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# InFlow-Line

The Magazine of the CT Section American Water Works and the Connecticut Water Works Associations

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# Groton Utilities

Groton Utilities isn't just an ordinary organization. By just about any measure – its history, its services and even its people – Groton Utilities is unique in many fascinating ways.

It all starts, of course, with Groton. Groton was settled by Europeans as part of New London in 1646 by John Winthrop, Jr. By 1705, the population east of the river had increased sufficiently for the General Court to allow the inhabitants to incorporate as a separate town, which they named Groton in honor of the Winthrop family estate in England.

The people of Groton became shipbuilders and sailors and for the next 200 years, the town thrived particularly in the maritime trades as our nation grew.

By the end of the 19th century, street lighting and piped water had come to many cities and Groton was not to be left behind. In 1891, some local people established the Groton Water Company and in 1900, the Groton Electric Company began operation. Initially, both companies were privately held.

In 1903, the Connecticut legislature was petitioned to allow the creation of the Borough of Groton – an area of just over three square miles - within the town. That petition was granted, giving the borough taxing and borrowing authority and the newly formed municipality immediately used that authority to issue bonds to purchase both the Groton Water Company and the Groton Electric Company. Those purchases were made final in October, 1904 and within a year, the borough used its own newly purchased utilities department to begin the installation of sewers, fire hydrants and the first parts of a street lighting circuit.

That was, in fact, the beginning of what we know today as Groton Utilities. Over the years, Groton's Wardens – and later the City Council and the Groton Utilities Commission – exhibited an amazing degree of foresight and skill in providing water, electricity and, later, sewer services for their citizens and businesses.



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## Rosemond Lake

### **Groton Utilities** (continued)

Generating electricity in those days was a dirty business that involved large quantities of coal and by 1919, the wardens of the borough decided to get out of the generation business and voted to purchase electricity from the Shoreline Electric plant in Montville; but again, they did it a little differently. The borough would no longer produce electricity, but it would continue to maintain its own distribution system, something that it does right up until the present time.

As the years passed, the wardens of Groton Borough – six unpaid elected officials and the mayor – used the borough's resources wisely and purchased large tracts of land in the Ledyard watershed area. Over time, the ownership of that land was to provide abundant water resources.

In 1912, a sewer use ordinance was adopted and in 1931, a gravity flow sewer collection system was begun.

Through the 1930s and 1940s, the borough improved its water and sewer systems and began providing service to Charles Pfizer & Company, Electric Boat Corporation and the New London Ship & Engine Company, all of which were established on the Thames River within the boundaries of Groton Borough.

In 1953, Groton began providing electric service to the U.S. Navy Submarine Base and in 1954, it increased its potential water supply by damming Great Brook in Ledyard to create Ledyard Reservoir. In 1961, Groton signed an agreement to supply water to Groton Long Point and shortly thereafter, also began supplying water to the Noank Fire District.

Keep in mind that all of this was being done by a tiny municipality with a population of less than 10,000 in the shadow of its much larger neighbor, New London, just across the Thames River.

The Home Rule Act of May 4, 1964 ended Groton's status as a Borough of the town. It was now the City of Groton.

In 1964, Groton Utilities began construction of the Morgan Reservoir in Ledyard, further increasing water supply. As the surrounding region grew, Groton Utilities also built and improved its electrical substations. The OPEC oil crisis of 1973 drove up oil prices which in turn drove up the cost of the electricity that the city was purchasing from Connecticut Light & Power. But in 1976, instead of simply paying the going rate, Groton Utilities took a leading role in the creation of the Connecticut Municipal Electric Energy Cooperative, through which it and five other municipal electric companies began to buy power on the open market at predictable

rates that are often up to 15% lower than those offered by Northeast Utilities. In the most recent year, Groton purchased \$60 million worth of electricity through the cooperative.

Groton Utilities' electrical distribution business is a profitable one, returning about \$3 million per year to the city that uses it to offset local taxes. In 1995, Groton Utilities purchased Bozrah Light & Power Company, thus extending its customer base and adding experienced staff.

