a Thanksgiving food drive.
- United Way – The company and its employees have proudly supported the United Way continuously for over 30 years. In 2011, Aqua employees raised a record \$117,000 donation, nearly matching that same amount in 2012. Employees can choose what United Way program they wish to contribute to.
- MS Bike Ride – Annually, Aqua America sponsors a team that competes in The MS Bike Ride, a 2-day, 150-mile bike ride dedicated to funding research to cure

Multiple Sclerosis.

- Earth Day – Aqua Indiana provides support for the Little River Wetlands project and the 716-acre Eagle Marsh Habitat.
- South Haven employees support the Porter County Boys' and Girls' Club Annual Family Bike Ride.

Corporate Giving - River Adventure

The partnership with Philadelphia's Please Touch Museum for children, Aqua America sponsored what is now known as "River Adventure," an interactive and educational water exhibit. The 36,000-square-foot exhibit takes children down a winding river while teaching about science, nature and weather.

Kids can build and race boats, crank fans to generate wind, activate a lighthouse beacon and fog horn, raise a drawbridge, test boats in water currents, turn an Archimedes screw, and play at the landing and tidal pool.

The exhibit features the Aqua America Water Education Program Cart, which provides children and their parents with information about water safety and conservation, along with interactive presentations.

The Please Touch Museum exhibit and other efforts demonstrate Aqua America's commitment to teaching children about the importance of conserving water and respecting local watersheds.

Delaware County Veterans Memorial

Just down the road from Aqua America's headquarters, Newtown Square has constructed a memorial to honor soldiers and veterans from Delaware County who served their country or were killed in action. This circular memorial has nine pillars, each of which symbolizes an American military conflict, with symbols representing Unity, Strength, and Freedom. Anyone can purchase bricks and have a mes-



sage engraved, or simply make a donation. Aqua America has pledged to match contributions from employees up to \$25,000.

Dedication to our Customers

Aqua America makes great strides to provide quality service to its customers. This year the company made a major update to its website, providing much more information and insight including; business development, tips to conserve water, investor relations and state-by-state information and outage reports. Aqua America annually implements radio campaigns to educate customers about how to prevent frozen pipes and fix leaks.

Aqua Notify

At the start of 2012, Aqua America began plans to roll out an emergency customer contact system to all of its service states. "Aqua Notify" is a telecommunication software tool that enables the company to notify local customers about emergencies and service interruptions almost immediately by phone, text, and email. Some states have been using the system since 2010, but in 2012, plans were made to standardize its use across all states. Teams across many departments were part of the process to link customer data with the program, and development of protocols and employee training. The result has been a faster way to alert customers, which is complemented by a redesign of Aqua America's website, which displays current outages and allows for searches by zip code.

Wake Forest - Aqua North Carolina

In 2005, a private well in Wake Forest North Carolina was identified as having been contaminated with a volatile organic compound (VOC) called TCE. Since then, additional private wells in the area have been contaminated. All in all, more than 40 homes in the area were affected by possible runoff from an old circuit board assembly company. Residents were unable to use any groundwater for drinking, cooking, or washing.

Not knowing what to do, the U.S. Environmental Protection Agency contacted Aqua North Carolina to assist these homeowners. Aqua North Carolina quickly responded and began the process of connecting the Wake Forest neighborhood to its public drinking system. Once fully connected, the homeowners and their families began receiving regularly tested water that meets all state and federal health standards. Tests confirmed the new customers' drinking water contained no traces of the TCE or VOCs. This story underscores the benefits to customers of public water systems. Unlike private well owners, Aqua North Carolina must comply with stringent federal and state laws that require regular testing to ensure all water is free of contaminants.



Super Storm Sandy – Emergency Preparedness

In 2012, the Northeast faced one of the worst and most damaging storms in recorded history, Super Storm Sandy. Thousands of homes were lost to flooding, and hundreds of thousands more were without power for days on end. During an emergency, small comforts like electricity, heat, and water are essential to regaining a sense of normalcy. Aqua America is proud to report that the half million of their customers who experienced the wrath of Hurricane Sandy in Pennsylvania, New Jersey, and Virginia, fewer than 400 had any impact to their water or wastewater service.

The bulk of Aqua America's utility customers are in Pennsylvania, with most of those located in the southeastern portion of the state. With 8 surface water treatment plants, and more than 80 wells in southeastern Pennsylvania, not one customer was without water as a result of the storm. The same is true for Pennsylvania's Sayre, Shamokin, and Shenango area operations. Of more than 435,000 customers in all of Pennsylvania, fewer than 400 were without water at any time during the storm. Despite widespread power failures, Aqua Pennsylvania operated 78 diesel-powered generators, initiated its emergency flood preparedness plan, managed chemical inventory to sustain operations, and maintained staff 24/7 at all treatment facilities and control centers to sustain operations.

More remarkably, not one of Aqua New Jersey's 56,000 customers were without water during the storm. In Virginia, only 50 of 30,000 customers experienced lower-than-normal pressure for a limited time. Water quality across all these states was never compromised by the storm, and no precautionary boil water advisories were required or issued.

Super Storm Sandy shows how successful Aqua America's infrastructure investment program has been, as improvements allowed the company to come through the storm virtually unscathed. The company credits its success to advanced planning, deployment of personnel, generators, fuel and supplies, and the extraordinary commitment of its dedicated workforce.

By minimizing the impact of this powerful storm on water service to its customers, Aqua America removed one of the largest potential inconveniences customers could face; being without water for basic needs.

Aqua America has made significant headway in its green efforts. The greatest testament to its ability to sustain its business is its 127-year history of providing water and wastewater service to its customers. It is clear that had Aqua America not been successful in its profession, the company would not have survived — and thrived — for this long.

Aqua America and its subsidiaries are making significant prudent investments in infrastructure required to provide services for decades to come while taking additional steps to further reduce its environmental impact in the form of GHG, thereby reducing its carbon footprint. It is documented in the awards section of this report that these efforts have been recognized by numerous organizations.

Aqua America continues to be an environmental steward, caring for its watersheds and contributing to open space programs, particularly in cases where doing so benefits the company, its customers and the community. Further, the company and its employees contribute to the communities in which they operate through charitable giving and real labor in the form of stream cleanups. Aqua America's green efforts range from reductions in electric usage to increases in fuel efficiency. On the social front, the company's equal opportunity and affirmative action policies mean that the workforce will continue to mirror the communities it serves.

Aqua America plans to use the accomplishments it has made to date as a platform from which to further its sustainability efforts. Sustainability is an evolving process that requires a level of consciousness that is inherent to the water utility industry. This industry was created out of a need to maintain, sustain and treat the most precious natural resource for public health.

As Aqua America continues to grow and explore new business opportunities, the company will employ the same commitment to the environment that led to its creation 127 years ago.

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