Supply Lines with The Source

Newsletter of the NHDES Drinking Water & Groundwater Bureau
on the web at www.des.nh.gov

Spring 2022

Is an Interconnection Right for My Water System?

Have you ever considered interconnecting your water system with another public water system (PWS)? Well, now is the time to take the next step! Unprecedented amounts of state and federal funding are being made available, most of which can be used to help evaluate, design and construct public water system interconnections.

Benefits

Interconnecting with another system can provide many benefits including but not limited to:

- Replacing a source with water quality and/or quantity issues.
- Supplementing existing sources to meet current and future demands, either year-round or seasonally.
- Improving reliability and resiliency in the event an existing source needs to be taken out of service due to maintenance, contamination, or extreme weather events such as drought, flooding or power outage.
- For the selling system, adding a revenue stream. Selling water wholesale to a neighboring PWS can often generate a reliable, consistent, and significant source of income from a single service connection.

Considerations

Some water system managers and decision-makers have concerns that interconnecting with another PWS will result in a loss of independence. This is not necessarily the case and can be managed by negotiating a strong agreement. Every interconnection, whether emergency, seasonal, or year-round should be governed by a legal agreement sometimes called a "Purchase Water Agreement," "Wholesale or Bulk Water Agreement," or "Intermunicipal Agreement" (if both parties are municipalities). This legal document should spell out all major conditions of the interconnection and responsibilities of the parties including:

- Water quality
- Rates (both fixed and volumetric)
- Meter reading
- Frequency of billing
- Who is responsible to design and construct new infrastructure
- Who will own new infrastructure
- Who is responsible for initial capital costs, O&M, replacement costs, and/or future capital costs resulting from changing regulations or flow requirements
- Emergency response

Connecting Frost Residents Cooperative to Town of Derry water system

(Interconnection, continued on pg 2)

(Interconnection, continued from pg 1)

- Water use restrictions and conservation efforts
- Duration of the agreement

Both parties should seek legal advice from a qualified attorney and technical advice from a qualified engineering consultant, and negotiate terms that are mutually beneficial.

The Environmental Finance Center Network offers resources and guidance for interconnections, regionalization, consolidation, and local agreements.

Funding Opportunities

Depending on the specific circumstances, PWS interconnections may be eligible for the following funding assistance programs:

- Drinking Water State Revolving Loan Fund (DWSRF) – Low-interest loans with possibility of principal forgiveness for drinking water infrastructure projects. Available funding to increase by approximately 200% as a result of the 2021 Bipartisan Infrastructure Law (BIL). (See article on page 4). Annual pre-application deadline June 1, 2022.
- DWSRF Emerging Contaminants – New program created by BIL to address contaminants of emerging concern, including PFAS, manganese, and cyanotoxins. Pre-application deadline concurrently with traditional DWSRF June 1, 2022, above.
- PFAS Remediation Loan and Grant Fund – State funding to address PFAS contamination. Can be used for cost-effective evaluation, design, and construction. Applications accepted any time.
- NH Drinking Water and Groundwater Trust Fund (DWGTF) – State fund to preserve, protect and enhance the state's groundwater and drinking water. Drinking Water Construction Project Assistance Programs special project applications accepted any time. The 2022 annual round solicitation TBD.
- Consolidation Study Assistance Program (CSAP) from DWGTF – Up to $10,000 grant (no match required) for a small community water system (CWS) or non-profit, non-transient, non-community (NTNC) water system to evaluate the long-term cost effectiveness of an interconnection compared to maintaining existing well(s). Applications accepted any time.
- American Rescue Plan Act (ARPA) – Grants combined with DWSRF loans for drinking water infrastructure projects. Anticipated to be coordinated with the 2022 DWSRF solicitation. To be coordinated with the 2022 DWSRF solicitation. See also Supply Lines with The Source, winter 2022.
- Drinking Water Sustainability Grants – Strategic Planning Grant can be used to evaluate potential interconnections, including feasibility studies and cost estimates. Solicitation in 2022 TBD.

Other Funding Agencies Outside NHDES

- US Department of Agriculture Rural Development: Water & Environmental Programs
- NH Community Development Finance Authority: Community Development Block Grant
- US Economic Development Administration: Public Works Program
- Northern Border Regional Commission: Economic Infrastructure Grant Program

For additional details, NHDES maintains a summary of common grant and loan sources for public water systems in New Hampshire, including contact information.

