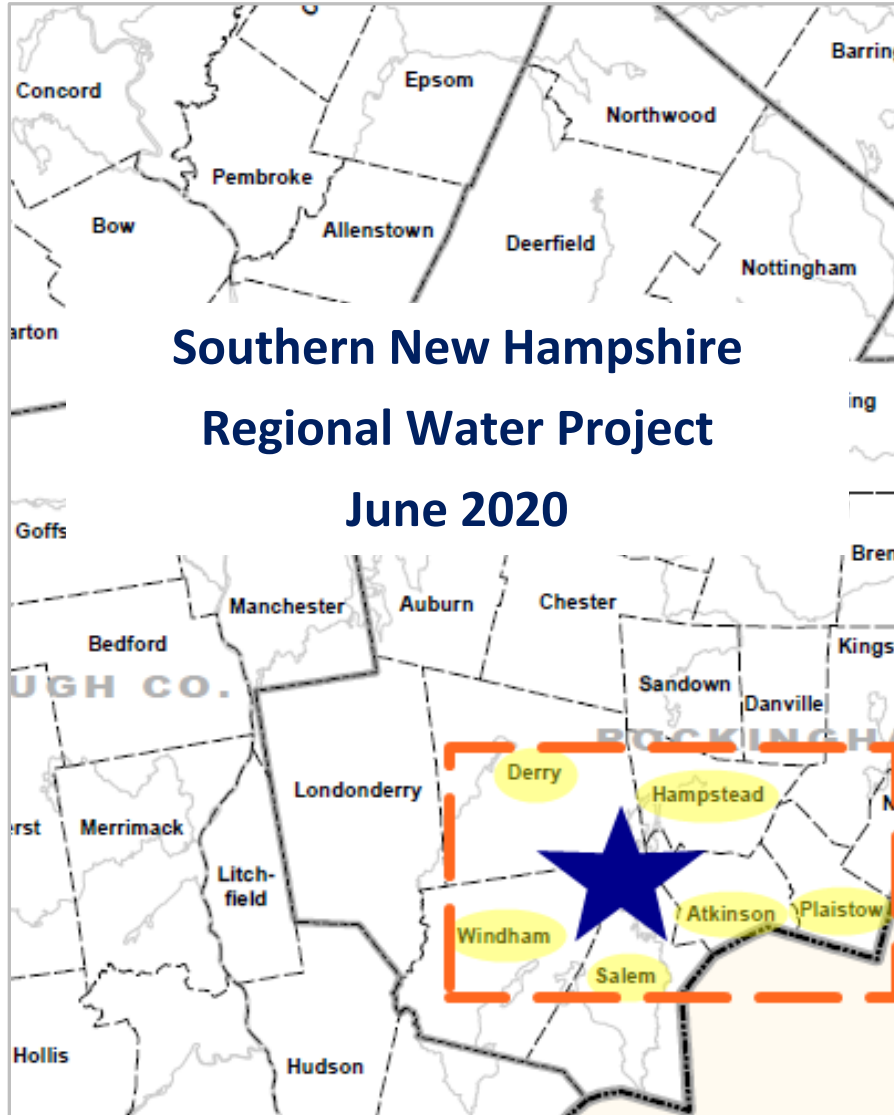




NEW HAMPSHIRE DRINKING WATER
& GROUNDWATER TRUST FUND





Southern New Hampshire Regional Water Project Overview

The Southern New Hampshire Regional Water Project is a collaboration between the water providers Manchester Water Works and the Town of Derry, and the water recipients, Towns of Windham, Salem, Plaistow and the Hampstead Area Water Company, Inc. (serving Hampstead and Atkinson) to supplement stressed drinking water resources in southern New Hampshire. The water recipients are primarily in need of supplemental drinking water due to MtBE contamination of local wells and to a lesser extent the region's growing population. The project is New Hampshire's largest regional water distribution system interconnection (connecting 6 large water systems) and is designed to provide up to 3.13 million gallons per day (MGD) of safe, reliable drinking water to the water recipients. Construction is underway for Phase 1 (1MGD) of the project. This overview presents:

- Background information on the funding sources for this project;
- A summary of the administrative components necessary to execute a project of this magnitude; and
- A town-by-town summary of the infrastructure required to deliver the Phase 1 flows and status of the construction.

