

Source Water Protection

Tools and Resources to
Manage Risk

October 20, 2023



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OVERVIEW



Background

Public water system
Groundwater/Surface water
SPAs
SPP/SPPU



Management of Risk Strategies and Actions



Sharing of stories



Questions and Answers

Source Water Protection Public Drinking Water

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. (epa.gov)

Why Protect Drinking Water Sources

- ✓ Protect Public Health – provide safe, clean drinking water
- ✓ Reduce water treatment costs
- ✓ Reduce costs to water systems and customers

Public Water Systems

Any source(s) or combination of sources owned or controlled by a person, that provides drinking water through pipes or other constructed conveyances to the public and that has at least fifteen (15) service connections or serves an average of at least twenty-five (25) individuals daily for at least sixty (60) days out of the year.

* Public water system also includes a system which bottles drinking water for public distribution and sale.

Public Water Source

Any surface water or groundwater intake used, or permitted to be used, as a source of drinking water for a Public water system.

Classification of Public Water Systems

Public Community water system (PCWS) means a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least 25 year-round residents.

- Municipalities
- Mobile Home Park
- Home Owners Association
- Fire District



*Champlain
Water District*



Classification of Water Systems

Public Non-Transient Non-Community water system (NTNC) means a public water system that regularly serves at least 25 or more of the same persons daily for more than six months per year.

- Schools
- Factories
- Office buildings

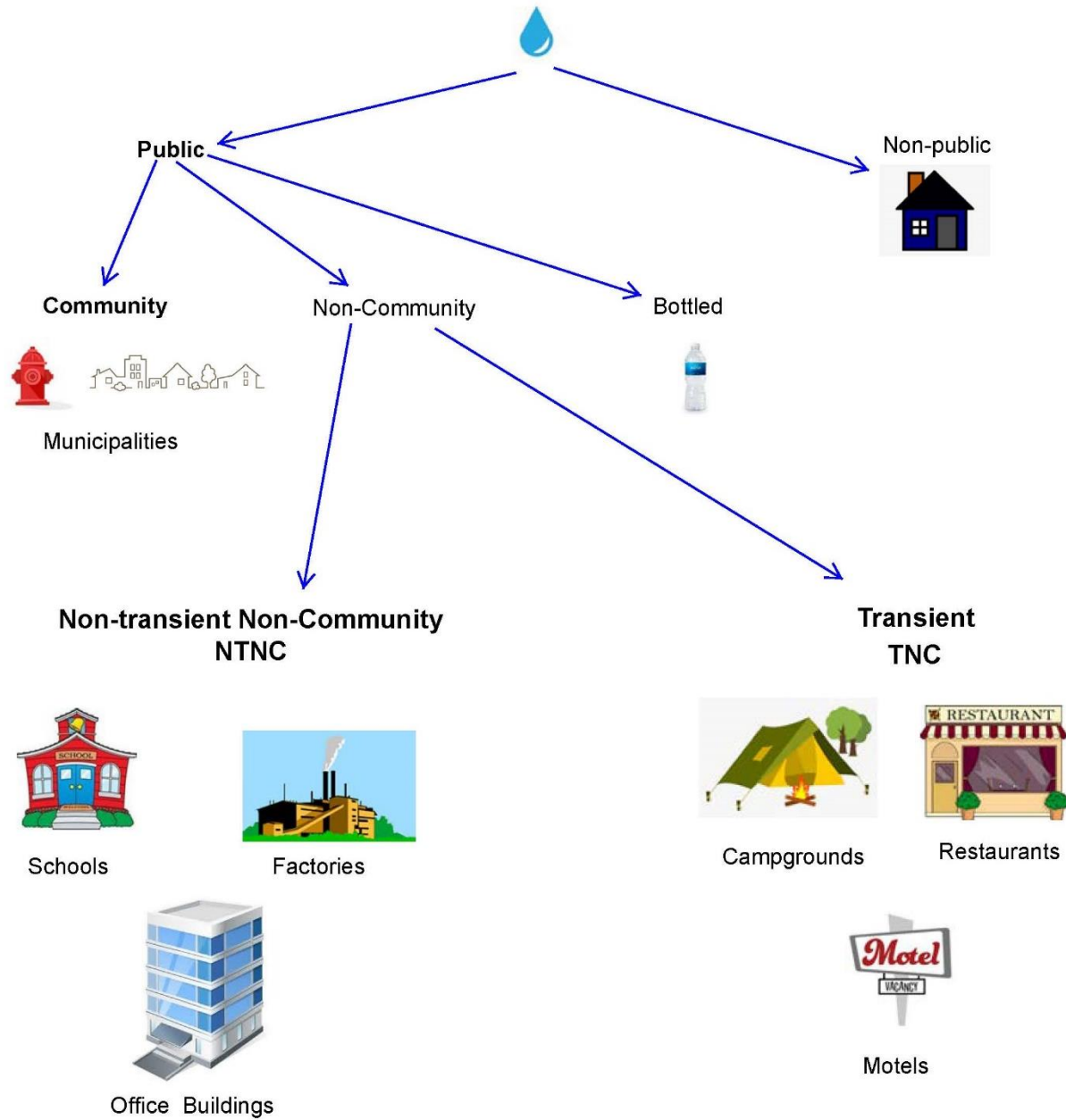


Public Transient Non-Community water system (TNC) means a public water system that serves at least 25 or more different people for more than sixty days of the year.

