



SUFFOLK COUNTY WATER AUTHORITY

# *Strategic Plan* *2025*



# MISSION

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We pledge to provide the customers of Suffolk County Water Authority safe, pure and constantly tested drinking water at the lowest possible cost with exemplary customer service.

# VALUES

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- Courteous and Responsive Customer Service
- Accountability
- Efficiency
- Transparency
- Sustainability



*“By failing to prepare,  
you are preparing to fail.”*

– Benjamin Franklin

# STRATEGIC PLAN 2025

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Strategic Plan 2025 is a coordinated effort to ensure that the Suffolk County Water Authority is prepared to meet the challenges of the next decade.

Developed by key personnel throughout the Authority, the plan provides a blueprint of our top priorities for the coming years, highlighted by the 10 comprehensive initiatives listed below that will position the Authority to maintain its place at the forefront of the public water supply industry for decades to come.

The progress of each initiative will be monitored through quarterly updates. If changing circumstances necessitate adjustments to any of the initiatives underway, the necessary changes will be made.

By 2025, the Authority will:

1. Invest nearly \$1 billion to ensure that our infrastructure is capable of meeting the operational demands of present and future customers and bolster this investment by creating a comprehensive asset inventory database to optimize the maintenance and replacement of assets to maximize their useful life
2. Transform to a 24-hour customer service operation offering features such as automated appointment scheduling, automated customer notification of emergency situations, an updated Interactive Voice Response system, real-time account posting and live chat
3. Complete the transition to automated meter reading technology throughout our service territory that will allow us to maximize operational efficiency, aim at achieving 100% read success and collect data to help us respond more quickly to a wide variety of service complaints
4. Develop creative and flexible strategies to add new customers and transition more Suffolk residents from the use of private wells to safe and constantly tested public water
5. Build a complete mobile workforce system throughout the Authority to improve communications, streamline workflow, increase information sharing and improve customer response time
6. Create an Employee Development Center to foster employee growth and training, ensure retention of our most dedicated and skilled employees, transition employees from outdated job functions to new positions and promote an inclusive and diverse workforce
7. Conduct vulnerability assessments of critical facilities and train employees in all aspects of emergency preparedness to ensure continuity of operations during emergency situations
8. Develop new treatment methods for emerging contaminants to ensure that we are fully prepared to continue to provide high quality drinking water that surpasses state and federal regulations

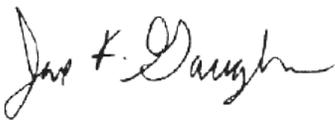
# STRATEGIC PLAN 2025

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- 9. Develop long-term sustainable water supply plans for vulnerable areas within our service territory, including Fire Island and the North and South Forks, to ensure an ample water supply to all our customers
- 10. Assess the feasibility of creating new rates and fee structures that equitably reflect the cost of service throughout our customer base

In addition to these key initiatives, we will be monitoring other potential growth opportunities including expansion into sewer operations and the acquisition of water systems both within the borders of Suffolk and beyond. While we don't intend to pursue such growth opportunities, we will be prepared if circumstances change and our services and expertise are needed.

We expect that at the conclusion of Strategic Plan 2025, the Authority will be positioned to maintain its place as one of the most respected water suppliers in the country well into the 21st Century.