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DWGB Calendar of Events & Deadlines: May – October 2022

May 5	New Hampshire Water Works Association in coordination with NHDES Water Well Program Annual Pump Installers Training at NHDES, 4:30-7:00 PM; contact Boyd Smith at bsmith@nhwwa.org or (603) 415-3959.
May 24-25	NHDES' Drinking Water Source Protection Conference. Registration will occur online through the American Ground Water Trust's website, click on "Events." Technical Credit Hours will be offered to NH Water Works Operators.
June	Drinking Water and Groundwater Trust Fund (DWGTF) Source Water Protection (land conservation) Grant eligibility applications due (subject to funding); email wslp@des.nh.gov or call (603) 271-2862. Check DWG Trust Fund SWP grant website for updates.
June 1	Drinking Water State Revolving Loan Fund (DWSRF) pre-applications due; contact dwsrf@des.nh.gov.
June 15 - July 31	Leak Detection Grant applications accepted, visit Detection Grant website for applications and updates; contact waterconservation@des.nh.gov or (603) 271-6685.
June 30	Permit to Operate signed applications and fees are due, contact Lisa Fortier at pto@des.nh.gov or (603) 271-3544.
July 1	Consumer Confidence Report (CCR) due to community water system customers; contact Kimberly Durgin at dwmonitoring@des.nh.gov or (603) 271-6703.
July 10	CCR certification to NHDES due; contact Kimberly Durgin at dwmonitoring@des.nh.gov or (603) 271-6703.
Anytime	Computer based Drinking Water Operator certification exams Grades I-IV are now available at various locations throughout the state; contact Jason Smith at dwgbcertop@des.nh.gov or (603) 271-2410.
Anytime	Small Water System Consolidation Study Assistance Program grant applications accepted; contact Erin Holmes at erin.holmes@des.nh.gov or (603) 271-8321.
Anytime	PFAS Treatment Design Services Reimbursement applications accepted; contact Amy Rousseau at amy.rousseau@des.nh.gov or (603) 271-1372.
Anytime	PFAS Remediation Loan Fund applications accepted; contact Amy Rousseau at amy.rousseau@des.nh.gov or (603) 271-1372.
Anytime	Cyanobacteria Monitoring and Training grant applications accepted; contact Liz Pelonzi at ann.pelonzi@des.nh.gov or (603) 271- 3906.

To see event calendars for additional opportunities, please visit:
Granite State Rural Water Association
New Hampshire Water Works Association
New England Water Works Association

2022 Annual Source Water Protection Conference – Scheduled!

Join us on Tuesday, May 24 and Wednesday, May 25 for this year's Source Water Protection Conference. The first day of the conference (May 24) will be held at the Army National Guard Edward Cross Training Complex in Pembroke, while the second day will be held virtually. In-person attendance on May 24 will be limited to allow for spacing and masks are strongly encouraged. Topics to be presented include current research on PFAS in wastewater, efforts to reduce road salt use, funding local stormwater management structures, and evaluating the risks to source water from large oil or chemical spills. Check out the conference agenda at the American Ground Water Trust's website.

Bipartisan Infrastructure Law Increases Funding for Public Water Systems

On November 14, 2021, the Bipartisan Infrastructure Law was signed into law. The legislation increases annual funding from the United States Environmental Protection Agency (USEPA) to NHDES for public water systems by approximately 700% for each of the next five years.

The law establishes the following new or expanded funding programs in New Hampshire:

1. Approximately $10M a year for the next five years for a new program to provide 100% grants to small and disadvantaged public water systems to address PFAS contamination.
2. Approximately $8M a year for the next five years for a new program to provide grants or loans with 100% principal forgiveness to address emerging contaminants such as PFAS, manganese and cyanotoxins.
3. Approximately $18M-$25M (51% loan/49% grant/loan forgiveness) a year increase in funding for the traditional State Revolving Loan Fund to improve drinking water infrastructure.
4. Approximately $30M (51% loan/49% grant/loan forgiveness) a year for the next five years for a new program to address lead service lines, including the portions of service lines on private property.