Groton Utilities' Water Division, while not a profit-making entity, now provides an average of 6.3 million gallons of high quality water each day to approximately 44,000 people in the City of Groton, parts of the Town of Groton, Groton Long Point, the Noank Fire District and a large section of the Town of Ledyard. The division operates five reservoirs with a storage capacity of more than 27 million gallons within 16 sq. miles of watershed, of which it owns 4.5 sq. miles.

The utility operates a water treatment facility that was built in 1938 but has been regularly upgraded over the years. It has a capacity of 12 MGD of which 6.3 MGD is currently being used. To accurately monitor its 104 miles of water mains, standpipes, pumps and other equipment, it recently upgraded its Supervisory Control and Data Acquisition System (SCADA) to operate via free radio frequencies rather than leased telephone lines. The upgrade was designed and implemented entirely by Groton Utilities Water Division personnel.

The Water Division also operates its own certified laboratory to monitor water quality. The lab also performs water quality tests on a fee basis for other water systems including Groton Long Point, New London, Noank, the Town of Groton Shellfish Commission, some private residential wells and various transient and non-transient non-community water systems.

## Groton Utilities on the Internet and on the air

About five years ago, the City of Groton began to explore connecting its city departments, schools and library via Ethernet so that users could take advantage of email and access to the Internet. Rather than calling in the usual army of consultants, they turned to Groton Utilities, reasoning that they had the expertise to install, manage and maintain a complicated electrical wiring grid, why not communications, too? After several years of planning, the result was the formation of Thames Valley Communications, a full-featured cable TV and Internet service provider. But again, this was Groton, not an ordinary municipality, so the build-out of the new system was with state-of-the-art fiber optic cable, not with the legacy coaxial cable that cable companies around the country are busy replacing.

Three years after its beginnings, Thames Valley Communications serves about 7,000 customers who enjoy true high speed Internet access and more than 500 channels of quality cable TV. And it goes without saying that Thames Valley Communications – officially the Groton Utilities Cable Division – is showing the expected positive financial return.

### Inside Groton Utilities

For all of its many businesses and services, Groton Utilities doesn't have a large staff. The Water Division employs just 52 people, The Electric Division 43, Thames Valley Communications 25, Bozrah Light & Power eight and the Water Pollution Control Authority just six.

Al Dion, Deputy Director of Water and Pollution Abatement, says that



Satellite dishes behind Groton City hall are used to receive broadcast TV signals that are then made available to cable TV customers. Thames Valley Communications now serves more than 7,000 customers after being in full operation for just three years.

Groton Utilities' greatest resource is its people. "We try to put the right people in the right places and then look for ways to help them succeed," he said during a recent interview. "We love to see people develop into accomplished, excited and talented performers." And that seems to work, if a recent tour of the facility is any indicator. Virtually everyone is on a first name basis and working there for ten years still makes you the "new person." Al has been at Groton Utilities for 42 years and has known every plant operator who has ever worked there. Those that we met during our visit have all been there for 30 years or more.

"People here take lot of personal responsibility and pride in their jobs," Dion says. "Most don't require a lot of supervision. They just get things done."

"We don't communicate by email," Al Dion adds, "we talk to each other."

Governance is almost entirely without bureaucracy. Groton Utilities is responsible to the Groton Utilities Commission, made up of four unpaid citizen members appointed by the Mayor

and the City Council. Mayor Dennis L. Popp serves as Chair of the Commission and is the City's Chief Executive Officer.

One might well credit this commission and its predecessors for Groton Utilities' many accomplishments. That includes purchasing land and water sources over many years, establishing a profitable electric utility and encouraging innovative ideas such as establishing a local Internet and cable TV company when the market was already almost completely developed by major telecommunications companies.

### Protecting the watershed through cooperation

The proposed construction of the Mystic Marriott Hotel & Spa on Route 117 in Groton could have been a long and drawn out process because it was to be immediately adjacent to Groton Utilities watershed land. Storm water runoff from the hotel's large parking area posed a threat to the watershed but by introducing some innovative ideas, the hotel was built. The developer was

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## Groton Utilities (continued)

shown how to control storm water runoff through storm water treatment chambers and detention basins. Groton Utilities built an additional polishing basin on its property to further protect the water supply. Subsequent water quality testing showed that even a facility as large as this Marriott hotel could be built near a watershed, provided that the parties involved cooperated rather than going to court. The Marriott and Groton Utilities both earned an award from the US Environmental Protection Agency for this effort.

