

OPERATOR NEWS FOR WATER AND WASTEWATER PROFESSIONALS

Spring 2022, Edition 1

Supporting Water and Wastewater Systems in New Hampshire

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Announcement





Stony Brook Cooperative: Getting Themselves Prepared and Protected

Granite State Rural Water Association (GSRWA) works hard to stay connected with water and water systems through the use of onsite visits, phone assistance and operator training. Recently, Because of this effort, Stony Brook Cooperative reached out to Granite State Rural Water with a request for help.

Stony Brook Cooperative, is a small public water system providing drinking water to approximately 167

residents through 127 water connections. Their wish was to prepare for future emergencies (and thus comply with the state record drawing requirements) and to protect their valuable water source from possible contamination.

GSRWA quickly assisted Stony Brook Cooperative by reviewing their system as well as the area that they wanted to protect. To meet the record drawing compliance standards, mapping their infrastructure become job number one.

The mapping of the system was a great experience. The park had tie card records and a knowledgeable operator who assisted with the GIS data collection process. The system was digitally mapped using ArcGIS software over a period of approximately four weeks.

(Continued on page 5)

Our Mission

Supporting public water and wastewater systems by providing training, onsite technical assistance, and legislative representation.

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Aaron Costa, President Keene Public Works

Jason Randall, Secretary/Treasurer
Plymouth Village Water and Sewer District

Bruce Bottomley, Representative to NRWA Slope & Shore HOA

Tony Cavaliere, Member Jaffrey Public Works

John Coffey, Member Canaan Water Department

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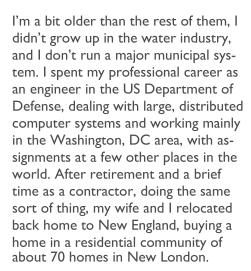
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Brian Vose, GIS Manager brian@granitestatewater.org

Board Director's Message

GSRWA Seen from Both Ends

I've been a member of the GSRWA Board of Directors for over four years now. My background is a bit different from those of my mates on the Board, so I'll take a few words to describe it, and to discuss how it has influenced my involvement with the organization.



My technical background became known around the community, and they asked me to lead their Water Committee, with responsibility for the Licensed Public Water System that feeds our homes and a historic inn located within the community. Two wells, two pump stations, and all the rest. The concept of 'Once an Engineer, Always an Engineer' quickly established itself, and I settled in to the job. Working with me is a small crew of fellow volunteers from the community. Our job is to keep things running, to know what number to call if a problem develops that's beyond our abilities to deal with, and to think toward the future.

(Continued on page 9)



From the Executive Director



Dear Member,

Sometimes, when I am explaining what we do, I need to clarify to the listener that water systems are not necessarily a part of incorporated municipalities. The service we provide often extends toward helping village districts, water precincts, community owned residences, and private mobile home parks. This edition of our newsletter features water systems that fall into several of these mentioned categories.

Turn the pages to read how... Stony Brook Cooperative tackles an oil tank replacement project to reduce potential contaminates in their source water.

Longwoods Mobile Home Park creates digital record drawings to improve response time to possible future emergencies.

The Village District of Eastman performs a leak survey to assist in the accounting for lost water.

Even this edition's "Board Director's Message" by Bruce Bottomley, is about how his homeowner's association, Slope N' Shore, works with GSRWA.

Has our association recently helped your water or wastewater system? We would lobe to hear from you. Your letters of support help secure funding for the critical onsite work that we do. At the end of March a group of us traveled to Washington D.C. and delivered copies of these letters to our four federal delegates; Senator Shaheen, Senator Hassan, Congresswomen Kuster and Congressman Pappas. Hearing from constituents truly has an impact, so keep those letters coming!

With hope for the future, Heidi

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Your Letters!

Hinsdale Water and Sewer Department

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Hinsdale, N.H. 03451
Phone 603-336-5715
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Granite State Rural Water Association 47 Main St. PO Box 596 Walpole NH, 03608 November 24, 2021

Attention, Heidi Lauricella,

On behalf of the Town of Hinsdale, I would like to again thank Vinny Melendez and the rest of the Granite State's Staff for another outstanding year while working together and helping to keep our system in compliance especially through the pandemic.

Over the year Granite State Rural Water's webinar trainings have been outstanding, well projected and user friendly. I along with my staff look forward to attending several in person sessions as well before the years end.

I again, would like to acknowledge Vinnie's willingness to go the extra mile and being available to assist us with up to date and helpful information regarding most issues within our system, especially through his recovery this year. He's a trooper. Thanks again for all your support, and hope I can make it next year to the much loved Field Day at Sunapee.

Yours Truly,

Jack White

Jack White (H.W.D.)



Your letters help secure funding for training and on-site technical assistance programs.