NHDES is currently developing its Intended Use Plan, which will describe how the funds will be used and prioritized. Additionally, USEPA is developing guidance for the states regarding the requirements for managing and distributing the funds. It is anticipated that loan and grant application documents for the new funds will be available beginning in April with application deadlines beginning in June.

idea → plan → action

ARPA Funds Projects to Improve Public Water System Sustainability

The Water System Sustainability Grant program has expanded! This program provides grant funding to community water systems (CWSs) to ensure sustainable operation and identify possible improvements in technical, managerial and/or financial operations, also known as Capacity Development. With funding provided by the American Rescue Plan Act, the Drinking Water and Groundwater Bureau's (DWGB) Sustainability Section held a grant round with applications due on January 7, 2022. Over $8.8M in funding was requested. The response received from CWSs in this first round of solicitation supports the Bureau's estimation of the need for assistance to improve their Capacity Development. DWGB is hopeful this funding will support a culture shift within water systems to proactively pursue creating more sustainable water systems. Please contact Luis Adorno at luis.s.adorno@des.nh.gov or via phone at (603) 271-2472 for more information regarding Capacity Development or any of the Sustainability Grant funding opportunities shown in the table below.

Water System Sustainability Grants	# of Applicants	Total Funding Requested	# of Projects To Be Funded	Total Amount Funded
Strategic Planning	65	$3,250,000	22	$1,150,000
Asset Management	45	$3,698,450	31	$2,542,150
Energy Audit Implementation	6	$285,400	6	$285,400
Energy Audit	10	$250,000	10	$106,000
Water Audit	19	$400,000	27	TBD
Cyber Security	TBD	$1,000,000	TBD	TBD
Totals	**145**	**$8,883,850**	**96**	**$4,083,550**

Start-up Procedures for Seasonal Systems

Seasonal public water systems that are not exempt must perform start-up procedures before opening and certify to NHDES that procedures have been completed per Env-Dw 506, Seasonal Public Water Systems. Start-up procedures include inspecting the sanitary protective area (SPA), all components of the distribution system, correcting any open sanitary defects and disinfecting and flushing all distribution lines.

Inspection:

1. Wellhead cap/cover – Must be secure, seals intact and have a screened vent.
2. Sanitary Protective Area – Ensure at least 75 to 200 feet around the well is maintained clear of fuels, septic system components, animal manure, fertilizers, etc.
3. Pump house – Maintain proper sanitary and safety conditions, keep locked, no water leaks or exposed electrical wires.
4. Treatment facilities – Verify whether fully operational, with proper chemical storage and air gap on backwash discharge.
5. Storage tank – Check tank integrity, ensure hatch is sealed and vent and overflow are screened.
6. Distribution piping, valves, and service lines – Reconnect all the plumbing and pressurize the system. Exercise valves and blow-offs. Repair leaks.
7. Dump station cross connection control – Testable Reduced Pressure Zone (RPZ) or sustained air gap must be in place.
8. Sample locations – Should be clean, labeled, accessible, 12 inches above floor.

Disinfection: Follow the instructions in fact sheet DWGB-4-11 How to Disinfect a Water Well.

Monitoring: Collection of general system evaluation bacteria samples after disinfection and prior to monthly bacteria testing is recommended.

The start-up certification form must be submitted to NHDES within 30 days after starting up for the season. Failure to complete start-up procedures or submit certification will result in a Notice of Violation and a requirement for public notice. A start-up checklist is available, along with the certification form, on NHDES OneStop or at the Public Water Systems Monitoring pages. For more information or to determine whether your seasonal public water system is exempt, please contact Kaitlin Curtis at kaitlin.curtis@des.nh.gov or (603) 271-0893.

Free Cybersecurity Assessments to Assist with Cybersecurity Implementation Grants

The Cybersecurity Implementation Grant Program was recently created as part of the American Rescue Plan Act (ARPA) of 2021 which allocated $2M to NHDES to fund drinking water and wastewater projects related to mitigating or managing the risk of a cyberattack.

Cybersecurity is one of the top threats against business and critical infrastructure. It is important for owners/operators of drinking water and wastewater systems to examine cybersecurity vulnerabilities and develop a risk management program to reduce the likelihood of a cyberattack impacting operations.

Conducting a cybersecurity assessment is the first step toward securing funding for implementation. An assessment will help identify gaps in cybersecurity practices and determine next steps for implementing measures to improve cyber resiliency. Currently, free assessments are being offered from the Department of Homeland Security (DHS) Cybersecurity & Infrastructure Security Agency (CISA) and the USEPA. If you have not already done so, consider having a cybersecurity assessment conducted to be eligible for funding.

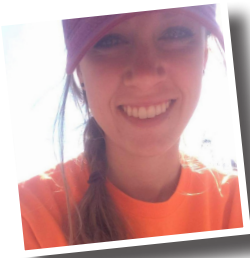
- USEPA cybersecurity assessment: visit USEPA Cybersecurity Assessment Flyer or contact gkite@horsleywitten.com.
- DHS CISA cybersecurity assessment: visit Cybersecurity and Infrastructure Security Agency (CISA) Assessment and email cyberadvisor@cisa.dhs.gov or richard.rossi@cisa.dhs.gov.

