Town of Fremont, New Hampshire
Source Water Protection Plan

Prepared by Rockingham Planning Commission with funding provided by NH Department of Environmental Services Source Water Protection Program

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Introduction

Fremont is a rural community that contains one of the largest areas of stratified drift aquifers within coastal New Hampshire. Of the 4,739 residents in the town, 388 are serviced by one of three community water systems. Groundwater delivered via private wells is the only drinking water sources for 92% of residents. Therefore, protection of the groundwater resources in Fremont is critical for existing public water systems, future public water systems, and for residents that will continue to rely on groundwater for drinking water.

The purpose of this Source Water Protection Plan (hereon referred to as the "Plan") is to identify Fremont's public water systems, potential contamination threats to those systems, and to establish a framework for ongoing monitoring and public involvement to better safeguard the community's drinking water. This plan builds on and incorporates information from Fremont's existing planning documents and should be integrated into the town's ongoing planning efforts to safeguard water quality and natural resources.

- Fremont Master Plan (2020-2023)
- Natural Resource Inventory (2021)
- Open Space Plan (2021)
- Water Resource Management Plan (2010)

What is Source Water Protection?

Source water refers to sources of water (such as rivers, streams, lakes, reservoirs, springs, and groundwater) that provide water to public drinking water supplies and private wells.

Why Protect Source Water?

Protecting source water can reduce risks by preventing exposures to contaminated water. Drinking water utilities that meet the definition of a public water system are responsible for meeting the requirements of EPA and state drinking water programs under the Safe Drinking Water Act (SDWA). Protecting source water from contamination helps reduce treatment costs and may avoid or defer the need for complex treatment.

There are many additional benefits associated with source water protection, such as protecting water quality for wildlife and recreational use and protecting the availability and quantity of water supplies for current and future generations.

A Summary of Regulatory Authority to Protect Drinking Water

Federal Safe Drinking Water Act

The New Hampshire Department of Environmental Services (NHDES) has the authority to regulate public drinking water systems in the state under both the federal and state Safe Drinking Water Acts. The federal Safe Drinking Water Act applies to every public water system in the United States but does not apply to private wells. The Federal Safe Drinking Water Act applies minimum standards for state programs to protect public water systems and underground sources of drinking water.

New Hampshire Safe Drinking Water Act

The New Hampshire Safe Drinking Water Act (RSA 485:3) establishes authority for DES to adopt drinking water rules and primary drinking water standards, which apply to all public drinking water systems in the State. Through its Drinking Water Source Protection Program, DES provides guidance and assistance to

water suppliers and municipalities to protect groundwater and surface water sources for public water systems.

Under RSA 485:23, water suppliers, local boards of health, local health officers, and citizens may petition DES to adopt rules to protect a particular water supply source. Under this section of the Act, DES has adopted rules to protect half of the state's 60 surface water supply sources.

New Hampshire Groundwater Protection Act

New Hampshire's Groundwater Protection Act, passed by the state legislature in 1991, is enabling legislation (e.g., water suppliers, town boards) that choose to play a role in actively managing threats (potential contamination sources) to protect valuable groundwater. Under the Act, all groundwater may be classified into one of four classes:

- GAA Classification, the most protected class, includes groundwater contributing to public water supply wells (wellhead protection areas).
- GA1 Classification, is groundwater identified as high value for present or future drinking water.
- GA2 Classification, high yield stratified drift aquifers that are potentially valuable sources of drinking water.
- GB Classification, all groundwater not assigned to a higher class.

Under this Act, NHDES developed and adopted N.H. Code of Administrative Rules part Env-Wq 401 Best Management Practices for Groundwater Protection, which apply to all potential contamination sources in the state. The purpose of the BMPs is to help prevent a release of regulated substances, particularly into a high value water resource.[1]

Fremont's Water Resources

Fremont has an extensive network of water resources consisting of rivers and streams connected by wetlands complexes and ponds. As of 2015, surface water accounted for 230 acres or 2% of land area in town (not including wetlands). There are 17 intermittent streams in town, most of which, flow seasonally and are in areas with poorly drained soils. Fremont lies within both the Exeter and Lamprey River watersheds. The Exeter-Squamscott River watershed drains an area of approximately 128 square miles (81,726 acres) and includes portions of 12 towns in southeastern New Hampshire. The Exeter-Squamscott River is one of two rivers that bring most of the fresh water into Great Bay Estuary, a tidal estuary encompassing over 6,000 acres. The Piscassic River flows 15.3 miles from west to east across the northernmost portion of Fremont and into Brentwood. The Piscassic River is one of the major tributaries of the Lamprey River, which drains an area of approximately 212 square miles across fourteen towns and is designated as a National Wild and Scenic River by the U.S. Congress. Additionally, Fremont is home to the largest wetlands complex in Rockingham County, Spruce Swamp, which spans 827 acres – 711 of which are designated prime wetlands.[2]

Fremont has nine active public water systems (Table 1), all of which are serviced by groundwater via bedrock wells. Three of these public water systems are community water systems serving nearly 400

[1] https://www.nheconomy.com/getmedia/a6ae242f-bc2a-4931-a7d6-77c73f05465f/ilupt-chpt-2-5.pdf
[2] https://www.fremont.nh.gov/planning-board/files/mp-natural-resources-chapter-2022

residents year-round. The rest are characterized as either transient non-community systems or non-transient non-community systems.

- **Community Water System**: Public water system which serves either at least 15 residential service connections on a year-round basis or serves at least 25 residents on a year-round basis.
- **Transient, Non-Community System:** A public water system serves at least 25 persons at least 60 days out of the year (restaurants, parks)
- **Non-Transient, Non-Community System:** A public water system that serves at least 25 of the same persons at least six months out of the year (Schools, camps, large businesses)

ID	SYSTEM NAME	SYSTEM TYPE	SOURCE TYPE	SOURCE DESCRIPTION	SYSTEM CATEGORY	POPULATION SERVED
0875040	Barnyard Buddies	Non-Transient Non-Community	G	BRW	Day Care	40
0872020	Blackrocks Village	Community System	G	BRW	Senior Housing	226
0874020	Colonial Poplin Nursing Home	Community System	G	BRW	Resident Homes (Nursing, Group, Live In)	88
0876030	Coopers Corner/East	Non-Transient Non-Community	G	BRW	Commercial Property	40
0875030	Country Club For Kids	Non-Transient Non-Community	G	BRW	Day Care	61
0875010	Ellis School	Non-Transient Non-Community	G	BRW	Schools (Public, Private Day Schools)	450
0879010	Fremont Library	Transient Non-Community	G	BRW	Town Offices, Libraries, Police & Fire	40
0878020	Fremont Pizzeria Restaurant	Transient Non-Community	G	BRW	Restaurant	250
0872010	Governors Forest	Community System	G	BRW	Senior Housing	74

Table 1: Fremont Public Water Systems (retrieved Oct. 2023, NHDES OneStop Navigation

Wellhead Protection Areas

A Wellhead Protection Area (WHPA) is the surface or subsurface area surrounding a water well or well field supplying a public water system, through which contaminants are reasonably likely to move toward and reach such well or well field[3]. Community and non-transient non-community public water systems have defined WHPAs, while transient systems do not have defined WHPAs. For bedrock wells producing less

[3] https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/what-wellhead-protection-area-and-how-can

than 57,600 gallons in any 24-hour period, the WHPA is a circle whose radius depends on the maximum daily amount of water withdrawn from the well. For small overburden wells within unconfined aquifers, the WHPA is typically calculated based on existing hydrogeological information.[4]

Figure 1:Wellhead Protection Area Diagram (retrieved from USEPA.gov 2023)

For most public water systems, it is the responsibility of the system owner and/or operator to develop a Wellhead Protection Program (WHPP) that identifies potential contamination threats in the WHPA, sends educational mailings to all properties within the WHPA, and conducts best management practice inspections of potential contamination sources (inspections are required for large community systems only). There are six land uses prohibited within wellhead protection areas: hazardous waste disposal facilities, solid waste landfills, outdoor bulk storage of road slat, junkyards, snow dumps and wastewater or septage lagoons.

NHDES prohibits the above six land uses within delineated WHPAs but does not regulate other land uses. However, the State does identify land uses that could potentially contribute to groundwater contamination such as vehicle service and repair shops, manufacturing facilities, metalworking shops etc. (See Identification of Potential Contamination Sources for more information).

Identification of Potential Contamination Sources

Any physical, biological, chemical, or radiological substance that could find its way into a source of drinking water is a potential source of contamination and could pose significant risk to public health. Contamination may result from several sources. Contaminated sites e.g., superfund sites, chemical storage facilities (oil and gas storage, underground storage tanks etc.), Industrial facilities that store chemicals, residential or commercial septic systems and stormwater runoff from impervious surfaces are all examples of potential contamination sources (PCS). The most common causes of groundwater contamination in New Hampshire are leaking underground storage tanks, mishandling of industrial chemicals, and stormwater runoff.[5]

New Hampshire's Groundwater Protection Act (RSA 485-C) identifies nineteen activities that have the potential to release contaminants to groundwater. These PCSs are human activities or operations that pose a reasonably foreseeable risk of introducing regulated substances into the environment in such quantities that would degrade the natural groundwater quality:

- Vehicle service and repair shops
- General service and repair shops
- Metalworking shops
- Manufacturing facilities

[4] https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/dwgb-12-10.pdf
[5] https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/wd-06-41.pdf

- Underground and above-ground storage tanks
- Waste and scrap processing and storage
- Transportation corridors
- Septic systems (at commercial and industrial facilities)
- Laboratories and certain professional offices (medical, dental, veterinary)
- Use of agricultural chemicals
- Salt storage and use
- Snow dumps
- Stormwater infiltration ponds or leaching catch basins
- Cleaning services
- Food processing plants
- Fueling and maintenance of earth moving equipment
- Concrete, asphalt, and tar manufacturing
- Cemeteries
- Hazardous waste facilities

NHDES maintains a statewide inventory of the above potential contamination sources. Using this database, the following PCSs have been identified in Fremont:

Hazardous Waste Generators:

The New Hampshire Hazardous Waste Rules, Env-Hw 103.65, define hazardous waste as any solid, semi-solid, liquid or contained gaseous waste, or any combination of these wastes that have the potential to increase risk of irreversible or incapacitating illness, pose public health hazard if improperly managed and/or has been identified as a hazardous waste by NHDES Waste Management Division. The Four characteristics of a hazardous waste as defined in Env-Hw 403 is any waste that is ignitable, corrosive, reactive or toxic (Env-Hw 403.03-06).

SQG – Small quantity generator: A Small Quantity Generator (SQG) generates less than 220 pounds of hazardous waste every calendar month.

Hazardous Waste Generators (Note: some businesses are no longer operating in Fremont):		
Facility	**Address**	**Generator Type/Waste Description**
Action Auto Body & Service	928 Main Street	SQG (small quantity generator) - Used motor oil
Aidan's Garage	572 Main Street	SQG (small quantity generator) - Used motor oil
The Carr Garage	280 Main Street	SQG (small quantity generator) - Used motor oil
L & P Auto Service	431 Sandown Road	SQG (small quantity generator); motor oil, petroleum products, waste paint, etc.
Glen's Auto Sales	435 Main Street	SQG (small quantity generator) - Used motor oil
J M T Transport	23 Poplin Street	SQG (small quantity generator); petroleum oil
L C B Transport	154 Martin Road	Identified as U.S. mail transportation company; generating used motor oil for vehicle fleet (2005); SQG (small quantity generator)
Lothian Automotive	291 North Road	SQG (small quantity generator); Used motor oil
Quality Flame Cutting	828 Main Street	Unknown
Schreibers Collision Center LLC	83 Main Street	SQG (small quantity generator); Used motor oil

Table 2: Hazardous Waste Generators (retrieved Oct. 2023 NHDES OneStop Navigation)

Remediation Sites (Sites being monitored and assessed for pollution by hazardous waste, MtBEA, petroleum and other contaminants).			
Facility	**Address**	**Project Type (NHDES)**	**Description**
Countryside Estates	Country Ln	Hazardous waste project	History of improper handling and disposal of construction and demolition debris in 1997.
Davies Residence	363 Main St	On-premise use facility containing fuel oil	Release of approx. 150 gallons of fuel oil occurred during a delivery to a 300-gallon capacity above ground storage tank in the basement of a residential property located at 363 Main Street in April 2015.
Ellis School	432 Main St	Emerging contaminants fund, Hazardous waste project	PFNA & PFOS detected in samples collected from Ellis School water supply wells, April 2021
Former L & P Hammond Auto	431 Sandown Road	Ether Contaminated Site	Historical contamination resulting from releases of petroleum products at the site while the site was being used for automobile repair and fabrication in late 1980s.
Roadside Dumping	Rockingham Rec Trail	Actual/potential discharge of hazardous materials	75+/- cans of paint discovered dumped into brook 200 yards south of South Road on Rockingham Rec Trail in October 2011
Village Market	6 Danville Rd	Oil Spills/Releases	Release of gasoline occurred on August 23, 2014, when a customer drove off with a dispenser nozzle still attached to the vehicle. Approximately 80 gallons of gasoline were contained in the dispenser and piping sumps and an estimated 20to 30 gallons was released to the subsurface through the premium gasoline UST sump, which was found to be compromised.