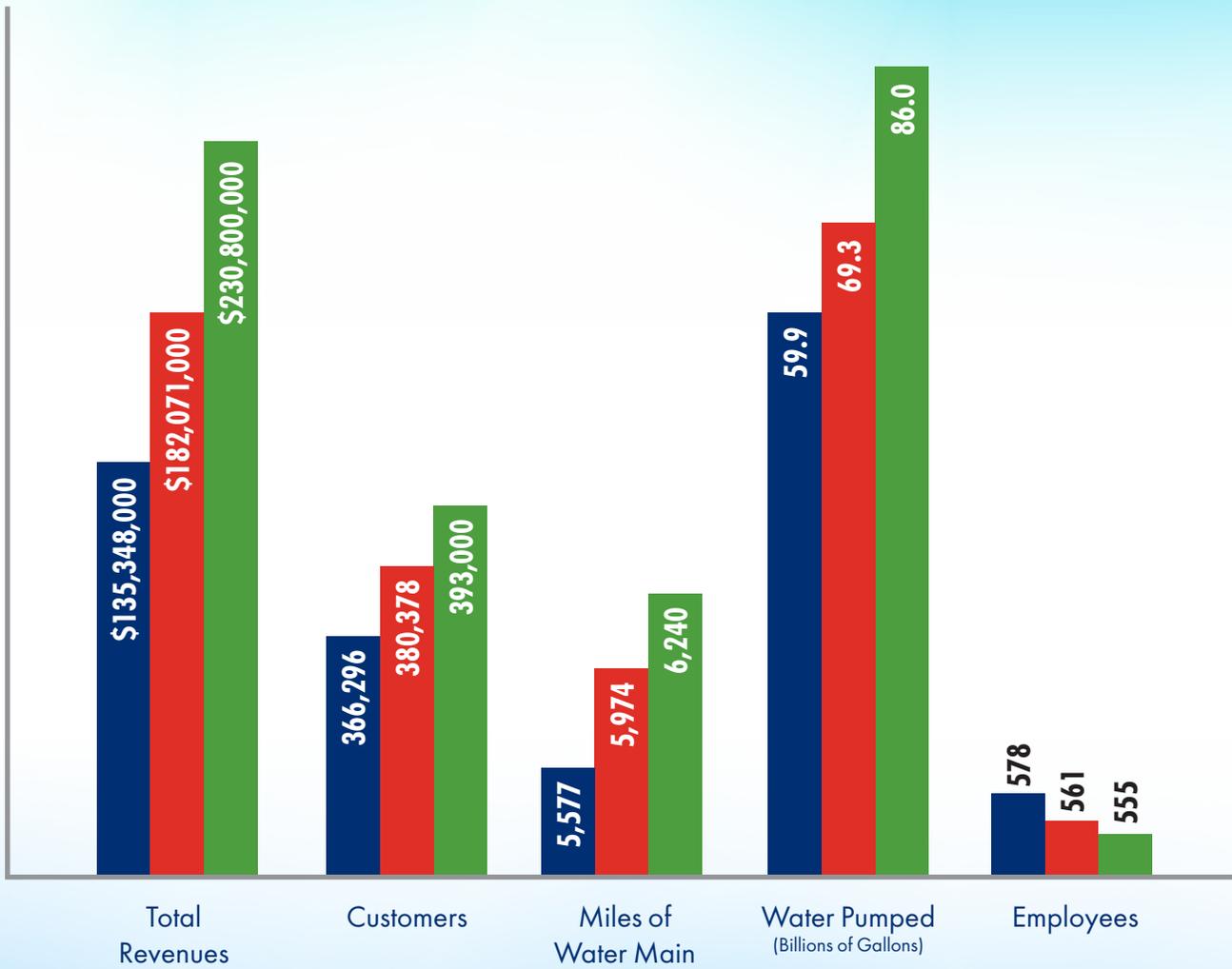
James F. Gaughran  
Chairman



Jeffrey W. Szabo  
Chief Executive Officer



# SCWA BY THE NUMBERS



■ May 31, 2004     
 ■ May 31, 2014     
 ■ 2025 Projected

# ASSET MANAGEMENT

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The Authority will create a comprehensive asset inventory database to optimize the maintenance and replacement of assets to maximize their useful life. This will also include GPS mapping of all critical assets to facilitate location by field staff and developing a long-term plan for every class of asset.

## SHORT-TERM GOALS:

- Establish inter-departmental asset management team to develop criteria for tracking assets
- Develop systematic program for water main replacement based on knowledge of municipal pavement schedules, information from GIS and visual inspection
- Develop proactive well replacement program, with clear criteria, to ensure system reliability

## MID-TERM GOALS:

- Create a centralized asset inventory database to optimize the maintenance and replacement of assets to maximize their useful life
- Create GPS mapping program of critical assets, including curb stops, valves and meters, potentially including technology to view underground water infrastructure with a handheld device
- Enhance inventory management system for warehouse and vehicle supplies
- Develop maintenance and replacement plan for every class of asset

## LONG-TERM GOALS:

- Invest nearly \$1 billion over the course of the next decade to ensure that our infrastructure is capable of meeting the operational demands of present and future customers
- Enhance asset inventory database by merging it with mobile workforce management system



One of the 64 elevated water storage facilities maintained by the Suffolk County Water Authority within its service territory.