Interested applicants are encouraged to visit the NHDES Cybersecurity Improvements Assistance webpage for more information, including eligibility requirements. Completed applications will be accepted on an ongoing basis through December 31, 2022.

For more information, please contact Stephanie Nistico at stephanie.nistico@des.nh.gov or (603) 271-0867.

Staff News

KC Moran joined the DWGB Sustainability Section as an Environmentalist III. Previously she spent two years with the City of Manchester DPW as a civil engineer and has six years of prior experience in the private sector as an environmental engineer. KC is a Licensed Professional Engineer in the State of NH. KC enjoys playing disc golf and is a member of Team End ALZ where she participates in triathlons and road races to raise awareness and funds for the Alzheimer's Association.



KC Moran

In October 2021, Jacqueline (Jackie) Howarth was promoted to Information Management and Reporting Section Supervisor, where she now oversees both the monitoring and information management groups. Jackie comes to the position with over four years of experience in DWGB's Monitoring Subsection, ensuring public water systems' compliance with Safe Drinking Water Act water quality standards. In addition to monitoring requirements, she will be overseeing database maintenance, IT projects and federal reporting.

Jackie Howarth

Bess Morrison joined DWGB's Monitoring Subsection as the Monitoring Subsection Supervisor in January of 2022. She previously managed the Source Water Protection Grant Program for DWGB, as well as assisted with processing chemical monitoring waivers for public water systems. Prior to coming to DWGB, she worked in a drinking water laboratory for 15 years, which will serve her well when working with our public water systems and labs on monitoring rules.

Bess Morrison

Jen Harfmann joined DWGB, filling a new position established to assist the Groundwater Discharge Program with PFAS-related initiatives. In addition to serving as DWGB's PFAS specialist, she will collaborate with other bureaus to support ongoing and future PFAS projects in the agency. Jen brings to the position nearly a decade of experience in water chemistry research, most recently studying PFAS fate and transport in sediments and surface water in Wilmington, NC. She holds a Ph.D. in Environmental Chemistry from the University of California Davis.

Jen Harfmann

Amy Hudnor moved from the role of sanitary surveyor to the new Private Well Coordinator position in DWGB's Planning, Protection and Assistance section. She has been holding well testing events and workshops in areas with high levels of naturally occuring arsenic and uranium. She looks forward to expanding those efforts through the Seacoast Private Well Initiative (see article on pg 8) and other efforts. Amy holds a Master of Science degree from the University of Maine in Environmental Science and worked for the State of Maine for several years prior to joining NHDES in 2015.

Amy Hudnor

David Hisz is a hydrogeologist who has joined the Hydrology and Conservation Section of DWGB as the community well siting and large groundwater withdrawal permitting program manager. Dave has over 20 years' experience characterizing groundwater systems. Prior to joining NHDES, Dave worked as a hydrologist for the State of North Dakota.

David Hisz

Jonathan (Jon) Whaland was promoted to manager of the groundwater discharge permitting program in the Hydrology and Conservation Section of DWGB. Jon comes to the job with five years of experience in both the MtBE Remediation Bureau and DWGB as a sample team member and program data specialist. Prior to his time at NHDES, Jon worked in the private sector doing largely contaminated site characterization work. Jon has degrees in Geology and Environmental Engineering from UNH.

Jon Whaland

DWGB Engineering and Survey Section

Welcome new and old staff back to the Engineering & Survey Section (ESS) in 2021! All your trusted and knowledgeable technical staff are still here, just in slightly new roles, along with a few valuable additions as we implement new programs and drinking water infrastructure investments

for New Hampshire residents.

Rick Skarinka retired last July after ~30 years of state service but we could not let him stay away! We are very lucky to have him back, albeit part-time, to help with infrastructure project management and oversight. Rick has served multiple roles in the Agency, and most importantly served as the ESS Manager for the past 10 years, and DWSRF Program Manager prior to that.

Rick Skarinka & Cindy Klevens

Following Rick Skarinka's retirement, Cindy Klevens was promoted to lead the section based on her 30+ years' experience in the industry including 16 years of state service. Because of her water treatment background, she will also continue as the technical lead for lead and copper, arsenic, rads and manganese. Prior to state service, Cindy worked in consulting for firms in New Hampshire, New York, and Colombia in South America.