Table 3: Remediation Sites (retrieved Oct. 2023 NHDES OneStop Navigation)

Solid Waste Facilities				
Facility	**Address**	**Facility Type**	**Status**	**Description**
Fremont Municipal Landfill	Danville RD Route 111a	Unlined Landfill	Not operating	Facility operated as an unlined landfill receiving municipal solid waste, construction & demolition debris, and motor vehicle waste. Permit issued in 1996, landfill closed 1998.
Peterson Farm	152 Martin Road	Unlined Landfill	Operating	Approved with waiver to allow burial of large animals from off site in 2005
Seacoast Farms Compost Products Inc.	Shirkin Rd	P/T - Compost	Not operating	Small food waste composting facility permitted in 2001.

Table 4: Solid Waste Facilities (retrieved Oct. 2023 NHDES OneStop Navigation)

Underground Storage Tanks			
Facility	**Address**	**Facility Type**	**Stored Substance**
Fremont Village Market	6 Danville Rd	Gas Station (two tanks)	Gasoline (Reg, Super)

Table 5: Underground Storage Tanks (retrieved Oct. 2023 NHDES OneStop Navigation

Above Ground Storage Tanks			
Facility	**Address**	**Facility Type**	**Stored Substance**
The Provider Enterprises Inc. (no longer operating in Fremont)	827 MAIN ST	Commercial	Diesel

Table 6: Above Ground Storage Tanks (retrieved Oct. 2023 NHDES OneStop Navigation)

Stormwater Runoff Pollution

In New Hampshire, stormwater runoff is a major source of water pollution. This runoff carries pollutants such as sediment, road salt, chemicals, fertilizers, and other harmful substances that can degrade water quality if it is not treated.[6] Land development and alteration contributes to higher rates of stormwater runoff. Land development increases impervious surfaces, which results in reduced infiltration of rain and snowmelt into the ground and higher concentrations of runoff entering surface waters.

Fremont has large swaths of open space either undevelopable (wetlands) or maintained as conservation area. As such, Fremont's land cover is approximately 3.6% impervious (2019). As part of Fremont's Regional Drinking Water Assessment (2019), the RPC evaluated the percentage of impervious land cover within each wellhead protection area (WHPA). The higher the impervious land cover percentage the more susceptible a water source is to contamination from runoff and there is decreased ability for precipitation to absorb into the ground.

Risk Assessment

Consistent with NHDES's Source Water Assessment Reports criteria produced between 2000 and 2003, Rockingham Planning Commission evaluated the vulnerability of Fremont's public water systems regarding each system's proximity to types of known and potential contamination sources discussed above. RPC also evaluated the percentage of impervious land coverage and protected land coverage within each wellhead protection area, which can further indicate a water system's susceptibility to contamination (See Appendix A for full vulnerability assessment).

According to the assessment, six public water systems in Fremont ranked 'High' for known contamination sources meaning that one or more known contamination sources have been identified within the wellhead protection area (WHPA) and within 1,000 feet of the well or intake. These same four public water systems were ranked "Medium" for potential contamination sources, meaning 10 or fewer potential contamination sources have been identified within 1,000 feet of the well in the WHPA. These water systems are:

1. Blackrocks Village
2. Colonial Poplin Nursing Home
3. Coopers Corner/East
4. Country Club for Kids
5. Ellis School
6. Governor's Forest

[6] https://www.therpc.org/download_file/view/1049/182

Common Groundwater Contaminants in New Hampshire

The most common contaminants in well water in New Hampshire are radon, arsenic, and bacteria.[7] The NHDES recommends private well users have their water tested every three to five years for the following contaminants:

- Arsenic
- Bacteria (Total Coliform, E. Coli)
- Chloride
- Copper
- Fluoride
- Hardness
- Iron
- Lead
- Manganese
- Nitrate/Nitrite
- pH
- Radon
- Sodium
- Uranium
- PFAS (Per- and polyfluoroalkyl substances)
- VOCs (volatile organic compounds e.g., MtBE, benzene, industrial solvents)

Per- and polyfluoroalkyl substances (PFAS) are a large, complex group of synthetic chemicals that have been used in consumer products around the world since about the 1950s. They are ingredients in various everyday products. For example, PFAS are used to keep food from sticking to packaging or cookware, make clothes and carpets resistant to stains, and create firefighting foam that is more effective.[8]

These chemicals are long lasting, breaking down very slowly over time. Because of their widespread use and their longevity in the environment, PFAS is increasingly being found in drinking water, food, and other consumer products. While there is still ongoing research into these chemicals, research has indicated that PFAS have been linked to health effects in humans such as thyroid disease, developmental and reproductive effects, and some cancers.

VOCs occur statewide, but a number of activities and land uses seem to be associated with a higher likelihood of water contamination such as nearby fuel spills or leaks and businesses that use petroleum products or petroleum-based chemicals.

PFAS in New Hampshire

PFAS drinking water standards currently vary from state to state because there are no national standards set for PFAS in drinking water by the U.S. Environmental Protection Agency (EPA). New Hampshire is one of a handful of states that have passed legislation establishing drinking water standards for PFAS/PFOAS. In July 2020, New Hampshire House Bill 1264 was signed into law establishing maximum contaminant levels (MCLs) as follows:

Per- and Polyfluoroalkyl Substance (PFAS)	**NH Maximum Contaminant Level nanograms per liter (parts per trillion, or ppt)**
Perfluorooctanoic acid (PFOA)	12
Perfluorooctane sulfonic acid (PFOS)	15
Perfluorohexane sulfonic acid (PFHxS)	18

[7] https://www.des.nh.gov/water/drinking-water

[8] https://www.niehs.nih.gov/health/topics/agents/pfc/index.cfm

Perfluorononanoic acid (PFNA)	11

Residents and businesses are encouraged to get their well water tested every three to five years for contaminants such as PFAS, lead and arsenic. The NHDES provides information and guidance for testing and treating well water with its 'Be Well Informed' guide: https://www4.des.state.nh.us/DWITool/Welcome.aspx

Other recommendations to reduce risk of PFAS exposure include avoiding products such as non-stick cookware, products labeled as "stain-resistant" or "water-resistant," certain cosmetic and personal care products and some foods in packaging that may contain PFAS such as microwave popcorn, fast food boxes, bakery bags and bottled water. For more information visit: https://www.epa.gov/pfas/pfas-explained

Source Water Protection Strategies

Land Use Regulations

The most effective way to protect groundwater is by controlling land uses, either through acquisition of the land or easements, or through land use controls. Land use controls can include zoning ordinances, site plan review regulations, and subdivision regulations. Local regulations can also address specific activities such as gravel excavations, blasting, septic system operation and maintenance, and the use of underground storage tanks, fertilizer, and wastewater residuals (e.g., sludge or biosolids).[9]

Fremont has implemented several land use controls to protect groundwater resources. Fremont's Aquifer Protection District, which covers a substantial portion of the town, requires greater lot sizes (3 acres) and an impervious cover limitation of 15%. Within the aquifer protection district, activities such as hazardous and solid waste storage are prohibited. The town also enforces stormwater management standards for both pre and post construction activities for all site plans and major subdivisions. In 2018, Fremont updated its zoning ordinance to increase protection of groundwater from potential contamination sources by enacting standards to reduce the risk of potential pollution and to increase filtration. Fremont also enacted an inspection program as part of its Aquifer Protection District to ensure compliance with NHDES's groundwater protection BMP rules (Env-Wq 421).

Restricting land uses in ground water protection areas is an effective tool for minimizing the risk of groundwater contamination. However, while this strategy may prevent new threats to groundwater, it cannot eliminate existing threats. Any existing use that predates land regulation changes is allowed to continue. Therefore, best practices for protecting groundwater should involve a combination of strategies.

Riparian Buffers

Maintaining vegetative buffers around water bodies is an important factor in protecting ground and surface water. Removing vegetation from shoreland areas can deteriorate water quality. Vegetative buffers protect water quality as plants, soil, and soil microbes in those buffers filter pollutants from water as it flows over the landscape on its way downhill or as it infiltrates into the ground. Native trees and shrubs are considered the most effective buffer plants for water quality. The filtration carried out by intact vegetative buffer plants is both mechanical and biochemical. The cleaner the water is entering drinking water systems, the more efficient and cost effective the treatment will be in providing high quality drinking

[9] https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/wd-06-41.pdf

water to communities.[10] It is recommended that riparian buffers be at least 100 feet wide to protect water quality.[11] Adopting buffers of greater than 100 feet has shown to be beneficial for wildlife, channel bank stabilization and water temperatures.[12]

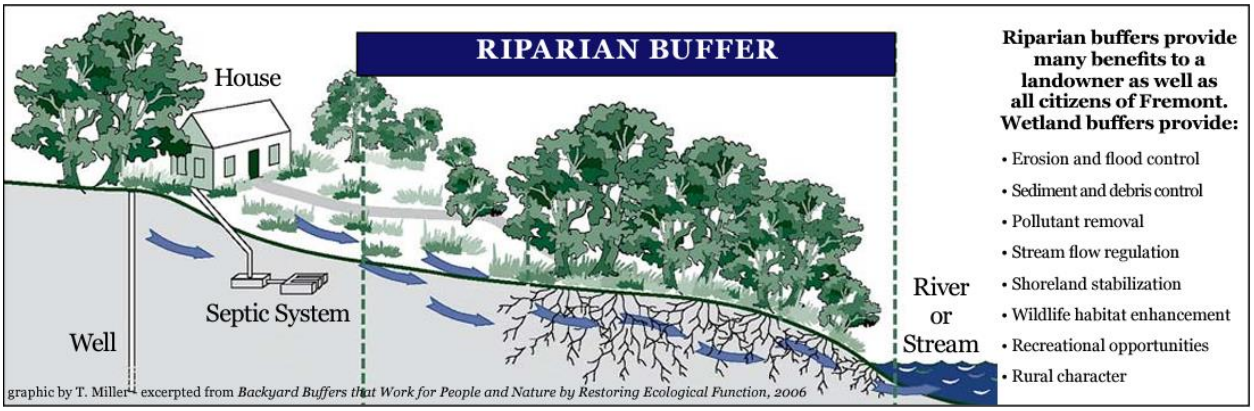


Figure 2: Riparian Buffer Diagram (retrieved Nov. 2023 from A Citizen's Guide to Protect Water Resources, 2006)[13]

Summary of State Buffer Protection Regulations

Shoreland Water Quality Protection Act (SWQPA)

Under RSA 483-B, "protected shoreland" includes all land located within 250 feet of the reference line of waters listed in the state's Official List of Public Waters, fourth order and higher streams, rivers designated under RSA 483, the Rivers Management and Protection Program, and tidal waters subject to the ebb and flow of the tide.[14] In Fremont, the Exeter River, Piscassic River and Loon Pond are subject to the provisions of the SWQPA.[15] Within the shoreland protection area, several land uses are prohibited, including salt storage yards, junk yards, and solid or hazardous waste facilities.

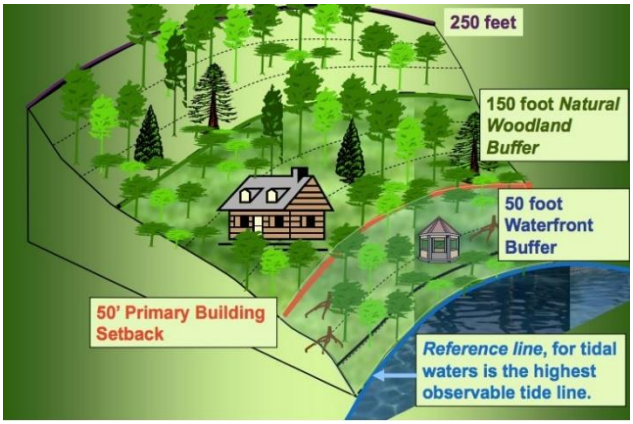


Figure 3: Summary of SWQPA Buffer Requirements; retrieved for Buffer Options for the Bay, Synthesis of Relevant Policy Options

The SWQPA requires a 150-foot vegetated buffer adjacent to designated public water bodies. The 150-foot vegetated buffer is divided into waterfront buffer and natural woodland buffer zones. The waterfront buffer zones are those shorelands within 50 feet of the reference line of the water body. Within this zone, several land use restrictions apply, including vegetation removal, fertilizer use, construction, and other land alterations. (See RSA 483-B:9, V.(a): Maintenance of a Waterfront Buffer).

