

Drinking Water and Groundwater Protection Division

**Public Source Water Permit Application**

A Source Permit Application is required for proposed new, or changes to existing, Groundwater and Surface Water Source(s) to serve a Proposed or Existing Public Community Water Supply, pursuant to *Vermont Water Supply Rule*. A site visit will be scheduled following review of an administratively and technically complete application and certification of public notice.

**NOTE: The Applicant shall provide notice of this Application by U.S. mail to all property owners adjoining the project parcel at the time this Application is submitted to the Secretary. The Applicant shall sign the certification on Page 3 of this Application that all adjoining property owners have been notified of the Application.**

This application will not be considered administratively complete until the full fee is received. The correct fee for a Community system is \$945.00, for a NTNC \$770.00, or for a TNC \$385.00. See instructions on Page 5.

**I: Project Overview**

For Division Use Only	
Check No.	
Check Amount	

**A: Project Information**

Project Name	
Type of Water System Proposed	<input type="checkbox"/> Public <input type="checkbox"/> Non-Transient Non-Community (NTNC) <input type="checkbox"/> Transient Non-Community (TNC) <input type="checkbox"/> New Water System <input type="checkbox"/> Modification to Existing PWS
Water System Name and, if existing, WSID	
Project 911 Address	
Town	
SPAN Number(s)	
Town, Book, and Pages for deed to parcel containing the Source Isolation Zone showing ownership or control	

**Brief Description of Project (maximum 1000 characters)**

**B: Source Owner**

Owner Name			
Authorized Contact Person & Title			
Mailing Address			
Business Phone		Business Cell	
Business Email			
<b>Note: certification and signature required on Page 4</b>			

**C: Engineering Consultant**

Organization/Firm Name			
Engineer Name			
Mailing Address			
Business Phone		Business Cell	
Business Email			

**D: Hydrogeology Consultant**

Organization/Firm Name			
Hydrogeologist Name			
Mailing Address			
Business Phone		Business Cell	
Business Email			

**II: Detailed Project Information**

Type of Proposed Source			
<input type="checkbox"/> Bedrock Well	<input type="checkbox"/> Surface Water	<input type="checkbox"/> Other, please describe:	
<input type="checkbox"/> Gravel Well	<input type="checkbox"/> Hydro-fracture		
<input type="checkbox"/> Spring	<input type="checkbox"/> Deepening		
Project Demand – see III B			
ADD (gpd)			
MDD (gpm)			
Peaking Factor			
GPS Coordinates of Proposed Source(s)			
Unique Source ID	Latitude	Longitude	
		N	W
		N	W
		N	W
		N	W
		N	W
Project Location Information			
i. Is the proposed source within a Class IV Groundwater Area? (Refer to ANR Atlas here: <a href="http://anrmaps.vermont.gov/websites/anra5/">http://anrmaps.vermont.gov/websites/anra5/</a> , see instructions on Page 6, and sign certification statement on Page 3). <input type="checkbox"/> No <input type="checkbox"/> Yes			
ii. Does this project contain areas within the 100-year floodplain? <input type="checkbox"/> No <input type="checkbox"/> Yes, identify these areas on the Site Plan			
iii. Are there agricultural lands within the investigation radius that may affect the proposed source(s)? <input type="checkbox"/> No <input type="checkbox"/> Yes, see instructions and sign certification statement on Page 4.			