- Restaurants
- Motels
- Campgrounds



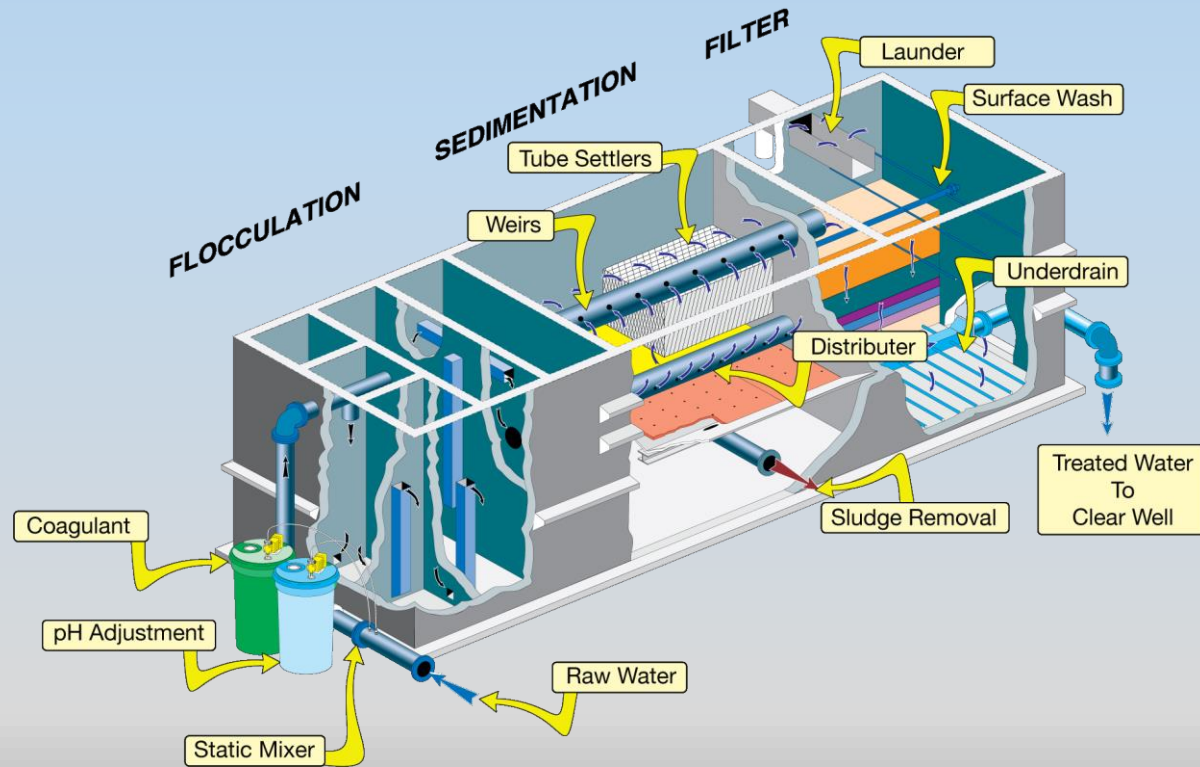
All Water Systems



Surface Water Source

Lake, River, Pond, Reservoir

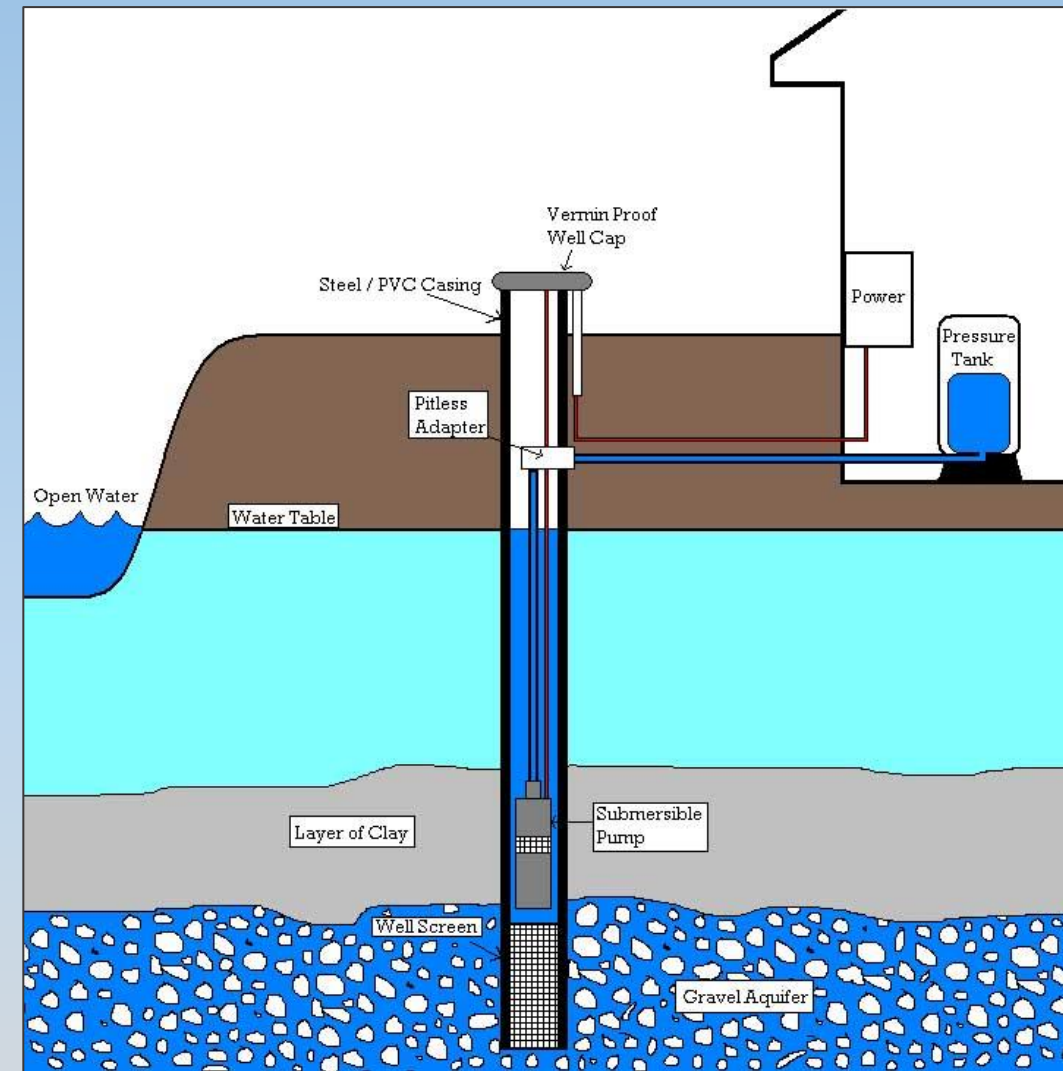
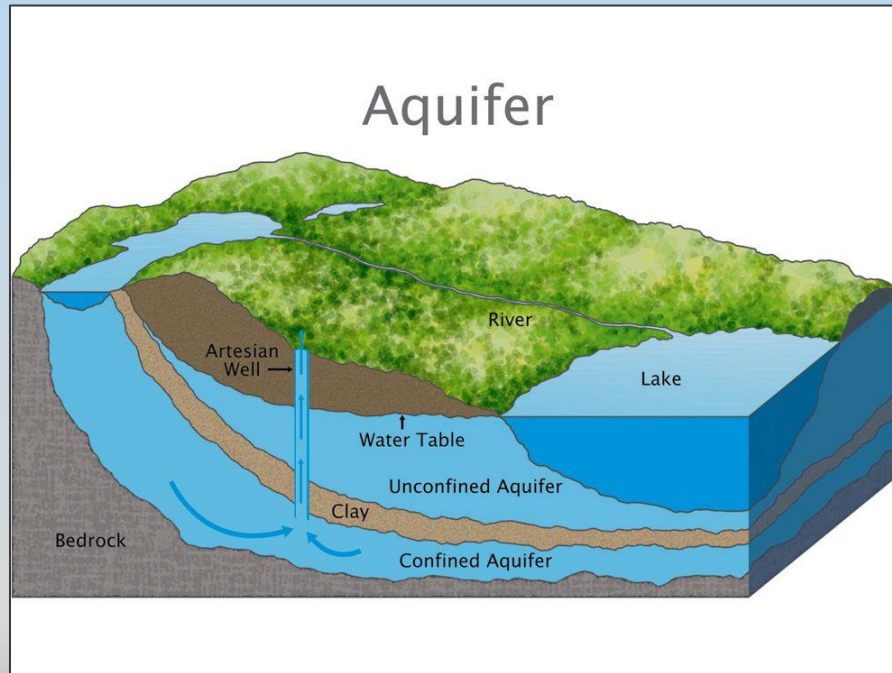
- ✓ Ample quantity but more vulnerable to contamination
- ✓ Requires treatment = filtration and disinfection



Groundwater Source

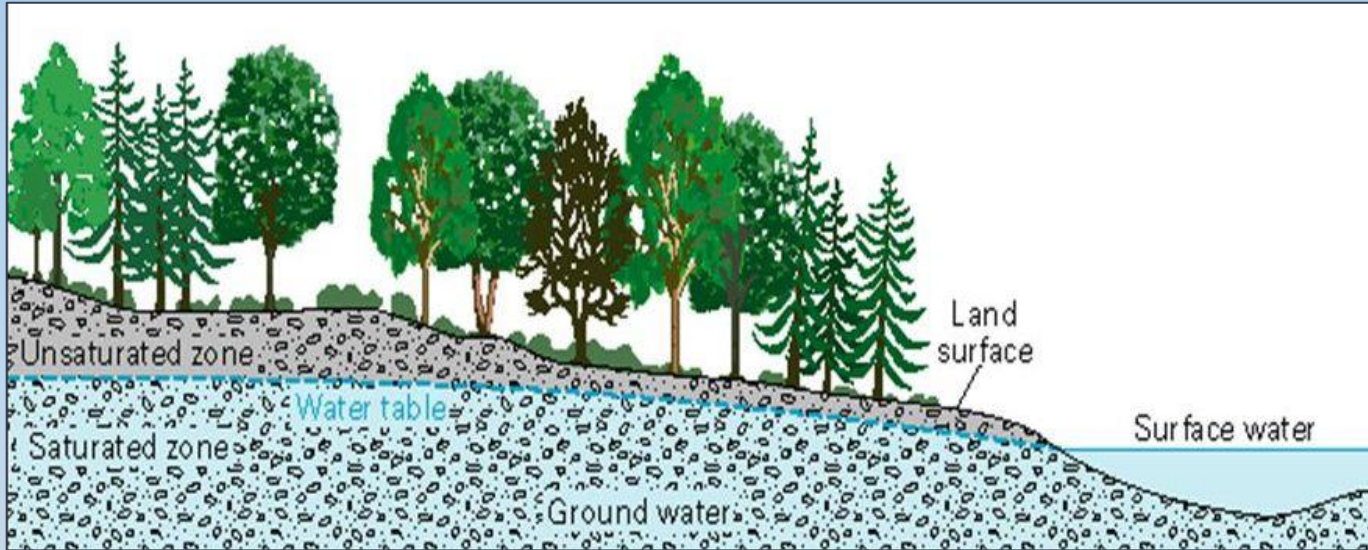
Underground

- Aquifers (confined or unconfined)
- Springs
- ✓ High quality water, generally no treatment required
- ✓ Quantity may fluctuate or be limited
- ✓ Are susceptible to naturally occurring contaminants (i.e. arsenic, radon, iron, manganese)

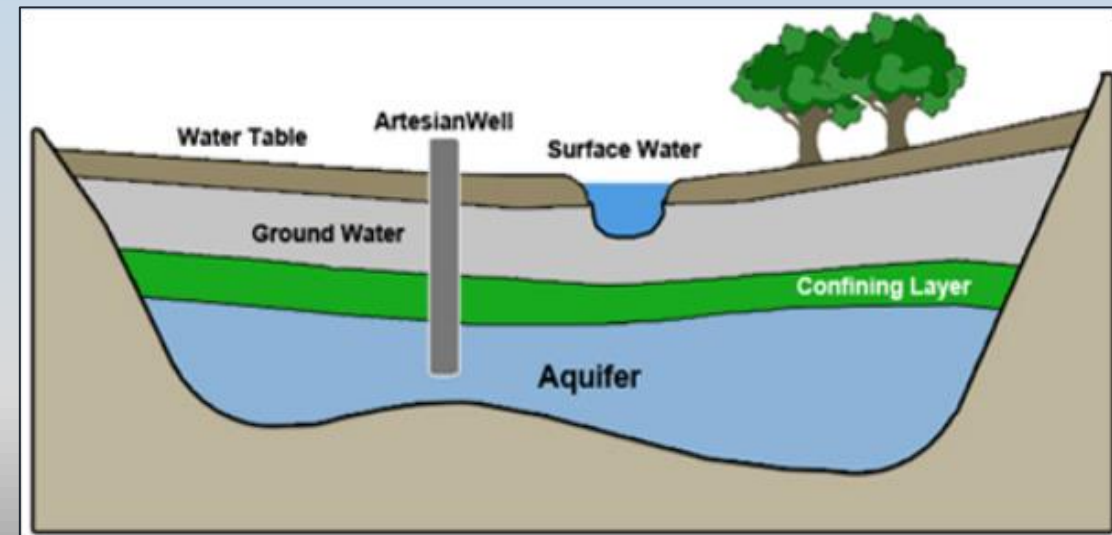


Surface water and groundwater systems are interconnected

Surface water can receive inflow from groundwater and groundwater is recharged from surface water.



This interaction between groundwater and surface water systems means that the quality and quantity of either can be influenced by each other.

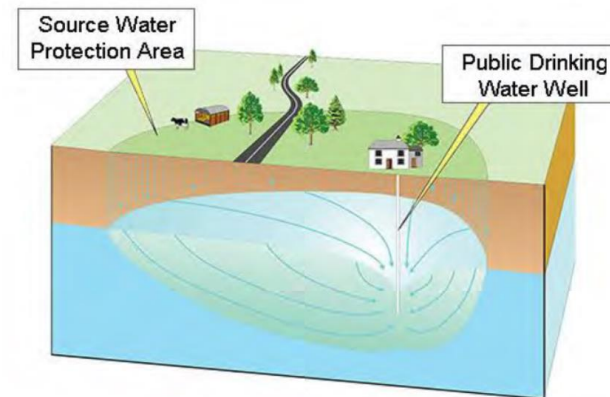


Source Protection Area

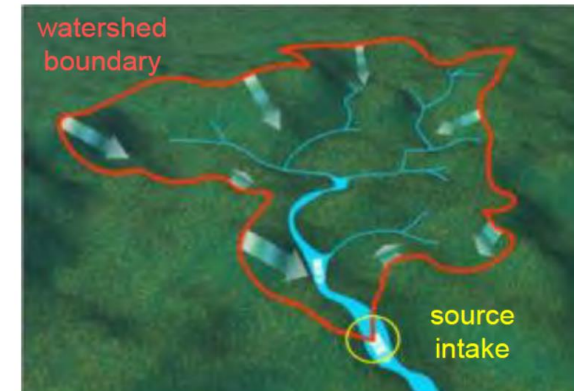
- ❖ The surface and subsurface area through which contaminants are likely to move toward and reach water supplies
(*Vermont Water Supply Rule*).