Natural woodland buffer zones are those shorelands within 150 feet of the reference line. Within these zones, 25% of the area must remain in an unaltered state. This means native vegetation is allowed to grow

[10] https://www.therpc.org/download_file/view/2729/449
[11] https://www.therpc.org/application/files/2416/3854/5164/NHDrinkingWaterQualityBufferModelOrdinance.Dec2021.FINAL.pdf
[12] https://bufferoptionsnh.org/buffer-basics/
[13] https://www.fremont.nh.gov/conservation-commission/files/citizens-guide-protecting-fremonts-water-resources
[14] https://bufferoptionsnh.org/wp-content/uploads/2018/01/KAPOW-NH-Regulatory-Structure.pdf
[15] https://www.des.nh.gov/land/waterfront-development/protected-shoreland

without cutting, limbing, trimming, pruning, mowing, or similar activities, except as needed for renewal or to maintain or improve plant health. Other land use restrictions in the natural woodland buffer zone can be found in RSA 483-B:9, V.(b): Maintenance of a Natural Woodland Buffer.

The SWQPA also requires 50-foot setbacks for all new primary structures; 20-foot setbacks for accessory structures and at least a 75-foot setback for septic systems, depending on soil conditions.[16]

Fill and Dredge in Wetlands

Regardless of size or scale, most projects in NH that disturb wetlands as defined in RSA 482-A:2,X require a permit from NHDES. Projects are classified as major, minor, or minimal based on their potential impact to the environment, criteria for which is described in Administrative Rules Env-Wt 303. Minor projects are those that disturb 3,000 to 20,000 square feet and minimal projects disturb less than 3,000 square feet. Major projects include those that disturb greater than 20,000 square feet or propose disturbance to sand dunes, tidal wetlands, prime wetlands, and bogs.

There are no state wetlands setback requirements. However, many communities adopt specific wetlands standards, including setback requirements. Only designated prime wetlands and tidal buffer zones, recognized by the State, require a protected 100-foot buffer zone.

Alteration of Terrain (RSA 485-A:17 and Env-Wq 1500)

An alteration of terrain permit from the NHDES is required for any project proposing to disturb 100,000 or more square feet of land or 50,000 square feet of land within the protected shoreland area. All projects subject to an alteration of terrain permit must meet the erosion and sediment control provisions of RSA 485-A:17 and Env-Wq 1500. The goal of these regulations is to protect surface water quality by controlling soil erosion and managing, treating, and recharging stormwater runoff from development activities.

Fremont Buffer Regulations

Fremont's current Wetlands and Watershed Protection District ordinances require a 100-foot buffer around wetlands, including the town's designated prime wetland complex – Spruce Swamp, and a 150-foot buffer around significant water bodies including those protected under the state Shoreland Water Quality Protection Act - the Exeter River, Piscassic River, Loon Pond, as well as Red Brook, and Brown Brook.

Best Management Practice (BMPs) Inspections for Groundwater Protection

Recognizing the importance of protecting the natural quality of groundwater, the NH State Legislature passed the Groundwater Protection Act (RSA 485-C) in 1991. This legislation recognized that a wide variety of activities involve the use of materials that can, if not properly handled, contaminate groundwater. The Groundwater Protection Act directed the New Hampshire Department of Environmental Services (NHDES) to adopt rules specifying best management practices for groundwater protection, which apply to all potential contamination sources in the state. The BMPs within the rules are common-sense practices that apply to the storage, handling, and disposal of regulated substances established under RSA 485-C:6 and hazardous substances under 40 CFR § 302.

The Groundwater Protection Act authorizes municipalities to develop groundwater protection programs, which involve identifying potential contamination sources in town, educating residents and owners of businesses within groundwater protection areas, and conducting BMP inspections for potential

[16] https://bufferoptionsnh.org/wp-content/uploads/2017/12/BOB_Policy_Analysis-1.pdf

contamination sources. Municipalities can implement these programs in two ways: The first is with a voluntary program, meaning that the local entity can conduct education and inspection activities, but cannot compel local businesses to allow inspections or to use BMPs. The second way, a regulatory program, is available to health officers and their agents who have obtained enforcement authority, either through the groundwater reclassification process (under RSA 485-C:9) or through a local health ordinance.

Inspections are critical for minimizing the risk groundwater contamination. Specialized expertise is not needed to conduct BMP inspections. NHDES has successfully trained dozens of health officers and water supply operators to conduct inspection programs and has found their background and experience appropriate.

Fremont has established authority to conduct BMP inspections under its Aquifer Protection District (APD) Zoning Ordinance, which was updated in 2017. The performance standards incorporate many of the state BMP Rules, and additionally require pollution prevention measures (e.g., spill prevention and control) and stormwater treatment for commercial and industrial land uses. Some uses, designated conditional uses under Article 1203.F, must undergo additional planning board review, and may need to post a performance bond to ensure compliance with the performance standards.

See Appendix C for additional resources on BMP Inspections.

Public Education

Regardless of whether a town chooses to take a regulatory approach, every groundwater protection program should have a strong outreach and education component. Regulatory programs, which appropriately focus on only the riskiest land uses, can accomplish only so much. Since nearly all businesses and households use substances that can potentially contaminate groundwater, most potential contamination sources are unregulated, such as household cleaners, personal care products, lawn, and garden fertilizers, etc. Education and outreach activities may be geared toward the public or aimed at specific groups such as business owners and residents located in the town's Aquifer Protection District. Such educational messages may include the following:

- **Encourage proper maintenance of septic systems;** It is recommended that septic systems be pumped every two to three years. Failure to pump your septic tank can cause premature failure and overflows that pollute water, threaten public health, and are expensive to repair or replace.
- **Encourage the use of Eco-Friendly products:** Using "environmentally friendly" products that use biodegradable alternatives and less packaging can reduce the number of contaminants that find their way into surface and ground water.
- **Plant More Native Plants:** Gardens allow for more water to soak into the ground than lawns and are also great for pollinators. Use erosion control mulch to stabilize bare soils and sloped areas.
- **Dispose of chemicals properly:** Leftover medicines, paint, pesticides, or other chemicals must be disposed of safely and should never be poured down the drain or flushed. Make sure to participate in Household Hazardous Waste collection day.
- **Always clean up pet waste:** Pet and domesticated animal waste contains fecal coliform bacteria and other disease-causing organisms, such as Salmonella, roundworms, and Giardia. Pick up after your pets and dispose of their waste so pollution does not runoff into waterways and cause harmful public and environmental health issues.

- **Volunteer Opportunities:** Local and regional conservation and watershed organizations as well as local land use boards rely on volunteers. This is one of the most effective ways to get involved with land use and water quality issues. Fremont's website includes information on how to volunteer on a local land use board: https://www.fremont.nh.gov/ As part of the Exeter River Watershed, Fremont residents may also be nominated to participate on the Exeter-Squamscott River Advisory Committee: https://exeterriver.org/.

Private Water Well Testing

Approximately 46 percent of New Hampshire residents use private wells for domestic water supply and many private well users who fail to test their well water risk being exposed to unhealthy levels of natural or anthropogenic contaminants in groundwater. Testing well water in a lab is the only way to determine the presence of contaminants and potential health risks. Municipalities should encourage regular well water testing for both aesthetic and health-based contaminants as recommended by NHDES and listed within the "Standard Analysis." Municipalities may also refine their local definition of potable water found in their building codes to establish an enforceable standard for private well water quality. NHDES' Guidance to Refine the Potable Water Definition in NH in Municipal Building Codes (2015) is available for download at www.des.nh.gov. (Search "Potable Water Guide") The guidance provides sample language for refining the potable water definition in local building codes. Residents with private wells may also use the NHDES Be Well Informed web application to help interpret their private well water quality results from a lab report and obtain recommended treatment for specific contaminants. The web application is available at www.des.nh.gov. (Search "Be Well Informed").[17]

Stormwater Management

Effective stormwater management is essential for reducing the rate of pollution and sediment loading of streams, rivers, and other water bodies. Treatment and management of stormwater has become an increasing topic of concern in New Hampshire with growing development patterns in the state's coastal watershed.

Under the Phase II General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in New Hampshire (MS4), operators of MS4s in urbanized areas and operators of small construction sites, through the National Pollutant Discharge Elimination System (NPDES) permit, are required to implement programs and practices to control polluted stormwater runoff. The Phase II permit is intended to help reduce adverse impacts to water quality and aquatic habitat by requiring the use of controls on unregulated sources of stormwater discharges, which have the greatest likelihood of causing continued water pollution. Under this permit, all MS4s with stormwater discharges from United States Census Bureau designated Urbanized Areas are required to seek NPDES permit coverage for those stormwater discharges.

A small portion of Fremont is part of the Boston, MA-NH-RI Urbanized Area. However, the town has been granted a waiver from the MS4 program requirements due to the small population size within the designated urbanized area. However, with potential future changes to the Decennial Census, Fremont may become subject to the MS4 permit requirements in the future. The town is currently taking proactive steps toward permit compliance. The town has adopted stormwater management standards in its site plan and subdivision regulations to help minimize the environmental impacts of increased stormwater runoff from

[17] https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/wd-06-41.pdf

new construction. Such standards promote the use of low impact development and green infrastructure, enable groundwater recharge and volume control, promote best management practices for salt storage and incorporate the latest precipitation models found in the NH Stormwater Manual, Volume 2. The stormwater management standards also include more stringent requirements for redevelopment activities by leveraging the economic investment of developers in redevelopment projects to improve stormwater management on existing sites and improve water quality.

In addition, Fremont is working with Rockingham Planning Commission to map the location of town-owned stormwater infrastructure in compliance with the minimum control measures of the permit. Permittees are required to inventory municipal stormwater infrastructure and develop a system for identifying and addressing unauthorized discharges of pollutants. Permittees are also required to implement standard operating procedures for routine inspections, maintenance and cleaning of catch basins and other infrastructure to reduce the discharge of pollutants in stormwater runoff from municipal operations. Such measures are important for managing stormwater runoff and preventing pollutants from roadways, vehicles, road maintenance activities and other surface runoff from entering water bodies. See Appendix D for map of stream crossing locations in Fremont. Catch basins are expected to be mapped in Spring 2024.

Master Plan

Before adopting or amending existing land use regulations, communities should ensure groundwater protection is identified as a priority in its master plan. The master plan is a document prepared by the planning board designed to guide the overall character, growth, and quality of life in the community. The themes and objectives of the master plan are guided by a comprehensive public engagement strategy and is reflective of the needs, concerns, and values of the community. While the master plan is not a legal document, it provides the legal basis for zoning and land use regulations.

Fremont has identified groundwater protection as a high priority in its 2020 – 2023 Master Plan, which outlines comprehensive strategies and objectives for better protecting water resources. Additionally, Fremont's Natural Resources Inventory and Open Space Report discuss the importance of protecting water resources in town and provide strategies the Town can implement over time to ensure critical water resources are preserved and protected for future generations.

It is recommended the master plan be revisited and updated every ten years to ensure the land use tools used to guide the growth and development of the community reflect the vision and priorities established in the plan. Additionally, this source water protection plan should be adopted as part of the town's master plan to provide the legal basis for the town's groundwater protection regulations.

Land Conservation

Another effective strategy for protecting water resources is protecting land from future development. In addition to water quality benefits, land conservation is also beneficial for recreation, wildlife, and air quality. Conserving land can be achieved through easements, deed restrictions, or purchase. However, these methods can be costly. Other options to protect land is through land use regulations, voluntary protections, and land management planning.

In Fremont, land is conserved and protected through (but not limited to) acquisition, easements, deed restrictions and local land use regulations. Additionally, some large areas of protected land are part of the

town forests as well as state and privately owned. As of 2021, 14.3% (1595 acres) of the town's land is permanently protected by conservation easements and deed restrictions. As stated in the Natural Resources Inventory, the town's goal is to conserve 25% of undeveloped land.

Fremont has large parcels of land in the Current Use Program, which incentivizes property owners with ten or more undeveloped acres to keep their land in an undeveloped state (RSA 79). The assessed value is based on the ability of the land to produce income in its undeveloped state as opposed to income by developing this land. Land in this program can be a managed farm or forest or unmanaged open space.

The Fremont Open Space Advisory Committee and Conservation Commission inventories, manages, and protects the town's natural resources, including open space and conservation lands. The Commission's 2021 Open Space Report serves as a guide for open space planning in town. This report details the evaluation process for land conservation and provides guidance to the town boards and staff on the best ways to preserve and utilize open space in town. Since 2010, 144 acres and two miles of trail system have been added to the town's forests. The Open Space Committee and Conservation Commission are currently working with the Southeast Land Trust (SELT) to enhance connection between the town's trails to conservation lands.

Managing land development is important for maintaining open space. This can be achieved through the adoption of innovative land use regulations such as open Space or cluster development. The purpose of open space development is to encourage more efficient land development patterns that preserve open and green spaces, farmland, scenic areas, and other natural resources. Fremont's Open Space Preservation Development ordinance requires all land not included in the building lots to be dedicated as permanently preserved open space. Similarly, Fremont's Age Restricted Open Space Ordinance incorporates open space development components for age restricted housing projects.