### III: Required Attachments

- A. Description of methods used to choose site (i.e. fracture trace, geophysics, setbacks) and include supporting information.
- B. Supporting calculations for Project Demand and Peaking Factor.
- C. Appropriate scale topographical map and orthophoto showing:
  - i. Proposed and existing source location(s) labeled with unique source ID letter(s).
  - ii. Investigation radius (see instructions).
  - iii. Location of potential sources of contamination (PSOCs).
  - iv. Location of agricultural lands in the area that may affect the proposed source(s). Certification required on Page 4.
  - v. Location of other water supply sources within investigation radius.
  - vi. Location of wetlands and surface waters.
- D. Class IV Map from ANR Atlas, showing proposed source locations.
- E. Site Plan showing:
  - i. Proposed and current source location(s) labeled with unique source ID and Source Parcel SPAN number(s).
  - ii. Properties and names of all landowners adjoining the parcel(s) containing the proposed source location(s) and identifying any source easement(s).
  - iii. List of adjoining landowners' names, e-mail addresses, mailing addresses, and phone numbers
  - iv. Identify any areas within the 100-year floodplain.
- F. Proposed or existing source design plans (i.e. well or spring construction, surface water intake).
- G. Preliminary engineering plans for final water system development.
- H. For Non-Transient Non-Community (NTNC) and Transient Non-Community (TNC), attach a copy of any prior Water/Wastewater Permits issued by the Agency of Natural Resources for this parcel.
- I. If the proposed source is an existing well, attach a copy of the Well Completion Report.

NOTE: Any proposed change to a Public Community, Bottled/Bulk Water, and Non-Transient Non-Community (NTNC) Water Supply Source Protection Area requires a 30 day public notice with the draft Source Permit using the Environmental Notice Bulletin (ENB) at <https://enb.vermont.gov/>. The applicant shall identify and submit a list of all landowners within the proposed Source Protection Area and their mailing and email addresses to allow the Division to notify landowners located in the Source Protection Area of the application.

### IV: Certifications

#### A. Public Notice Certification

With my signature, I hereby certify that the Applicant has provided notice of this Application by U.S. mail to all property owners adjoining the project parcel at the time this Application is submitted to the Secretary.

Signature of Project Applicant or Legal Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_ Date: \_\_\_\_\_

#### B. Class IV Groundwater Certification

With my signature, I hereby certify that the ANR Atlas has been checked for the location of Class IV Groundwater Areas and the proposed sites are not located within a Class IV Area.

Signature of Project Applicant or Legal Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_ Date: \_\_\_\_\_

**C. Certification of Water Source Likely Affected by Agricultural Lands**

Vermont Statutes, 10 VSA Chapter 56 Section 1676a, requires that the applicant for a new source for a public water system certify in the permit that the proposed source will be abandoned, replaced, or treated if it becomes contaminated by agricultural activities conducted on agricultural lands. Based upon findings by the Secretary, there are agricultural lands in the area that are likely to affect the proposed source, but not likely to constitute a public health hazard related to the source.

With my signature, I hereby certify that the proposed source will be abandoned, replaced, or treated (as defined below) if it becomes contaminated by agricultural activities conducted on the agricultural lands.

**Abandoned:** Abandoning the source requires discontinuing its use as a drinking water source, disconnecting it from the public water system, and if it is a drilled well, closure by a licensed well driller through being filled with grout or native material per the *Vermont Water Supply Rule* Chapter 21.

**Replaced:** Replacing the source requires the use of an alternative water source that is permitted by the Drinking Water and Groundwater Protection Division.

**Treated:** Treating the source requires that all applicable water quality standards as outlined in the *Vermont Water Supply Rule* Chapter 21 are continually met using a permitted treatment system.

Signature of Project Applicant or Legal Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_ Date: \_\_\_\_\_

**D. Source Permit Applicant Certification**

With my signature, I hereby certify that the statements and representations made in this document are true and accurate to the best of my knowledge and that I am the Owner or have the lawful authority to sign this Source Water Permit Application on behalf of the Owner. I consent to employees of the State of Vermont to enter the subject property and conduct all necessary inspections for the purpose of processing this application.

Signature of Project Applicant or Legal Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Please return to address below:**

Electronic Submittals: [ftp://ftp.anr.state.vt.us/Public Water Supply/](ftp://ftp.anr.state.vt.us/Public%20Water%20Supply/) (NOTE: link **MUST** be opened in Windows Explorer, not a web browser)

Drinking Water and Groundwater Protection Division  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3521  
Fax: 802-828-1541

This form and related environmental information are available electronically via the internet. For information visit us through the Vermont Homepage at <http://www.vermont.gov> or visit directly at <http://www.vermontdrinkingwater.org>

PUBLIC SOURCE WATER PERMIT  
APPLICATION INSTRUCTIONS

**Note:** This application represents the first in a three-step process to obtain a source permit from the Drinking Water and Groundwater Protection Division. The full process is as follows:

**Step 1:** Submit a complete Source Permit Application (this document) for review.

**Step 2:** Submit a complete Source Testing Application (attached) for review.

**Step 3:** Submit a Final Report to the Division for review – see Source Testing Application for Report requirements. For Community and NTNC projects, this includes the Source Protection Area (SPA) and Source Protection Plan (SPP).

