

# Association of Metropolitan Water Agencies 2019 Sustainable Water Utility Management Award



Application submitted by:
Suffolk County Water Authority
Suffolk County, New York

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# I. <u>UTILITY PROFILE</u>

# SUFFOLK COUNTY WATER AUTHORITY MISSION:

Our mission at Suffolk County Water Authority is to deliver the highest quality drinking water at the lowest possible cost. That means water that is tested 365 days a year in a state-of-the-art laboratory that imposes far stricter internal standards than are required by regulatory agencies, and to operate transparently and efficiently in a manner that embraces sustainability with every decision.

# SUFFOLK COUNTY WATER AUTHORITY VALUES:

- Quality
- Transparency
- Sustainability
- Efficiency
- Responsibility
- Accountability

# ABOUT SUFFOLK COUNTY WATER AUTHORITY:

The SCWA is an independent public-benefit corporation operating pursuant to the Public Authorities Law of the State of New York. Serving potable water to approximately 1.2 million Suffolk County residents, the Authority, which was founded in 1951, operates without taxing power on a not-for-profit basis. The Authority is the one of the largest suppliers of groundwater in the country.

A five-member board oversees SCWA operations. Each board member and a chairman are appointed by the Suffolk County Legislature and serve a five-year term. The Board then appoints a Chief Executive Officer to implement and measure objectives. The Authority's Operating & Maintenance Budget for fiscal year 2019 totals just over \$138 million with a capital budget of just under \$80 million.

## ABOUT OUR SOLE SOURCE AQUIFER:

Long Island's underground aquifer, the sole source of water for all of Long Island is comprised of three distinct layers: the Upper Glacial, the Magothy, and the Lloyd. The vast majority of the water served by SCWA comes from the Magothy aquifer, anywhere from 200 to 1,400 feet below the surface. The region typically receives anywhere from 42 to 50 inches of precipitation per year, about half of which percolates through the soil and recharges the aquifer, meaning Long Islanders are fairly lucky when it comes to having an ample supply of water. Geologists estimate the aquifer contains anywhere from 60 to 120 trillion gallons of water.

# II. SUSTAINABILITY MISSION / POLICY STATEMENT

Sustainability is at the heart of every decision we make at SCWA. We recognize that we provide a vital resource to the community, and leaving behind a safe and robust supply of water for future generations is the most important thing we can do as an organization.

Whether it's making operational choices that prioritize the long-term health of our sole source aquifer, or making organizational decisions that reduce our carbon footprint, creating a more sustainable future for Suffolk County is always a part of our mission.

Long Island's aquifer faces numerous threats including contaminants both familiar and emerging. That's why our laboratory goes the extra mile – testing for 251 more chemical compounds than state and federal regulations require. It's why we were the first water supplier in New York State to engineer and install a treatment system for 1,4-dioxane, even in the absence of any regulation. And it's why we founded the Long Island Commission for Aquifer Protection, to get all the region's water, geology and health experts to the table to discuss region-wide solutions.

Finding ways to reduce our carbon footprint was a key driver of our ten year strategic business plan published in 2015. We have begun making the switch to compressed natural gas utility trucks and hybrid fleet cars and our emergency management department evaluates the resiliency of our well fields to climate change impacts. Investing in new workforce technology for our field staff allowed us to completely eliminate paper from our customer service operations, with all construction/maintenance and production control operations set to go paperless this year.

We believe access to safe drinking water is a fundamental right, and we are proud that our Board and executive staff have a history of implementing policies that define SCWA as a model utility and an industry leader. One that exceeds all federal and state standards for water quality, protects our aquifer, safeguards our environment, and leaves future generations of Suffolk County residents with access to the great water they deserve.

# III. FINANCIAL MANAGEMENT

# THE HIGHEST BOND RATINGS:

SCWA's financial position is even stronger in 2019 than it was when SCWA was awarded the Platinum by AMWA in 2016. Every year since 2016 the Authority has held two AAA bond ratings from Fitch and Standard & Poors, respectively, the highest possible rating. The Authority is one of only approximately 75 water suppliers with two AAA ratings out of the of 20,000 water suppliers nationwide, placing us in the top one percentile for financial stability.