## Regional Interconnection

While it hasn't received a great deal of publicity beyond Groton and New London, the interconnection of water delivery systems along the east and west banks of the Thames River is really a remarkable achievement, especially when one understands how it came about.

"It all started because we had some excess water," Al Dion says. "Ledyard and Preston weren't as fortunate and we wondered if there wasn't a way for us to share." Dion also noted that New London was selling water to Montville via a water main through Waterford. Montville, of course is home to the Mohegan Tribal Reservation and its famed casino complex, which also had a need for a more robust water supply.

There was also a fairly substantial community water transmission infrastructure in place but little if any of it was interconnected. "So," Al Dion relates, "we decided to get everyone together." By "everyone," he meant the Towns of Groton, Ledyard, Preston, Montville, Waterford, New London the Mohegan Sun Utility, and the other large water utility in the area, the City of Norwich. The Southeastern Connecticut Council of Governments was also included as was the Connecticut Department of Public Health.

Dion said that there was some suspicion at first that Groton Utilities

just wanted to sell some of its excess water but eventually, after much discussion, a degree of trust developed between the individual entities. "All we had to do was talk to each other," Dion says.

In fact, the people from Mohegan Sun even hired a professional facilitator to help get the group going in the same direction.

Getting the first phases of the interconnection in place would take five years to achieve. The Mohegan Sun organization built a large water tank on their property in the Uncasville section of Montville. The City of New London agreed to relax the conditions under which it would provide water to Montville. Eventually, a pipe was installed under the Thames River from the Gales Ferry section in Ledyard to Waterford.

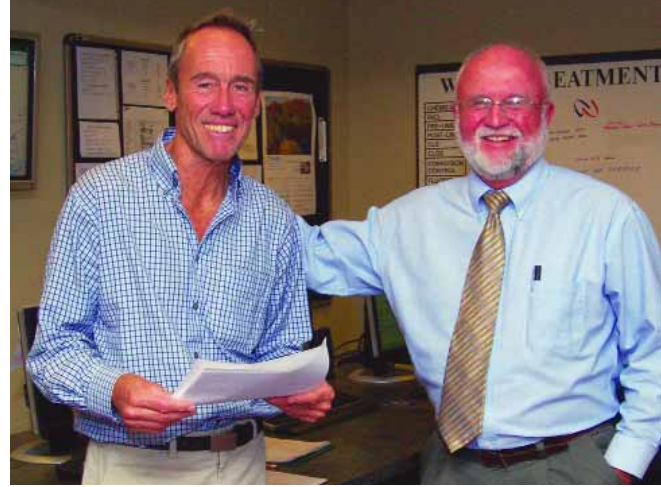
**We try to put the right people in the right places and then look for ways to help them succeed.**

-Al Dion, Groton Utilities

"Regional cooperation of this kind has so many benefits," Dion recalled. "We would share not only water, but information among all the parties." That includes maintenance information, purchasing, testing, mutual aid and planning.

"If one of the towns in our working group is faced with a particularly difficult problem, they can call on the collective knowledge of everyone else. And that includes disaster planning," Dion added.

This regional interconnection group, now operating with a formal Memo of Understanding between the entities,



Rick Stevens (L), General Manager of the Groton Utilities Water Filtration Plant and Al Dion, Deputy Director, Water/Pollution Abatement. Al is an active member of CTAWWA and is one of the founders of the Section Enhancers program.

continues to meet and grapple with many issues, including:

- Increased development near watershed land and the possibility of water quality degradation
- Inconsistencies within the various community planning departments
- The lack of formal community plans
- The quality of existing treatment facilities
- The possibility of creating a regional storm water utility
- How the region will protect existing and future water sources.

The interesting thing about this regional interconnection effort is that it has been done without a formal organization and staff and without a legislative or court mandate. It happened because the people in the Water Division of Groton Utilities thought that sharing resources might be good for everyone in the region.

It turns out that Al Dion's and his colleagues' philosophy about avoiding memos and emails and "just talking to each other" works at a regional level too. ↗

Copy and original photography by Bill Large. Many thanks to Al Dion, Brian Roche and Rick Stevens of Groton Utilities for their knowledge and enthusiastic cooperation.