# CUSTOMER SERVICE

The Authority has always sought to provide exemplary service to its customers. Under this strategic plan, the Authority will enhance the customer experience by transforming to a 24-hour customer service operation, expanding billing services, improving complaint tracking, creating a greater social media presence and incorporating more convenient payment options.

## SHORT-TERM GOALS:

- Enhance bills to provide more information so customers have a better understanding of how their water consumption impacts their bill
- Process customer calls more efficiently by revamping the call center telephone menu and on-hold background messaging, which will include useful information about water quality, water supply and source water
- Create greater social media presence to address customer concerns and provide additional information
- Implement backup services to assist call center in extreme emergency situations
- Improve credit card acceptance process in the field to make it easier for customers to pay their bill
- Enhance a culture in which a “customer first” policy is employed to ensure that, whenever possible, any proposed new practice or program is first tested to demonstrate that it works effectively for Authority customers



The Suffolk County Water Authority call center fields nearly 800 customer calls on an average day.

## MID-TERM GOALS:

- Enhance complaint tracking system to more effectively respond to customer needs
- Increase enrollment in e-billing and auto-pay programs
- Provide customers with a live response option to outbound collection calls
- Enhance account management on website to allow customers to review their bills and payments, past and present, as well as consumption figures and other vital information

## LONG-TERM GOALS:

- Transform to a 24-hour customer service operation offering features such as automated appointment scheduling, automated customer notification of emergency situations, an updated Interactive Voice Response system, real-time account posting and live chat
- Create pilot program facilitating the ability of call center staff to answer calls and assist customers from home or an alternative location during emergency situations that make the call center inaccessible

# AUTOMATED METER READING

The Authority will complete installation of Automated Meter Reading (AMR) technology earlier than planned and below budget. The strategic plan targets initiatives such as aiming to achieve 100% read success, utilizing AMR-generated data to improve customer service and exploring the development of partnerships with other utilities to provide Smart Metering.

## SHORT-TERM GOALS:

- Expedite complete installation of AMR through greater use of SCWA staff to reduce cost of project
- Utilize AMR-generated data to respond proactively to reverse flows and leak detections to improve service and make operations more productive

## MID-TERM GOALS:

- Complete transition to AMR meters throughout service territory
- Optimize meter reading routes to avoid high seasonal and daily traffic concerns

## LONG-TERM GOALS:

- Develop AMR maintenance system with an aim of achieving 100% read success for maximum operational efficiency
- Explore partnerships with other utilities to provide Smart Metering or building an Authority full/partial Fixed Base System to provide additional consumption information
- Plan for next generation of automated meter technology that best fits our needs



The use of AMR technology allows the Suffolk County Water Authority meter readers to collect reads just by driving past homes and businesses—a far more efficient process than reading meters manually. Here, a meter reader assesses progress in a neighborhood on a mobile computer.

# CUSTOMER GROWTH

Throughout the history of the Authority, a major revenue growth component has been the large-scale expansion of our service territory. With limited opportunities for further large-scale expansion, the Authority is targeting areas for growth. This will include areas with poor groundwater quality.

## SHORT-TERM GOALS:

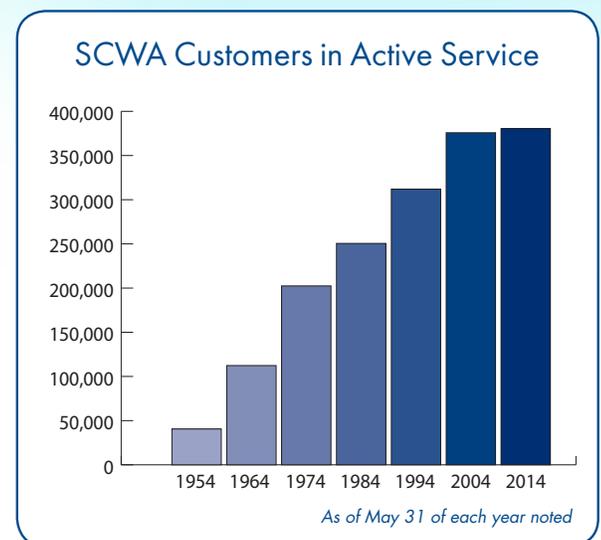
- Map current surcharge areas, areas in which private wells are in use despite the presence of water main and areas in which no water main is present
- Streamline process of providing cost estimates to potential customers seeking public water
- Dedicate an Authority employee to be the customer growth point person to develop all aspects of this plan

