sustainability report

Message from the Chairman

Water is the substance of all life and the ultimate sustainable resource. It is the most 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.

Aqua America traces its beginning back to 1886 and fully expects to provide services to a continuously growing number of customers well into the future. 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.

But what exactly is sustainability? One widely used definition comes from the 1987 Bruntland 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."

At Aqua, we agree that involves conducting business in ways that can be maintained for generations, while being mindful of the impacts on society and the environment over future generations. However, sustainability requires more than making efforts to reduce a carbon footprint and reducing greenhouse gas emissions. It also requires investing in needed infrastructure improvements, being stewards of natural resources and building a corporate culture and organization that will outlive current management.

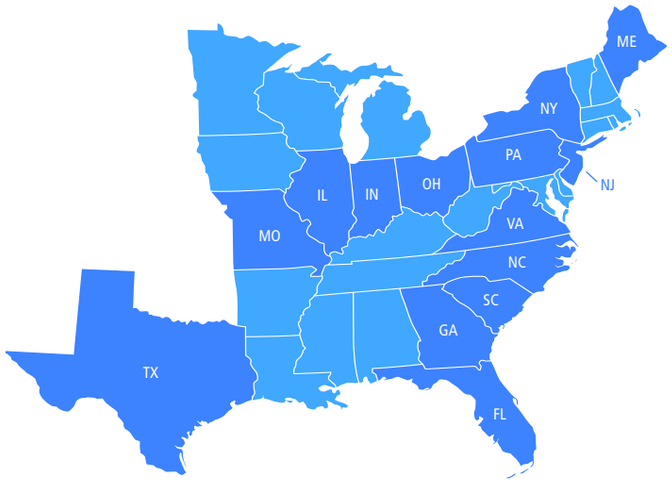
The federal Safe Drinking Water Act and the Clean Water Act establish criteria and standards for drinking water and wastewater discharges, respectively. Aqua America's ability to comply with these federal regulations has not only allowed us to be in business for as long as we have; it has been key to 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.

This report highlights some of Aqua's effort to achieve these principles and cites the metrics by which we measure our own performance toward these goals for comparison to other utilities.

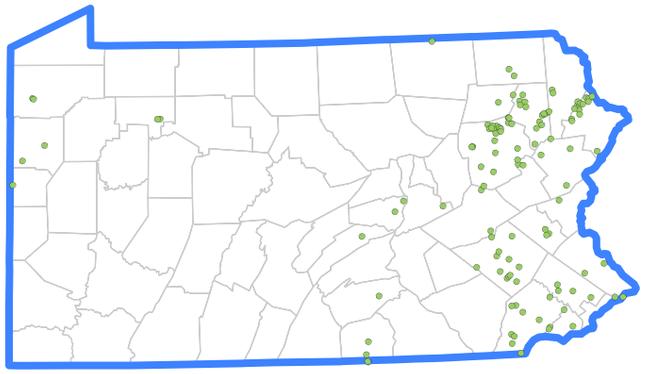
Whether it is our extensive reinvestment in aging water and wastewater infrastructure; our leak detection or wastewater reuse programs; the replacement of some traditional fleet vehicles with electric hybrids; recycling used motor oil for heat where appropriate; or the construction of the second largest solar power array in Pennsylvania, Aqua is proud of its accomplishments. And we are committed to building on our accomplishments to improve sustainability for the future.

Nicholas DeBenedictis
Chairman and Chief Executive Officer

total service territory



pennsylvania service territory



Company Profile

Aqua America provides water and wastewater services to approximately 3 million people in 14 states: Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, New York, Indiana, Florida, Virginia, Maine, Missouri, South Carolina and Georgia. It owns and operates more than 20 surface water treatment plants, 3,000 wells, 200 wastewater treatment facilities and almost 10,000 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. Today, more than half of Aqua America's customers are located outside of Pennsylvania, although Aqua Pennsylvania remains the company's largest operating subsidiary.

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

Aqua Pennsylvania

Aqua Pennsylvania serves 1.4 million people in 30 counties. The company owns 21 impoundments that hold more than 10 billion gallons of water and more than 100 treated-water storage facilities, with a combined capacity of 190 million gallons. Water is supplied from the Schuylkill, Delaware, Shenango and Allegheny rivers; the Pickering, Neshaminy, Crum, Ridley, Chester and Roaring creeks and various tributary streams. Groundwater is supplied by 74 wells and the Upper Merion Reservoir — a former quarry now impounding groundwater.

Basis of Research

In preparing data for this report, Aqua America found that very few water utilities had comparable documents that contained substantive metrics and data. It was also discovered that not all Aqua America business units had the historical information and records needed for inclusion in this report. This was particularly true for systems Aqua America acquired in the past decade. As a result, this report is based largely on data from Aqua Pennsylvania — the company's largest and oldest business unit, which represents half of its operating revenues (52 percent) — and more specifically its southeast Pennsylvania operations (Aqua Pennsylvania Southeast). The report includes data from other business units when and where information was available.

sustainable infrastructure

Distribution and Collection Systems

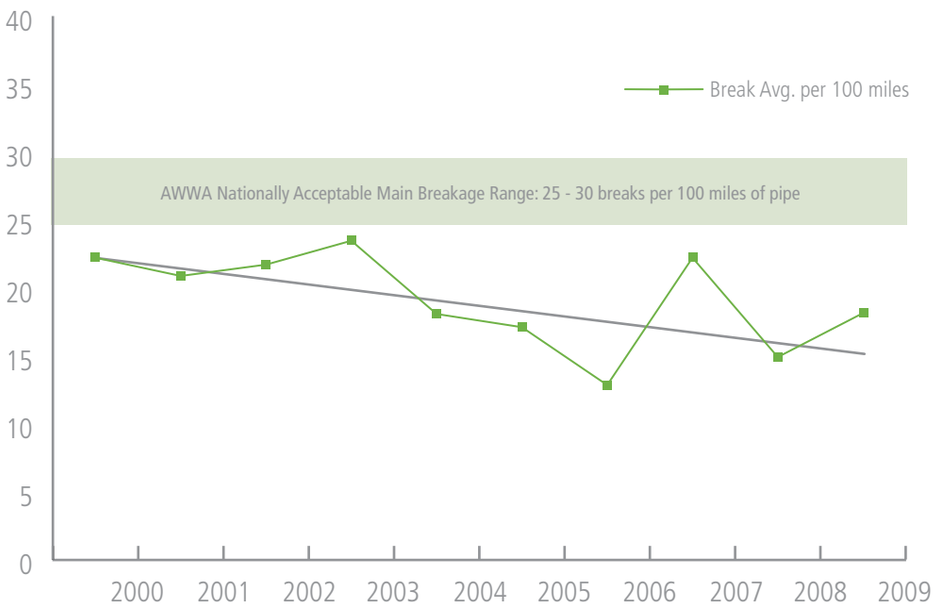
In 2009, the American Society of Civil Engineers issued a report card on America's infrastructure giving a grade of D+ to the nation's drinking water and wastewater systems. A 2008 Environmental Protection Agency (EPA) needs survey has stated that replacing the nation's infrastructure is the third largest category of expenditure (behind defense spending and Social Security) that the country faces. The EPA estimates that over the next 20 years more than $335 billion will need to be invested in infrastructure to continue delivering safe drinking water.