The Applicant shall provide the following information:

**Application Fee**

Any water system involving a new source will be charged an application fee, as required by State Statute, which will cover a single (1) Source. An additional Source Permit Application and fee will be required for each additional permitted Source. An application fee will also be charged for each existing source that is, or is proposed to increase its yield, be drilled deeper, or hydro-fractured. See table below for source permit application fees by system type.

Public Water System Type	Source Permit Application Fee
Community	\$945.00
Non-Transient Non-Community (NTNC)	\$770.00
Transient Non-Community (TNC)	\$385.00

Please send the fee for the Application by US mail or by delivery to the address shown below, c/o Helen Banevicius. Please reference the project name, applicant's name, and town on the check or money order.

**I: Project Overview**

**A: Project Information**

**Project Name:** Name of project (Please notify the Division if project name changes).

**Type of Water System Proposed:** New Water System, or Change to Existing System, i.e. additional source, changes in yield, drilled source deeper or hydrofracturing. Refer to the *Vermont Water Supply Rule* Chapter 21 for definitions of a public water system.

**Water System Name and, if existing, WSID:** The name by which a new water system would like to be known or the name of an existing water system. If a change to an existing water system, insert the water system's identification (WSID) number.

**Project 911 Address and Town:** 911 Address where the water source can be located

**Town:** Town where the project's water source is located

**SPAN Number(s):** The SPAN number(s) for the land parcel the water source(s) are, or will be, located on.

**Town, Book, and Pages for parcel deed:** List the town, book and page numbers of the deed, deed restrictions, and any easements needed for the water system to have control of the Source and include a copy of the executed documents along with an attorney's opinion of their ability for the applicant to control land use activities within it. For Public Community Water Systems, include this information for the Source Isolation Zone as well.

**Brief Description of Project:** Explain the purpose of the project and the project type - municipal, privately owned, cooperative, condominium, subdivision, expansion, change in use, change in yield; etc. Include number of service connections and types, details of fire protection if protection will be provided, and water storage needs.

**B: Source Owner**

Owner's name(s) as shown on property deed, authorized contact person, mailing addresses, work and/or cell phone numbers, and email address. If more than one legal owner, attach an additional page with this information.

**C: Engineering Consultant**

Engineering consulting firm, consultant name, mailing address, work and/or cell phone numbers, and email address. At least one consultant field (engineering or hydrogeology) must be completed.

**D: Hydrogeology Consultant**

Hydrogeology consulting firm, consultant name, mailing address, work and/or cell phone numbers, and email address. At least one consultant field (engineering or hydrogeology) must be completed.

## II: Detailed Project Information

### A: Type of Proposed Source

Check appropriate source type (gravel wells include all dug or drilled wells constructed entirely in unconsolidated materials) and indicate type of work being done if not construction of a new water source.

### B: Project Demand

**ADD and MDD:** Calculated project demand in both gallons per day and gallons per minute: [Ave. Day Demand (ADD) in  $\text{gpd} \times 2 =$  Maximum Day Demand (MDD) in  $\text{gpd}$ . The MDD divided by 1440 min/day = the MDD in  $\text{gpm}$ ]. For design demand criteria, see Vermont Water Supply Rule, Unitized Average Day Flows, Table A2-1. Provide table of connections, fixtures, uses, etc. and design flows for each and the total (gpd).

**Note:** For existing systems, a Peaking Factor other than 2 may be calculated from water use meter data (see VT Water Supply Rule). Projects proposed to serve resorts and/or recreational facilities may need to use a larger Peaking Factor.