# TIERED RATE STRUCTURE:

On April 1, 2019 SCWA instituted for the first time in its history a tiered rate structure. This rate structure was designed to raise necessary revenues in order to meet the Authority's rising costs, while still protecting the average SCWA customer from large rate hikes. The new "conservation rate" structure creates a more equitable stream of revenue from our customers.

Perhaps most importantly, the tiered rate structure encourages customers to conserve water which is in line with the Authority's "Water Wise" programs and long term county-wide water conservation goals. Customers who use water judiciously will see only a modest 4% increase on their consumption charge (\$12.48 per year on average), while customers who use more than double the average amount of water will pay a 20% premium rate on anything used above that threshold. As part of the new rate structure, SCWA also put in place second-tier thresholds based on meter size so that naturally high volume users like universities and apartment complexes are not adversely affected. Projected annual revenue generated by the conservation rate will allow the Authority to meet rising costs and fund its proactive capital program without having to resort to significant rate hikes (see graphs below).

# Effective April 1<sup>st</sup>, 2019 (for all meters 1-inch or smaller)

2018 Water	2019 Standard Water	2019 Conservation
<b>Consumption Rate</b>	Consumption Rate	Water Consumption
	(Tier 1)	Rate (Tier 2)
	*Applied to first 105 CCF used in a billing quarter.*	*Applied to every CCF used after first 105*
\$1.46	+\$0.058 = 1.518	+\$0.292 = 1.752
(per CCF)	(per CCF)	(per CCF)

# **Conservation Rate Thresholds**

Meter size	Tier 2 threshold (gallons)	Tier 2 threshold (CCF)
5/8"	78,540	105
3/4"	78,540	105
1"	78,540	105
1 ½"	462,264	618
2"	473,484	633
3"	296,208	396
4"	2,250,732	3,009
6"	6,099,192	8,154
8"	11,998,668	16,041

## LONG TERM FINANCIAL PLANNING:

SCWA has consistently exhibited strong operating margins, good debt service coverage and healthy cash balances. Our continued strong financial position is led by a knowledgeable water system management team utilizing conservative financial practices, strong debt service coverage and strong liquidity. Our independent rate-setting authority, coupled with an exceptionally low rate structure and an evenly distributed customer base, provides significant flexibility.

Management prepares an annual capital budget that is based on a rolling five-year forecast incorporating the latest available information and needs of our Construction/Maintenance, Engineering, Production Control and Customer Service departments, as well as the Laboratory, Information Technology, General Services and other administrative departments. Our capital projects and infrastructure improvements enable us to provide high quality drinking water in the most cost-effective manner possible. The Authority finances the costs of these capital expenditures with the proceeds of notes and bonds issued for these purposes, as well as net revenues generated from operations.

Management also prepares annual revenue and operating and maintenance budgets based on a rolling five-year forecast, incorporating both internal and external factors. Our revenue budget, supporting the forecasted operating and maintenance expenditures, debt service and coverage is based on our projected water usage, customer growth and operating revenues. We carefully assess our net revenues available for our debt service requirements during our budgeting process to ensure that we have sufficient debt service coverage for the current year and each of the next five fiscal years.

Our proactive approach to identifying additional revenue sources, and identifying areas where costs can be cut through more efficient management practices, has allowed us to mitigate rate increases, resulting in our rates continuing to be among the lowest in the country when factoring cost of living. These proactive efficiency measures, coupled with our robust long range financial planning models and strong financial management, led to bond rating agencies reaffirming our AAA bond ratings in 2018. The Authority does not aim to maintain operating reserves; however, general fund balances are consistent with general fund projections year to year, and the Authority fully funds its Other Post-Employment Benefits (OPEB) obligations.

# **ALTERNATIVE REVENUES:**

SCWA proactively reaches out to cell service providers to gauge interest in placing antennas atop our elevated tanks for a fee. SCWA presently generates more than \$10 million dollars annually from these cell phone companies and is looking to expand further by soliciting interest from more carriers.

Since winning the Platinum award in 2016 the Authority has also taken in \$2.86 million in revenue from the sale of five underutilized surplus Authority properties.

## **STRATEGIC PLAN 2025:**

In 2015 the Authority unveiled a new 10-year strategic business plan as a coordinated effort to ensure that SCWA is prepared to meet the challenges of the water supply industry over the next decade. As of June 2019, over 46% of goals outlined in the plan have been completed, with another 31% currently in progress.