Background

When the State of New Hampshire sued twenty-two gasoline manufacturers and refiners for damages in connection with the statewide contamination of groundwater with the gasoline additive methyl-t-butyl ether (MtBE) in 2003, the vision of a drinking water infrastructure project interconnecting six communities in southern New Hampshire with a regional water line to address contamination did not exist. Fast-forward to between 2013 and 2016, when the State settled the lawsuit with all but one of the defendants, obtaining approximately \$82 M which formed the State's MtBE Settlement Funds, and, received verdict monies from the remaining defendant, ExxonMobil Corporation, of approximately \$307 million of which 90% formed the Drinking Water and Groundwater Trust Fund (DWGTF) established through State legislature. Additional information on the DWGTF may be found at the DWGTF website: <https://www4.des.state.nh.us/nh-dwg-trust/>.

Shortly after the MtBE Settlement funds were received by the State, preliminary design work began to determine the most feasible approach to deliver safe and reliable drinking water to the southern region of the State to address MtBE impacts to private wells in the Towns of Windham and Plaistow and the loss of significant supply capacity in the Town of Salem due to MtBE contamination of two water supply wells. It should also be noted that the region has one of the fastest growing populations in New Hampshire and additional uncontaminated supply capacity is needed for current and future development.

In April 2018, a project budget was presented to the Drinking Water and Groundwater Advisory Commission (Commission), which oversees the DWGTF, at their April 2018 meeting. The Commission approved an appropriation of \$19.6 M in grant funds for capital improvements necessitated by the project. Work continued on the conceptual design and in January 2019, the basis of design for the



project was completed¹. The basis of design identified the infrastructure needed in each community to deliver up to 3.13 MGD to the region. The project would address the construction work in two phases with a “no regrets” approach: Phase 1 is focused on completing the design and construction of the infrastructure necessary to deliver up to 1 MGD, but sized appropriately to handle the increased capacity in Phase 2, up to 3.13 MGD. Phase 2 would address additional infrastructure needs and upgrades to deliver the full design flow.

Southern Interconnection Agreement

With the funding in place and project supported by the Commission and the funding approved through New Hampshire’s Governor and Executive Council process, the real work began: development of the Southern Interconnection Agreement (SIA) which outlines the roles and responsibilities of each party involved in the project. Among many particular terms and provisions, the key aspects of the agreement include identification of the infrastructure each party will design, construct, and maintain; it presents the water rates and the terms of the rates for the interconnections defining the relationship between the water providers and water recipients; and it defines the volumetric flow that must be made available to each water recipient.