Emergency Response Planning

Emergency response planning is an essential part of managing a drinking water system to maintain safe and reliable drinking water. Public water system emergencies may include suspected or actual tampering or sabotage of the system, damage or depletion of the source affecting water quantity and/or quality, or the interruption of service due to a line break or other cause.[18] All community water systems are required to submit an updated emergency plan to NHDES every six years per Env-Dw 503.21. The emergency plan identifies protection strategies and establishes a protocol for the management of a water system during an emergency and helps a water system reduce its vulnerability to emergencies. It is the responsibility of the system operator to develop the emergency response plan, however, water system operators should maintain good relationships and coordinate with the town emergency management director whose local knowledge of the community is essential for emergency preparedness and response.

Natural hazards also pose risks to public water systems. In recent years, New Hampshire has experienced increased periods of drought, which strains municipal water resources, especially private wells. Fremont's 2022 Hazard Mitigation Plan identifies drought as a current and future risk to water supplies throughout town, especially dug wells in the Riverside Drive neighborhood abutting the Exeter River. During a drought, NHDES works closely with a Drought Management Team (DMT) public water systems and municipalities

[18] https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/public-water-system-emergency-plan

to collect and disseminate information related to drought conditions, drought forecasts, water restrictions, emergency supply guidance, drought impacts, and residential well management.[19] Pursuant to RSA 41:11-d, municipalities and public water systems may impose outdoor water use restrictions to help preserve water. NHDES maintains a list of resources for the public, public water systems and municipalities on water conservation strategies, emergency response protocol and model regulations for lawn watering restrictions https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/drought.

Periods of drought are expected to continue in New Hampshire and may increase both in frequency and severity.[20] Those relying on public water supplies are less susceptible to drought impacts as public water systems are required to be designed so that they can produce more than the design standards. Additionally, many public water systems are required to have designated alternative sources as backup. Private well owners do not have the backup supplies or other resources public systems have; therefore, those relying on private wells are more susceptible to drought.[21]The town should begin proactively planning for the impacts of increased periods of drought. Such preparedness strategies may include:

- Implement voluntary outdoor water use restrictions.
- Establish an emergency location where residents may access water.
- Communicate with the public on drought conditions, the importance of conserving water, and water conservation tips.
- Provide residents relying on residential wells with information on how to address drought impacts and the contact for reporting impacts.
- Provide NHDES with information on water restrictions and emergency access locations for posting on the NHDES Drought Management webpage.[22]
- Post information on drought preparedness on the town's website.

Strategies and Recommendations for Source Water Protection:

The following strategies have been identified by the Fremont Source Water Protection Committee for the town to implement to better protect sources of drinking water:

Land Use Regulations

1. Amend current groundwater protection ordinance protection to include all aquifer recharge areas and all public water systems' (PWS) wellhead protection areas (WHPA).
2. Adopt health ordinance to require water testing prior to issuing occupancy permit for all new structures relying on onsite private wells. Alternatively, municipalities can require water testing for all real estate transactions; this would include older homes and businesses, not just new structures. Both ordinance approaches are allowed under RSA 31:39 and RSA: 147 that authorize to municipalities to have regulations related to public health.
3. Amend the Aquifer Protection District ordinance to specify the information required of hydrogeologic studies. Such information could include water quality sampling analyses,

[19] https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/drought
[20] New Hampshire Climate Assessment, 2021
[21] NH State Hazard Mitigation Plan, 2023
[22] https://www.des.nh.gov/climate-and-sustainability/storms-and-emergencies/drought

permeability testing, water budget analyses, groundwater flow directions etc. to ensure new development does not impact the quality or quantity of water in neighboring wells.

4. Ensure the town's regulations reflect up to date and adequate erosion prevention, sediment control and stormwater management standards for all new development and update as necessary.

Public Education

5. Promote private well testing by supplying testing kits and information about testing at town events. NHDES *Be Well Informed Guide* can be used to help homeowners interpret results.
6. Develop and distribute informational flyers explaining actions individuals can take to help protect drinking water (RPC currently working on under separate PREPA grant project, 2023).
7. Distribute information regarding the proper maintenance of septic systems, appropriate fertilizer use, and other general groundwater protection information at Town Hall, and community or common buildings.
8. Purchase and install road signs indicating the boundary of "drinking water protection area" to increase public awareness about the importance of source water protection and encourage good stewardship of the rivers, streams, lake sand aquifers that supply our drinking water.
9. Encourage residents and businesses to participate in household hazardous waste day.
10. Communicate with the public on drought conditions, the importance of conserving water, and water conservation tips.
11. Provide residents relying on residential wells with information on how to address drought impacts and the contact for reporting impacts.
12. Identify opportunities for collaboration with Ellis School to distribute water resource protection information to Fremont families and/or incorporate water resource protection into school curriculums.

Land Acquisition

1. Promote land conservation near drinking water supply sources to ensure long-term protection of water systems.
2. Work with landowners to implement responsible land and agricultural management practices. These may include lawn maintenance and landscaping practices that limit the amount of pesticides, fertilizers, and water needed.
3. Implement measures targeted at controlling erosion and sediment loading through improved land management and stewardship, good housekeeping practices at construction sites (ex. on-site vehicle washing, timing construction activities with periods of lower rainfall), and strategic planting of vegetation.
4. Improve forestry management, including monitoring and maintaining forest roads, pre-harvest planning, establishing no-harvest zones, or reducing harvesting in riparian management zones.

BMP Inspections

1. Develop and maintain inventory of business owners using large quantities of regulated substances (greater than 5 gallons).
2. Send businesses using large quantities of regulated substances a program explanation letter notifying them of the town's groundwater protection efforts and the BMP rules.

3. Establish a timeframe for conducting BMP inspections for businesses using large quantities of regulated substances (quarterly, annually etc.)
4. Engage a consultant to assist in BMP inspections and compliance monitoring (Master Plan goal).

Staff and Board Training

1. Convene land use boards annually to discuss water resource protection issues and goals for strengthening or changing town regulations.
2. Invite NHDES source water protection bureau staff to provide informational and training session on water resource protection funding opportunities.
3. Conduct staff BMP inspection training annually.
4. Conduct annual public forum on water resource protection strategies and tips for residents and businesses.

Using the Plan

Evaluating Progress toward Source Water Protection Strategies

Like a Master Plan, the Source Water Protection plan should be revisited and updated every three to five years to reflect current and changing conditions in the community. As part of this evaluation process, it is important to review the goals outlined in the plan, identify whether those goals have been met and what (if any) barriers exist to implementation. This tracking and monitoring can be used to help determine if adjustments are needed to the goals and recommendations outlined in the plan.

Demonstrating measurable progress is also critical to ensuring continued support for source water protection projects. Regularly sharing information on progress and implementation results with the public creates transparency and helps maintain credibility and support for protection efforts. For example, some communities have issued “report cards" or developed fact sheets, brochures, or annual reports to highlight successes.[23]

Incorporating SWP into Existing Planning Efforts

The Source Water Protection Plan identifies key goals and strategies for preserving and protecting groundwater, a critical resource shared by all in the community. As such, this plan is relevant and important to acknowledge in all aspects of the town’s planning and decision making. Options for using this plan include (but are not limited to) the following:

- Adopt the Source Water Protection Plan as part of the Fremont Master Plan (Planning Board)
- Adopt the Source Water Protection Plan as part of the Fremont Natural Resource Inventory (Conservation Commission).
- Incorporate as a reference in the Fremont Zoning Ordinance, Site Plan Regulations and/or Subdivision regulations.
- Present Source Water Protection Plan to all land use boards and relevant parties to educate board members and members of the public on the town’s efforts to protect water resources.

[23] https://www.epa.gov/sourcewaterprotection/evaluate-progress-toward-source-water-protection-goals

Appendix A: Public Water System Vulnerability Assessment

Ranking Criteria:

KCSs: Known contamination sources in the vicinity of the source. This includes any site known to DES where contaminants are known or very likely to have been released to the ground, and where remediation is not complete.

- Low (L) = None present in the WHPA
- Medium (M) = One or more KCSs in the WHPA but not within 1,000 feet of the well or intake
- High (H) = One or more KCSs within the WHPA and within 1,000 feet of the well or intake

PCSs: Potential contamination sources in the vicinity of the source. This includes any site known to DES where contaminants are known or very likely to be used in significant quantities, but where there are no known releases to the ground.

- Low (L) = No PCSs within 1,000 ft of the well in the WHPA
- Medium (M) = 10 or fewer PCSs identified within 1,000 feet of the well in the WHPA
- High (H) = 10 or more PCSs identified within 1,000 feet of the well in the WHPA. For transient sources, a ranking of "H" means one or more PCS have been identified in the WHPA within 1,000 ft of the well.

Urban Land Cover: The percentage of urban land cover in the vicinity of the source, based primarily on satellite images. This criterion does not apply to sources serving transient systems.

- L = less than 10% of the WHPA or HAC is urban, and less than 10% of the WHPA within 1,000 ft of the well is urban.
- M (for community and non-transient groundwater sources) = less than 10% of WHPA is urban but 10% or more of the WHPA within 1,000 ft of the well is urban.
- H (for community and non-transient groundwater sources) = 10% or more of WHPA is urban.

Agricultural Land Cover: The percentage of agricultural land cover in the vicinity of the source (in the WHPA or within 300 ft of surface water in the HAC), based on satellite images. This criterion does not apply to sources serving transient systems. L = no agricultural land. M = less than 10% agriculture land. H = 10% or more agriculture land.

Impervious Land Cover in the WHPA: The percentage of land cover within a WHPA where precipitation is not able to infiltrate into the ground. Impervious surfaces may consist of roadways, rooftops, parking lots, and compacted gravel. The higher the impervious land cover percentage the more susceptible the source is to contamination from runoff and there is decreased ability for precipitation to absorb into the ground.

Conservation and Public Land Cover: The percentage of land cover with development restrictions either through deed restrictions or conservation easement within the WHPA. The higher the conservation or public land cover percentage there is decreased risk for potential contamination on a source from land development.

EPA ID	Water System Name	System Type	Rank For Kcs	Rank For Pcs	Urban Land Cover	Agricultural Cover	Impervious Land Cover % In WHPA	Conservation Land Cover % In WHPA
0875040	Barnyard Buddies	p	L	L	M	M	2.5	0
0872020	Blackrocks Village	C	H	M	M	M	5.3	0
0874020	Colonial Poplin Nursing Home	C	H	M	L	L	17.7	0
0876030	Coopers Corner/East	P	H	M	L	M	12.6	0
0875030	Country Club For Kids	P	H	M	L	L	11.9	0
0875010	Ellis School	P	H	M	L	L	17.1	0
0879010	Fremont Library	N	L	L	Na	L	0	0
0878020	Fremont Pizzeria Restaurant	N	L	H	Na	L	0	0
0872010	Governors Forest	C	H	M	M	M	4.6	0

Table 7: Public Water System Vulnerability (2019)

- **Community Water System (C)** potential to serve at least 15 residential service connections on a year-round basis or serves at least 25 residents year-round.
- **Transient, Non- Community System (N)** serves at least 25 persons at least 60 days out of the year. Restaurants and parks can qualify as transient, noncommunity water systems.
- **Non-Transient, Non-Community System (P)** regularly serves at least 25 of the same persons at least six months out of the year. Schools, camps, and large businesses can qualify as non-transient, non-community water systems.

Appendix B: Common Grant and Loan sources for Public Water Systems (PWS) In New Hampshire

Common Grant and Loan Sources for Public Water Systems (PWS) in New Hampshire

New Hampshire Department of Environmental Services Funding Programs	Who's Eligible	What Can Be Funded	Terms	Application Timeframes	Contacts
Asset Management Grants	Community water systems ≥150 population	Development or expansion of asset management activities (inventory, financial, implementation)	Grant up to $100,000 – no match required, (100% grant)	To Be Determined	Katie Curtis Drinking Water and Groundwater Bureau (603) 271-2472 Kaitlin.E.Curtis@des.nh.gov
Cyanotoxin Monitoring Grants	PWS that utilize a surface water source	Initial costs of approved equipment, supplies & training to perform cyanotoxin testing and/or monitoring	100% reimbursement of eligible costs, up to $10,000. No match required	Anytime	Liz Pelonzi Drinking Water and Groundwater Bureau (603) 271-3906 Ann.Pelonzi@des.nh.gov
Cybersecurity Implementation Grants	Community water systems ≥500 population	Implementation of recommendations from a cybersecurity assessment to mitigate the risk of a cybersecurity attack	Grant up to $50,000 (100% grant)	Ongoing until 12/31/2022 or until funds are exhausted	Brenda Leonard Drinking Water and Groundwater Bureau (603) 271-0867 Brenda.J.Leonard@des.nh.gov
Drinking Water State Revolving Fund (DWSRF) Loans	Community (publicly & privately owned) and non-profit, non- transient water systems	Capital improvements for drinking water infrastructure (design and construction)	Below-market interest rates No closing costs Up to 30 years for disadvantaged applicants	Spring	Johnna McKenna Drinking Water and Groundwater Bureau (603) 271-7017 Johnna.McKenna@des.nh.gov
Energy Audit Grants	Community water systems ≥150 population	Comprehensive Process Energy audit of drinking water facilities	Grant up to $20,000 -no match required, (100% grant)	Late Fall 2022	Sharon Nall Waste Engineering Bureau (603) 271-2508 Sharon.L.Nall@des.nh.gov
Leak Detection Survey Grants	Community water systems	Acoustic leak detection surveys by a professional retained by NHDES	In-kind volunteer services required. No maximum, no match	Early Summer	Kelsey Vaughn Drinking Water and Groundwater Bureau (603) 271-0659 waterconservation@des.nh.gov