With much of the nation's distribution pipes nearing the end of their usable 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. 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 125-year history. Collectively, Aqua America's utility subsidiaries have invested nearly $1.2 billion in water and wastewater infrastructure between 2005 and 2009.

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 older systems Aqua Pennsylvania Southeast is replacing more than 2 percent of the distribution system annually. Replacing aged water mains reduces damage from breaks, inconveniences to customers, water loss from leaks and costs of emergency repairs, water production at plants and water transportation in the 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. Aqua Pennsylvania Southeast averages fewer than 19 breaks per 100 miles, and that number continues to decline. Aqua America is committed to a proactive — as opposed to a reactive — approach to main replacement and rehabilitation.

Aqua Pennsylvania Southeast Main Break Averages



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 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, which S&P equates to a "stable" outlook, and ranks in the top 20 percent of water utilities and the top 4 percent of 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 Pennsylvania is the number one investor-owned user of the Pennsylvania Infrastructure Investment Authority (Pennvest) loans in Pennsylvania.

These prudent investments support annual growth in earnings. In December 2009, Aqua America's annualized dividend rate increased 7.4 percent to $0.58. This marked the 19th consecutive increase in the past 18 years. In 2009, Aqua was named a "Dividend Achiever" by Mergent, Inc., for annual dividend increases over a 10-year period.

tracking water production and delivery

Tracking Water Production and Delivery

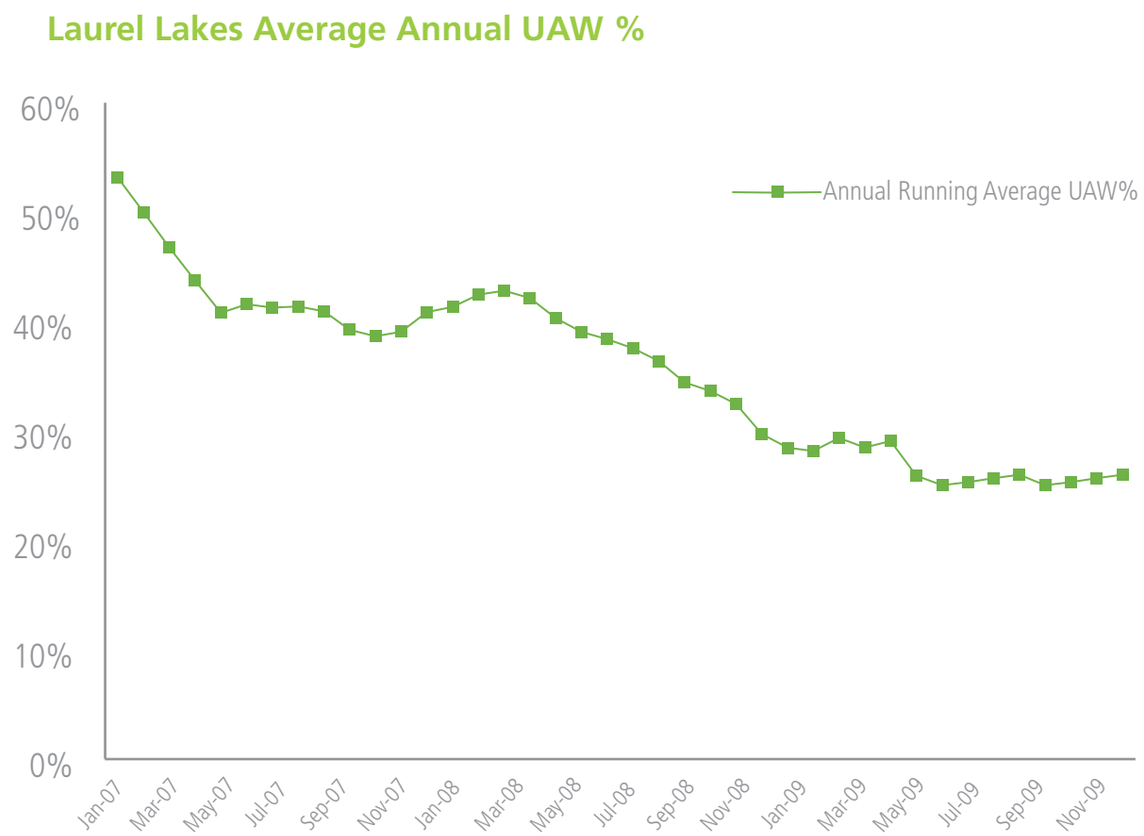
Aqua Pennsylvania uses efficient and modern technologies to monitor its distribution network and to measure water production and delivery in two distinct ways.

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 Pennsylvania closely monitors available UAW data to target main replacements.

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 Pennsylvania, however, on average has been able to maintain unaccounted water below the national average, despite acquiring operating systems that contain many water mains well over 100 years old. Aqua Pennsylvania currently is investigating even better methods to track and reduce UAW.

One example of an inherited high-loss system that has reduced water loss is Laurel Lakes. This system had an average UAW of more than 50 percent two years ago. However, after careful monitoring, research, more efficient equipment and targeted infrastructure investment, that amount has been cut in half to nearly 25 percent.