## MID-TERM GOALS:

- Identify 10 areas in our service territory with both a substantial number of private wells and significant water quality issues
- Develop proactive campaign to attract customers in targeted areas
- Establish financing options for new customers that allow greater flexibility in payment schedule
- Evaluate potential expansion projects to determine the suitability of the creation of water supply districts

## LONG-TERM GOALS:

- Increase customer base by 10,000 over the next decade by connecting residents who currently use private wells or through water district acquisition
- Be prepared to assume operations of other water suppliers beyond the Suffolk County border if needed
- Be prepared to assume operations of other water suppliers within Suffolk County if needed
- Provide public water supply to all who need it within our service territory



# WORKFORCE TECHNOLOGY

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The Authority will bolster its technological capabilities throughout operations to maximize efficiency and improve customer service. Among technological initiatives included in the strategic plan are the creation of a complete mobile workforce system, installation of a document imaging system and construction of WiFi infrastructure in strategic locations.

## SHORT-TERM GOALS:

- Develop plan for the introduction of mobile workforce technology into Authority operations
- Initiate implementation of WiFi infrastructure in strategic locations to facilitate wireless technology initiatives
- Implement document imaging program in Finance to improve document management, accessibility and workflow
- Conduct Information Technology staff analysis to ensure proper resources are available to manage new technologies



Technology is already transforming Suffolk County Water Authority operations. This will only accelerate with the implementation of mobile workforce technology in the coming years.

## MID-TERM GOALS:

- Build complete mobile workforce system in Customer Service, Construction/Maintenance, Production Control and Information Technology to improve communications, streamline workflow, increase information sharing and improve customer response time
- Implement comprehensive employee training program to ensure effective transition to new technologies

## LONG-TERM GOALS:

- Create pilot program under which field staff utilizing mobile workforce technology would begin their workday from home in order to more quickly respond to customer calls
- Provide continually updated analytics generated from mobile workforce technology to optimize productivity
- Expand mobile workforce technology throughout the Authority

# EMPLOYEE DEVELOPMENT

Various initiatives are planned to enhance the growth and training of the Authority's workforce as job functions change with the adaptation of new technologies. The Authority will conduct an analysis of anticipated future staffing needs, develop a plan to attract and retain dedicated and skilled employees and create an Employee Development Center to foster employee growth.

## SHORT-TERM GOALS:

- Establish an Employee Development Center to foster employee growth and training in order to retain dedicated and skilled employees
- Promote the Authority's commitment to developing its employees in order to attract highly capable and motivated employees.
- Develop program to transition those whose positions are being phased out by the implementation of new technologies to new positions
- Expand cross-training initiatives to include more employees and departments to further their overall knowledge of the Authority
- Promote a workplace culture of inclusion, respect and opportunity for all employees



Fostering the professional growth of employees is a Suffolk County Water Authority hallmark.

## MID-TERM GOALS:

- Create a program to retain institutional information through the use of mentoring, cross-training and availability of instructional videos
- Work with BOCES to develop a water system operations program to train students in a wide range of topics to prepare them for water industry careers

## LONG-TERM GOALS:

- Benchmark employee development program and career pathways structure against other large water utilities
- Expand outreach to high schools and colleges to promote the Authority and its employment opportunities

# EMERGENCY MANAGEMENT

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The Authority has in place a comprehensive emergency preparedness plan that encompasses threats to Authority operations. The plan includes initiatives to conduct facility vulnerability assessments of various facilities and the distribution system, improve emergency communications and conduct emergency drills and tabletop exercises. Employees will also be trained to prepare for emergencies.

## SHORT-TERM GOALS:

- Develop a corporate culture that emphasizes emergency preparedness
- Conduct emergency drills and tabletop exercises
- Conduct facility vulnerability assessments of critical locations, including a review of perimeter security
- Establish Hauppauge office space as an Authority backup location for offices that are temporarily inaccessible for normal business operations
- Review and update assessment of critical well field sites
- Provide training to fire departments on vital aspects of our distribution system and hydrant function
- Enhance communication with employees during emergencies
- Pursue grant opportunities pertaining to emergency preparedness and disaster mitigation
- Strengthen workplace violence policy and conduct multiple training sessions annually



Superstorm Sandy, which made landfall in the New York area in late October of 2012, devastated portions of Fire Island and tested the Suffolk County Water Authority's emergency preparedness. Despite widespread power outages on the mainland, the Authority kept water flowing to nearly all of its customers during the storm and its aftermath.