### C: GPS Coordinates of Proposed Source(s)

Proposed and existing water sources for the project, labeled with unique source ID letters, shall be GPS located using the **NAD 83 format** (report in Decimal Degrees to at least 6 places to the right of the decimal). All proposed water supply locations shall be securely marked and identified on the site to facilitate identification of the correct drilling or construction location. Attach another sheet for additional water sources if needed.

### D: Project Location Information

**Class IV Groundwater Area:** New sources shall not be located within a Class IV Groundwater area. (See Natural Resources Atlas.) Provide map with proposed source locations.

**100 Year Floodplain:** Provide a site map showing the 100 year floodplain, if present within the source investigation area.

**Agricultural Lands:** Field investigations, identifying existing and likely future agricultural land uses. If yes, review and sign Certification of Water Source Likely Affected by Agricultural Lands.

## III: Required Attachments

### A: Description of Methods

Rationale for source location, include maps, calculations, graphs, etc.

### B: Supporting Calculations

Calculated project demand in both gallons per day and gallons per minute: [Ave. Day Demand (ADD) in  $\text{gpd} \times$  Peaking Factor = Maximum Day Demand (MDD) in  $\text{gpd}$ . The MDD divided by 1440 min/day = the MDD in  $\text{gpm}$ ]. For design demand criteria, see Vermont Water Supply Rule, Unitized Average Day Flows, Table A2-1.

### C: Topographical map and orthophoto

Appropriate scale topo map and orthophoto (with contours, if available) including:

1. Location of existing water source(s) and/or proposed water source(s) Labeled with unique source ID letters or numbers (i.e. Well B, McDugal Well, Well 56)
2. location of each source (proposed or existing) with appropriate investigation radius circle drawn around each one (see table below in 3. b). **Note:** For surface water sources show intake(s) location, elevation, and watershed boundary.
3. Location of **all potential sources of contamination** (PSOC) within each radius as delineated in (2) above (A map at larger scale may be needed), including residential, agricultural, commercial, industrial, and home occupations. Information on potential or existing sources of contamination shall include identification of existing and likely future land use practices and be gathered from **at least:** Vermont Agency of Natural Resources - Waste Management and Prevention Division, ANR Regional Offices (Include identification of permits issued for land use activities not yet constructed), local residents' knowledge, and consult the Agency's Natural Resource Atlas for hazardous waste sites.
  - a. **For surface water sources:** identify PSOC's within the watershed boundary above the intake elevation.
  - b. **For groundwater sources:** identify all potential sources of contamination within the distance determined from the following table: (**Pump test rate or project demand, whichever is larger, must be used**).

Table 1. Investigation radii for Community Water Systems

Pump Test Rate/Project Demand (gpm)	Gravel or Rock Well, Spring, Other (ft)
0-20	2000
20+	3000

Table 2. Investigation radii for NTNC and TNC Water Systems

Source Maximum Day Demand (gpm)	Investigation Area Radius (ft)
<2.0	200
2.0 – 4.9	500
5 – 19.9	1000
20 – 49.9	2000
50 – 99.9	2500
>100	3000
Surface Water Source	Drainage basin up-gradient of intake

**D: Class IV Groundwater Map**

The ANR Atlas should be checked to identify whether the proposed source location(s) may be located within a Class IV Groundwater area. See Certification statement on Page 3.

**E: Site Plan**

The most current site plan including the following:

1. Proposed and current source location(s) labeled with unique source ID letter(s) (For existing Sources use current source designations; i.e. WL003, IN001), and the source parcel SPAN number.
2. For NTNC and TNC Systems: show all property boundaries and the names of all landowners adjoining the parcel(s) containing the Source.
3. For Public Community Water Systems: include a 200 foot radius or other proposed Source Isolation Zone and show all property boundaries and names of all landowners adjoining the parcel(s) and those containing the Source Isolation Zone for all proposed source locations.
4. Show any easement areas and include a copy of the signed easement agreement.
5. Attach a list of the names, e-mail addresses, mailing addresses, and phone numbers for all adjoining landowners to the project parcel and, if applicable, the Source Isolation Zone.