The plan is separated into 11 specific categories: Asset Management, Customer Service, Automated Meter Reading, Customer Growth, Employee Development, Workforce Technology, Emergency Management, Water Quality & Treatment, Future Water Supply Needs, Financial Strategy & Rates, and Supervisory Control and Data Acquisition (SCADA).

In addition to its ambitious workforce efficiency and environmental sustainability goals, Strategic Plan 2025 includes a 10-year financial strategy for the Authority. This blueprint includes maintaining the lowest possible water rates, the highest bond ratings and at least a 1.5 debt service ratio, all of which have held true to date.

When presenting SCWA with its Platinum Award for Utility Excellence at AMWA's 2016 Executive Management Conference in Scottsdale, Arizona, the Association pointed specifically to Strategic Plan 2025 as a factor in the award decision.

# PROACTIVE MAIN REPLACEMENT:

The SCWA board has historically approved robust capital budgets that improve our infrastructure and make sure we're ready to meet the supply challenges of the coming decades. Each year, the Authority's operations staff identifies areas of improvement within our network of nearly 6,000 miles of pipe. Aging cast iron water main is replaced with new ductile iron main. Replacing aging water main proactively before it breaks down is a long-standing organizational policy that ensures better water service for our ratepayers and benefits the Authority's bottom line in the long-term, allowing us to keep rates low.

Since winning the Platinum Award in 2016, SCWA has replaced thousands of feet of water main, investing over \$66 million in the proactive water main replacement program. The capital breakdown is as follows: **2016**: \$14.2M **2017**: \$9.17M **2018**: \$12.5M **2019**: \$13.95M **2020**: \$16.5M.

To measure our field response times to water main breaks, we track on a monthly basis the elapsed time between when a call comes in reporting the break to the time a crew arrives. We track and monitor all breaks and response times to determine a weighted average response time for the month. Management reviews these reports and determines if any changes are needed to ensure that we are consistently meeting our targeted benchmark.

#### **AUTOMATED METER READING:**

Earlier this year SCWA completed—ahead of time and under budget— its ambitious project to transition nearly 390,000 water meters system-wide to new meters that use automated meter reading (AMR) technology. The decade-long project, which will virtually eliminate manual meter reads and estimated bills, was done months earlier than initial projections and nearly \$5 million under budget. Its completion sets the utility on a path to a far more efficient and data-driven process of collecting water use information.

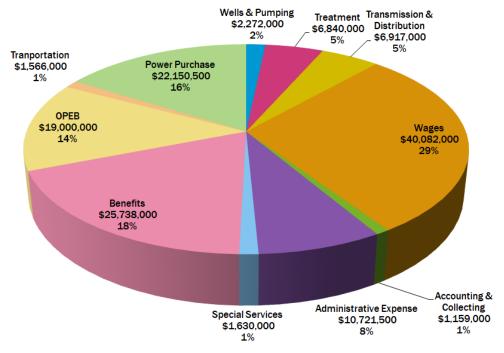
SCWA was able to finish the project early and under budget by having field staff throughout the project install the new meters any time they were at a home or business for a service appointment. This practice accounted for approximately 25% of installations.

Having virtually the entire SCWA service territory now covered by AMR technology has allowed the Authority to collect reads with approximately one-fourth the meter-reading staff once required to collect manual reads. Meter reading staff has been decreased from 40 to 11 since the beginning of the project, and the data provided by the technology has already allowed us to begin pinpointing usage patterns of our largest water consumers. Having this information will help us to fine-tune conservation objectives, save money, protect the aquifer, and better serve our customers.

# **ASSET MANAGEMENT:**

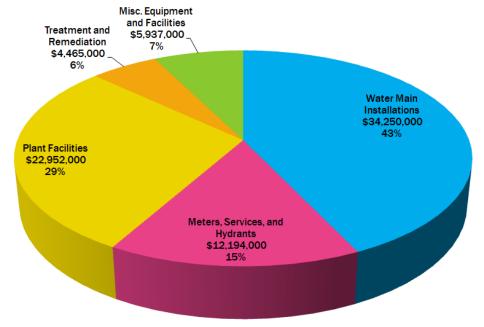
Since winning the Platinum Award in 2016, SCWA has established an inter-departmental asset management team to develop criteria for tracking assets. A systematic program for water main replacement has been developed as mentioned above, and all water main breaks are now logged in GIS in real time and are available to the public on our website. We've also develop a proactive well replacement program with clear criteria, to ensure continued system reliability. SCWA is on track to invest nearly \$1 billion on infrastructure by 2025 without significant rate hikes on our customers.