Updated 9/26/2023

Common Grant and Loan Sources for Public Water Systems (PWS) in New Hampshire

New Hampshire Department of Environmental Services Funding Programs	Who's Eligible	What Can Be Funded	Terms	Application Timeframes	Contacts
Local Source Water Protection Grants	PWS, municipalities, conservation districts, non-profits& regional planning commissions	Source security & other source water protection projects	Grant up to $25,000 ($30,000 if climate-related) – no match required, (100% grant)	Fall/Winter	Melissa Macheras Drinking Water and Groundwater Bureau (603) 271-2950 Melissa.E.Macheras@des.nh.gov
MtBE Remediation Fund	Public & private water systems impacted by MtBE contamination	Design & installation of drinking water infrastructure in areas with MtBE contamination	100% reimbursement for eligible costs	Anytime	Josh Whipple MtBE Remediation Bureau (603) 271-7377 Joshua.C.Whipple@des.nh.gov
Petroleum Reimbursement Fund	Public & private water systems impacted by petroleum contamination	Design & installation of drinking water infrastructure in areas w/ petroleum contamination from unknown source	100% reimbursement of eligible costs	Anytime	Jennifer Marts Petroleum Reimbursement Fund Program (603) 271-2570 Jennifer.Marts@des.nh.gov
PFAS Remediation Grant and Loan Fund	CWS, non-profit NTNC water systems (i.e., public schools) or municipality with raw water PFAS contamination	Drinking water infrastructure projects to address per-and polyfluoroalkyl (PFAS) maximum contaminant level (MCL) exceedances	Low interest loan rates; Up to 30-year term for disadvantaged applicants; Up to 50% contingent reimbursement Grants at $1.5M or 30% of the total cost of the project, whichever is greater	Anytime	Jennifer Brady PFAS RLF Program Manager (603) 271-8522 Jennifer.E.Brady@des.nh.gov
Strategic Planning Grants	Community water systems ≥150 population	Design projects intended to improve drinking water infrastructure	Grant up to $50,000 – no match required, (100% grant)	To Be Determined	Mat Deterling Drinking Water and Groundwater Bureau (603) 271-1994 Mathew.G.Deterling@des.nh.gov
Construction Project Assistance Loan and Grant Program	PWS & Municipalities	Drinking water infrastructure improvements	Loan and grant program	Fall-Funding Applications	Cheryl Bondi Drinking Water and Groundwater Trust Fund (603) 271-8231 cheryl.a.bondi@des.nh.gov

Updated 9/26/2023

Common Grant and Loan Sources for Public Water Systems (PWS) in New Hampshire

Funding Program	Who's Eligible	What Can Be Funded	Terms	Application Timeframes	Contacts
Source Water Protection Grants	PWS, non-transient non-community water system, municipalities, land trusts and non-profits whose purpose is conservation	Permanent conservation of lands protecting an active public drinking water supply source through land acquisition or a conservation easement.	Grant funding 50% of eligible project costs with a $500,000 maximum grant award. Requires permanent conservation through deed restrictions for source water protection	Eligibility App due last week of June. Funding App due first week of September.	WSLP@des.nh.gov cc: Cheryl.A.Bondi@des.nh.gov Drinking Water and Groundwater Trust Fund (603) 271-2862
Consolidation Study Assistance Program	CWS serving < 1,000 people and non-profit, NTNC water systems (i.e., public schools) with raw water contamination or a documented water supply shortage	Engineering feasibility evaluation comparing interconnection to a larger community water system versus treating, maintaining, and operating a system's own water supply	100% Reimbursement program for up to $10,000 of eligible costs. Requires submittal of an application and NHDES approval	Anytime	Cheryl Bondi Drinking Water and Groundwater Trust Fund (603) 271-8321 cheryl.a.bondi@des.nh.gov
Housing & Public Facilities Grants	Municipalities, Counties, and non-profit associations and districts if endorsed by a governmental entity. *At least 51% of project beneficiaries must be of low to moderate income	Infrastructure repair or construction that results in improved community facilities and services	Public facilities grant fund up to $500,000 per year per municipality 100% (1:1) match required	January & July of each year	Mollie Kaylor Community Development Finance Authority-Community Development Block Grants (603) 717-9112 mkaylor@nhcdfa.org
Emergency Grants	Municipalities, Counties, and non-profit associations and districts if endorsed by a governmental entity. *At least 51% of project beneficiaries must be of low to moderate income	Emergency Grants for infrastructure repair (must be related to Natural Disaster)	Up to $350,000/year for municipalities >10,000 populations or up to $500,000 for communities <10,000	Ongoing	Mollie Kaylor Community Development Finance Authority-Community Development Block Grants (603) 717-9112 mkaylor@nhcdfa.org
Planning Grants	Municipalities, Counties, and non-profit associations and districts if endorsed by a governmental entity. *At least 51% of project beneficiaries must be of low to moderate income	Preliminary engineering design, income surveys, etc.	Up to $12,000 per year per municipality	April & October of each year	Mollie Kaylor Community Development Finance Authority-Community Development Block Grants (603) 717-9112 mkaylor@nhcdfa.org

Updated 9/26/2023

Common Grant and Loan Sources for Public Water Systems (PWS) in New Hampshire

Funding Program	Who's Eligible	What Can Be Funded	Terms	Application Timeframes	Contacts
Water & Waste Disposal Loans & Grants	Municipalities, districts, special purpose districts & non-profit organizations <10,000 population; Area to be served must also have median household income (MHI) less than state's MHI.	Capital improvements, engineering design & construction	Fixed, long-term (up to 40 years) low-interest loans; Grant funds may be available	Applications are accepted year-round and evaluated typically in December & April of each year. Applications may be filed electronically using RD Apply.	Eric Law USDA-Regional Development NH Community Programs Director, Eric.Law@usda.gov (802) 828-6033
Pre- Development Planning Grants	Municipalities, districts, special purpose districts & non-profit organizations <10,000 population; Area to be served must also have median household income (MHI) less than state's MHI.	Initial planning and development of an USDA-RD loan/grant application	Up to $30,000 maximum or 75% of the pre-development planning costs	Applications are accepted year-round and evaluated typically in December & April of each year. Applications may be filed electronically using RD Apply.	Eric Law USDA-Regional Development NH Community Programs Director, Eric.Law@usda.gov (802) 828-6033
Emergency Community Water Assistance Grants	Municipalities, districts, special purpose districts & non-profit organizations <10,000 population; Area to be served must also have median household income (MHI) less than state's MHI.	Emergency related water infrastructure construction/repairs/ replacement/extension	Water transmission line-up to $150,000. Water source-up to $1,000,000. *No match required but funding partnerships encouraged	Applications are accepted year-round and evaluated typically in December & April of each year. Applications may be filed electronically using RD Apply.	Eric Law USDA-Regional Development NH Community Programs Director, Eric.Law@usda.gov (802) 828-6033
SEARCH Grants	Rural populations <2,500 w/ MHI below the poverty line or <80% of state MHI	Pre-development feasibility studies, PER development, & technical assistance on proposed water/waste projects	Up to $30,000 maximum/grant	Applications are accepted year-round and evaluated typically in December & April of each year. Applications may be filed electronically using RD Apply.	Eric Law USDA-Regional Development NH Community Programs Director, Eric.Law@usda.gov (802) 828-6033
NH Community Loan Fund	Resident owned manufactured housing communities/coops	Interim financing; infrastructure evaluation, repair or replacement	Contact ROC-NH for details and loan terms	Contact ROC-NH for details and loan terms	Kelli Cicirelli ROC-NH, (603) 224-6669 x744 KCicirelli@rocnh.org

Common Grant and Loan Sources for Public Water Systems (PWS) in New Hampshire

Funding Program	Who's Eligible	What Can Be Funded	Terms	Application Timeframes	Contacts
NHMBB NH Municipal Bond Bank	Local governmental units (towns/counties/ school/water/fire/ village districts)	Capital improvement (design & construction) projects	Competitive interest rates; terms based on lifespan of asset	Applications due in April & November	Tammy St. Gelais NHMBB (603) 271-2595 tstgelais@nhmbb.com
Emergency Management Performance Grant (EMPG)	Municipalities, and some Private Non-Profit (PNP) organizations	LEOP & COOP Plans, generators and EOC equipment, communications equipment, electronic sign boards, emergency management trailers	Up to a $75,000 maximum award for generators 50% / 50% Cost Share	Ongoing	Sheila Dupere EMPG Coordinator (603) 223-3686 nhempgprogram@dos.nh.gov
Building Resilient Infrastructure and Communities (BRIC) & Hazard Mitigation Grant Program (HMGP)	State agencies, local governments and communities	Structure demolition, relocation, elevation, generators, flood risk reduction, soil stabilization* *check NHDOS HSEM for all eligible activities	75% Federal / Non-Federal 25%* Cost Share *Select applicants are eligible for increased federal cost share Three-year timeline to complete project after receiving award.	Application deadline varies	Lauren Morgan Hazard Mitigation Coordinator (603) 223-3759 NH.HM@dos.nh.gov

NHDES Website: https://www.des.nh.gov/
NHDES Website of Funding Sources: https://www.des.nh.gov/business-and-community/loans-and-grants/drinking-water

Appendix C: BMP Inspection Program Resources

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WD-DWGB 22-4 2019

Best Management Practices (BMPs) for Groundwater Protection

Approximately 75% of New Hampshire residents rely primarily on groundwater for their drinking water. Recognizing the importance of protecting the natural quality of groundwater, the legislature passed the Groundwater Protection Act (RSA 485-C) in 1991. This legislation recognized that a wide variety of activities involve the use of materials that can, if not properly handled, contaminate groundwater. There have been numerous instances of groundwater contamination in New Hampshire from leaking storage facilities, improper waste disposal, accidental spills, and even from normal use of these materials. Potentially contaminating substances can be more safely managed if certain basic guidelines are followed. The Groundwater Protection Act directed the New Hampshire Department of Environmental Services (NHDES) to adopt rules specifying best management practices (BMPs) for the Potential Contamination Sources (PCSs) listed below.

NHDES developed and adopted New Hampshire Code of Administrative Rules Part Env-Wq 401 Best Management Practices for Groundwater Protection, which apply to all potential contamination sources in the state. The BMPs within the rules are essentially common-sense operating practices that are simple and economical to implement. The purpose of the BMPs is to help prevent a release of regulated substances, as defined under this rule. Regulated substances include oil, as defined under RSA 146-A, III, regulated contaminants established pursuant to RSA 485-C:6, and hazardous substances listed under the Code of Federal Regulation (CFR), within 40 CFR § 302. Cleaning up the release of a regulated substance can be very expensive. Following the BMP rules reduces environmental liability and minimizes potential cleanup costs.

Potential Contamination Sources (PCSs)[1]	
• Vehicle service and repair shops • General service and repair shops • Metalworking shops • Manufacturing facilities • Underground and above-ground storage tanks • Waste and scrap processing and storage • Transportation corridors • Septic systems (at commercial and industrial facilities) • Laboratories and certain professional offices (medical, dental, veterinary	• Use of agricultural chemicals[2] • Salt storage and use • Snow dumps • Stormwater infiltration ponds or leaching catch basins • Cleaning services • Food processing plants • Fueling and maintenance of earth moving equipment • Concrete, asphalt, and tar manufacture • Cemeteries • Hazardous waste facilities
[1]As identified in New Hampshire's Groundwater Protection Act (RSA 485-C) [2]Subject to BMPs developed and administered by N.H. Dept. of Food, Agriculture, and Markets	

Summary of BMP for Groundwater Protection Rules

Storage

- Store regulated substances on an impervious surface.
- Secure storage areas against unauthorized entry.
- Label regulated containers clearly and visibly.
- Inspect storage areas weekly.
- Durable cover over *regulated containers*[1] in outside storage areas.
- Keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and up to 400 feet from public wells.
- Secondary containment is required for regulated containers stored outside, except for on-premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.

[1]Regulated container means any device in which a regulated substance is stored, transported, treated, disposed of, or otherwise handled, with a capacity of five gallons or more. The term does not include fuel tanks attached to and supplying fuel to a motor vehicle.

Handling

- Keep regulated containers closed and sealed.
- Place drip pans under spigots, valves, and pumps.
- Have spill control and containment equipment readily available in all work areas.
- Use funnels and drip pans when transferring regulated substances; perform transfers over impervious surface.

Release Response Information

- Post information on what to do in the event of a spill.

Floor Drains and Work Sinks

- Cannot discharge into or onto the ground.

For More Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov.

Note: This fact sheet is accurate as of September 2019. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.