## MID-TERM GOALS:

- Invest in 800 MHz radios to provide a reliable means of emergency communications and ensure seamless operations during natural disasters and other emergencies
- Conduct long-term vulnerability assessments of distribution system, well fields and at-risk sites
- Develop protocol for general site security inspections
- Increase cyber security awareness and provide additional cyber security training to employees

## LONG-TERM GOAL:

- Continue to assess the operations and needs of departments throughout the Authority in order to develop a long-term business continuity plan to utilize during emergency situations

# WATER QUALITY AND TREATMENT

The Authority's mission is to provide our customers with the highest quality drinking water. The Authority's internal standards for water quality will continue to be more rigorous than federal and state regulations. As an industry leader, the Authority will expand the list of pharmaceutical and personal care products for which we test, monitor other emerging contaminants and incorporate new treatment technologies.

## SHORT-TERM GOALS:

- Expand the list of pharmaceutical and personal care products for which we test by at least five new compounds
- Create quarterly updates of water quality complaint maps to better pinpoint the location of developing water quality issues
- Pilot test compliance monitoring sampling by Laboratory staff
- Deploy a wireless water quality monitoring station to continuously assess distribution system water quality

## MID-TERM GOALS:

- Add source water protection component to Education Center to better educate customers
- Optimize chlorine storage practices at pump stations to minimize chlorate levels in distribution system
- Evaluate distribution system improvements for water quality including prioritizing water storage tank maintenance based on water quality issues, developing a comprehensive flushing program, eliminating dead-ends and limiting access to specified hydrants
- Improve current treatment or pilot test new treatment methods for emerging contaminants such as purolite resin, reactivated granular activated carbon, advanced oxidation process, hydrophobic membrane and electrolytic nitrate removal

## LONG-TERM GOALS:

- Analyze the costs/benefits of piloting a sub-regional centralized treatment facility where the source water requires multiple forms of treatment



The state-of-the-art Suffolk County Water Authority laboratory tests for far more potential chemical contaminants than is required by law.

# FUTURE WATER SUPPLY NEEDS

The Authority will always be able to provide an ample water supply to customers. The strategic plan includes provisions to create long-term sustainable water supplies for Fire Island and the North and South Forks. The Authority will also seek legislation requiring greater data sharing by entities that draw water from the aquifer system to ensure a unified approach to aquifer withdrawal management.

## SHORT-TERM GOALS:

- Develop long-term sustainable water supply plans for Fire Island and the North and South Forks
- Develop cooperative agreements with the Riverhead and Hampton Bays Water Districts to ensure supply reliability on the North and South Forks



## MID-TERM GOALS:

- Track and quantify the cumulative impact of adding services within pressure zones and sub-pressure zones and develop information sharing plan
- Recommend potential policy changes and/or legal remedies pertaining to pollution caused by municipal road salt runoff
- Conduct cost/benefit analysis of adding water supply capacity versus water efficiency practices in capacity stressed areas of the service territory
- Create database of potential threats to public supply wells, tracking both point and non-point sources of contamination
- Gather data on aquifer withdrawals by other users, such as agricultural interests and golf courses

Creating long-term sustainable water supply plans for Fire Island and the North and South Forks and source water protection are key elements of the Suffolk County Water Authority's Strategic Plan 2025.

## LONG-TERM GOALS:

- Ensure a sufficient water supply for targeted customer growth areas
- Pilot a localized, seasonal efficiency program in capacity-stressed areas of the service territory
- Establish cooperative/incentive programs for all aquifer users to sustainably manage withdrawals
- Evaluate potential impacts of climate change and resulting sea level rise on future supply availability
- Update Source Water Assessment Program maps

# FINANCIAL STRATEGY AND RATES

The Authority maintains the lowest possible water rates, high bond ratings and at least a 1.5 debt service ratio. With limited large-scale expansion opportunities, ever more stringent water quality regulations, increasing customer demands, higher treatment costs and aging infrastructure, the next decade will require innovative thinking and prudent budgeting. The Authority will take various proactive measures such as assessing the feasibility of creating alternative rates and fee structures to fund the vital projects contained within this plan and assessing the feasibility of creating an infrastructure reserve to accelerate the pace of water main replacement.