Well Head Protection Area = Source Protection Area

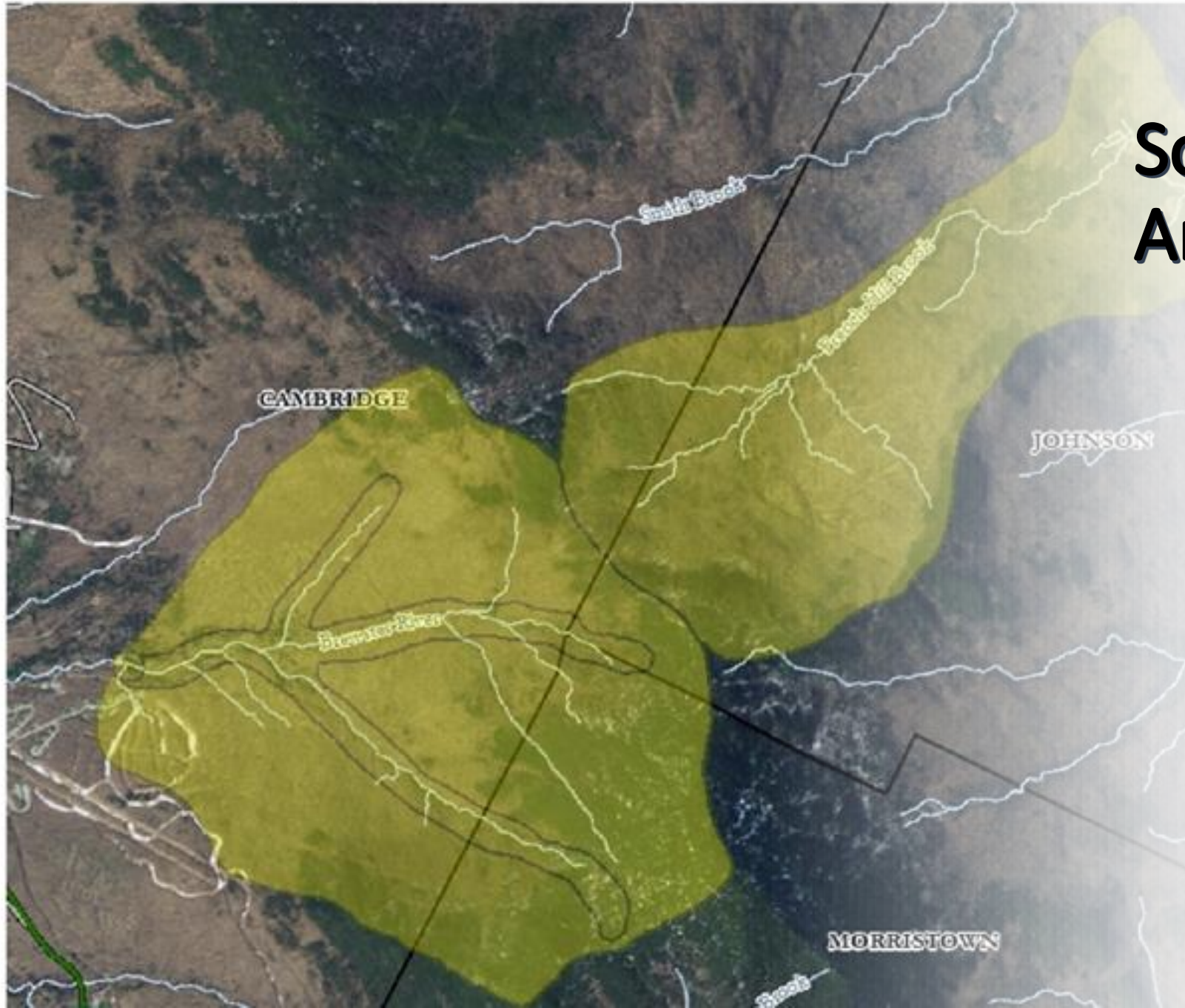
Source Protection Areas (SPA's) are areas through which contaminants are reasonably likely to reach a public water system source



Groundwater SPA



Surface Water SPA



Source Protection Area Delineation

- Determine the recharge area that supplies water to a public water source.
- Define the area of land in which activities are likely to impact the quality of a drinking water source
- Establishes boundaries....

Surface Water SPA Delineation

A Surface Water SPA is the watershed area contributing surface water and groundwater flow to the drinking water intake.

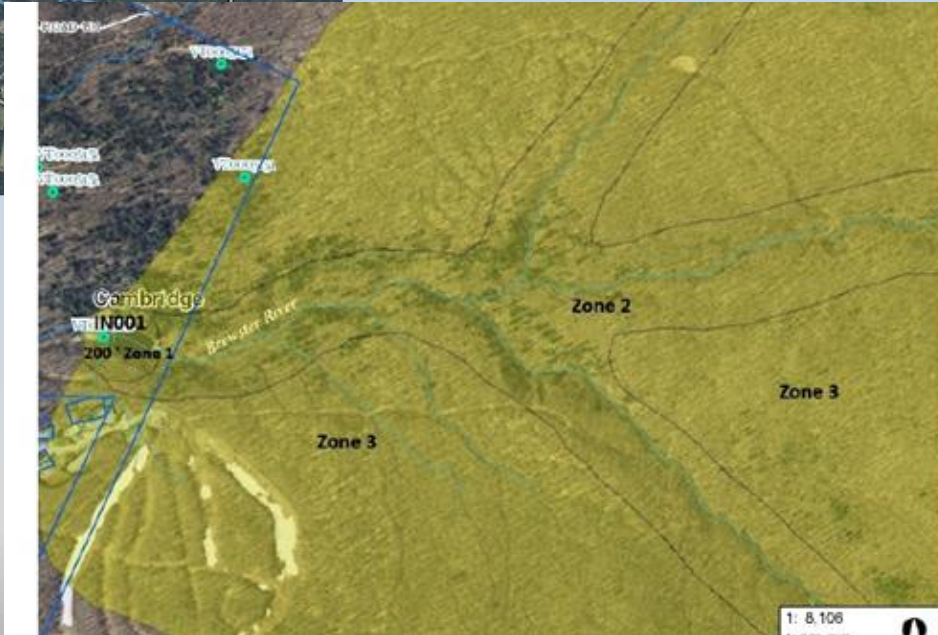
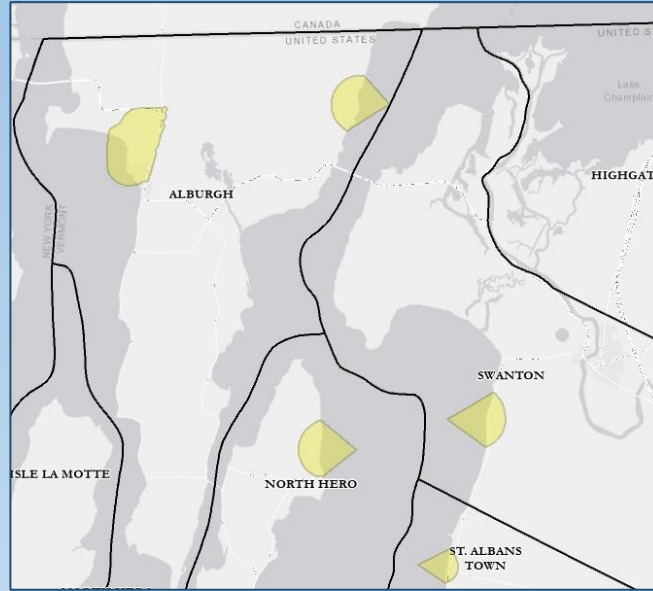
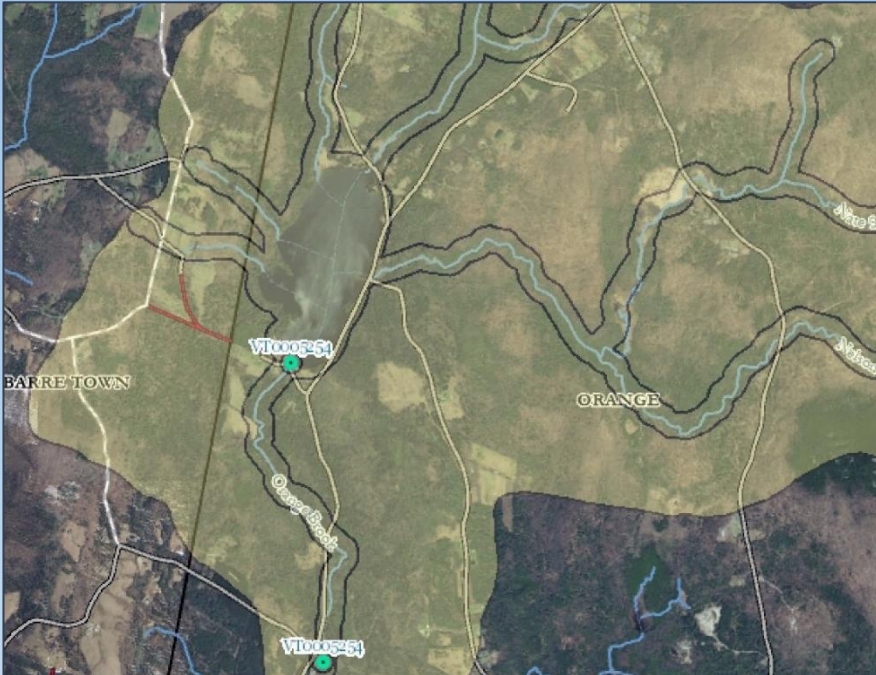
Surface Water SPAs are divided into Zones

Zone 1 is an area immediately around the drinking water withdrawal site. This is the area where impacts from contamination are likely to be immediate and certain. For public community water systems, this area is generally 200 feet around the intake.

Zone 2 consists of areas within the watershed located within 200 feet of perennial surface water. Zone 2 is limited to a maximum extent of 17,000 acres. Land uses occurring within this zone are considered to have a greater potential to impact the source than the majority of the watershed.

Zone 3 consists of the remaining watershed area outside Zones 1 and 2 where land uses have potential to impact drinking water quantity and quality.

Surface Water Source Protection Areas



LEGEND

- Public Water Sources
 - Active
 - Proposed
 - Inactive
- Surface/Water SPA
 - Active
 - Inactive
- Parcels (standardized)
- Parcels (non-standardized)
- Roads
 - Interstate
 - State Route
 - Minor Arterial
 - Minor Collector
 - Local
 - Not part of State's Greater or S
- Stream/River
- Town Boundary

Alburgh Village Water System SPA
 Vermont Agency of Natural Resources
 vermont.gov

LEGEND

- Public Water Sources
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 - Local
 - Not part of State's Greater or S
- Stream/River
- Town Boundary

Scale: 1" = 152 Feet, 1cm = 165 Meters
 0 422.00 843.00 Meters
 1: 18,586
 March 18, 2020

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. AFR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Groundwater SPA Delineation

A Groundwater SPA is the land area beneath which groundwater flows to a well, spring, or infiltration gallery. A contaminant released to the land surface or subsurface in a Groundwater SPA would be reasonably likely to move toward, and reach, the drinking water source.

Community Groundwater Systems

- Delineation created using existing geologic and hydrogeologic data, and pumping test data
- Established Zones

Non-Transient Non-Community Groundwater Systems

- The SPA boundaries are determined by using the fixed-radius-circle calculation method
- Calculation is based on Maximum Daily Demand (MDD)
- No Established Zones
 - Minimum set back to land uses
 - Minimum distance to Potential Sources of Contamination (PSOC)

* NTNC can choose to delineate the SPA using hydrogeologic methods

MDD of Source (gpm)	Radius of Proposed SPA (feet)
0'-4.9	500
5 - 19.9	1000
20-49.9	2000
50- 99.9	2500
100 or greater	3000

Source Protection Area Delineation

Community Groundwater Water Systems

- **Zone 1** is the area immediately around the water source. This is the area where impacts from contamination are likely to be immediate and certain. For public community water systems, this area is generally **200'** around the well, spring, or infiltration gallery. "Isolation Zone"
- **Zone 2** includes the area where groundwater flows to the source from outside Zone 1 and where there would be probable impacts to the water supply if contamination were to occur. "Primary Recharge Area"
- **Zone 3** consists of the remaining area that recharges Zone 2 and where impacts from potential sources of contamination are possible. This is usually, but not always, the area upslope from Zone 2 to the watershed boundary. "Secondary Recharge Area"

The **Two Year Travel Time Zone** is identified as an area where bacteria and virus threats (such as those from onsite disposal of sewage) would reach the drinking water source in less than two years by traveling through the soils. Two years is the time it takes most viruses to die off or become non-infectious in a groundwater environment.