PART Env-Wq 401 REQUIRED BEST MANAGEMENT PRACTICES FOR GROUNDWATER PROTECTION

REVISION NOTE:

Document #8786, effective 1-5-07, readopted with amendments and redesignated former Part Env-Ws 421 titled Best Management Practices as Env-Wq 401 pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

The prior filings for former Env-Ws 421 are: #5543, eff 12-24-92; #6947, eff 2-25-99

Statutory Authority: RSA 485-C:4, VII

Env-Wq 401.01 Purpose. The purpose of these rules is to implement RSA 485-C:11 relative to establishing best management practices for activities that are potential contamination sources, which are to be followed when using, storing, or otherwise handling regulated substances to minimize the risk of groundwater contamination.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.02 Applicability.

(a) Subject to (b), below, these rules shall apply only to persons who use, store, or otherwise handle any regulated substances in regulated containers.

(b) As provided in RSA 485-C:11, I, these rules shall not apply to:

(1) Potential contamination sources listed in RSA 485-C:7, II(j), which are subject to requirements of RSA title XL and the department of agriculture, markets, and food; or

(2) Those regulated substances defined as pesticides under RSA 430:29, XXVI.

(c) These rules also shall not apply to:

(1) Aboveground storage tanks regulated under RSA 146-A and Env-Or 300;

(2) Underground storage tanks regulated under RSA 146-C and Env-Or 400; or

(3) On-premise-use facilities as defined in RSA 146-E:2, III.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.03 Definitions.

(a) "Department" means the New Hampshire department of environmental services.

(b) "Floor drain" means an opening in a floor into which regulated substances might be discharged.

(c) "Impervious surface" means a surface through which regulated contaminants cannot pass when spilled. For purposes of this part, the term includes concrete and asphalt unless unsealed cracks or holes are present, but does not include earthen, wooden, or gravel surfaces or other surfaces that could react with or dissolve when in contact with the substances stored on them.

(d) "Owner" means the owner of the facility or site on which the potential contamination source is located and, if different, the person who is responsible for the day-to-day management of the facility or site.

(e) "Person" means "person" as defined in RSA 485-C:2, XI, as reprinted in Appendix B.

(f) "Potential contamination source" means, as specified in RSA 485-C:7, I, human activities or operations upon the land surface that pose a reasonably-foreseeable risk of introducing regulated substances into the environment in such quantities as to degrade the natural groundwater quality. Examples of potential contamination sources are listed in RSA 485-C:7, II.

(g) "Regulated container" means any device in which a regulated substance is stored, transported, treated, disposed of, or otherwise handled, with a capacity of greater than or equal to 5 gallons, other than a fuel tank attached to a motor vehicle for the sole purpose of supplying fuel to that motor vehicle for that vehicle's normal operation.

(h) "Regulated substance" means any of the following, excluding substances used for the treatment of drinking water or waste water at department-approved facilities:

(1) Oil as defined in RSA 146-A:2, III;

(2) Any substance that contains a regulated contaminant for which an ambient groundwater quality standard has been established pursuant to RSA 485-C:6; and

(3) Any substance listed in 40 CFR 302, 7-1-05 edition.

(i) "Secondary containment" means a structure, such as an impervious berm or dike, that is adequate to contain any spills or leaks at 110% of the volume of the largest regulated container in the storage area.

(j) "Storage area" means a place where a regulated container is kept for a period of 10 or more consecutive days.

(k) "Work sink" means a sink in which regulated substances are used.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.04 Storage of Regulated Substances.

(a) The owner shall store all hazardous wastes in compliance with applicable federal requirements and state requirements specified in RSA 147-A and Env-Hw 100 et seq.

(b) The owner shall store all regulated containers on an impervious surface, as follows:

(1) The owner shall inspect the impervious surface prior to storage of any regulated containers and seal any cracks or holes prior to placing any regulated container in the storage area;

(2) The owner shall re-inspect the impervious surface not less than annually for as long as the area is used for storage of regulated substances; and

(3) Whenever the owner finds any cracks or holes in the impervious surface on which any regulated container is stored, the owner shall either:

a. Immediately seal all such cracks and holes; or

b. Move the regulated substances to a different storage area that meets the requirements of this section.

(c) The owner shall secure all storage areas against unauthorized entry by any method or combination of methods that renders the storage area tamper-proof and inaccessible, including but not limited to personal or monitored surveillance and physically-restricting access using fencing or box trailers that are locked except when regulated substances are being moved into or out of the secure area.

(d) The owner shall inspect all storage areas weekly for signs of spills or leakage from regulated containers. The aisle space between regulated containers that cannot be moved by hand shall be of ample size to allow an inspector to determine the condition of individual regulated containers.

(e) Each regulated container shall be clearly and visibly labeled with the chemical and trade name of the material stored within.

(f) Each regulated container shall remain closed and sealed at all times except to add or remove regulated substances. Regulated containers equipped with spigots, valves, or pumps shall be considered closed and sealed when the spigots, valves, or pumps are closed or in the "off" position, provided that drip pans are placed and maintained under the spigots, valves, or pumps.

(g) Spill control and containment equipment, including at the minimum absorbents to pick up spills and leaks, shall be located in the immediate area where regulated substances are transferred, used, or stored.

(h) Regulated containers in outdoor storage areas shall:

(1) Have secondary containment;

(2) Be kept covered at all times unless the regulated containers are in the process of being transferred to another location;

(3) Have a durable covering that keeps the regulated container and the secondary containment structure free of rain, snow, and ice; and

(4) Not be stored within any of the following set-backs:

a. For surface waters, 50 feet;

b. For private wells, 75 feet;

c. The sanitary protective radius of any public water supply well; or

d. For storm drains, 50 feet.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.05 Transferring Regulated Substances. Regulated substances shall be transferred from or to regulated containers only under the following conditions:

(a) Funnels and drip pans shall be used; and

(b) Fueling or transferring shall be done only over an impervious surface.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.06 Floor Drains. Interior floor drains shall discharge only as authorized by one of the following:

(a) A groundwater discharge permit obtained pursuant to Env-Wq 402;

(b) A discharge registration for a holding tank obtained pursuant to Env-Wq 402;

(c) A national pollutant discharge elimination system (NPDES) permit; or

(d) A local authorization to discharge to the local wastewater treatment facility.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.07 Work Sinks. Work sinks shall discharge only as authorized by one of the following:

(a) A groundwater discharge permit obtained pursuant to Env-Wq 402;

(b) A discharge registration for a holding tank obtained pursuant to Env-Wq 402;

(c) An NPDES permit; or

(d) A local authorization to discharge to the local wastewater treatment facility.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.08 Holding Tanks. Holding tanks that receive discharges from floor drains or work sinks shall be registered and maintained in accordance with Env-Wq 402.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.09 Release Response Information.

(a) The owner shall post release response information in accordance with (b), below, at every storage area.

(b) Release response information shall include the information necessary to contact emergency response personnel, including the following:

(1) The name of the individual designated by the owner to be contacted if a spill occurs;

(2) The method by which the designated individual can be contacted when there is a release, such as by phone or in-person at the main office;

(3) The procedure for spill containment; and

(4) Emergency phone numbers including 911 and, depending on local protocol:

a. State police;

b. Local police and fire department;

c. Local hospital;

d. Department of environmental services;

e. Poison control center; and

f. Office of emergency management.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15

Env-Wq 401.10 Inspections. Potential contamination sources in any area shall be subject to inspections by the department.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15 (from Env-Wq 401.02(d))

Env-Wq 401.11 Waivers.

(a) Any person who is subject to these rules who wishes to obtain a waiver of specific rules in this part shall request the waiver in accordance with this section.

(b) The person requesting the waiver(s) shall submit the following information in writing to the department:

(1) The name, mailing address, daytime telephone number, and email address, if any, of the person who is requesting the waiver and, if the person is other than an individual, the name, daytime telephone number, and email address, if any, of an individual who can be contacted by the department relative to the request;

(2) A description of the facility or site to which the waiver request relates, including the name, address, and identification number of the facility or site;

(3) Identification of the specific section of the rules from which a waiver is being sought;

(4) A full explanation of why a waiver is being requested;

(5) Whether the waiver is needed for a limited or indefinite period of time;

(6) A full explanation with supporting data of the alternative(s), if any, proposed to be implemented or used in lieu of the requirement(s) for which the waiver is requested; and

(7) A full explanation of how granting a waiver with the proposed alternative(s), if any, will meet the criteria specified in (c), below.

(c) The department shall not grant a waiver unless it determines that:

(1) The requirement to be waived is not established by statute, unless the statute that establishes the requirement expressly authorizes the department to grant waivers of the requirement;

(2) The intent of RSA 485-C to preserve and protect the natural quality of groundwater resources will be met; and

(3) Granting a waiver will not result in any adverse effect on human health or the environment.

(d) The department shall include such conditions, including time limitations, as are necessary to ensure that the activities conducted pursuant to the waiver will meet the criteria specified in (c), above.

(e) The department shall issue a written response to a request for a waiver within 90 days of receipt of the request. If the department denies the request, the reasons(s) for the denial shall be clearly stated in the written response.

Source. (See Revision Note) #8786, eff 1-5-07; ss by #10828, eff 5-19-15 (from Env-Wq 401.10)

APPENDIX A

Rule Section(s)	State Statute(s) Implemented	Federal Regulations Implemented
Env-Wq 401 (also see specific section listed below)	RSA 485-C:1; RSA 485-C:11	
Env-Wq 401.11	RSA 541-A:22, IV	

APPENDIX B: STATUTORY DEFINITIONS

485-C:2

XI. "Person" means any individual, partnership, company, public or private corporation, political subdivision or agency of the state, department, agency or instrumentality of the United States, or any other legal entity.

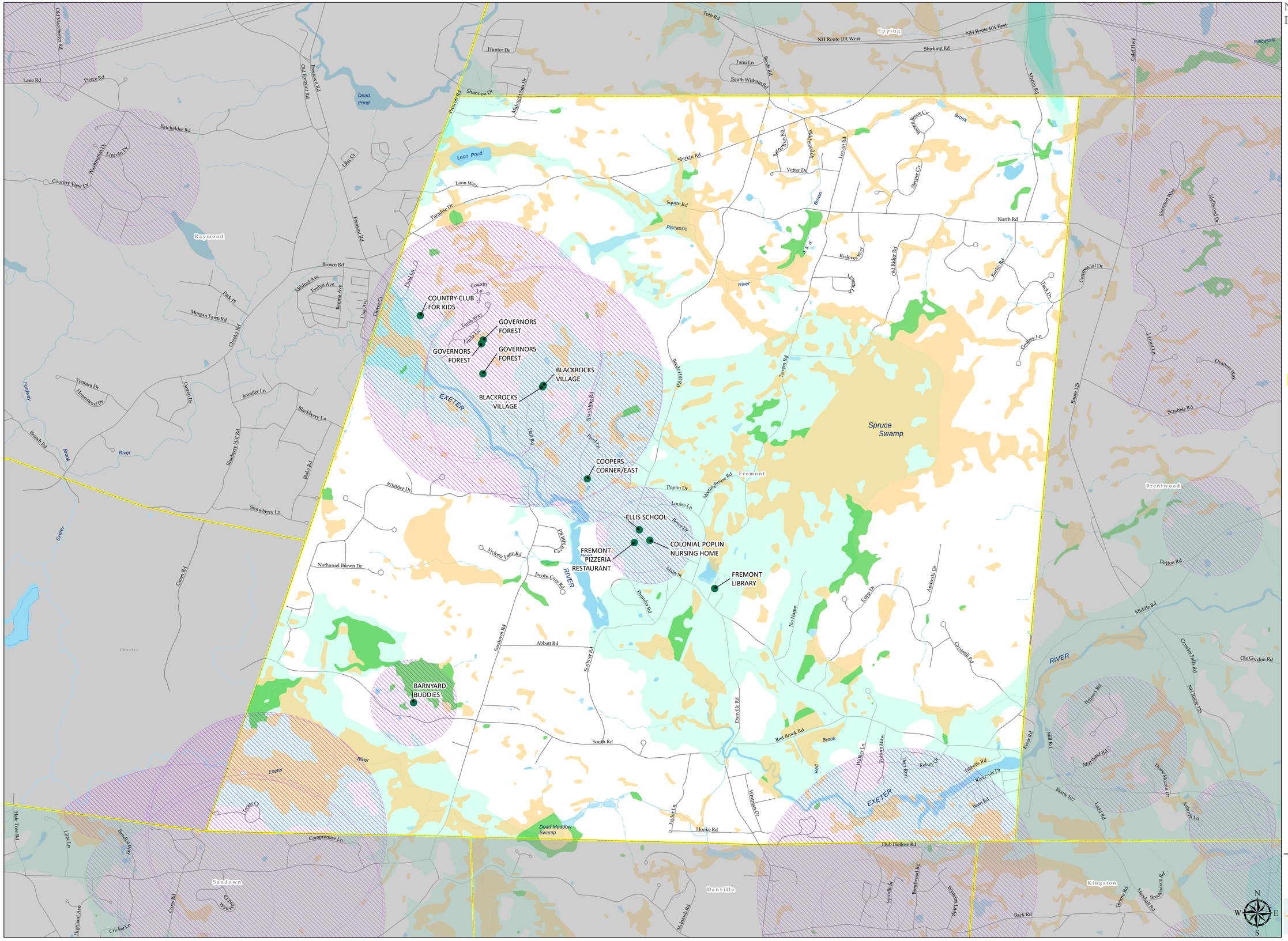
Appendix D: Maps

NHDES Source Water Protection Mapping

Sept. 2023

Fremont

Map 1 - Public Supply Wells and Wellhead Protection Area (NHDES)