PUC Audit Participation

Aqua Pennsylvania is currently participating in a Pennsylvania Public Utility Commission (PUC) audit that employs AWWA methodology to more closely track the company's sendout and customer consumption in its older and smaller distribution systems. Aqua Pennsylvania has included approximately 15 systems in its Northeast operations division (Aqua Pennsylvania Northeast) with higher unaccounted water. The company is hopeful that the audit will highlight the benefits of the AIMS and GIS systems currently used primarily in Southeastern Pennsylvania, and support decisions to expand the use of this technology to small systems elsewhere.

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 4,000-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. A consultant provides the same services to Aqua Pennsylvania Northeast.

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 GPS-based leak-tracking 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 and customer taps. 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:

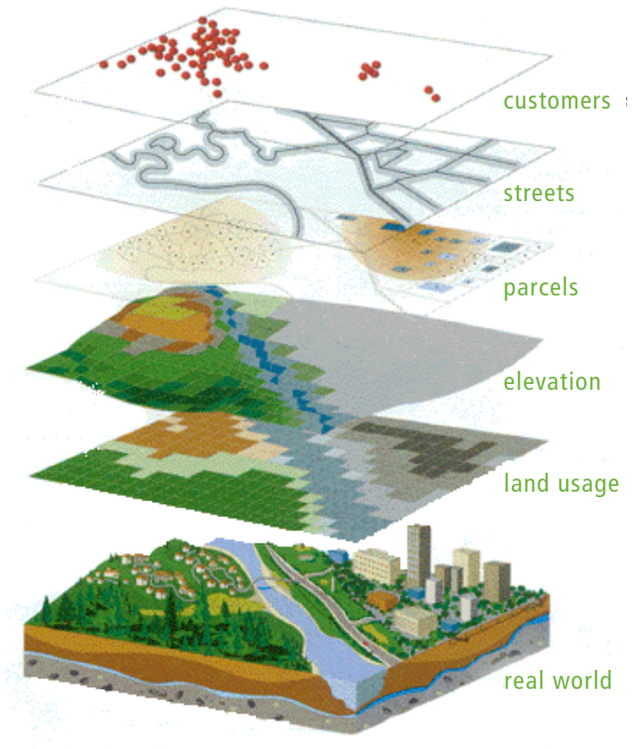
- 19,691 hydrants
- 31,887 water main breaks and leaks over 50 years
- 403,132 tap (service) records
- 27,105 extensions (pipe projects).

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

- 4,364 miles of pipe
- 53,753 valves
- 175 pressure zones
- Aerial photos of the entire service area
- Tax parcel maps for four of 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 200 AIMS and GIS users including engineering, operations, laboratory, customer service, meter shop and field personnel.

The company plans to expand AIMS and GIS technologies to other systems throughout Aqua America's service territory.



Geographic Features	Aqua Pennsylvania GIS
Mains	• 150 features
Hydrants	• 600,000 records
Breaks	• 66,000 mains
Taps	• 52,000 valves
Customers	• 18,000 hydrants
	• 22 GB imagery

A GIS is fundamentally a specialized relational database called a geodatabase.

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.

old way

new way

An employee remotely records RF meter signals from a vehicle fitted with a lap top.

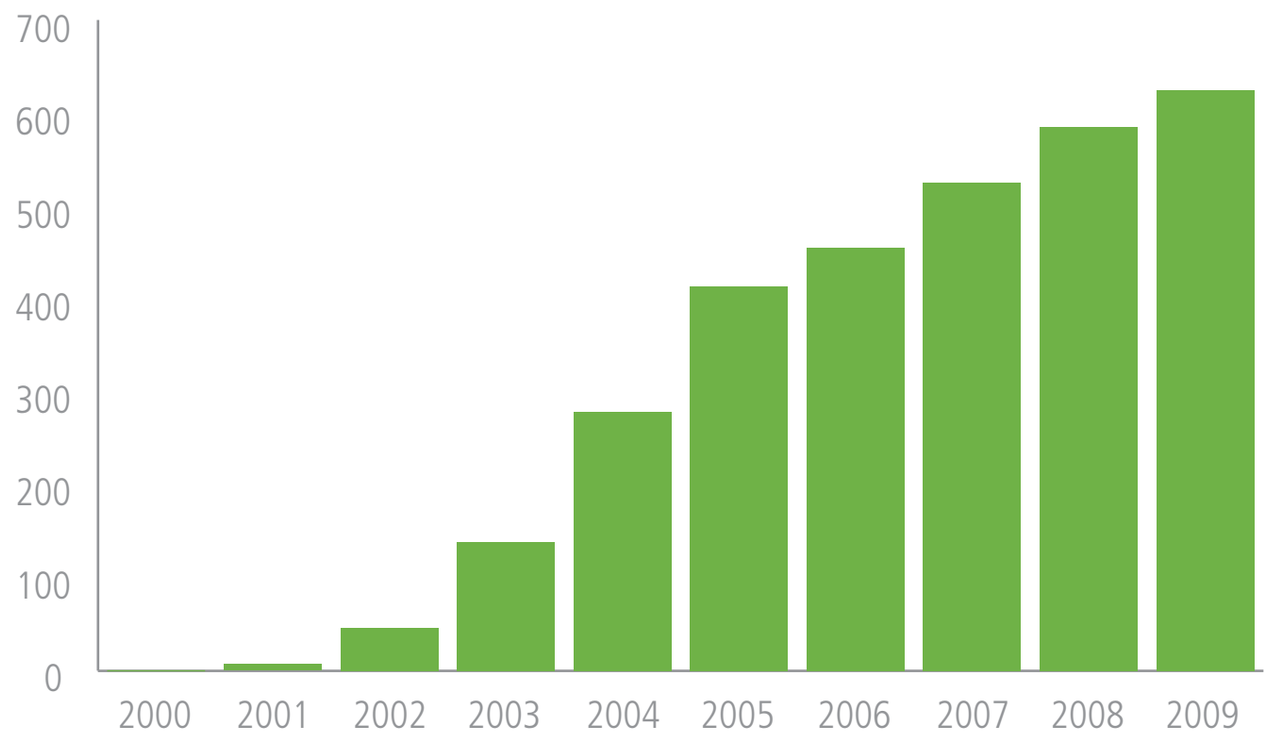
Customer Usage

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. More than 80 percent of Aqua America's customer 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 locations for placement of meters and complicated the task of meter readings. 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. T he current system has been installed for nearly 650,000 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 or animal attacks.