## SHORT-TERM GOALS:

- Maintain the lowest possible water rates, high bond ratings and a 1.5 debt service ratio
- Conduct new rate study plan that incorporates needs of vital infrastructure
- Optimize the Authority's portfolio management strategy to ensure the highest return on investments to ratepayers
- Improve collection outcomes either through legislation placing liens on properties for which bills have not been paid or through the services of an outside collection agency
- Assess feasibility of creating alternative rates and fee structures to fund vital projects contained within this document

- Assess feasibility of creating an infrastructure replacement reserve to accelerate pace of water main replacement
- Develop customer account verification process to reduce the potential for fraudulent accounts

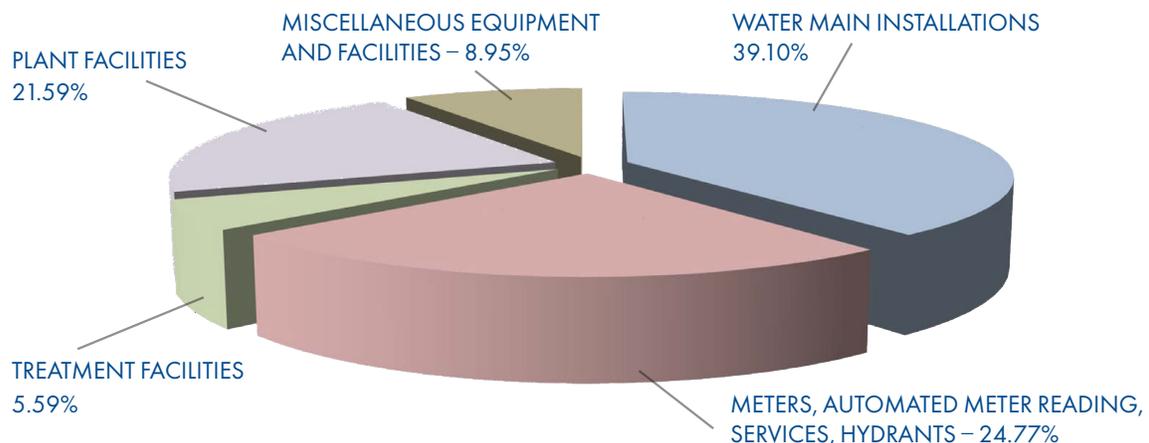
## MID-TERM GOALS:

- Analyze potential budgetary impact of non-water revenue sources not connected to water production

## LONG-TERM GOAL:

- Conduct new rate study plan

## CAPITAL COMPONENTS



Capital Budget for f/y/e May 31, 2016: \$68,593,000

# SCADA

The Authority's Supervisory Control and Data Acquisition (SCADA) system will receive important communications upgrades in the next decade. The system will also be dynamically linked to the hydraulic model so that SCADA data can be readily imported and modeling scenarios using actual system data can be performed. This will enhance system understanding and improve decision making related to distribution system improvements, fire flow availability and water main replacement projects. Chemical level monitoring systems will be added at all stations and together with SCADA well run-time data will be used to dispatch field operations personnel more effectively.

## SHORT-TERM GOALS:

- Assess available options for a wireless, high-speed SCADA communications upgrade

## MID-TERM GOALS:

- Pilot and evaluate chosen SCADA communications upgrade
- Add a live link from SCADA to the hydraulic model for instantaneous distribution system water quality analysis
- Upgrade system of well pumpage reporting to allow easier data sharing and automated reporting
- Add chemical level monitoring to SCADA for all pump stations to create a more efficient means of chemical replenishment
- Launch SCADA dashboard to share key analytics with management without deploying the full SCADA program
- Implement enhancements to existing SCADA software to further reduce operational energy consumption

## LONG-TERM GOALS:

- Implement SCADA communications upgrade
- Leverage use of mobile technologies in the field to provide WiFi in every pump station, video streaming for enhanced security and full operator access to the SCADA system
- Upgrade 10% of our pump stations into "Smart" pump stations with the latest technologies for efficient pump operations, energy efficiency, remote monitoring and automation



The Suffolk County Water Authority control center in Bay Shore, where the Authority's SCADA system is based.

# ACKNOWLEDGMENTS

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*The Suffolk County Water Authority would like to acknowledge the contributions of the following employees and former employees in the development of this plan:*

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