# **2020 0&M Budget**



Total O&M Budget for Fiscal Year 2020: \$138,076,000

# 2020 Capital Budget



Total Capital Budget for Fiscal Year 2020: \$79,798,000

# IV. <u>ENVIRONMENTAL STEWARDSHIP</u>

# LONG ISLAND COMMISSION FOR AQUIFER PROTECTION (LICAP):

The Long Island Commission for Aquifer Protection (LICAP) was established in 2013 through joint legislation passed by the Suffolk County and Nassau County Legislatures (the two counties which comprise Long Island). The Commission is the brainchild of SCWA Chief Executive Officer Jeffrey Szabo.

LICAP is a bi-county commission of the region's top water, geology and health experts, along with county government elected officials. Mr. Szabo recognized the need to bring these numerous, often siloed organizations to the same table on a regular basis in order to discuss ideas, share data, and develop a plan to protect an adequate supply of water for generations to come.

Aside from the SCWA, LICAP encompasses representatives from both county legislatures, county executives, presiding officers and minority leaders in addition to both county health departments, the United States Geological Survey, the New York State Department of Environmental Conservation, the Long Island Water Conference, the Nassau-Suffolk Water Commissioners Association, both county planning commissions, parks departments, public works departments, soil and water conservation districts, and the Long Island Groundwater Research Institute.

As per its mandate from the joint-county legislation, LICAP has since produced annual "State of the Aquifer" reports since 2017 and is set to release a comprehensive Groundwater Resources Management Plan by the end of 2019 complete with recommendations and action items for elected officials and regulatory agencies. The Commission also recently launched an Island-wide water conservation public education and outreach campaign.

The individuals who comprise the LICAP Board, the ex-officio board members (non-voting) and LICAP staff consist entirely of volunteers who donate their time and expertise. SCWA Water Resources Manager Steven Colabufo is the principal editor of both the State of the Aquifer Reports and the Groundwater Resources Management Plan, in addition to authoring several of their respective chapters. SCWA Director of Strategic Initiatives Ty Fuller spearheaded a successful "Smart Sprinkler System Lottery" program which gave away smart irrigation controllers to Long Island residents looking to reduce wasted water from irrigation. Mr. Fuller and his team also developed "WaterTraq", a GIS-based water quality mapping system that pulls data from all of Long Island's water suppliers and is available to the public on the Commission's website. The Commission has secured \$450,000 in New York State grants since 2013. SCWA Director of Communications Tim Motz chaired a 30-member committee on water conservation education and outreach comprised of environmental and irrigation experts from across Long Island. Mr. Motz' efforts culminated in the highly visible "Our Water Our Lives" campaign launched in May 2019, which is already resonating with residents across Long Island.

# **ADVANCED OXIDATION PROCESS (AOP) TREATMENT SYSTEMS:**

In April of 2019, SCWA announced the imminent construction of its third Advanced Oxidation Process Treatment System to remove the contaminant 1,4-dioxane from drinking water. Even in the absence of a federal or state regulation specific to 1,4-dioxane, the Authority made the decision to be proactive in its water treatment. SCWA's in-house engineering staff developed the technology, which began as a small scale pilot and is now in operation full time.

AOP works by introducing an oxidant to the raw groundwater, in this case hydrogen peroxide, then passing that mixture through an ultraviolet light reactor. The ultraviolet light reacts with the oxidant to destroy the 1,4-dioxane molecules, then the water is passed through a carbon filter to remove the peroxide and any by-products from the reaction.

Costs to install an AOP treatment system exceed \$1 million, which does not include annual treatment costs. In an effort to defray these costs, SCWA has filed lawsuits against the chemical companies responsible for polluting Long Island's sole source aquifer.

# LAWSUITS RELATED TO EMERGING CONTAMINANTS:

On December 1, 2017, SCWA filed civil complaints in federal district court against companies that manufactured, distributed and sold products containing three contaminants that have polluted public supply wells in the Authority's service territory.

The two separate complaints—one pertaining to the synthetic industrial chemical 1,4-dioxane and the other to the organic fluorinated alkanes perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS)—were filed in the Eastern District Court of New York and seek to recover the costs of treating contaminated water to remove the chemicals —all shown to be potentially carcinogenic in studies—from SCWA wells.