Installed Radio Frequency Meter Reading Devices (thousands)



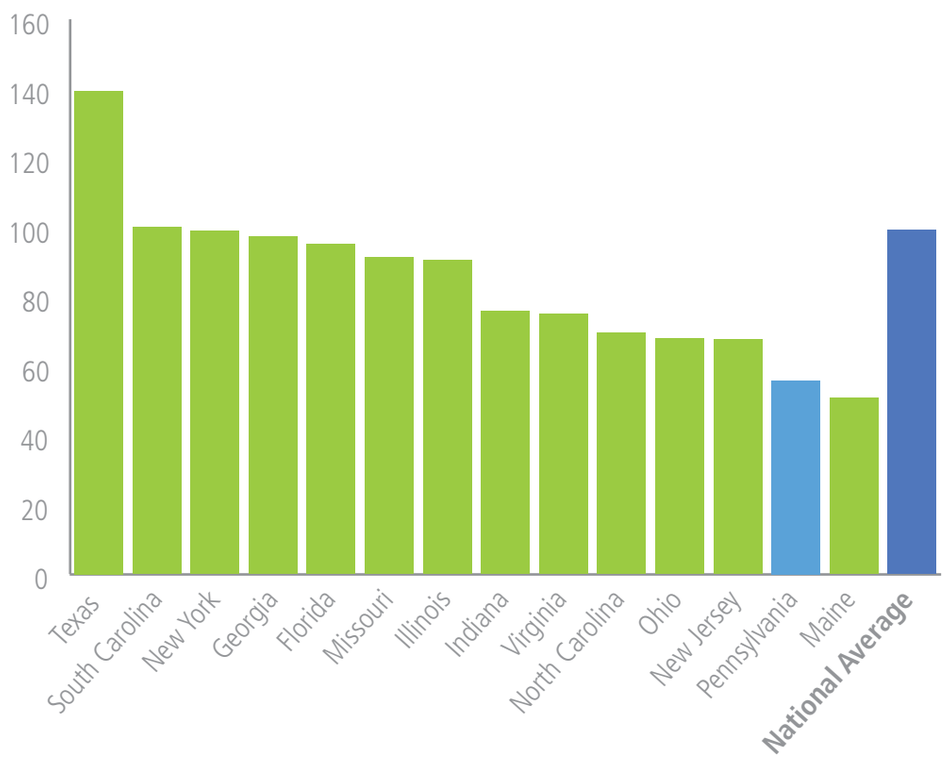
Water Use Metrics and Trends

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 USGS report available, 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. In comparison, residential customers served by Aqua Pennsylvania Southeast use about 160 gallons per day, down from 187 gallons in 2005.

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. 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. Aqua Pennsylvania consumers on average use even less — about 50 gallons a day — nearly half as much as the national average of 100 gallons/day.

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.

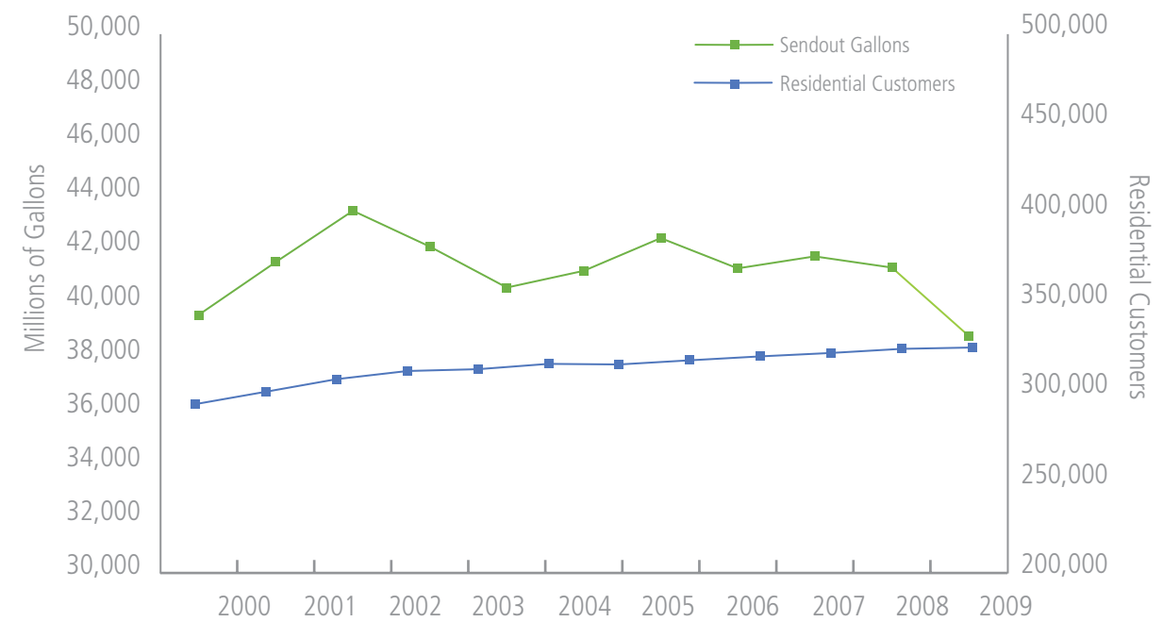
National Per Capita Water Consumption Per Day



Water Sendout

Despite a downward trend in total water use, Aqua America's business continues to grow. Water production (sendout) for Aqua Pennsylvania Southeast has been relatively flat for the past 10 years, at about 41 billion gallons annually, while its customer base and revenue have grown. Despite disruptions from droughts, floods and economic cycles, Aqua Pennsylvania consistently provides 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



Helping Hand

Aqua's Helping Hand program works with local county social service agencies to assist low-income 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 shower head, 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 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 the quality of their water from select plants to ensure they continue to meet and outperform the high standards of the partnership. 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 10 plants enrolled in the program, joining the list of more than 400 total plants serving 85 million people nationwide.

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

treatment plants and wastewater reuse

bristol before

bristol after

Treatment Plants

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.

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.