Source Protection Plan
A WORKING DOCUMENT

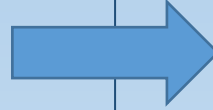
Protecting Drinking Water Quality and Public Health

Source Protection Plan

Vermont Water Supply Rule March 2020

PLAN COMPONENTS

- Source Protection Area Maps
- Source Protection Area Delineation
- Inventory of Potential Sources of Contamination
- Assessment of Potential Sources of Contamination
- **Management Plan of Risk**
- Contingency Plan



Plans must be updated every 3 years

COMPONENTS OF AN UPDATE:

- Inspection reports of potential sources of contamination
- Inventory and assessment of new potential and actual sources of contamination in source protection area
- Map location of new potential and actual sources of contamination
- Management plans for new potential sources of contamination
- A summary of any remedial or corrective actions taken on potential sources of contamination
- Changes in landowners; key town, county, or state officials; management techniques; source protection area; or other pertinent information
- Pertinent new requirements of state and federal rules which may have been adopted since the last update.

BEFORE YOU CAN MANAGE THE RISK, YOU NEED TO IDENTIFY THE RISK!

Type of Facility or business or land use.

Contaminants associated with facility/business/land use

Contact Name and Address

PSOC Map showing the location of the potential sources of contamination in relation to the Source Protection Area and the sources.

With prior approval of the Secretary, certain potential sources of contamination may be grouped together instead of listed individually.

INVENTORY OF PSOC's

Residential Land Uses

- Septic systems
- UST/AST
- Driveways
- Swimming pools
- Lawn care Products
- Household Hazardous waste

Utilities

- Herbicide spraying
- Transformers
- Salt Storage sheds

Traffic Corridors & Parking Lots

- Road salt
- Storm water runoff
- Vehicular fluids/oils

Commercial and Industrial Land Uses

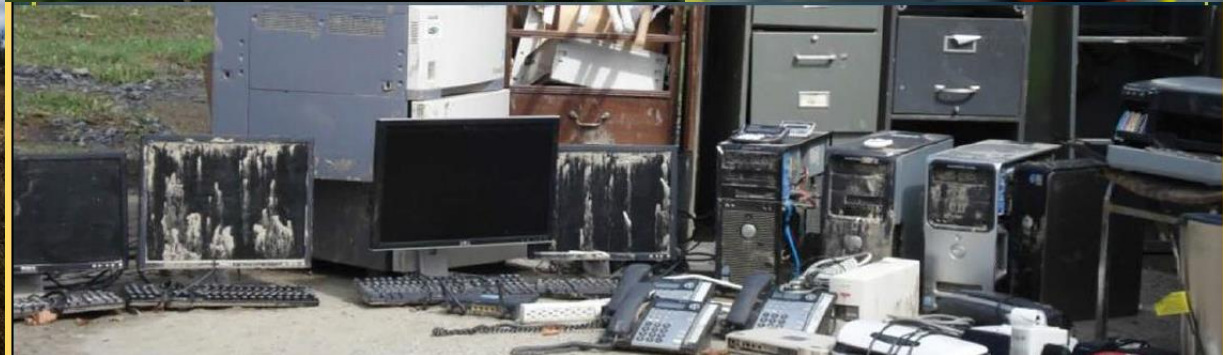
- Gas stations & Auto Repair Shops
- Manufacturing plants
- Hazardous Facility (Tier II facility)
- Machine & Metal Working Shops

- Junk Yards/Salvage Yards

- Landfills

Agriculture

- Animal waste
- Fertilizers, pesticides, herbicides
- Petroleum products
- Heavy Use Areas
- Abandoned springs
- Tillage/Plowing
- Irrigation
- UST/AST



Assessment of Potential Sources of Contamination

WHAT IS THE LEVEL OF RISK?

High, **Medium**, **Low**

FACTORS TO CONSIDER

- Distance
- Toxicity
- Elevation
- Level of control
- Volume of contaminant
- Prevalence of discharge
- Soil characteristics
- Aquifer characteristics
- Severity of illness or disease-causing capability
- Source construction integrity
- Known detection / actual PSOCs
- Other factors



Management Plan of Risk

The Source Protection Plan shall contain a plan for managing the potential and actual sources of contamination. This plan shall be directed towards controlling existing potential sources of contamination and, where possible, reducing risks of potential contamination.

What Strategies and Actions will the Water System use?

Who will be responsible for implementation?

Is there an immediate need?

Short Term vs Long Term?

- At a minimum, the Water System must notify all landowners within the Source Protection Area of the Source Protection Plan...

MANAGEMENT TECHNIQUES



ACQUISITION/CONTROL



COMMUNICATION



EDUCATIONAL
OPPORTUNITIES



LAND USE REGULATIONS



PARTNERSHIPS



FORESTRY



AGRICULTURE



INFRASTRUCTURE
IMPROVEMENTS

ACQUISITION/CONTROL

- Landownership - minimum 200 feet around water source(s)
- Own or acquire land in the SPA
- Easements
- Restrictive covenants
- Deed Restrictions
- Land Trusts
- Drinking Water State Revolving Fund-
 - Source Protection Loan Program



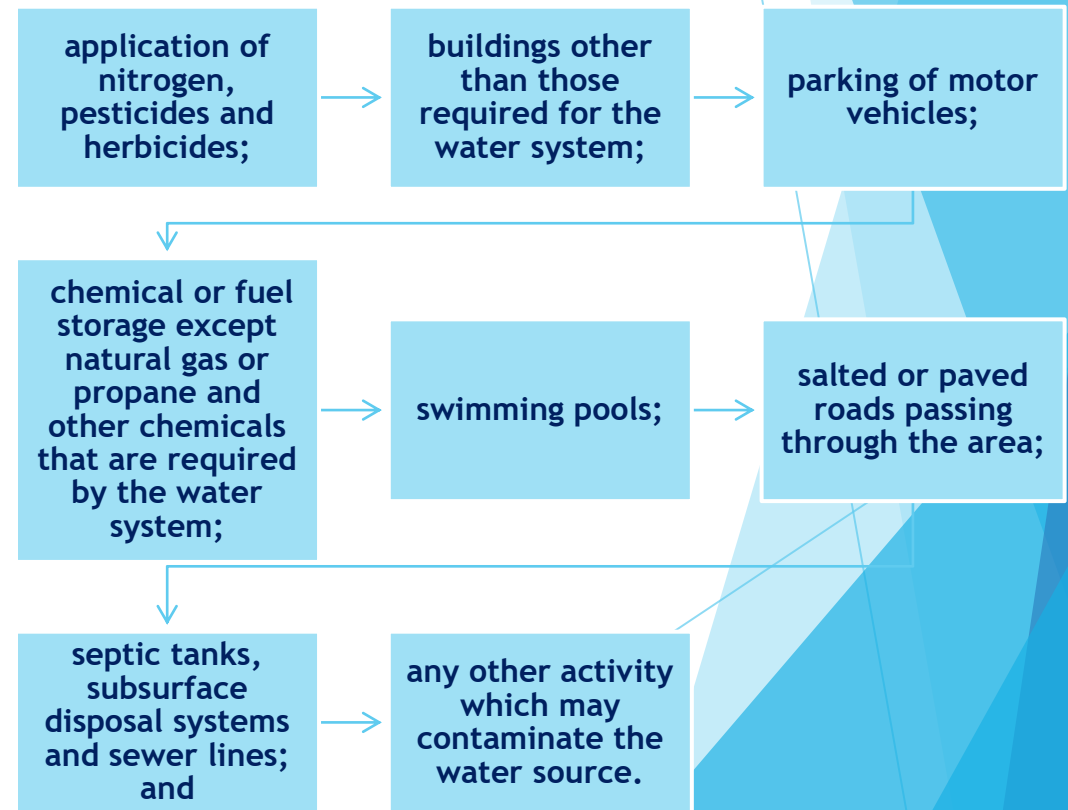
Isolation Zone – 200 ft radius

Public Community Ground and Surface Water Sources

Permitted Land Uses

- source operation and maintenance;
- playgrounds, ball fields, tennis courts;
- seasonal light duty roads;
- conservation zones;
- controlled use of potassium and phosphorous fertilizers; and
- other uses which have the approval of the Secretary.

Prohibited Land Uses



Communication

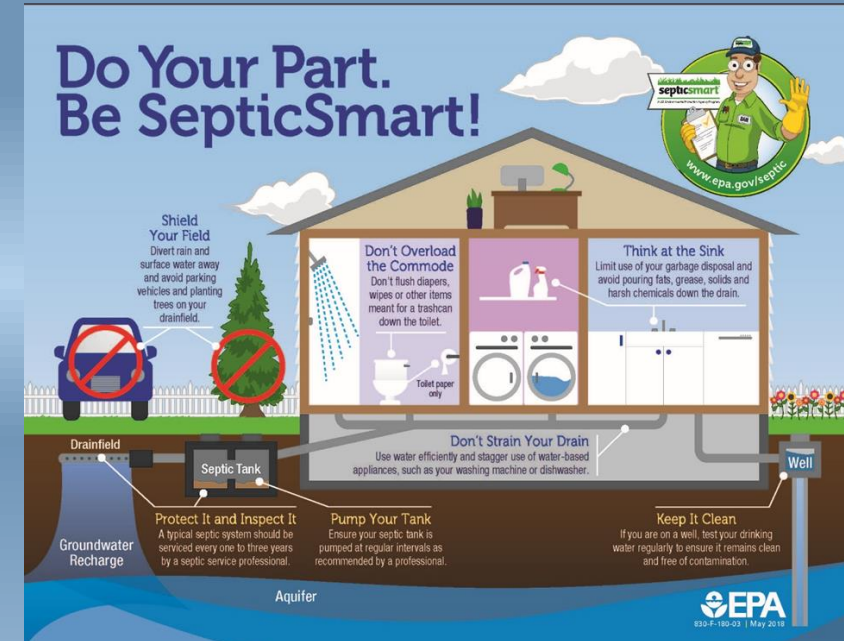
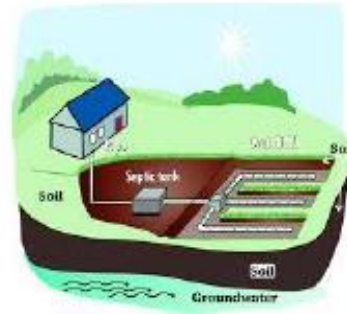
The key tool for promoting protection