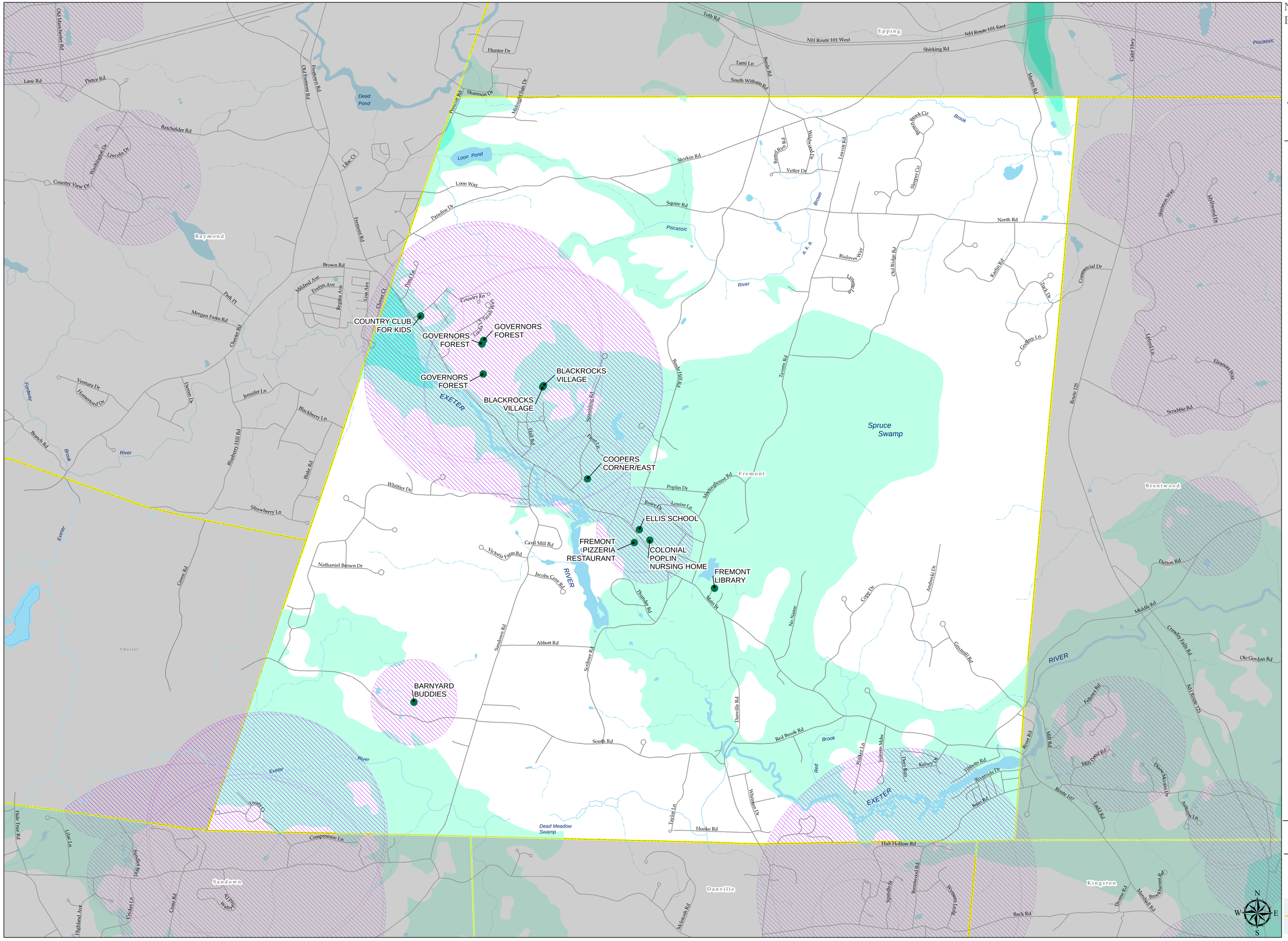


NHDES Source Water Protection Mapping

Sept. 2023

Fremont

Map 2 - Public Supply Wells
and
Wellhead Protection Area (NHDES)
and
Stratified Drift Aquifer



ACTIVE

Road Type

Roads

Wellhead Protection Areas (2022)

Stratified-Drift Aquifers in the Exeter Transmissivity

Less than 500

500 to 1000

1000 to 2000

2000 to 3000

Greater than 3000

RPC Towns

New Hampshire Communities

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NHDES Source Water Protection Mapping

Sept. 2023

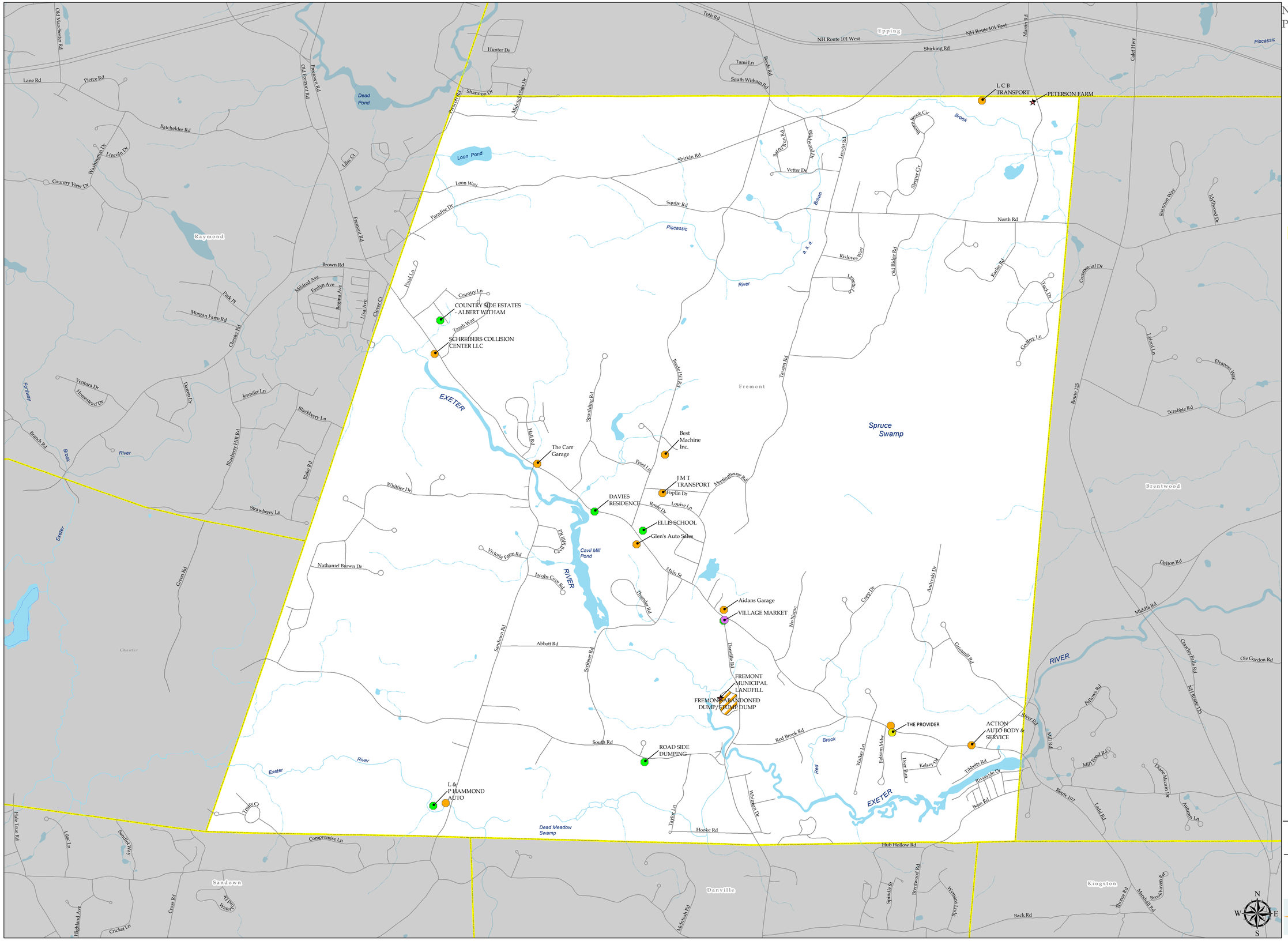
Fremont

Map 3 - Potential Hazards

- Inactive Solid Waste Storage
- Aboveground Storage Tanks
- Underground Storage Tanks
- Remediation Sites (Points)
- Hazardous Waste Generators (Points)
- Remediation Sites
- Hazardous Waste Generators

Road Type

- Roads
- RPC Towns
- New Hampshire Communities



Miles

0 0.1 0.2 0.4 0.6

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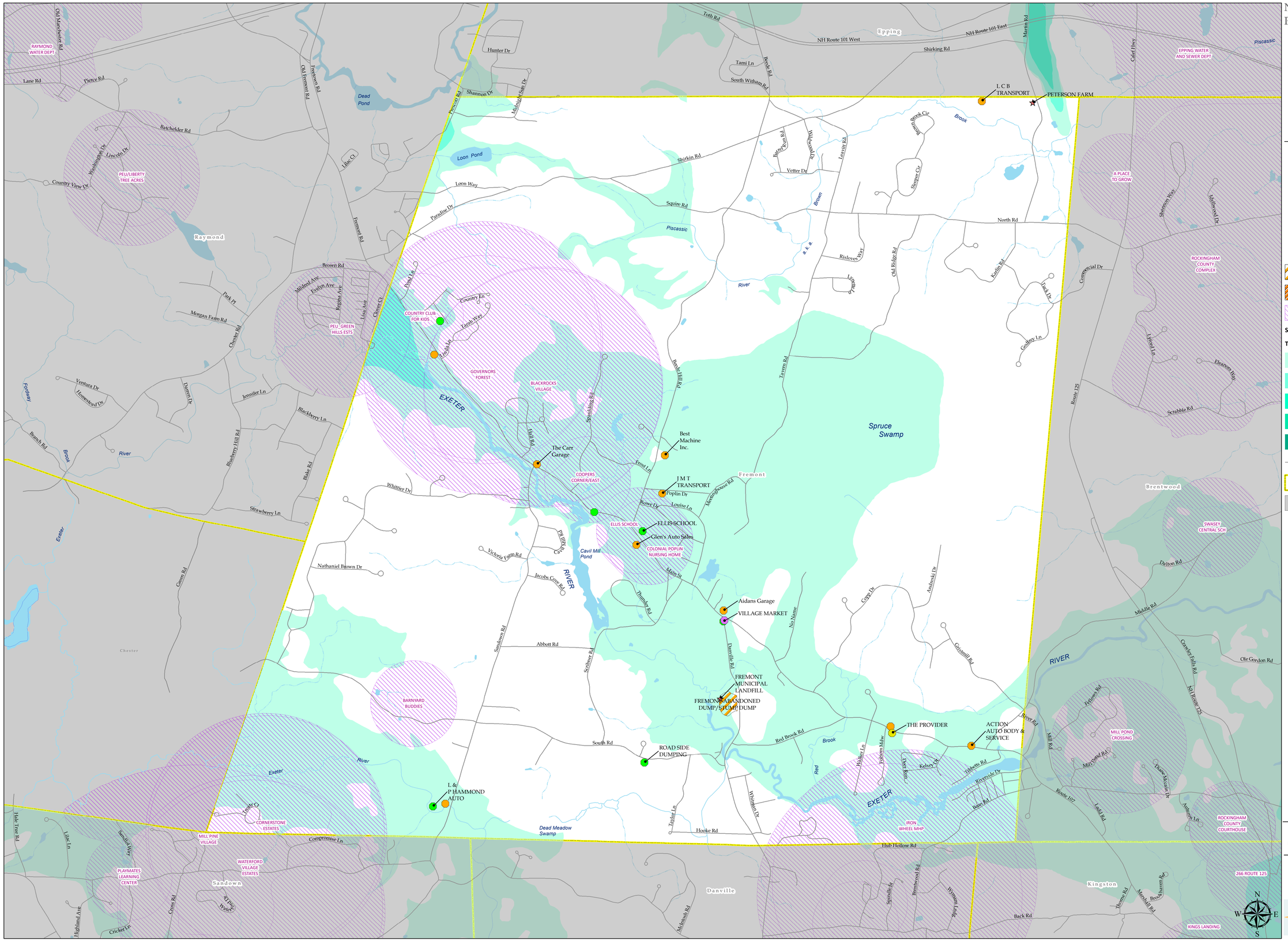
New Hampshire Department of Environmental Services