Crum Creek Treatment Plant

In 2009, Aqua Pennsylvania rededicated the completely renovated 117-year-old Crum Creek water treatment plant (at right). Rebuilding the plant was a 5-year project that cost more than $33 million. The plant can produce 20 million gallons of water per day and serves residents in 23 municipalities across Delaware County. In addition to treatment process upgrades to improve water quality, the project installed more efficient pumping equipment. Aqua Pennsylvania expects to save almost one million kilowatt hours of electricity annually from these improvements.

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.

Fruitville Plant

Although Florida receives plentiful rainfall, most of the state does not have an abundance of accessible fresh water. Irrigation demands are high, and the state has been a leader in promoting wastewater reuse for irrigation. Aqua Utilities Florida's Fruitville wastewater plant uses Advanced Wastewater Treatment (AWT) technology.

These higher levels of treatment rank above the EPA-mandated requirements, providing high-quality effluent for local Sarasota residents. The water is distributed to large ponds, then used as irrigation for office parks, landscaped common areas, golf courses, and fields for crops. Some of Aqua Utilities Florida's wastewater plants dispose of treated effluent through percolation ponds that replenish the ground water table. None of the company's wastewater treatment facilities discharge treated wastewater to surface waters.

fruitville

lake land'or: uv light disinfectant

Hawthorn Woods

Aqua Illinois's Hawthorn Woods wastewater treatment facility produces high-quality treated wastewater effluent for reuse for golf course irrigation.

Lake Land'Or

Aqua Virginia recently renovated the outdated Lake Land'Or plant with innovative new cloth media disc filters. The plant discharges to surface water in the Chesapeake Bay watershed, so the plant upgrades, including the new filters, produce a much higher-quality effluent with lower levels of nutrients to protect the environment downstream.

Aqua Virginia made use of much of the existing plant in this upgrade, but added new processes and equipment and repurposed the old tankage on site. The $2.9 million project was completed in 2009.

An alternative water treatment method installed at Lake Land'Or and other Aqua America facilities uses ultraviolet (UV) light for disinfection, avoiding potential adverse impacts on aquatic life from chemical disinfection.

Disinfection Practices

In 2007, Aqua Pennsylvania installed its first sodium hypochlorite generator at an Upper Merion well (pictured below). This on-site generation (OSG) system replaced the traditional systems that used chlorine gas stored on site with an on-demand disinfectant. In the OSG process, electricity is applied to a solution of sodium chloride (salt) and water, producing chlorine and other oxidants that are then used to disinfect water.

Traditional chlorine gas is toxic and must be transported, stored and handled very carefully. OSG systems eliminate this risk and use only water and harmless salt to produce nonhazardous solutions.

In 2008, Aqua Pennsylvania began embarking on a program to replace all gaseous chlorine at its wells with OSG systems. To date, Aqua Pennsylvania Southeast has converted nine well stations to OSG systems. The company expects to convert all of its well stations to OSG with an expected completion date in 2011.

residuals management

lagoon

A lagoon allows water to drain away and the sun to naturally dry residuals over time.

quarry reclamation

The old, abandoned Foxcroft Quarry is being backfilled with residual waste, providing soil for new plant life.

Residuals Management

Residual waste is created during the water treatment process. Aqua America owns and operates 14 such water treatment facilities in Pennsylvania, 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

There are two main types of residuals 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 uses lagoons for drying residual waste and mechanical dewatering to thicken the residual.

Sustainable Disposal

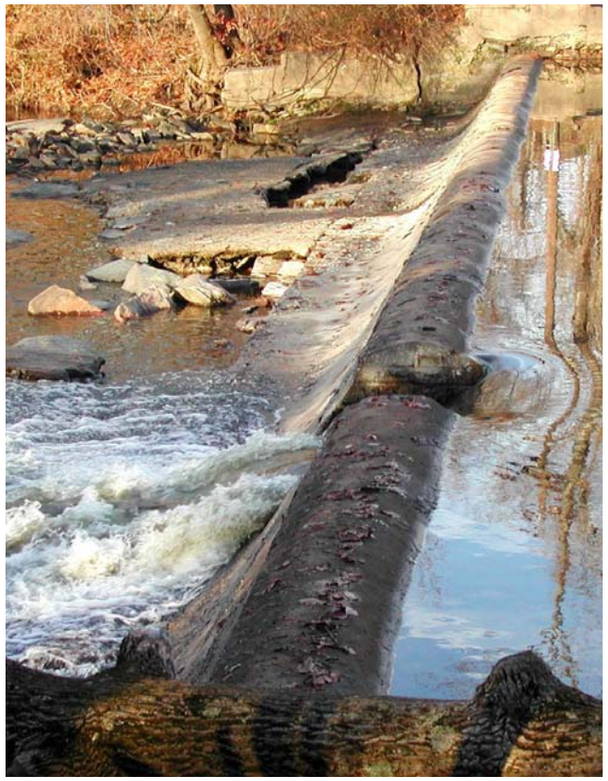
Depending upon the location and type of waste, Aqua Pennsylvania disposes (or reuses) its residuals in a number of ways. Aqua owns several quarries that are permitted to accept residuals and are close to its water treatment facilities, keeping transportation costs low. Because water treatment residuals 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'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.

watershed protection

bethayres dam: before



bethayres dam: during razing

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, 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 (then Philadelphia Suburban Water Company). 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 recreational land use.

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.