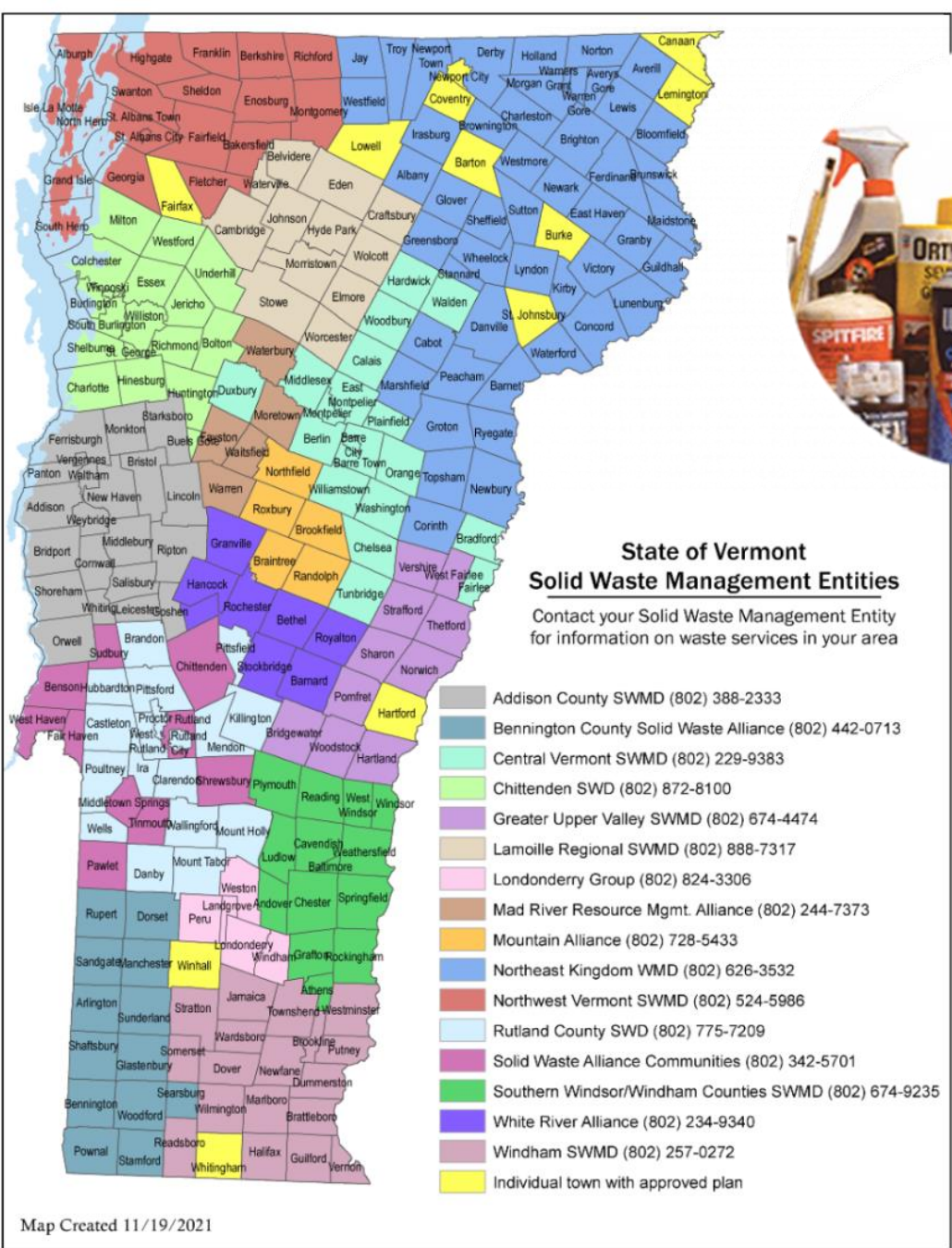
- Talk with landowners
- Promote voluntary participation
- Perform field visits
- Attend town/board/zoning meetings
- Reach out to Emergency Contacts
- Hold Informational Gatherings
- Present/Display at Town Meeting Day
- Annual letters, notes in billing statements,
and or CCR (Consumer Confidence Report)

EDUCATIONAL OPPORTUNITIES

- ❖ Use Informational handouts and fact sheets:
*Be Septic Smart info graphic (EPA),
Homeowners Guide to Onsite Wastewater Systems (DEC DWGPD trifold brochure).*
- ❖ VT DEPT. HEALTH – Promote Testing of Private Drinking Water wells.
- ❖ Groundwater Flow Model – a Table-top demonstration.
- ❖ Flyers in water bills, CCR, town offices.
- ❖ Town Meeting Day Displays & Handouts.
- ❖ School classroom demonstrations & talks.
- ❖ LEPCs (Local Emergency Planning Commissions)- Be a guest speaker.
- ❖ Work w/ Local Conservation Commission, schools, & scouting organizations to Plant Vegetative Buffer Strips along waterways.
- ❖ Attend Operator Trainings & maintain operator certification (VRWA posts training schedule).
- ❖ Post signs of the SPA
- ❖ NEIWPCC –Tools for Municipal Officials:
[https://neiwpcc.org/our-programs/gwswp/source-water-protection-](https://neiwpcc.org/our-programs/gwswp/source-water-protection-municipalities/)

[municipalities/](https://neiwpcc.org/our-programs/gwswp/source-water-protection-municipalities/)





Work with the local Solid Waste Management District to support Household Hazardous Waste Collection Days. Encourage landowner participation.

<https://dec.vermont.gov/waste-management/solid>



Source Water Protection

CONTACT US

SHARE



Protect Source Water with the Drinking Water State Revolving Fund

America's Water Infrastructure Act of 2018 expanded source water protection-related eligibilities under the Local Assistance Program set-aside.

- [View the webinar and slides.](#)
- [Read the fact sheet and case studies.](#)
- [Read the memo on expanded eligibilities.](#)



Drinking water comes from ground water (aquifers), streams, rivers, and lakes. Protecting these drinking water sources is key to sustaining safe drinking water supplies. Explore this site to learn the basics of source water protection, including assessment and implementation, and how you can help protect the source of your drinking water.

LOCAL PLANNING



LAND USE REGULATIONS & Policies

- ▶ Town Plan
- ▶ Zoning Ordinance
- ▶ Overlay District
- ▶ Groundwater Ordinance
- ▶ Groundwater Reclassification
- ▶ Hazard Mitigation Plan
- ▶ Emergency Management Plan
- ▶ Road Salt Reduction Policy
- ▶ Participate in Act 250 & Section 248 Permit applications
- ▶ Stormwater planning & MRGP (Municipal Roads General Permit)
- ▶ Watershed Management Plan

▶ Be vigilant and active in Hazard Mitigation Planning to protect vulnerable populations and infrastructure from storm damage and flooding.



FORM STRONG PARTNERSHIPS

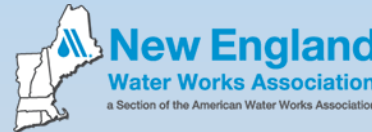
SWP is everyone's responsibility!
Water Systems can't do it alone.

Water System



- Operators
- Administrators
- Committees
- Customers
- Landowners
- Well Drillers Association
- Consultants

Agencies



Community



- **Local Boards and Committees:**
- (Selectboard, Conservation, Planning, Zoning, Recreation, etc.)
- Public Works Department
- Town Clerk
- Emergency Responders
- Local Schools
- Solid Waste Management District
- Non-profit organizations
- Utilities
- Businesses, including utilities
- Lake Shore Associations
- Municipal Officials

Partners in SWP:

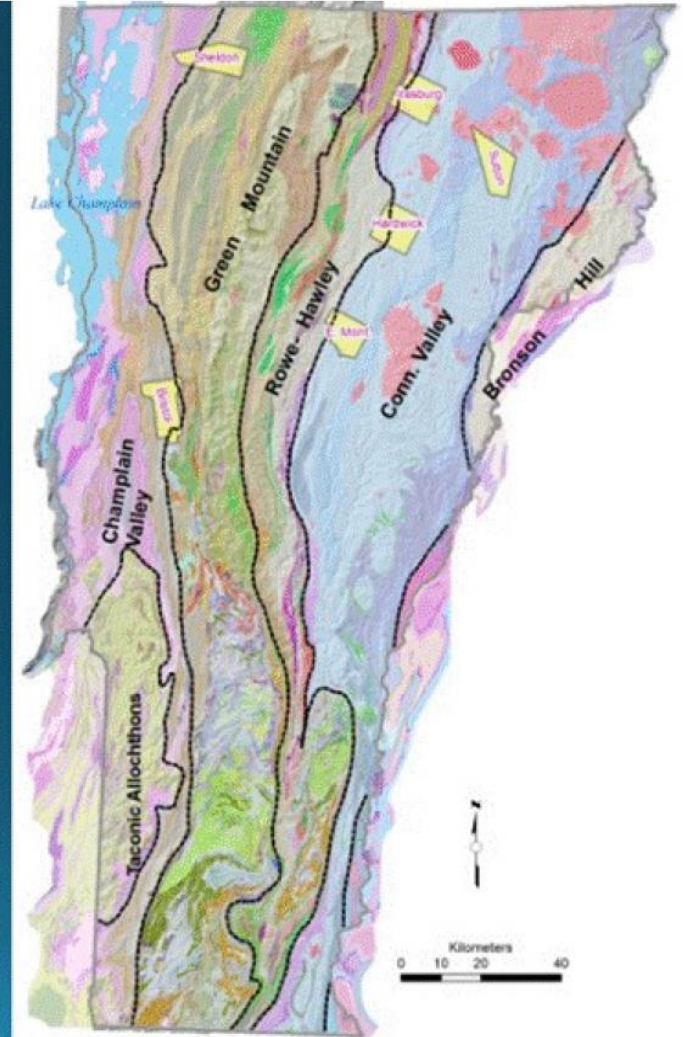
Vermont Geological Survey
and the
Agency of Agriculture
Food and
Markets

Vermont Geological Survey and AAFM Collaboration on Nitrate Contamination



“Completed”
-East Montpelier
-Sheldon

Ongoing
-Sutton
-Hardwick
-Bristol
-Irasburg



Jonathan Kim, Ph.D., P.G. | Geologist
Vermont Department of Environmental Conservation
Vermont Geological Survey



NRCS
Natural Resources
Conservation Service

Forestry Stewardship

- Current Use Program (Use Value Appraisal)
- Forest Stewardship Practices
- Conservation Practices
- Forest Management Plan and Timber Harvest Plan
- Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in VT, rev Aug. 2018
- County Foresters
 - <https://fpr.vermont.gov/forest/list-vermont-county-foresters>
- Woodlot management on small parcels
- Tree Farms
- Federal and State SPA initiatives for forested lands
 - located within a Source Protection Area

Agriculture

Vermont Required Agricultural Practices

Conservation and Water Quality grant
Programs (such as EQIP)

Farm Bill 2018 – priority conservation practices
10% of total available conservation program funds
for Source Protection

NRCS EQIP Application Deadline October 20, 2023

VERMONT

REQUIRED AGRICULTURAL PRACTICES RULE

FOR

THE AGRICULTURAL NONPOINT SOURCE POLLUTION
CONTROL PROGRAM

(Effective November 23, 2018)