The PFOA/PFOS complaint charges that the chemical companies knew or should have known that the firefighting foam they made, distributed or sold is dangerous to human health and contains unique characteristics that cause extensive and persistent environmental contamination. The 1,4-dioxane complaint includes the same claims with regard to other products, primarily industrial degreasers, laundry detergents and other household products.

All three chemicals are likely human carcinogens according to the Environmental Protection Agency. In addition, PFOA and PFOS are particularly dangerous to pregnant women and children, while 1,4-dioxane causes liver and kidney damage.

The lawsuits aim to recoup the costs to install treatment systems because we believe our customers should not have to bear the cost of this cleanup.

# **ENDING LOOPHOLES FOR POLLUTERS:**

On June 5, 2019 the New York State Assembly unanimously passed legislation authored by SCWA General Counsel Tim Hopkins which closes loopholes in state law that currently make it more difficult to hold groundwater polluters accountable for their actions. A companion version passed

two weeks earlier in the state senate was sponsored by Senator James F. Gaughran, formally the Authority's Board Chairman from 2010 – 2018.

If signed by the governor, the bill would amend state civil practice law and rules to help to ensure that polluters, not ratepayers, pay for the costs of treating groundwater contaminants. In the past, lawsuits brought by water suppliers against polluters have been dismissed due to nebulous language concerning the timing of contamination. The Thiele/Gaughran bill clarifies that the statute of limitations begins three years from the latest of detection of a contaminant (1) in excess of any notification level, action level, maximum contaminant level, or maximum contaminant level goal, (2) the last wrongful act by any person whose conduct contributed to the presence of the contaminant, or (3) the date the contaminant is last detected in excess of any notification level, action level, maximum contaminant level, or maximum contaminant level goal for that contaminant.

# WATER WISE PROGRAMS:

In 2017 the Authority developed two unique "Water Wise" programs in an effort to help our customers conserve water and protect Long Island's sole source aquifer. Customers interested in reducing their usage can sign up for a "Water Wise Checkup": a one-on-one consultation with an SCWA water expert. During the consultation, the customer receives a quarterly breakdown of their water consumption over the past several years to look for patterns by year or by season. Using a series of questions and formulas, the SCWA expert estimates the amount of water used at each point in the home, both inside and outside, ultimately providing the customer with a clearer picture of their usage and a road map for potential savings. Those who reduced their yearly consumption following a checkup did so by 22.6% on average, well over the stated goal of 15%. About a quarter of those who cut back did so by 45% or more.

To further incentivize customers to save water, the Authority also launched a "Water Wise Account Credits" program. Customers who purchase water-saving devices such as low-flow showerheads, faucet aerators, or smart irrigation controllers can receive up to a \$50 credit on their SCWA account, on top of what they will inevitably save by reduced consumption. Since the program began, SCWA has given out over 100 account credits totaling \$4,479.

## PSEG - SOUTH FORK PEAK SAVERS PROGRAM:

Long Island energy company PSEG recently developed a program to address Long Island's South Fork and its rapidly increasing electric load. Their program is designed to reduce load so as to avoid costly transmission and distribution upgrades. As one of PSEG's highest volume consumers of electricity, the SCWA board felt it was the prudent decision to participate in the Peak Savers Program.

SCWA will operate its South Fork area wells using our system of backup generators when called upon by PSEG, which will reduce the load on the electric grid. Working with PSEG's aggregator, Applied Energy Group, we have identified eleven pump stations on the South Fork where we have existing generators that would be suitable for this program. Several of these generators were recently installed under our storm mitigation loan project from the Environmental Facilities

Corporation. This is important because only generators that are newer than the year 2000 are eligible to participate due to PSEG tariff restrictions on the program.

PSEG also provides a financial incentive to South Fork Peak Savers participants, which will help toward stabilizing the Authority's rates over the life of the program. Payments for participation are \$100 per kilowatt curtailed per year. This translates into a range of \$71,000 to \$106,500 per year for the Authority, depending upon the amount of power curtailed in an event. SCWA will also be paid \$25,000 as an enrollment incentive and a \$2,500 fuel stipend for its generators. Over the four-year agreement signed by the SCWA Board there is a potential revenue range of \$300,000 to \$450,000.