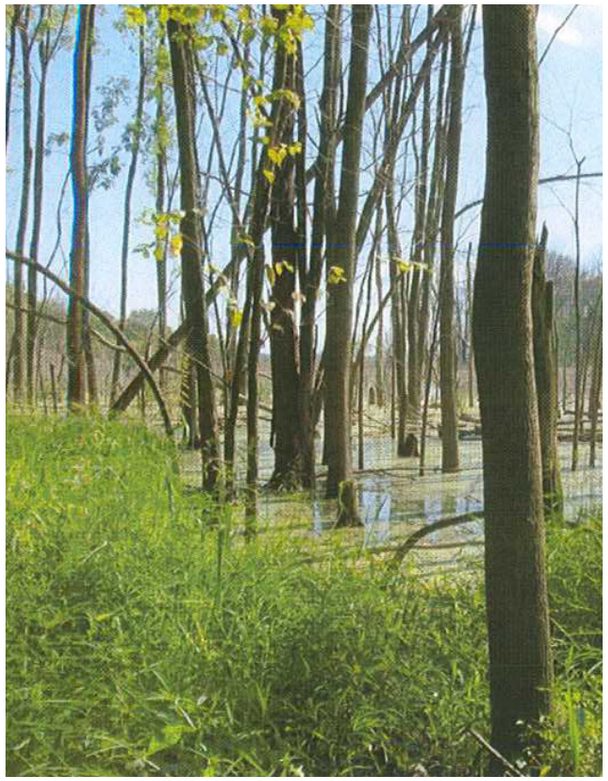
Bethayres Dam Removal, Pennsylvania

The Pennypack Creek was among the nation's first industrial rivers – dammed from source to mouth, polluted by mills and eroding hillsides and cut off from native fish. Aqua Pennsylvania acquired a water system with an intake on the stream at Bethayres in 1898. The Bethayres dam was erected in 1910. By 2005, the dam was no longer used for supply purposes, and water quality and habitat had improved in the Pennypack.

The removal of the dam was a milestone in restoring this waterway, enabling for the first time since the early 1900s the return of native fish species from the Delaware River including American shad, hickory shad, blueback herring, alewife, striped bass, white perch, eels and local trout. Approximately 20 miles of passage is open from the Delaware River, along with 7.5 miles of spawning and rearing habitat close to the headwaters of the Pennypack Creek.

The project cost $200,000 and was partially funded by grants and partnerships from the National Oceanic and Atmospheric

pine lake



heron sanctuary

Administration (NOAA) through the Fish America Foundation, the NOAA Community-Based River Restoration Grant Program through American Rivers, and the State Wildlife Grants Program through the Pennsylvania Fish and Boat Commission. Aqua Pennsylvania contributed $100,000 toward the project. Project review and permitting were provided by the Pennsylvania Department of Environmental Protection, Pennsylvania Fish and Boat Commission, Pennsylvania Historic Museum Commission, Montgomery County Conservation District, and the U.S. Army Corps of Engineers.

A few months later, in May 2006, Aqua Pennsylvania enlisted the help of 80 student volunteers from the Academy of the New Church High School in Bryn Athyn and Holy Family College to plant trees along the banks of Pennypack Creek. The event took place during National Drinking Water Week as part of Aqua's stream revitalization project. The event was entirely funded by Aqua Pennsylvania with more than 600 new trees, plants and shrubs of many native species planted along the creek's waterways.

Pine Lake Wetland Preservation, Ohio

In 2009, Aqua Ohio completed a transaction with the Mill Creek Metropolitan Park District in Beaver Township of 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 bio-diversity of the area.

Heron Sanctuary, Illinois

Aqua Illinois owns and operates the 1,000-acre Lake Vermilion in Danville, Illinois, as a water supply to 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 in four separate parcels of land 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.

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.

Recent Awards

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

- **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 Aqua Pennsylvania's 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 ultra-violet (UV) water treatment plant in Lopatcong Township. Water is disinfected with chlorine, and 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 New Jersey 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 the Aqua Pennsylvania the Governor's Award for Environmental Excellence from the Pennsylvania Department of Environmental Protection 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.

Pennoni Associates Founder and Chairman Chuck Pennoni, Aqua CEO Nick DeBenedictis and Governor Ed Rendell

energy resources

Energy Resources

Climate Change

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.

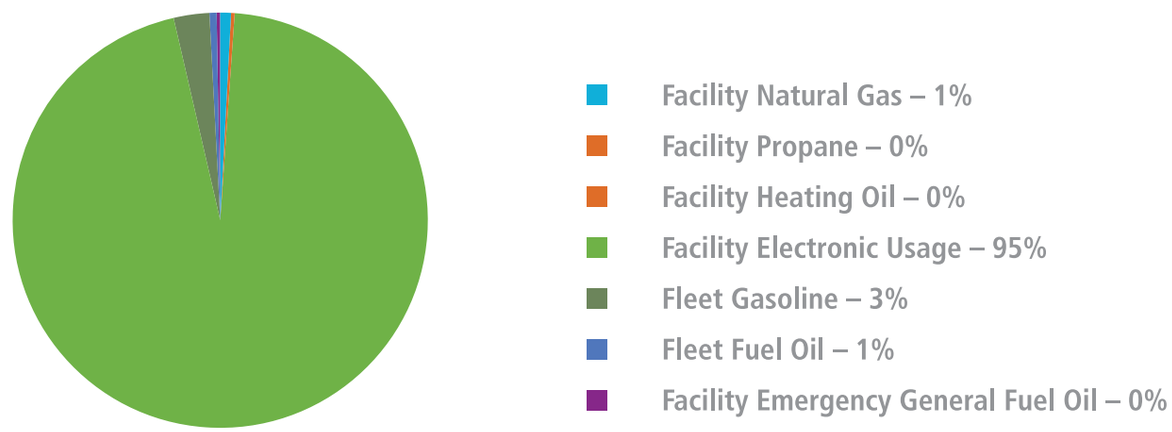
Drought conditions and government-imposed water use restrictions have affected Aqua America's systems in the past, and will continue to do so in the future. These have been, and will continue to be, addressed with reservoir storage, conjunctive use of water resources, and emergency conservation and water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

GHG Footprint

Despite limited available data, a preliminary footprint of 2008 Green House Gas (GHG) emissions for Aqua Pennsylvania Southeast was created. The graph reports that business operations created the CO_2 equivalent of 91,200 metric tons. Upon closer examination, Aqua Pennsylvania Southeast is only directly responsible for about 5 percent of that value. Electricity used for pumping and treating water and wastewater accounts for 95 percent of all activity. Generated energy is already accounted for by electricity producers. Still, Aqua Pennsylvania Southeast is committed to lowering electricity demand as well as associated environmental implications through a number of innovative methods.

Aqua Pennsylvania Southeast annually uses almost 122 million kWh of electricity to treat and deliver more than 41 billion gallons of water. This amounts to about 3 kWh per 1,000 gallons of water delivered. The company continues to invest in projects to improve motor and pump efficiency and to use alternative, sustainable sources of electric power.

Aqua Pennsylvania Southeast 2008 GHG Sources



Electricity Management

Over the past decade, electric energy demand at its Bryn Mawr headquarters has averaged between 23 to 26 kWh per square foot annually. Aqua Pennsylvania is taking a number of steps to control energy demand and increase usage efficiencies.