**F: Source Design Plans**

Source construction plans which show that each source is, or will be, constructed to Water Supply Rule standards. If the source is located greater than 150 feet from surface water and has greater than 50 feet of grouted casing, then it is eligible for an exemption from microscopic particulate analysis (MPA) testing. If this is an existing well or a change in use, submit the corresponding Well Completion Report for the well.

**G: Preliminary Engineering Plans**

Preliminary engineering plans which show the project layout including, septic systems, roads, parking areas, buildings, recreational facilities, proposed and existing water sources, sewer lines etc. Isolation distances and compliance with all prohibited land uses must be demonstrated.

**IV: Certifications**

This application shall be signed by the source owner or legal representative.





Drinking Water and Groundwater Protection Division

**Source Testing Review Application**

This form is to be completed AFTER the Source is constructed or after approval of an existing source. This begins the review and approval process for safe yield determination, adverse interference with existing uses, water quality testing, and any special studies to show adequate protection of the proposed water source for a Public Community, Public Non-Community (NTNC, TNC), Domestic Bottled/Bulk Water Supply, and for a Groundwater Withdrawal Permit. The constant discharge test or required studies, or both, may commence following Division approval of a complete Source Testing Review Application submittal.

**I: Source Testing Information**
**A: Complete for All Sources**

1. Project ID # (PID)			
2. Water System Name		WSID	
3. Project Name			
4. Town			
5. Source ID Letter(s) or Name			
6. Source GPS Location		N	W
7. Source Type	<input type="checkbox"/> Drilled Well <input type="checkbox"/> Surface Water <input type="checkbox"/> Dug Well <input type="checkbox"/> Other: <input type="checkbox"/> Spring		
8. Project Max Day Demand (gpm)			

**B: Drilled Wells Only**

9. Well Report or Tag Number. Attach Well Completion Report.	
10. Well Drillers Yield (gpm)	
11. Proposed Constant Discharge Test Rate (gpm)	
12. Proposed Monitor Radius (ft)	
13. Proposed Test Duration (hrs)	

**C: Other Source Types (e.g. dug wells, well points, springs, infiltration galleys, surface water intakes)**

14. Source Construction	Attach as-built source construction plans and specifications
15. Springs	Attach as-built construction and description of high and low flow analysis
16. Surface Water	Attach as-built intake structure and description of safe yield analysis

**II: Required Attachments**

- A. Interference Assessment:** On an appropriate scale topo map or orthophoto, locate and identify all water supplies and appropriate monitor wells within the specified area. Refer to Table App-1 or Table App-2 below to determine the appropriate radius. For Springs or Surface Water sources, include documentation of all other withdrawals as part of the low flow analysis. For each source specified above, include the following:
- i. Source owner's name, mailing address, email address, and phone number.

- ii. Source type, source depth, yield, pump setting, and well log.
- iii. Demand (e.g. number of bedrooms). See *Vermont Water Supply Rule* Table A2-1.

**Table App-1.** For PCWS, Bottled/Bulk Water Sources, and for Groundwater Withdrawal Permits

Discharge Test Rate (gpm)	Monitor Radius* (ft)	Test Duration (hr)
0 – 19.9	1000	72
20 – 49.9	2000	72
50 – 99.9	2500	96
100 – 199.9	3000	120
200 +	3000	168

\* Use monitor radius listed in Table App-1 *only if* monitoring of the Area of Influence is not required.

**Table App-2.** For NTNC and TNC Water Sources

Discharge Test Rate (gpm)	Monitor Radius* (ft)	Test Duration (hr)
0 – 1.9	200	24
2 – 4.9	500	36
5 – 7.9	1000	48*
8 – 19.9	1000	72
20 – 49.9	2000	72
50 – 99.9	2500	96
100 +	3000	120

\* May be increased to 72 hours if interference or special studies are required.

**H. Proposed Scope of Required Studies;** including but not limited to:

- i. Type of study.
- ii. Locations and construction of proposed monitoring wells.
- iii. Data collection procedures.
- iv. Proposed methods of analysis, including references

**III: Notes**

**Note 1:** For commercial and industrial Groundwater Withdrawal Permit source testing, the applicant shall comply with all specific testing and monitoring requirements of the *Vermont Groundwater Withdrawal Reporting and Permitting Rule*, Chapter 24 that may be appropriate if not identified here.