NHDES Source Water Protection Mapping

Sept. 2023

Fremont

Map 4 - Potential Hazards and Wellhead Protection Areas and Stratified Drift Aquifer



- Inactive Solid Waste Storage
- Aboveground Storage Tanks
- Underground Storage Tanks
- Remediation Sites (Points)
- Hazardous Waste Generators (Points)
- Remediation Sites
- Hazardous Waste Generators
- Wellhead Protection Areas (2022)

Stratified-Drift Aquifers in the Exeter

Transmissivity

- Less than 500
- 500 to 1000
- 1000 to 2000
- 2000 to 3000
- Greater than 3000
- Roads
- RPC Towns
- New Hampshire Communities

Miles: 0 0.1 0.2 0.4 0.6

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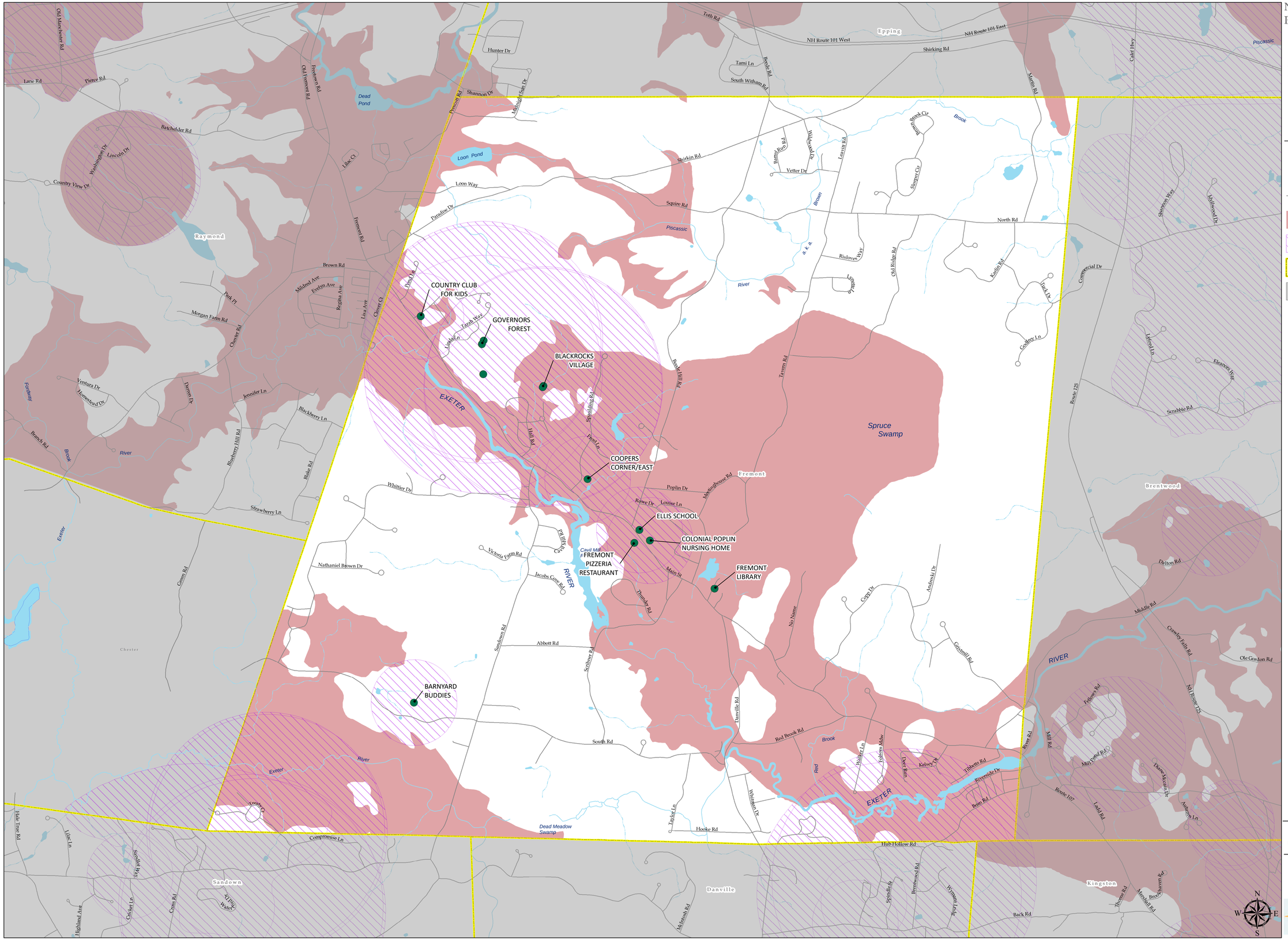
NHDES Source Water Protection Mapping

Sept. 2023

Fremont

Map 5 - Wellhead Protection Areas
and
Public Supply Wells
and
Zoning Protected Areas



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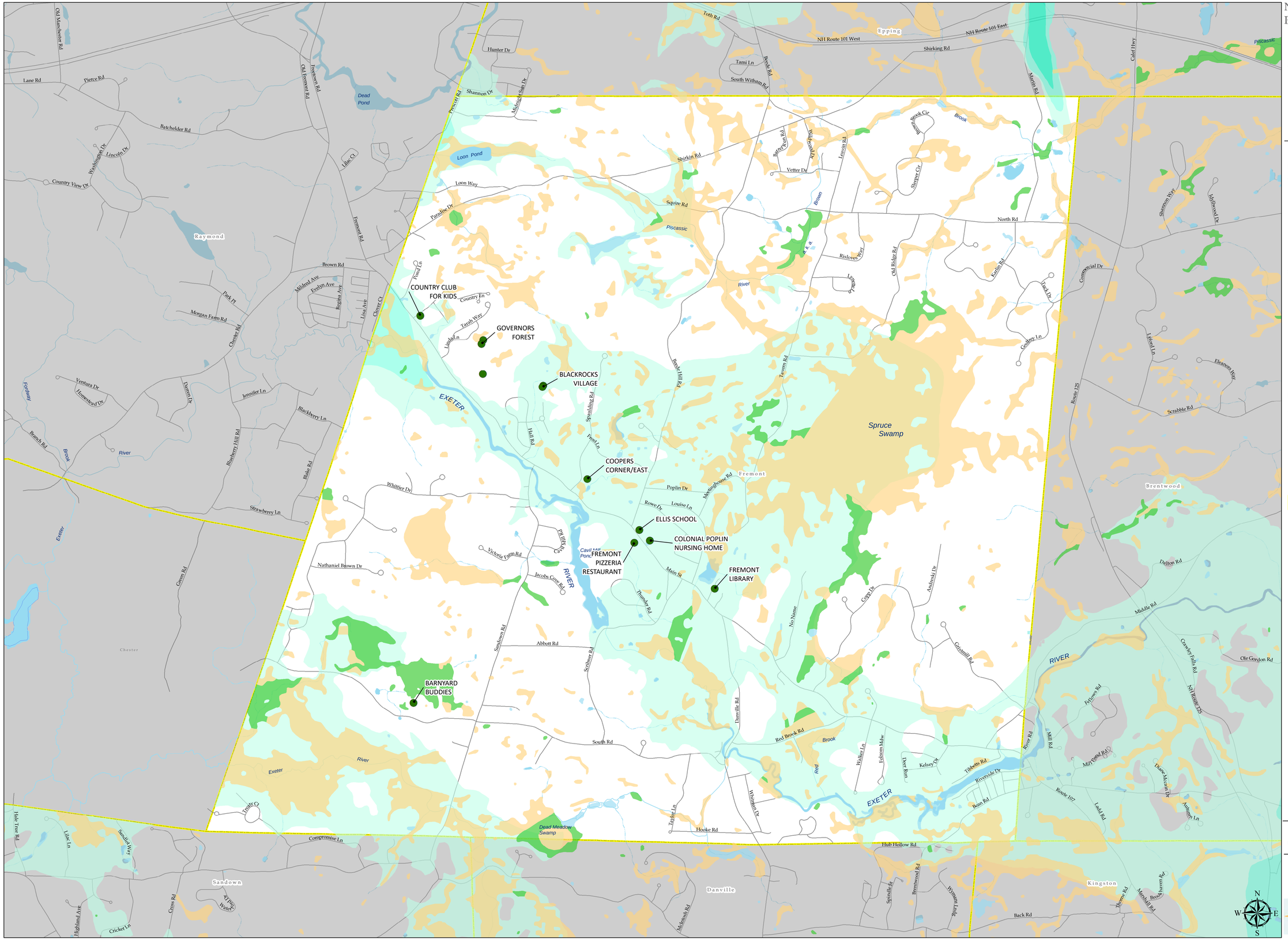
NHDES Source Water Protection Mapping

Sept. 2023

Fremont

Map 6 - Water Resources



Active Public Supply Wells (2022)

National Wetlands Inventory

Wetland Type

- Open Water
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other Wet

Stratified-Drift Aquifers in the Exeter

Transmissivity

- Less than 500
- 500 to 1000
- 1000 to 2000
- 2000 to 3000
- Greater than 3000

Road Type

- Roads

Surface Water Features

- Shoreline; Stream
- Intermittent Stream
- Other Surface Water Feature
- RPC Towns
- New Hampshire Communities

0 0.1 0.2 0.4 0.6 Miles

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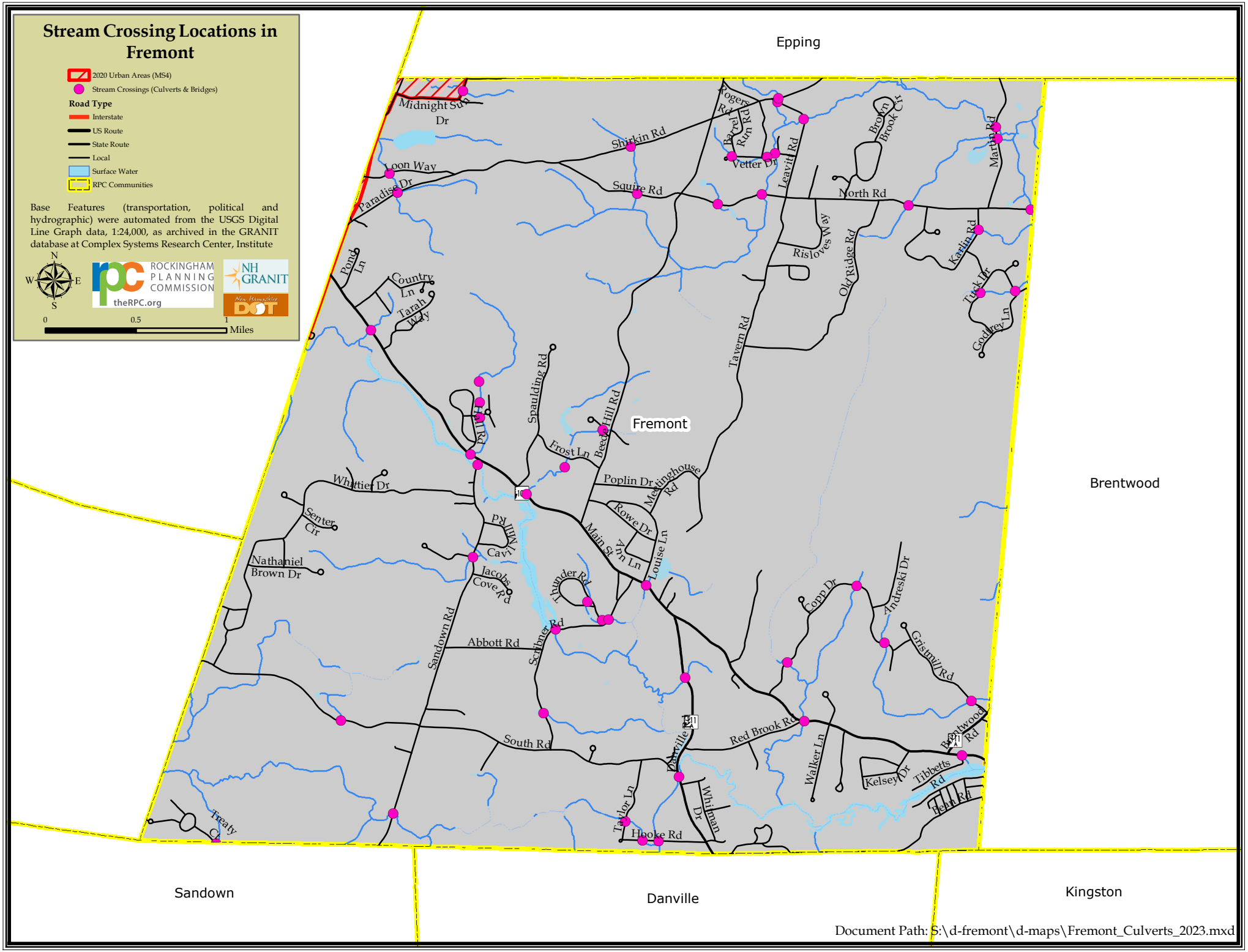

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