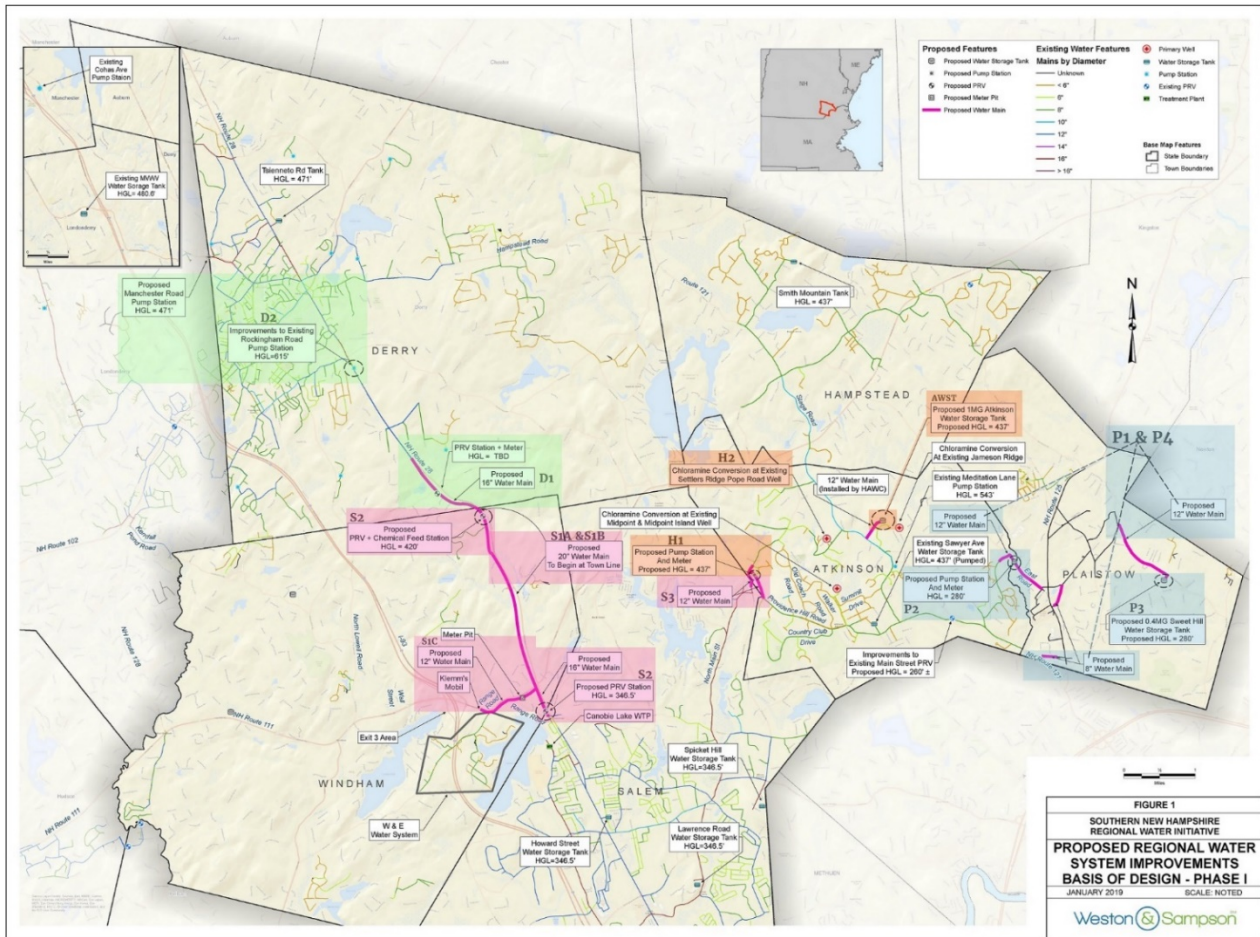
This agreement was a significant milestone in the progression of a project of this magnitude and the steps that were taken to get here were not easy ones. Before the SIA was drafted, a Memorandum of Understanding (MOU) was developed for the project and executed in October 2018. The MOU was a paper handshake between the project partners and by signing, they agreed to work collaboratively on the project and make “good faith efforts” to negotiate with the other partners to execute the SIA and all necessary agreements.

Throughout the remainder of 2018 and deep into the winter, the SIA was drafted, reviewed, negotiated, and re-drafted many times over. Throughout the process, the team of New Hampshire Department of Environmental Services (NHDES), the NH Attorney General’s Office, retained legal counsel from Orr&Reno of Concord, NH, and the representatives of the providers and recipients worked collaboratively to gain consensus on an agreement that was acceptable to everyone. A final version of the agreement was sent out on April 9, 2019 to obtain signatures from each of the project partners. On April 16, 2019, the agreement was executed.

Project Design Summary and Construction Status

Phase I of the project is underway with funding for engineering and construction provided by the DWGTF and MtBE Settlement funds. The water recipients will receive a total of up to 1 MGD of water per day from 2020-2023 and up to 3.13 MGD at the completion of Phase 2. Figure 2 shows the regional map and highlights each construction contract the project partners are responsible for.

¹ *Regional Supply Basis of Design Memorandum*, prepared by Weston & Sampson (Portsmouth, NH) and dated January 4, 2019.