AGENCY OF AGRICULTURE, FOOD & MARKETS
WATER QUALITY DIVISION

116 STATE STREET
MONTPELIER, VERMONT 05620-2901
phone: (802) 828-2431; fax (802) 828-1410
AGR.RAP@Vermont.gov



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Source Protection and NRCS



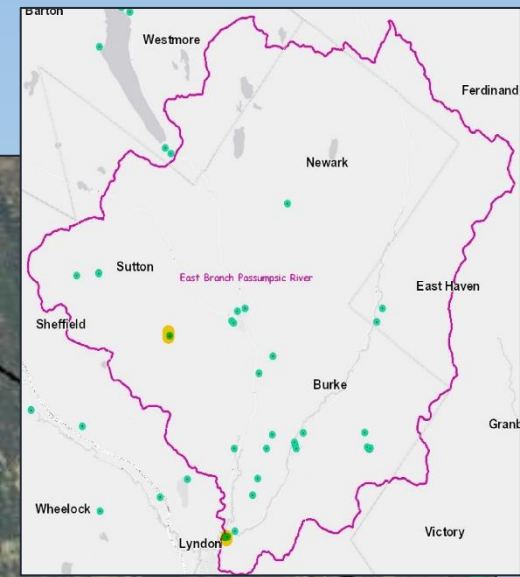
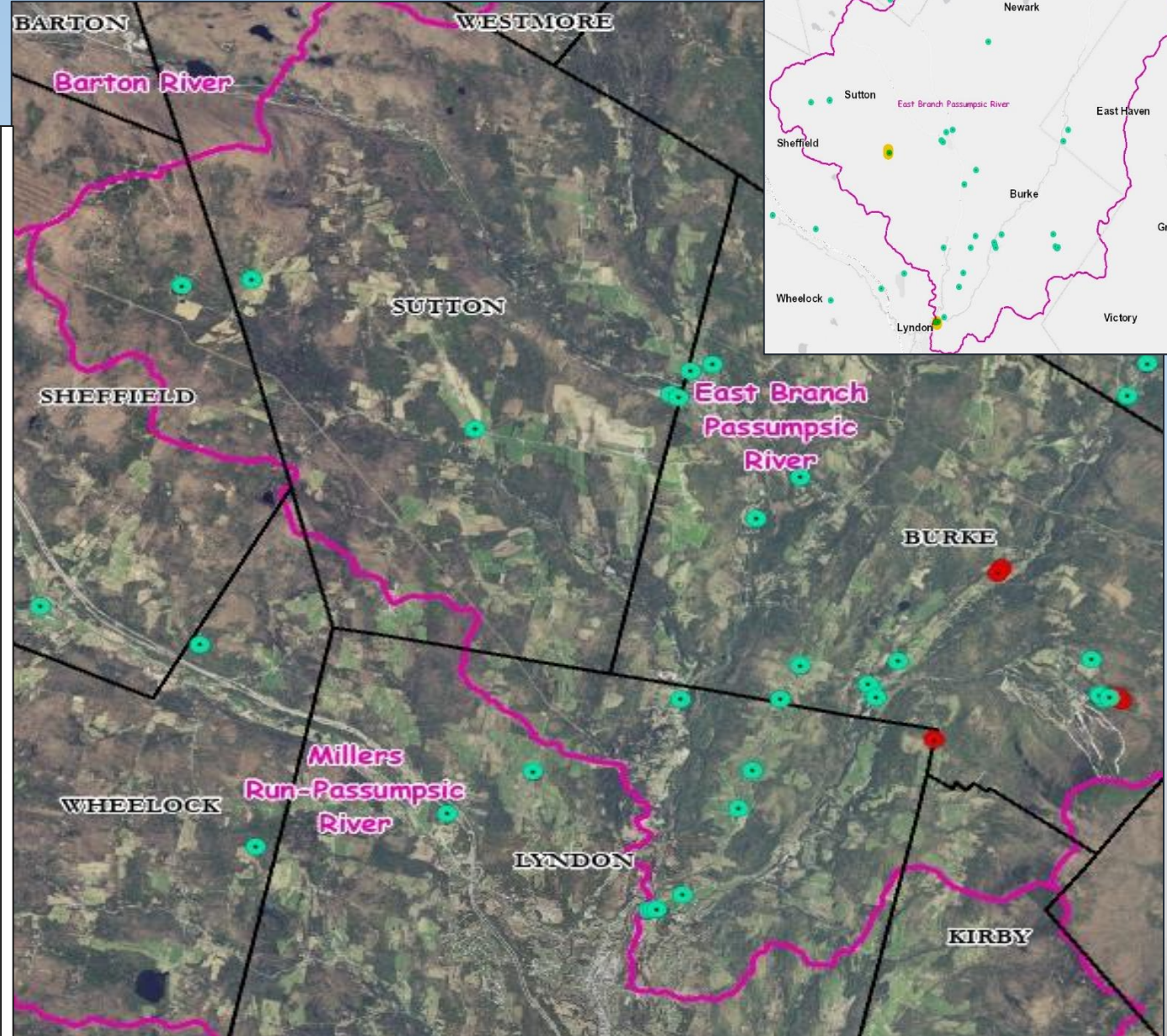
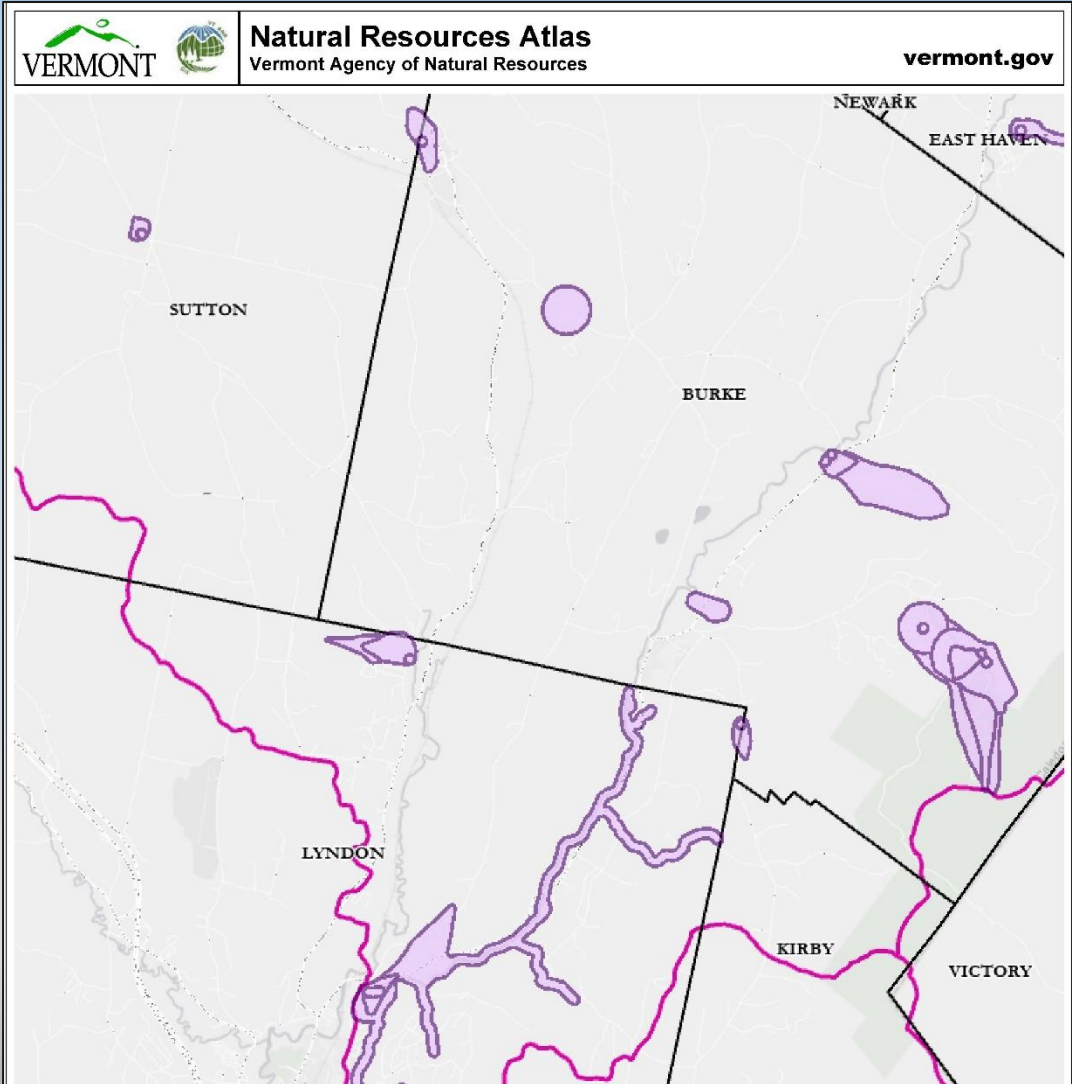
2018 Farm Bill

Implement Source Water Protection Provisions

Methods:

- Identify local priority areas
 - Collaborate with State Technical Committee & Community PWS
 - Address either or both Quality & Quantity
 - The delineated **SPA's** should have a **Source Protection Plan**
- Provide increased incentives for water quality practices
 - Related to Water Quality & Quantity
 - While also benefitting producer
- Dedicate at least 10% of total available conservation program funds for Source Protection
 - 2019 – 2023

Headwaters Passumpsic River 0108010201



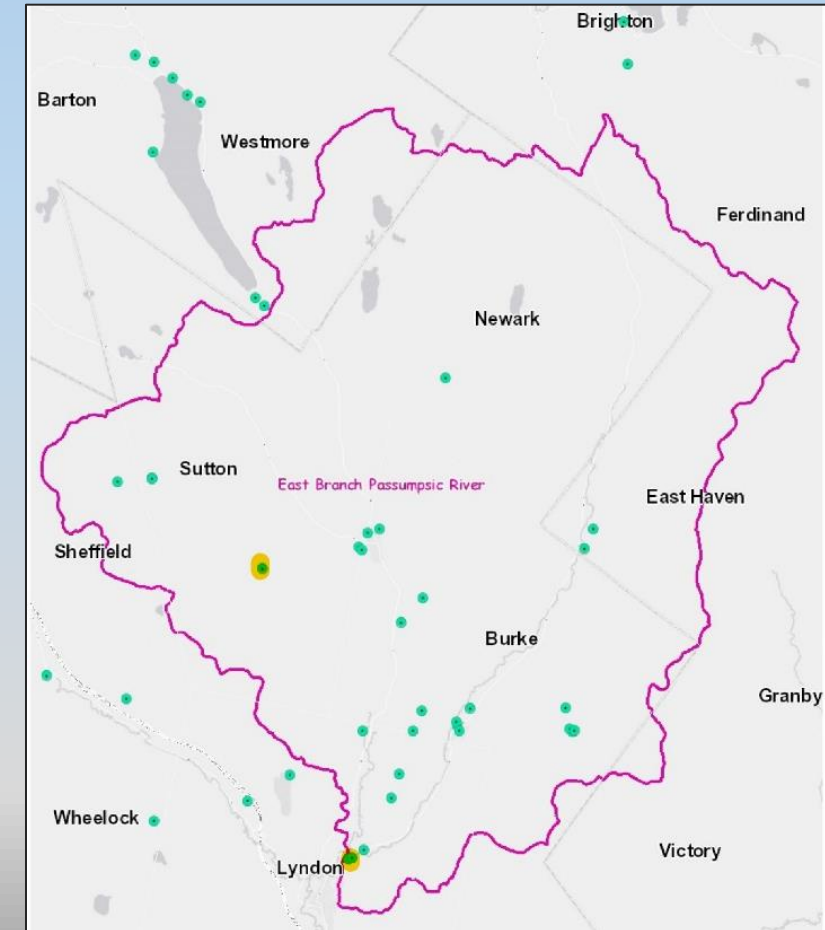
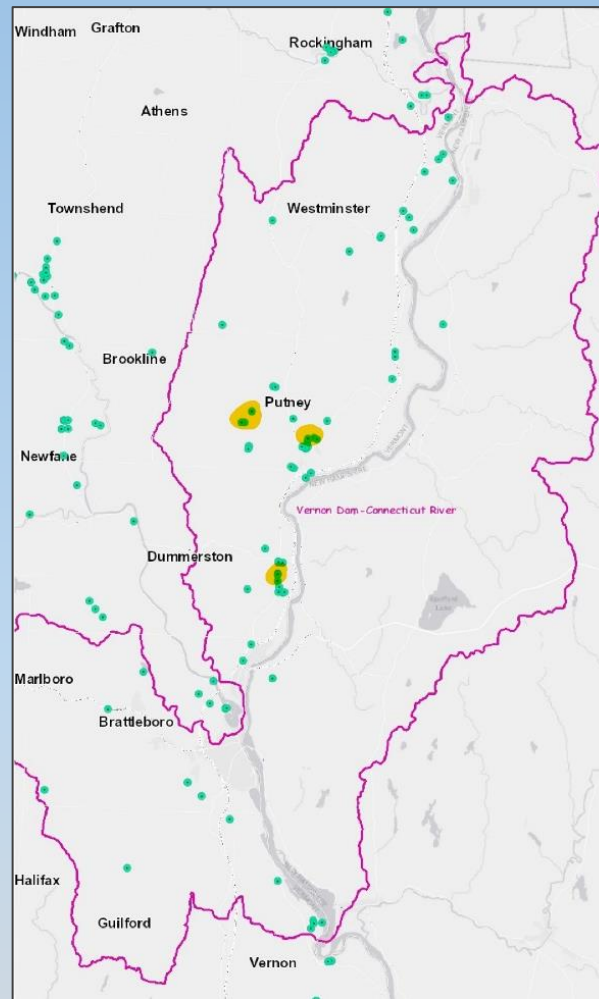
Priority Areas