Please send your letters to: GSRWA P.O. Box 596 Walpole, NH 03608



Stony Brook: Prepared & Protected (continued from page 1)

The result was an interactive digital map that displayed the system infrastructure as well as a physical map which could be hung up at their office and used as needed for locating assets such as curb stops and gate valves. Lastly, this updated map was submitted to the NHDES as part of the record drawing requirement program.

The second project that GSRWA assisted with was an effort to protect their water sources. The first step was to form a Source Water Protection Committee. Once the committee was formed, it went to work delineating the area of concern, reviewing pertinent data such as remediation sites and various potential sources of contamination.

After carefully reviewing the data, it became clear that the greatest potential source of contamination was from the park itself. The data indicated that there had been a number of remediation sites within the park and wellhead



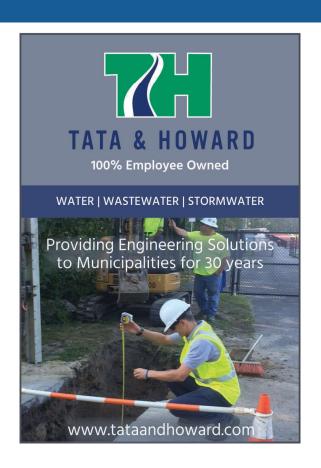
protection area which were the result of leaking fuel tanks. With this information in hand the committee decided to inventory the park and create a list of fuel tanks that were in need of replacement or required concrete slabs to support the tanks. To perform this inventory, GSRWA utilized an ArcGIS platform called Survey I 23. This platform allowed the group to tour the park with a tablet, answer survey questions, take pictures and plot the locations on a map. Once this was complete, a list was created of the tanks that had the greatest need of replacement, as well as tanks that required concrete slabs.

The next step in the process was to determine potential ways to eliminate or reduce this possibility as well as how to pay for the investment. The committee decided to apply for a Source Water Protection grant as part of their management plan in hopes of eliminating the potential contamination. Fortunately, the process was straightforward and the State of NH DES was amenable and very easy to work with. With a grant awarded to the community and a local contractor hired, the old and failing tanks were removed and replaced with new double walled tanks. Additionally concrete slabs were installed where they did not exist previously.

(Continued on page 6)







Stony Brook: Prepared & Protected

(continued)

The project was a great success and proved that the actions of the committee led to greater protection measures for the entire community. GSRWA and Stony Brook worked together to identify problems, discern next steps, utilize financial resources and thus solve the problems at hand. Once again GSRWA was pleased to assist a small water system in fulfilling their desires to provide and protect safe drinking water for its community.

Submitted by: Justin Shaw, Sourcewater Specialist



IT'S SMART, IT'S FREE, IT'S THE LAW.

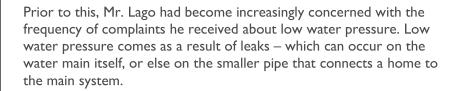




Longwoods Mobile Home Park: Assessing Inventory Through Mapping

One of the most difficult problems facing rural water utilities, particularly those without full-time staff, is simply knowing where their assets (water pipes, hydrants, valves, etc.) are. While it may seem like a given that any entity — whether it's a business or an individual — would know what they own and where it is, that isn't always the case in the water industry. Without a proper record of their system, like a map or spreadsheet inventory, a utility will struggle to respond to emergencies, plan for upgrades, and access federal and state funding sources.

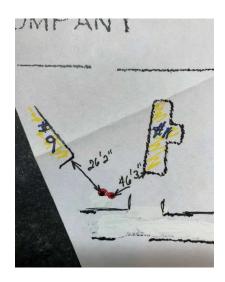
Many rural New Hampshire water systems are creating or updating their record drawings to accurately depict their own water infrastructure. One such system is Longwoods Mobile Home Park. Longwoods is a small community tucked into the northwest corner of Deering along the Contoocook River. In the spring of 2019, Steve Lago, owner of Longwoods MHP, contacted Granite State Rural Water Association (GSRWA) seeking assistance with locating and mapping out its water infrastructure.



In order to better respond to these leaks and to identify ways to prevent future leaks, Mr. Lago and GSRWA teamed up to locate the infrastructure and map it out with GIS, a software that combines the visual component of a map with the spreadsheet-capabilities of Excel.

To begin the inventory process, GSRWA requested any and all existing maps of Longwoods. During this process the most useful and up-to-date maps (mostly hand drawn) were retained to help guide the mapping effort.

(Continued on page 8)













Longwoods: Mapping (continued)

Over the course of the summer, GSRWA technicians located all of the valves in the system that had any previous documentation by hand-digging and verifying their existence. A few valves were located which had not been documented previously. By taking all of the old records, verifying their accuracy (or lack thereof), and combining them into one record map, the system has a comprehensive sense of where and what their assets are and how the system functions as a whole.