# **SOLAR POWERED GREAT RIVER CAMPUS:**

In 2009 SCWA installed solar panels on the roof of our Tech Services campus in Great River, NY. To date, the panels have saved the Authority over 110,000 kilowatt hours of power, which amounts to over \$22,000 in savings for our ratepayers.

## COMPRESSED NATURAL GAS FLEET:

SCWA began the transition to using Compressed Natural Gas (CNG) utility vehicles in 2008, and to date the Authority has purchased 22 CNG utility trucks and 15 hybrid cars. By pursuing government grants, we have been able to begin to convert our fleet to alternative fuel vehicles in a cost-effective way that is not only making the fleet far more environmentally-friendly, but is also saving a considerable amount of money on fuel costs. From 2008 to 2018 our reduction in gasoline and diesel (combined) was 43%.

In 2018, the Authority completed construction on a \$1.5 million vehicle maintenance facility that is fully CNG-compliant. This has enabled our fleet services department to fuel and conduct major repairs to CNG vehicles in-house, which were not possible under the confines of the old garage. With this new facility, the Authority will be able to phase more and more of our fleet over to CNG as we retire existing vehicles.

## CENTRAL PINE BARRENS JOINT POLICY AND PLANNING COMMISSION:

In 1993, the New York State Legislature adopted the Long Island Pine Barrens Protection Act which established the Central Pine Barrens region and created the Central Pine Barrens Joint Planning and Policy Commission. The two basic purposes of the Act were to protect the potable groundwater underneath the Central Pine Barrens, allowing the underlying aquifer to be utilized for public drinking water in the future, and to protect the region's surface waters and the area's vast and significant ecological resources, which include a multitude of rare plants, animals and habitats.

The Commission's mission is to manage land use within the Central Pine Barrens to protect its vital groundwater and surface water and the region's vast and significant natural, agricultural, historical, cultural and recreational resources for current and future Long Island residents. The purpose of the Act and the Commission's mission are perfectly aligned with that of the SCWA to protect and

manage the groundwater aquifers of Suffolk County and to provide its residents safe and pure drinking water.

Many SCWA employees were involved in helping to craft the Act and the resulting Central Pine Barrens Comprehensive Land Use Plan, including personnel from SCWA's Policy and Planning, Legal, Engineering and IT divisions. Since 1993, when the Commission and the region were first created by the New York State Legislature and the Governor, SCWA has housed the Commission and provided all of its staff through long-term agreements.

All Central Pine Barrens Commission employees are SCWA employees and the SCWA provides office space for Commission operations. SCWA also provides back office and administrative functions for Commission operations including procurement, accounting, payroll, IT, human resources and risk management. The Central Pine Barrens Advisory Committee, a body separate from and independent of the Commission, was also established in the Act to advise the Commission, among other duties. Since its inception, the Chair of the Advisory Committee has been SCWA's chief executive officer.

# **NEW PAPERLESS WORKFORCE SYSTEM:**

Since winning AMWA's Platinum Award in 2016, SCWA has made great strides in upgrading our workforce's technology, allowing us to go completely paperless in our Customer Service operations. Gone are the days of passing paper work orders back and forth from Customer Service Field Technicians to Customer Care Center Representatives. In 2017, the Authority entered into an agreement with Clevest Technologies to provide staff with new laptop, tablet and Smartphone applications, which have improved both the employee and customer experience while saving tons of paper. The new workforce applications process important customer data in real time, streamlining operations and ensuring employees, managers and supervisors are always on the same page with the most accurate information available. The new software not only provides job efficiency metrics for supervisors, but automatically routes work orders with turn-by-turn directions for field staff, saving the Authority time and money. Training and implementation have been completed for all SCWA Customer Service operations, with Construction/Maintenance and Production Control staff set to receive their training before the end of this year.

# COMPANY-WIDE RECYCLING PROGRAM:

Though SCWA's recycling program was established before winning the Gold Award in 2012, the program has since been expanded to three additional SCWA campuses: Bay Shore, Westhampton and Hauppauge, to go along with the program's original two campuses in Oakdale and Coram. SCWA has recycled over 40 tons of materials since winning the Platinum Award in 2016.