Vernon Dam-Connecticut River

- Putney School VT0006624
 - Nitrate
 - Ion exchange of iron & manganese
- Charette VT0005621
 - Nitrate
 - Arsenic treatment

Headwaters Passumpsic River

- Sutton VT0005048
 - Nitrate
 - Treatment
- Lyndonville VT0005040
 - Nitrate
 - GAC- Granular Activated Carbon





Natural Resources Conservation Service

Conservation Priority Practices

Groundwater Testing (code 355)

Well Decommissioning (code 351)

Integrated Pest Management (code 595)

Aquifer Flow Testing (code 224)

Fence (code 382)

Monitoring Wells (code 353)

Field Borders (code 386)

Stormwater Runoff Control (code 570)

Conservation Crop Rotation (code 328)

Agrichemical Handling Facility (code 309)



Infrastructure Improvements and Water System Regulatory Activities

Well camera investigation -detect cracks, leaks, well casing condition

Install barriers such as fencing, bollards, or cement blocks

Provide secondary containment for chemical and fuel/oil storage

Maintain O&M Manual

Properly fitted well caps and casing integrity

New treatment systems or sources

Replace broken or leaky waterlines

Keep SPP current and up to date

Maintain and inspect facility routinely & perform scheduled tasks (i.e., chemical monitoring, storage tank cleaning, flushing, etc.)



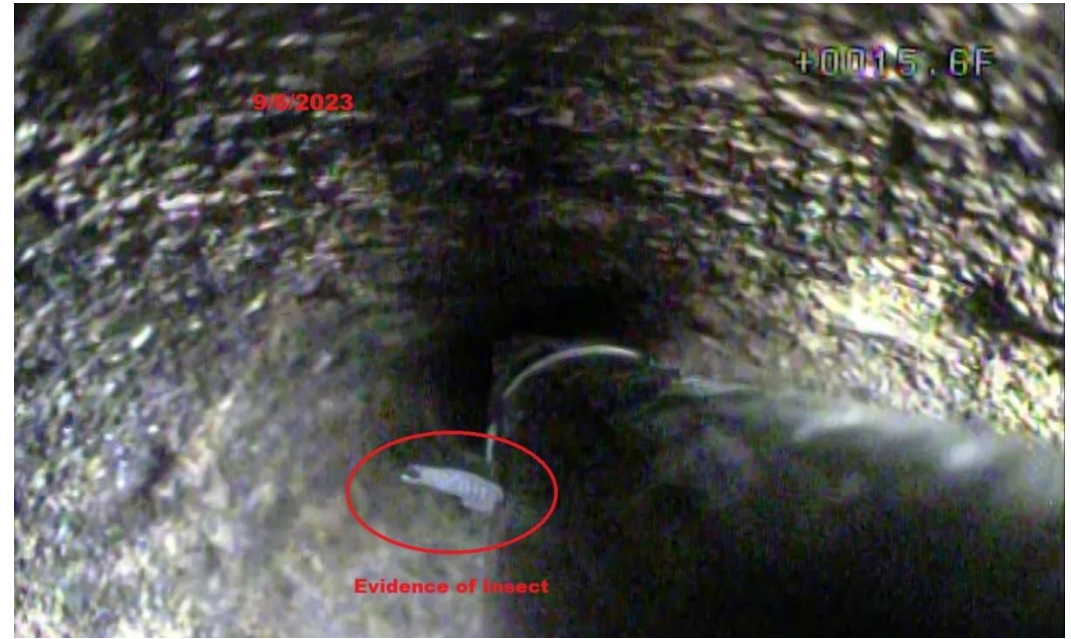
Why Would I Need a Well Inspection?

A well camera inspection is intended to aid public water systems in troubleshooting problems and/or to proactively identify potential future problems. Oftentimes, inspections are requested following coliform detections, increased turbidity, decreased yield, or general changes in water chemistry or appearance. The Vermont Rural Water Association is happy to provide this service, free of charge, to member systems who request it and as staff availability permits.