With the help of the map and the inventory created during this record drawing effort, Longwoods MHP can more ably respond to customer emergencies, plan for upgrades (preventing emergencies from ever happening), and use hard data to support their requests for any federal or state aid.

Longwoods MHP is a typical mobile home park with a community water supply, of which there are many in the northeast. These communities were often developed between the early 1960's and mid 70's, and face many challenges today. For instance, pump stations, which house the pumps and water storage tanks (and sometimes water wells), are now degrading rapidly, as many have already aged beyond their 'useful life'. The pipes themselves, buried several feet below ground, may leak without showing signs of it on the surface.

Unfortunately for our mobile home park communities, many of the original developers and owners are retiring, have retired, or have sold the parks and valuable information about the infrastructure may be lost. Additionally, some less-responsible owners have let their infrastructure age without planning or paying for sustainable upkeep of the system – essentially running it into the ground – and then selling the park off, leaving the community or the next person to foot the bill.

There are many MHP's that have used a 'run-to-failure' maintenance approach toward their infrastructure, and, unfortunately, when park owners retire or sell their developments valuable information about a water system can be lost in the transition. In the case of Longwoods MHP, however, the system has taken major

Longwoods MHP
Water Distribution Network
Deering, New Hampstrine

| Committee Committe

steps against this common fate by updating their maps and inventory.

By coupling Longwoods newly acquired data with proactive operations and maintenance practices, the system has the opportunity to become proactive, rather than reactive thereby providing a better level of service to the residents and building a better community.

Submitted by, Brian Vose, GIS Specialist

Seen from Both Ends (continued from page 2)

I quickly learned that one of those numbers to call was Scott Clang, an employee of GSRWA called a 'Circuit Rider', a great term coming out of the Old West. His job was to provide consultant services to public water systems that meet grant eligibility and to member organizations at essentially no cost to them.

Scott is our Go To Guy for anything that can be handled by pointing us in the right direction, bringing in GSRWA people with specialized skills and specialized equipment that small systems would not be expected to possess, or rolling up his sleeves and pitching in. The breadth of his practical knowledge and abilities is marvelous. From Scott and others at GSRWA we have received assistance with locating buried valves and pipes, GPS mapping of assets, steering to appropriate sources of supplies and assistance, and lots more.

GSRWA clearly recognizes the importance of providing this sort of assistance to small systems, many even smaller than mine. It is a segment of their membership that should be represented on their Board of Directors, and they nominated me for that role. I accepted the offer and was voted in by the membership.

Thus began a new chapter in my professional career. Dual pronged it was — representing the interests of small systems such as mine, and working with the rest of the Board toward larger undertakings.

I quickly realized that GSRWA did not function just by itself, but was a component of the National Rural Water Association. NRWA's major role is to secure and manage grants from the Departments of Agriculture and Labor, EPA, and others, which provide the 'free services' so generously bestowed upon our rural systems. They sponsor major workforce development and training programs, nationwide. They organize multistate responses to natural disaster situations affecting their members. Their Washington, DC office is well plugged in to our representatives on Capitol Hill.

Shortly after my arrival on the GSRWA Board, the position of representative to the NRWA Board of Directors became open. I was offered the opportunity, based in large part on three relevant qualifications — My career background included a mix of close-in and broad view responsibilities, both necessary in this position, I had time in my schedule for trips to major NRWA meetings and lobbying activities, and by virtue of my Civil Service career, I knew my way around the federal bureaucracy.

It's been a great ride, and it still is! I help my own little system function at top level via GSRWA support, I help guide the provision of similar services to systems throughout the state and the country from my position on the two Boards of Directors, and I take what I learn from one role and apply it to the other.

Drink up!

Submitted by Bruce Bottomley, Board Member



Village District of Eastman: A Leak Survey

Just about one year ago Granite State Rural Water Association Circuit Rider, Scott Clang responded to a request from General Manager Amy Lewis of the Village District of Eastman located in three Upper Valley area towns of Grantham, Springfield and Enfield. The districts data suggested an approximate 40 percent water loss was being felt in the drinking water system. That equates to about 8 to 10 million gallons. Districts are required to conduct water leak surveys on a periodic basis or when the water balance exceeds 15 percent. This is a requirement from the NH Department of Environmental Services Drinking Water and Groundwater Bureau's Administrative Rules RSA 485:61 and Env-Wq 2101.

Leak detection efforts will reduce operating costs in electricity and chemical consumption as well as enhance water supply for proper backwashing of its mixed media pressurized filtration for Iron and Manganese removal. As leaks are repaired it will protect consumers from contaminated groundwater infiltration. Also, the prevention of backflow conditions will be prevented by maintaining proper pressures throughout the distribution system.