## **EMERGENCY GENERATORS:**

Even in the event of a wide-spread power outage due to a hurricane or other emergency, SCWA keeps the water flowing. We have installed 116 individual backup generators to operate our network of well fields and another eight generators to operate SCWA offices. The generators are tested

routinely and over 40% of the well field generators are less than three years old, with more generators to be installed in the coming years. The Authority has also invested in natural gas generators where applicable to reduce our greenhouse has emissions. Emergency power generation is planned to be able to meet average day water demand and cover essential SCWA facilities.

# V. SOCIAL RESPONSIBILITY

# PRODUCT QUALITY

Since being awarded AMWA's Platinum Award in 2016, the SCWA laboratory, one of the most sophisticated in the country, has continued to go above and beyond regulatory requirements to make sure our water is of the highest quality.

In 2018, SCWA tested for 400 chemical compounds—more than twice the number required by regulators. In 2019, just as in 2016, our internal standards for water quality are more rigorous than state and federal regulations require.

As noted earlier in this document, SCWA was the first water supplier in New York State to treat for the emerging contaminant 1,4-dioxane when our AOP treatment system was approved to operate full time in early 2018, and two more AOP systems are already scheduled to be constructed in the coming year.

In May 2019, the SCWA laboratory received accreditation from the New York State Department of Health for its direct injection testing method for the analysis of Perfluorinated Alkly Acids.

Below are additional examples of our efforts to ensure high quality water:

- 1. Installation of dedicated sample stations for Total Coliform Rule (TCR) and distribution sampling.
- 2. Analyze TCR samples the same day as collected to ensure that if there is a bacteriological problem, it can be addressed quickly.
- The SCWA lab is one of 21 labs in the country to receive approval for Assessment Monitoring 1 and Assessment monitoring 2 with regard to Environmental Protection Agency's (EPA) Unregulated Contaminant Monitoring Rule 4 (UCMR4) methods.
- 4. Performed EPA Method 530 and Method 543 lab validation.
- 5. SCWA lab patented our developed method for the analysis of GENX and a reagent dispenser for EPA method 522.
- 6. Developed Pharmaceutical and Personal Care Product (PPCP) Method to perform analysis by direct injection, eliminating manual extraction process.

- 7. Developed a new method to combine analytes from EPA Methods 525.2 and 526 into one method.
- 8. Continuously adding new compounds to the PPCP analysis (currently 41 compounds tested).

## **SCWA EDUCATION CENTER**

In May 2017, SCWA officially opened the doors to our brand new Education Center. The interactive museum celebrates the Authority's history, provides a glimpse into the future of the public water supply and, most importantly, teaches the public about the vital role they play in protecting our most precious resource—our underground drinking water supply.

Visitors learn about where their water comes from, how it's extracted, how it's treated and tested, and how SCWA delivers it to the tap 24/7. Exhibits include Long Island's sole source aquifer and its role in the water cycle. Visitors also examine real aquifer sediments extracted from the various geologic layers of the aquifer system. SCWA's water treatment exhibit includes a live demonstration on Granular Activated Carbon (GAC) treatment and how the carbon removes various contaminants from the water supply.

Additional exhibits include the evolution of water main, water quality/quantity monitoring technology, water testing and lab technology and advancements in meter reading. The Pine Barrens Corridor chronicles the rich history of Suffolk's largest open space preserve, as visitors learn about Long Island's premier ecosystem and one of the Northeast's greatest natural treasures. After the tour, kids can "make their own aquifer" in our Water Workshop and challenge their friends in SCWA's live water quiz game. A special exhibit on AOP treatment was added in May of 2019.

Education Center programs are available for children, teens, and adults, and can be customized for teachers, scout troop leaders or parents who home school. All tours are directly followed by a tour of the SCWA laboratory. Since opening its doors, the Education Center has seen over 650 visitors.

#### WATERTALK

2017 was also the year SCWA launched its travelling education and outreach program known as WaterTalk. The program was designed to educate the public about what the Authority does, answer the public's water questions, and relay important information about local infrastructure projects, water quality projects, and water conservation efforts. WaterTalk outreach efforts target hundreds of thousands of Suffolk County residents per year.

To date the Authority has hosted 12 WaterTalk community forums (approximately one every two months), often partnering with town or county officials, local chambers of commerce, civic associations or other community partnerships. The program typically held at libraries, town halls, or other public spaces average about 40 people in attendance, all of whom leave with questions answered,

misinformation and preconceived notions dispelled, a better understanding of SCWA functions, and assurances about the quality of their water.