Heather Baron & Jen Mates

Heather Baron is our newest sanitary surveyor for the Small Systems team, responsible for the North Country systems. Prior to DWGB, Heather worked for the MtBE Remediation Bureau where she gained experience in drinking water sampling, water quality evaluations, and site inspections. Heather graduated Magna Cum Laude with a B.S. in Environmental Studies from the University of New England where she also served as captain of the award-winning Rugby team!

Jen Mates returned to state service in late November as the new ARPA engineer overseeing infrastructure projects for both large and small systems. She is based out of the Pease office. Jen worked for DWGB's Small Systems group back in 2011 and then served eight years as Assistant Town Engineer for Exeter. Prior to her municipal and state experience, Jen worked in consulting, preparing design plans and performing construction administration for civil engineering projects throughout New England.

Mike Unger & Tom Willis

In December, Mike Unger moved from the Drinking Water and Groundwater Trust Fund to our core engineering group. He will continue to lead the ESS large regionalization projects, climate change and environmental justice initiatives, along with managing infrastructure projects and conducting large system surveys. Prior to state service, Mike worked in consulting here in New Hampshire and traveled the world as Overseas Project Manager for Engineers Without Borders.

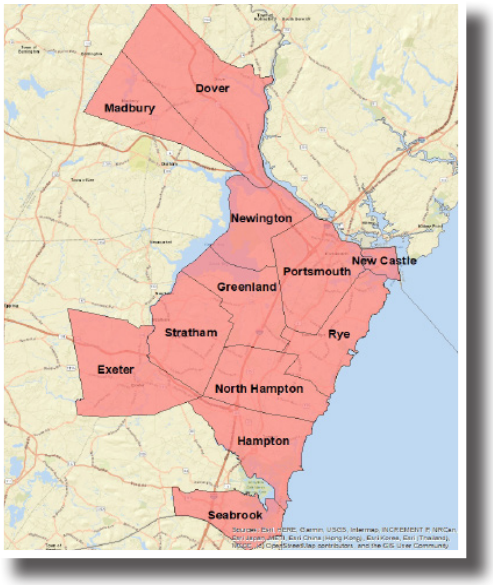
Last but not least, Tom Willis was promoted from Small Systems Design Review where he served the past seven years to be the new Trust Fund Engineer, as liaison between DWGB and the Agency's MtBE / PFAS / Trust Fund groups. Tom has 30+ years' experience both within and outside NHDES, including project management and oversight for large and small water systems, City Engineer for Rochester, and Director of Public Works for Somersworth.

Local Source Water Protection Projects Funded

On The Local Source Water Protection Grant Program will provide just over $250,000 this year to support thirteen source protection projects. The projects include engineering stormwater practices to reduce erosion and sediment discharge into Lake Massabesic, purchasing data sondes to monitor sodium chloride in groundwater in Dover, and installing security fencing and gates at strategic locations around several public water supplies to reduce known vulnerabilities. These projects will further protect the quality, availability and security of groundwater sources, reservoirs and related public water system infrastructure. Application requests far exceeded the available funding this year.

Seacoast Private Well Initiative to Pilot Free Well Testing

This summer, the Seacoast Private Well Initiative will roll out free well water testing to all households using private wells in 12 communities (see map). The Initiative came out of the work of the Seacoast Commission on Long-Term Goals and Requirements for Drinking Water, which was established under RSA 485-F:6, "to plan for long-term goals and requirements for drinking water on the seacoast."



Seacoast Private Well Initiative Project Area

After reviewing public water system and private well information for seacoast towns, the Commission decided to take action to address the prevalence of harmful levels of contaminants in private wells and sought funding from the Drinking Water and Groundwater (DWG) Advisory Commission, which oversees the Drinking Water and Groundwater Trust Fund. The goals of the Initiative are:

1. To protect public health by reducing exposure to common contaminants in well water.
2. To evaluate the effectiveness of the approach with a view to potential implementation statewide.
3. To promote health-protective best practices by example for private well users statewide.

In January, the DWG Advisory Commission approved the Seacoast Commission's request for $290,000 to pay for well testing and filter pitchers. The Initiative, which will be carried out by NHDES DWGB staff, will involve six local workshops, free testing (for 14 "standard" parameters plus radon) for all interested private well users in the 12 towns, and a wrap-up private well fair where well users can shop for laboratory and water treatment services. Low-income households with contaminant exceedances will be provided with free filter pitchers. The local workshops and testing are expected to take place this summer, with the private well fair taking place in the fall. For more information, contact welltest@des.nh.gov.

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