Networked Light Control

In an effort to control energy costs, Aqua America teamed up with a lighting control technology company in 2004 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. Electronic dimming ballasts, more efficient fluorescent lamps, occupancy sensors and photo sensors were all installed and connected to the corporate intranet. This networked system allows users to individually control and program specific light levels from their desktops. The photo sensor system can also automatically execute demand-responsive load shedding by monitoring natural light levels, and reducing wattage during peak energy demand periods.

The system features 157 personal controllers and 10 photo sensors. More than 276 occupancy sensors placed throughout the building detect motion, automatically powering down unused rooms and eliminating wasted power from hours of unnecessary lighting. Altogether, 1,817 connections are controlled. 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.

Laboratory Equipment

Recent renovations and updated systems in Aqua Pennsylvania's water testing laboratory have increased lab equipment power efficiencies. All machines 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 machines to run unattended. Automatic sampling speeds up testing, while decreasing human error. A new method of analytics has recently been adopted called "micro extraction," allowing for 98 percent less testing chemicals and solvents to get sufficient data. This new procedure minimizes hazardous waste byproducts while simultaneously decreasing test run times.

Alternative Energy

Wind Power

Aqua America has been exploring alternative sources of power for some time. In 2005, Aqua Pennsylvania purchased 100 percent wind-generated electricity to power its headquarters in Bryn Mawr and two Chester County buildings for a year. The Citizens for Pennsylvania's Future (PennFuture) granted Aqua America the "Green Power" award for its use of energy-saving technologies and dedication to protecting the environment. Aqua Pennsylvania has continued this green tradition by annually purchasing more than 4 million kWh of wind energy from PECO, the regional electricity distributor, or the equivalent power of a 1.5 MW turbine.

Solar Power

Aqua Pennsylvania has also pursued the potential of solar power equipment where applicable. Aqua Pennsylvania uses solar-powered directional arrow boards instead of diesel operating systems. For treatment purposes, the company uses three solar-powered mixers at its Newtown and Bala Cynwyd storage tanks and the Upper Merion Reservoir. Because of their size, water inside large storage tanks can become stale during periods of low demand. The solar-powered mixers continually mix the water, extending the life of the water without the need for additional chemicals and reducing operating costs.

Ingram's Mill Solar Farm, Pennsylvania

Aqua Pennsylvania's largest and most significant investment towards a greener infrastructure came in the form of a massive construction project at one of its treatment plants. In December 2009, Aqua Pennsylvania installed a 1.1 MW solar farm to power its Ingram's Mill water treatment plant in East Bradford Township, Chester County. The solar farm contains 4,400 panels occupying 4.5 acres and is currently the second largest solar energy power facility in Pennsylvania.

On a sunny day, the panels will generate more than 100 percent of the power needed by the plant – providing free power during peak electricity loads and relieving strain on the power grid during the busiest water production months. The normal power load at the Ingram's Mill plant is about 70 percent of the solar farm's capacity, so on any sunny day the plant could sell 300 kilowatts back to the local energy provider for a profit, while still running the plant for free. Even during cloudy days, it is estimated the panels will still produce roughly 30 percent of the plant's electricity demand. Ingram's Mill has a normal annual electricity demand of 11,000 kWh of electricity at a daily average cost of $837. The solar farm is estimated to save $77,000 annually from the electric bill. Funding for the $5.6 million plant came from a dual partnership with the Pennsylvania Department of Environmental Protection and a $1 million federal stimulus grant from the Pennsylvania Energy Development Authority.

The Ingram's Mill plant can produce up to 6 million gallons of water a day, supplying 25,000 West Chester-area residents. Aqua Pennsylvania estimates that each year, the solar farm energy output will equal:

- A reduction of CO_2 emissions by 1.4 million pounds, or
- offset the need for 3,000 barrels of oil, or
- avoid the equivalent of 2.6 million car miles.

Aqua Pennsylvania is evaluating opportunities to use solar energy at other facilities that have adequate acreage to better manage electrical usage, which accounts for one of its largest operating expenses.

Direct GHG Sources

Though indirect source electricity use and generation create most of Aqua Pennsylvania Southeast's greenhouse gas (GHG) footprint, the company is still directly responsible for 5 percent of its emissions. Reanalysis of this subsection of data shows the majority of direct GHG, 59 percent, comes from fuel to power its fleet, while the remainder stems from general heating of facilities and emergency power generation. Aqua Pennsylvania has taken initiatives to improve efficiency and reduce emissions.

Fuel Consumption

Aqua America operates a total of 1,250 service vehicles, 550 of which serve Aqua Pennsylvania. The fleet management team has taken significant steps to reduce fuel usage and emissions from Aqua's vehicles. They regularly monitor vehicles and investigate new technologies.

Specific adaptations, where applicable, might be tested regionally and then implemented across the whole of Aqua America. Therefore, efficiency changes in fleet vehicles generally impact the company on a larger scale and create a more noticeable difference, as opposed to regional energy initiatives. Aqua America is employing a combination of fuel efficiency, vehicle technologies, and behavior modifications to reduce its impact on the environment.

In 2009, all Aqua America operations used an average of 1.71 gallons of fuel per customer per year, down from 1.74 gallons per customer per year in 2008.

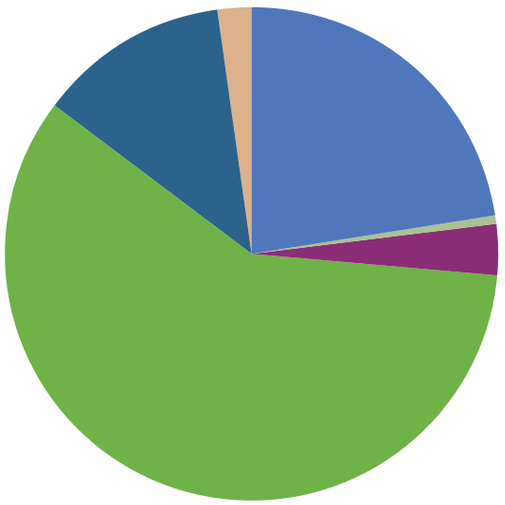
Fuel Efficiency

Aqua America is making great strides to lower its fuel demand. In the past two years, 12 states have lowered their fuel consumption while servicing customers. Aqua Pennsylvania fleet vehicles use an average of 1.6 gallons per customer annually.