# **WATER BUFFALOS**

Since 2006, SCWA has partnered with over 450 community events including races, music festivals, charity functions, etc., by providing cold potable water using our portable "water buffalos." Each buffalo can hold as much as 400 gallons of water. In 2018, SCWA's engineers came up with an even better way to keep marathon runners cool. In addition to providing drinking water, a mister system was also attached to the buffalos so runners can cool down as they walk through.

# SCHOOLS PROGRAM

Over the last 16 school years SCWA representatives have visited over 1,200 elementary school classrooms teaching approximately 30,000 young students about the water cycle, Long Island's aquifer system, and the importance of protecting a clean and robust drinking water supply.

# **IMPROVED BILLING AND WEBSITE:**

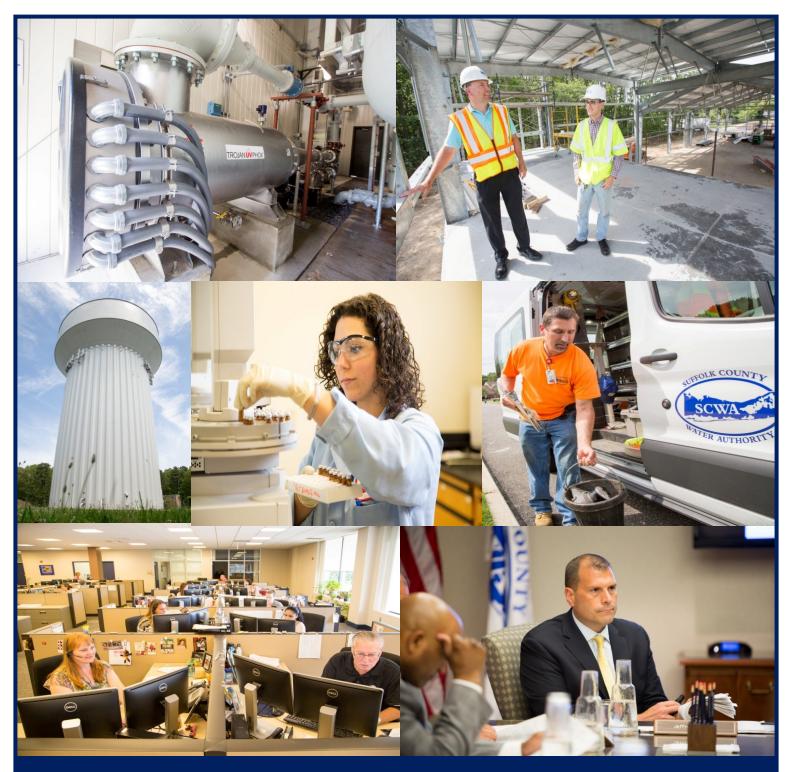
As part of SCWA's mission statement to provide exemplary customer service, in 2018 we completely redesigned our bill, making it easier for customers to understand their consumption and charges, with a greater focus on messaging about important SCWA initiatives such as water conservation. As part of this transition the Authority converted to a new billing provider who was able to offer our customers a simplified and more secure portal for online bill pay.

Currently under construction, the Authority's brand new website is scheduled to launch in the summer of 2019. The new site puts a renewed emphasis on the customer experience with an easy to navigate site map and critical information more easily accessible. Instead of having information buried in drop down menus and side navigation bars, customers will now be able to access local water quality information, schedule an Education Center tour, or pay their bill in just one click from our homepage.

## QUALITY ASSURANCE TRAINING IN CUSTOMER SERVICE:

Since winning the platinum award in 2016, the SCWA customer service center has gone through a transformation from a "call center" to "contact center". All customer service representatives (CSRs) have been trained with a behavior-based quality program that assures our customers are receiving world class customer service. The Quality program is benchmarked against world class companies like Disney, AMEX, Discover, and Zappos. The CSRs have also been trained on handling social media inquiries. In 2017 the Authority introduced E-care support for our customers, allowing them to contact CSR's directly via email, our website self service portal, Twitter and Facebook. With the arrival of the new SCWA website, customers will also be able to connect with a customer service representative via chat.

We've also redesigned our new hire training program to include four weeks of training with side-by-side coaching to ensure the employee is successful in their job function. In the coming year we plan to launch a refresher training to all employees including a written process component, which will allow us to build a knowledge database for future new hires.





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