Southern New Hampshire Regional Water Project


DERRY - 2 CONTRACTS

Contract D1 – Route 28 Water Main

- 3.13 Million gallons per day capacity
- Pressure reducing valve station
- 7,630 linear feet of 16-inch water main
- Contractor: Defelice Corporation (Dracut, MA)
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Substantially complete, service connections and final paving in process

Contract D2 – Pump Stations

- New Manchester Road Pump Station
 - 4.6 Million gallons per day rated capacity Phase 1 (expandable to 6.9 million gallons per day in Phase 2)
 - Two (2) 100 horsepower pumps
- Upgrade existing Rockingham Road Pump Station
 - 1.15 Million gallons per day rated capacity Phase 1
 - 1,500 gallons per minute fire pump
- Contractor: Hampstead Area Water Services Company (Atkinson)
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Building structure complete, process piping in process
- Anticipated completion: mid-August 2020

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Southern New Hampshire Regional Water Project

HAMSTEAD AREA WATER COMPANY - 2 CONTRACTS

Contract H1- Westside Drive Pump Station

- New Westside Drive Pump Station
 - To pump water from Salem water system to Hampstead Area water system (Hampstead and Atkinson)
 - 0.5 Million gallons-per-day rated capacity Phase 1 (expandable to 1.32 million gallons per day in Phase 2)
- Upgrade existing Main Street Pressure Reducing Valve Station
- Contractor: Hampstead Area Water Services Company (Atkinson)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Construction complete. Startup and testing in process.
- Anticipated completion: June 2020

Contract H2- Chloramine Conversion & Main Street Pressure Reducing Valve

- Convert nine (9) existing well treatment systems to chloramine disinfection for compatibility with regional water from Manchester and Salem
- Contractor: Hampstead Area Water Services Company (Atkinson)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Under construction.
- Anticipated completion: August 2020 (3 stations) / October 2020 (all stations)

Water Storage Tank (Atkinson) 📷

- 1.0 Million gallons wire-wound pre-stressed concrete tank
- Contractor: DN Tanks (Wakefield, MA)
- Engineer: Lewis Engineering (Litchfield)
- Status: Substantially complete and in-service

📷 **PHOTO - CREDIT: NHDES**

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WINDHAM & SALEM - 5 CONTRACTS

Contracts S1A & S1B – Route 28 Water Main, Windham 📷

- 16,900 linear feet of 16-inch and 20-inch water main
- Contractor: Revoli Construction (Lawrence, MA)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Substantially complete and in-service

Contract S1C – Route 111 Water Main, Windham

- 4,200 linear feet of 12-inch water main
- Connecting Route 28 to Exit 3 area
- Contractor: American Excavating (Derry)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Contract awarded
- Anticipated construction start: July 2020
- Anticipated completion: December 2020

Contract S2 – Pressure Reducing Valve Stations, Windham and Salem

- Two (2) pressure reducing valve stations
- Chemical feed for disinfection and corrosion control
- Contractor: Northeast Earth Mechanics (Lawrence, MA)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Substantially complete and in-service

Contract S3 – Shannon Road Area Water Main (Salem/Atkinson Town Line)

- 4,400 linear feet of 12-inch water main
- Connecting Salem water system to Hampstead Area Water System in Atkinson
- Contractor: American Excavating (Derry)
- Engineer: Weston & Sampson (Portsmouth)
- Status: Construction complete

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Southern New Hampshire Regional Water Project

PLAISTOW - 4 CONTRACTS

(Collectively convert existing Fire Suppression System to a potable supply.)

Contract P1 – Water Mains

- 13,000 linear feet of 12-inch and 8-inch water main
- Contractor: TBD
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Bidding
- Anticipated construction start: July 2020
- Anticipated completion: 2021

Contract P2 – Pump Station

- 0.5 Million gallons per day rated capacity
- Contractor: TBD
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Under design
- Anticipated construction start: Fall 2020
- Anticipated completion: 2021

Contract P3 – Water Storage Tank

- 400,000 gallons wire-wound pre-stressed concrete tank
- Contractor: Hampstead Area Water Services Company (Atkinson)
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Under construction
- Anticipated completion: 2021

Contract P4 – Service Connections

- MtBE impacted properties service connections
- Other private service connections
- Contractor: TBD
- Engineer: Underwood Engineers (Portsmouth & Concord)
- Status: Under design
- Anticipated completion: 2021

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