The district serves its primarily single family residential and condominium connections via groundwater. The raw water source is treated via two Tonka high-capacity pressure filter vessels and pumps it's finished water up to two elevated storage tanks. Distribution is made up of 8", 6", 4" and 2" water mains. The distribution system lacks fire hydrants and main valves are limited making it a challenge for conducting leak detection on such a large system. Circuit Rider Scott sat down with General Manager Any and planned out a schedule to assist in completing a leak survey. Initial data showed that the district produced 19 million gallons of water throughout the year and sold 9 million gallons. Eastman is a seasonal community with high populations in the summer and moderate to low in the offseason and winter times. The distribution system does not support fire suppression as initially the district had limited supplies in its point well water sources. The storage tanks were designed for domestic water use alone.

(Continued on page 13)













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Training Class Schedule

New Trainings are always in the works

Please periodically visit our website for the latest information

Date	Course	TCH's	DES Approved	Mem/Non-Mem	Location
4/5/22	Water Meters & Chemical Feed Pumps	5	DW & WW	\$88/\$112	Gorham, NH
4/7/22	Collection System Management and Maintenance	6	ww	\$102/\$134	Jaffrey, NH
4/14/22	FOG & What's Flushable	6	ww	\$102/\$134	Madbury, NH
4/19/22	Understanding Your Motor Control Panel	5	DW & WW	\$88/\$112	Bristol, NH
5/3/22	Lab Skills	4	DW & WW	\$68/\$91	Madbury, NH
5/10/22	Line Location & Leak Detection	6	DW & WW	\$102/\$134	Woodstock, NH
5/12/22	Handling Distribution Components with New Technologies	6	DW & WW	\$102/\$134	Concord, NH
6/2/22	Climate Change: Impact on Water Supply and Resiliency	6	DW & WW	\$102/\$134	Peterborough, NH
6/16/22	Advanced Blueprint Reading	6	DW & WW	\$102/\$134	Hinsdale, NH
7/19/22	Ultrasonic Metering & Intelligent Hydrants	2	DW	\$30/\$38	Virtual
10/4/22	Line Location & Leak Detection	6	DW & WW (pending approval)	\$102/\$134	Enfield, NH
10/13/22	Common Contaminates in NH & Treatment	TBD	DW (pending approval)	TBD	TBD
11/3/22	Understanding Your Motor Control Panel	5	DW & WW	\$88/\$112	North Conway, NH
11/15/22	Handling Distribution Components with New Technologies	6	DW & WW(pending approval)	\$102/\$134	Concord, NH
11/17/22	Iron & Manganese with Pump Station Tours	5	DW (pending approval)	\$88/\$112	Grantham, NH
12/6/22	Water Meters & Chemical Feed Pumps	5	DW & WW(pending approval)	\$88/\$112	Lebanon, NH

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Options are available to pay online, request an invoice, or mail in a payment. Please contact us if you have any questions or need help with registering. 603-756-3670, email info@granitestatewater.org

Eastman: Leak Survey (continued from page 13)

A plan to maximize leak detection efforts were drawn up and the Scott looked at concentrating on main valve locations, curb stop and service line connections and utilizing ground mike equipment to survey the mains. Ground Mike tests were done at 200-to-300-foot intervals on main lines and 6 to 10 feet on laterals.

The whole project took 13 site visits and ran from mid-May to mid-December to complete, there were no discernible leaks found at this time. GSRWA and the Village District are planning to meet again soon to review flow, process water uses and water meter data to confirm the systems monitoring of annual water production and usage.

Submitted by Scott Clang, Drinking Water Circuit Rider







Paul Whittemore

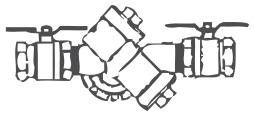
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2022 Operator Field Day & Exhibit Show

September 13, 2022



Mount Sunapee Resort Newbury, NH



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- Join other operators to celebrate the work you do.
- Earn up to 4 Training Credit Hours towards your license renewal.
- Learn about products and services for your system at our trade show.
 - Compete in our annual Meter Toss and Water Taste Test contests.
 - Enjoy a fun day at Mt Sunapee Resort with BBQ and Chairlift rides.

Seminar Series

Please check our website this summer for the list of seminars. We will host nine different classes throughout the day, with the option to attend up to four. All seminars will be credit approved by NHDES for drinking water and/or wastewater credit.

Event Details

Date: September 13, 2022

<u>Location</u>: Mount Sunapee Resort Newbury, NH

Mail-in sheet on reverse side.

<u>To Register:</u> Online registration at www.Granitestatewater.org is encouraged.













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