Sustainable Adaptations

Currently, Aqua Pennsylvania Southeast is transitioning all diesel-powered vehicles and equipment to B5 biodiesel and is testing this alternative fuel on dump trucks, gang trucks, backhoes, air compressors, and a

Aqua Pennsylvania Southeast Direct GHG Sources



- Facility Natural Gas – 23%
- Facility Propane – 1%
- Facility Heating Oil – 3%
- Fleet Gasoline – 59%
- Fleet Fuel Oil – 12%
- Facility Emergency General Fuel Oil – 2%

portion of the wastewater fleet. This transition requires no engine modifications or capital investment. Aqua Pennsylvania is also transitioning its entire gasoline-powered forklift fleet to propane.

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 4,000 to 6,000 miles and on tractor-trailer trucks from 6,000 miles to 12,000 miles.

For safety, Aqua America consulted its vendor, Mobil Oil, as well as an independent lab to test oil from vehicles for two years before the decision was made.

Recycling Motor Oil

Fleet management is also making efforts to recycle wherever possible. At the Souderton and Springfield fleet maintenance garages there are two clean-burning oil furnaces using 100 percent recycled motor oil that mechanics retrieve from vehicles. Each year, the Springfield service garage generates between 1,200 gallons and 1,500 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 heats the garage.

The special oil furnace is capable of burning used motor oil, transmission oil, hydraulic oil, as well as No. 4 heating oil, and is 20 percent to 50 percent less expensive than 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 price markets.

These furnaces are approved by the EPA and meet strict environmental guidelines for "Energy Efficient Commercial Building Property" heating devices. The system reduces annual energy and power costs of the building between 17 percent and 50 percent.

At the Springfield location, the new system is expected to save a minimum of $3,000 to $4,500 annually in heating costs. The Souderton garage has had a similar system since 2006. As the only source of heat, its free energy has already paid for itself in savings and benefits to the environment.

Vehicle Technologies

Aqua Pennsylvania's fleet contains 202 large trucks and pieces of construction equipment and 284 small service/meter vehicles. Recently, seven hybrids have been added, representing an estimated 10 percent savings in fuel economy. Aqua America is also exploring E85 Fuel Flex vehicles where practical. Currently, 35 E85 vehicles are in operation, mostly in Missouri. Fleet management plans to replace existing vehicles with the fuel flex technology where practical and wherever current fuel sources are available.

Idleright Fuel Management

Aqua Pennsylvania is currently testing Idleright Fuel Management technology on three vehicles. The system allows work vehicles to be parked with lights on while automatically idling the vehicle only when necessary, while constantly monitoring the battery condition. In a six-hour time span, the Idleright Fuel Management system will only use a quarter gallon of gas.

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 been exploring GPS technology capabilities. Vehicles equipped with the GPS unit allow 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, identifying the closest vehicle to address customer and maintenance emergencies. The GPS technology prepares fuel saving reports allowing 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.

Additional Green Practices

Aqua America's sustainable practices extend beyond its own operations. Each year, Aqua 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.

With nearly one million customer accounts, most of which are billed monthly, Aqua America prints millions of billing statements annually. The company's 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.

sustainable employee working practices

Sustainable Employee Working Practices

A company is only as good as the people who work for it. 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.

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 Developement

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, diversity and respect in the workplace. Some classes, including respect in the workplace, which highlights diversity and harassment issues, 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. Classes supplement business writing skills. Employees are also able to take approved business-related seminars outside of the office, the cost of which is paid by the company.

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 regularly partners with local colleges, establishing strong co-op and internship opportunities for students interested in a career in the water industry.

Skill Management

Specific jobs within Aqua America require extensive training and certification. To date, Aqua America currently employees 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.

Cadet Program

One new skill management program Aqua Pennsylvania is currently testing is the Cadet program. This unique program exists for junior staff members and introduces them to different management styles and operations. The Cadet Program is a rotational program for production engineers, requiring a technical degree and four years of professional experience. The production engineer will have the chance to work as an integral management member carrying out day-to-day operations with top level management. This will enable participants to gain on-the-job experience, and learn the skills to become mid-level management. Currently, Aqua Pennsylvania has three production engineers who have gone through the program. Participants are exposed to all aspects of water production and treatment, and they may choose their areas of speciality.

Call Center

Aqua America operates a state-of-the-art consolidated customer service operation that includes a central call center and billing operation serving most of Aqua's business operations. Call centers are located in three locations (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 (877-WTR-AQUA) 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 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 77 full-time and part-time customer service representatives, the centers are open during normal business hours and handle approximately one million calls per year.

After business hours, an automated system routes emergency calls to local field operators. 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.

community and civic involvement

Community and Civic Involvement

Aqua America is a community leader in the areas where it provides water and wastewater services. Employees contribute their time to clean up local creeks and watersheds, assist the Red Cross with smoke-detector campaigns, mentor students through the Big Brothers/Big Sisters program and raise funds for local charities. Many employees also serve on the boards of local chambers of commerce and other civic organizations.

Through its charitable giving, Aqua America supports a variety of worthy non-profit organizations involved with environmental stewardships, health and safety, youth leadership and community improvement. Given the nature of its business as a water provider, Aqua America has close working relationships with many local fire companies.

The company is also 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.

In addition to its strategic community relations programs, Aqua America responds when crises occur. In the days after the 2009 earthquake in Haiti, CEO Nick DeBenedictis was among the community leaders participating in a local telethon and urging callers and employees to donate. Aqua America matched its employees' contributions and together contributed more than $50,000 to the American Red Cross Haiti Relief Fund.

Corporate Giving: Waterway Play

During the fall of 2008, in partnership with Philadelphia's Please Touch Museum for children, Aqua America sponsored Waterway Play, 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.

Through the Please Touch Museum exhibit and other efforts, Aqua is committed to teaching children about the importance of conserving water and respecting local watersheds.

Aqua America has made significant headway in its green efforts. The greatest testament to its ability to sustain its business is its 125-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 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 in nature 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 125 years ago.

AQUA SM

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