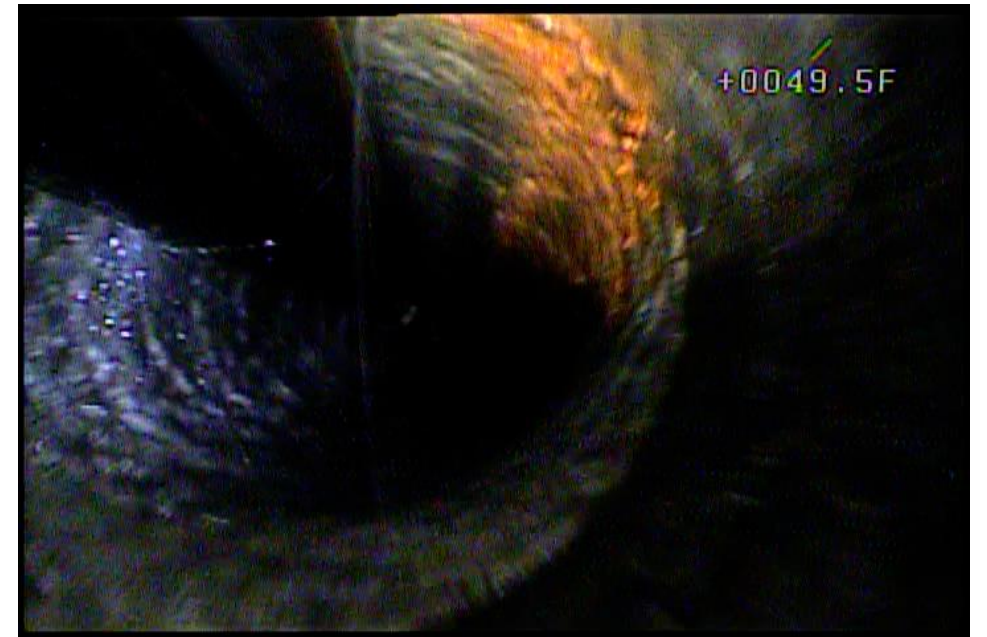


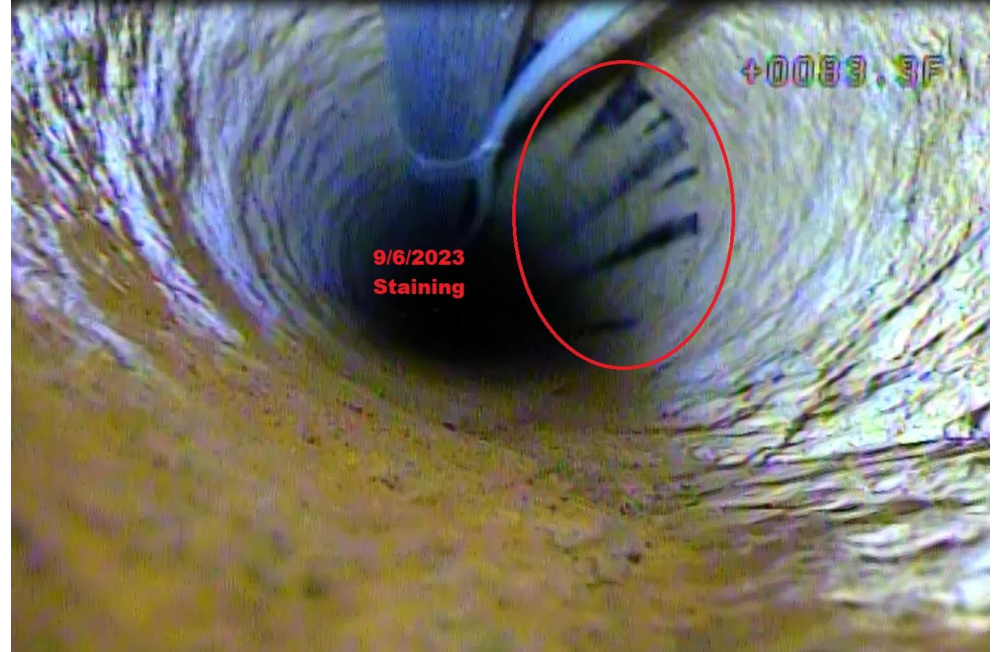


Well Camera and Sounder



Static
water
level
Insect
detection
Staining
Leakage





WELL CAMERA DETECTIONS

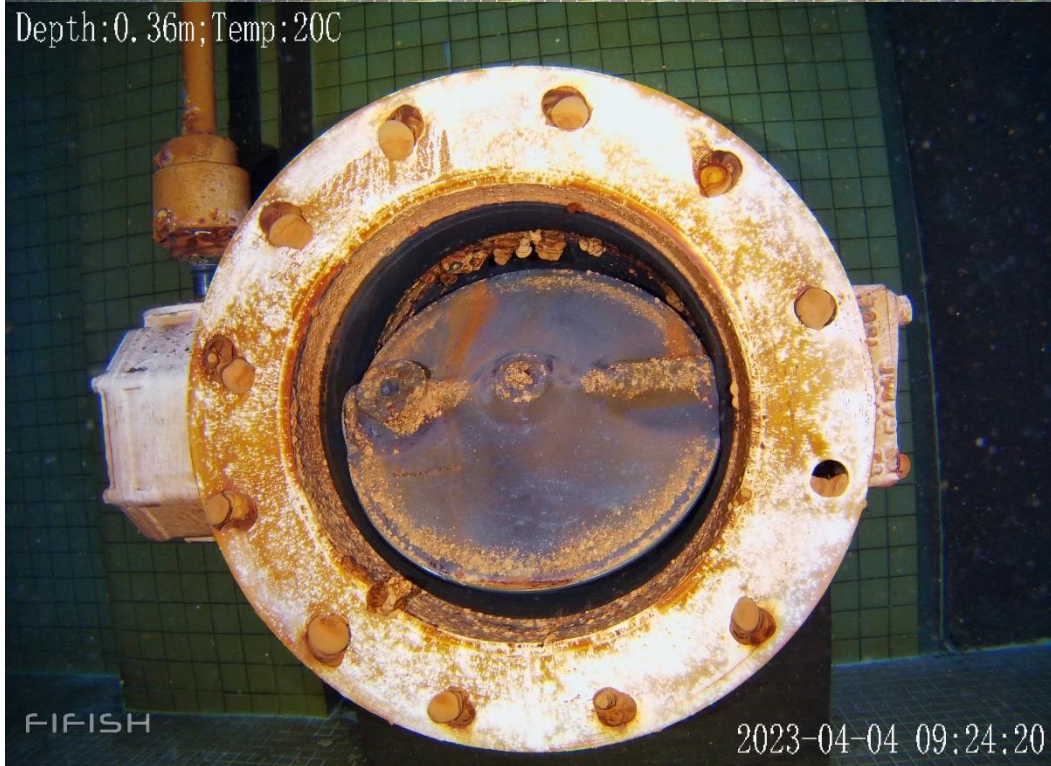
Depth:0.36m;Temp:20C



FIFISH

2023-04-04 09:30:11

Depth:0.36m;Temp:20C



FIFISH

2023-04-04 09:24:20



UNDERWATER DRONE
INSPECTIONS



WL003
5/2/2023



WELL HEAD MAINTENANCE
SECONDARY CONTAINMENT
CHEMICAL STORAGE

DEC Grant and Loan Programs Chart

<https://dec.vermont.gov/grant-loan-programs>

A scenic view of a rocky stream with a fallen log in the foreground. The water is clear and flows over mossy rocks. The background shows more rocks and a forested area.

Keep your Source Protection Plan up to date and current

SPP Renewal required every three years:

- SPA Boundaries
- Water System Details
- New or changes to water sources
- Personnel
- Landowners
- Contingency Plan changes and updates to Emergency Contact List
- Shut Down/Start Up Procedures
- Implementation Actions Taken
- New or changes to PSOC
- Management of Risk Plan changes



THANK YOU
Questions and Answers

Information slides to follow in case questions come up about the rules and isolation distances and other resource materials and information to share as needed. I don't plan on showing these slides (#55-64) unless a question is asked related to them.

NTNC

Required Horizontal Minimum Separation Distances

VT WSR Appendix A, Part 11

11.4 Isolation and Separation Distances

Table A11-1

POTENTIAL SOURCE OF CONTAMINATION AND OTHER SITING LIMITATIONS	SEPARATION DISTANCE
Roadway, Parking Lot (outer edge of shoulder)	25 Feet
Driveway (Fewer than 3 residences)	15 Feet
Sewage System Disposal Fields	(See a.)
Subsurface Wastewater Piping and Related Tanks	50 Feet
Property Line	10 Feet (See b.)
Limit of Herbicide Application on utility R O W	100 Feet (See c.)
Surface Water	10 Feet (See d.)
Flood ways	(See e.)
Buildings	10 Feet
Concentrated Livestock Holding Areas and Manure Storage Systems	200 Feet
Hazardous or Solid Waste Disposal Site	(See f.)
Non-sewage Wastewater Disposal Fields	(See f.)

Table A11-2

Design Flow of Domestic Sewage System Disposal Field (GPD)	Water Source Maximum Daily Demand (GPM)			
	0-1.9	2.0-4.9	5.0-7.9	>8.0
Fewer than 2,000	100	150	200	200 ^{+a}
2,000 through 6,499	150	150	200	200 ^{+a}
Equal to or Greater than 6,500	200 ^{++b}	200 ^{++b}	200 ^{++b}	200 ^{+a}

****Resources to assist in the inventory and assessment can be found here:***

DEC DATA SETS - Environmental records -search for Waste Management (Hazardous Sites, Brownfield Sites, Spills, UST, Hazardous Waste, Solid Waste, Salvage Yards, AST, Dry Cleaners, PFAS Samples), Ground Water Reclassification, and Watershed (Stormwater and Wetlands) data files:

<https://anrweb.vt.gov/DEC/ERT/>

<https://anrweb.vt.gov/DEC/ERT/UST.aspx>

DEC SPILL MANAGEMENT:

<https://dec.vermont.gov/waste-management/spills#SpillReporting>

WASTEWATER REGIONAL OFFICE PERMIT SEARCH:

<https://anrweb.vt.gov/DEC/WWDocs/Default.aspx>

ANR NR Atlas LAYERS

<https://anrmaps.vermont.gov/websites/anra5/>

TIER II REPORTS (contact your local Fire Chief or the state EPCRA Program Manager for Tier II reporting facilities in your community):

Patrick McLaughlin EPCRA (Tier II) Program Manager

Cell (802) 585-4468

Email Patrick.Mclaughlin@vermont.gov

<https://vem.vermont.gov/programs/epcra>

INDIRECT DISCHARGE PERMITS

<https://anrweb.vt.gov/DEC/DEC/FIDP.aspx>

VT AGENCY OF AGRICULTURE, FOOD AND MARKETS

Pesticide Program (Permits, Golf Courses, ROW)

<https://agriculture.vermont.gov/public-health-agricultural-resource-management-division/pesticide-programs>

<https://agriculture.vermont.gov/public-health-agricultural-resource-management-division/pesticide-programs/pesticide-permits>

FLOOD READY (Flood Maps/Flood Risk/Community Reports):

<https://floodready.vermont.gov/>

LOCAL KNOWLEDGE AND TOWN CLERK AND OR TOWN PLANNING/ZONING OFFICE.

<https://maps.vcqi.vermont.gov/parcelviewer/>

**The community should verify the accuracy of the data by conducting field surveys and using local knowledge. Not all potential contaminant sources will have available data for mapping, especially those that are unregulated. Include any Town Plan and Zoning regulations that are in place to protect the sources in the assessment of risk. Also Land Trust easements and conservation areas should be factored in.*

Tool Links

<https://anrmaps.vermont.gov/websites/anra5/>

<https://maps.vcgi.vermont.gov/parcelviewer/>

<https://anrweb.vt.gov/DEC/WellDrillerReports/Default.aspx>

<https://anrweb.vt.gov/DEC/ERT/UST.aspx>

<https://anrweb.vt.gov/DEC/WWDocs/Default.aspx>

Helpful Links

<https://dec.vermont.gov/water/drinking-water/public-drinking-water-systems/source-water-protection>

<https://vtruralwater.org/drinking-water/source-water-protection/>

<https://dec.vermont.gov/waste-management/spills#SpillReporting>

<https://dec.vermont.gov/water/drinking-water/public-drinking-water-systems/source-water-protection>

VERMONT OFFICIAL STATE WEBSITE


AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

SEARCH
CONTACT

AIR AND CLIMATE LAND WASTE WATER LEARN MORE, DO MORE

Home
About DEC
Commissioner's Office
Administration and Innovation
Air Quality and Climate
Drinking Water and Groundwater
COVID-19 Response and Resources
PFAS (Per- and polyfluoroalkyl substances) Information Page
Public Drinking Water
Public Drinking Water Systems
Public Community and Non-Transient Non-Community Water Systems
Transient Non-Community Water Systems
Domestic Bottled and Bulk Water (VT Sources)
Imported Bottled Water (Non-VT Water Sources)
Source Water Protection
Rules and Regulations
Forms and Applications

SOURCE WATER PROTECTION



Since 1992, a Public Community and Non-Transient, Non-Community Water System must have an approved Source Protection Plan (SPP). This Plan addresses the actions the public water system will perform to minimize the contaminant risks to their drinking water supply source(s). This is also necessary in order to receive an [Operating Permit](#), [Phase II/V Monitoring Waiver](#), and/or [Phase II/V Monitoring Waiver Renewal](#). The water system is required to submit an updated plan to the Division every three years for approval.

Source Protection Area (SPA)
Area of land that likely recharges or passes groundwater through it to the public water source, and the basis of the activities that the water system will perform to minimize contamination and are identified in the SPP.

Fact Sheets

- [Groundwater SPA for PCWSs](#)
- [Groundwater SPA for NTNCs](#)

Public drinking water systems are required to develop and implement Source Protection Plans (SPPs) to protect their drinking water sources.

Our Source Water Specialist can help your system write or update a Source Protection Plan. Find contact info [here](#). Due to limited staff time, priority will be given to Member Systems.

You can use the resources below to write or update your system's Source Protection Plan.

Downloads

[Checklist: Required Information for a Source Protection](#)

[Guidance: Required Information for a Source Protection Plan](#)

[Checklist: Preparing a Source Protection Plan Update](#)

[Powerpoint: Updating Your Source Protection Plan](#)

[Fact Sheet: Groundwater Source Protection Areas \(Community Water Systems\)](#)

[Fact Sheet: Groundwater Source Protection Areas \(NTNC Systems\)](#)

[Fact Sheet: Surface Water Source Protection Areas](#)

[Fact Sheet: Source Protection Active Implementation](#)

[Help Guide: Potential Sources of Contamination](#)

[Required Agricultural Practices](#)



[Click to download the Septic Smart brochure.](#)

Links

[Natural Resources Atlas – online mapping tool](#)

[Vermont Center for Geographic Information – parcel viewer](#)

Tools

ANR Atlas

GW/SW SPAs

Hazardous Sites

Stormwater Permits

Sewer Service Area

Measuring & Labeling

Contours and Land Features

Create a Map - Printing/Save

Parcel Viewer

Well Completion Reports

UST & Hazardous Sites databases

Septic Tank Search & DEC Permit database



Water Suppliers



Bottler Water Providers

Misty Meadows	Rutland, VT	802 775 1172
Vermont Heritage	Newport, VT	802 334 2528
Crystal Rock/Vermont Pure	Williston, VT	800 492 8277

Bulk Water Haulers

Name	Phone #	Alternate	Website	Capacity	Water Source
Fresh Water Hauler (Underhill)	802-658-2223	802 355 4321	www.freshwaterhaulers.com	4600 gallon	Stowe Water District
Pristine Mountain Springs (Stockbridge)	802-746-8186	802-236-3989 cell	https://pristine-mountain-springs.business.site/	8000 gallon (4)	Colton Springs Water Supply
A-1 Water Delivery (St Albans)	802-355-4892	gwright@surfglobal.net	http://a1waterdeliveryvt.com/	4250 gallon	Purchase from Municipality
H2O Express Transport, LLC (Schuylerville, NY)	518-791-2484		www.h2oexpress.com	6200 gallon	City of Troy

STATE AGENCY PHONE NUMBERS

VT Drinking Water and Groundwater Protection Division

Main Line: 802-828-1535

Janelle Wilbur *Compliance and Certification Manager*: 802-585-4898

David Love *Compliance Analyst*: 802-585-4902

VT Department of Health

800-464-4343

802-863-7200

VT Waste Management and Prevention Division

802-828-1138

24-HR HazMat Hotline

800-641-5005

National Response Center

24-HR HazMat Hot line: 800-474-8802

VT Department of Emergency Management

WATCHMAN: 800-347-0488