**Note 2:** If permission to monitor a source is denied, the Division requires the potential interference impact to be estimated using design criteria and the best available information.

**Note 3:** Yield Analyses per *Vermont Water Supply Rule* regulations: For a well, a constant rate discharge test. For springs, low flows analysis (and high flow for SPA delineation). For surface water safe yield without raw water impoundment, 1Q20 analysis; or with raw water impoundment, 20-50 year drought condition using a mass diagram. Minimum stream flow requirements shall be evaluated for any proposed source.

**Note 4:** Any proposed change to a Public Community, Bottled/Bulk Water, and Non-Transient Non-Community (NTNC) Water Supply Source Protection Area requires a 30 day public notice with the draft Source Permit. The applicant shall identify and submit a list of all landowners within the proposed Source Protection Area and their mailing and email addresses.

**Note 5:** Pursuant to the *EPA Surface Water Treatment Rule*, the Division is responsible for determining which public water sources are under the direct influence of surface water. It is the applicant's responsibility to provide the Division with the information necessary to make this determination as set forth in the Water Supply Division Guidance Document, "Groundwater Under the Direct Influence of Surface Water".

A new well may not be subject to microscopic particulate analysis testing if the following criteria are met:

- 1. The well is located over 150 feet from the surface water source; and
- 2. The well has greater than 50 feet of sealed casing; or
- 3. The well casing penetrates an areally extensive confining bed

**Note 6:** Bottled or Bulk Water Sources, in addition to complying with the *Water Supply Rule* Chapter 21, shall also comply with the requirements of the *Groundwater Withdrawal Reporting and Permitting Rule* Chapter 24.

## Application Completion Instructions

### Source Testing Information I:

Applicant shall provide the following information:

1. Project Identification number assigned to this project by the Drinking Water and Groundwater Protection Division ("Division"). For Source Permits, this number has the format S-####-##.#.
2. Water System Name and Identification Number (WSID) the source is proposed to serve.
3. Name of project. Please notify the Division if the project name changes from the one identified on the Source Application.
4. Town in which the project is located.
5. Source ID letter(s) or name from the *Source Permit Application* form or from a previous *Wastewater System and Potable Water Supply* application.
6. Include the GPS location of the source following construction. If more than one source is being evaluated, include this information for each source on an attachment.
7. Choose the type of source construction, or choose other, and describe the source.
8. Enter the Project Max Day Demand in gpm derived from the basis of design and show all calculations.

### Drilled Wells Only

9. Enter the Well Report Number or Tag Number from the Well Completion Report and attach a copy of the Well Completion Report
10. Drillers yield from Well Completion Report
- 11-13. Determine the proposed constant discharge test rate, interference monitoring radius, and test duration.

### Other Source Types

14. Attach source construction as-built plans and specifications including materials and dimensions. For Springs and Dug Wells, include a sediment profile.
15. For Springs: Attach as-built construction and a description of the proposed high and low flow safe yield analysis. For Surface Water: Attach as-built intake structure and a description of the safe yield analysis.

### Required Attachments II:

- A. Interference Assessment: Provide the requested information for drinking water sources, and for non-drinking water source uses (e.g. farm irrigation wells, livestock watering, wetlands, ponds)
- B. Proposed Scope of Required Studies: Explain the studies that need to be performed (e.g. Potential Source of Contamination study, 2 Year Time-of-Travel (2Y TOT) study, hydraulic connection study)

### Please return to address below

Electronic Submittals: [ftp://ftp.anr.state.vt.us/Public Water Supply/](ftp://ftp.anr.state.vt.us/Public%20Water%20Supply/) (NOTE: link **MUST** be opened in Windows Explorer, not a web browser)

Drinking Water and Groundwater Protection Division  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3521  
Fax: 802-828-1541

This form and related environmental information are available electronically via the internet. For information visit us through the Vermont Homepage at <http://www.vermont.gov> or visit directly at <http://www.vermontdrinkingwater.org>

## Submittal of Source Evaluation Report

The Report shall contain all the information below, organized in the same format, unless exempted by the Division:

- A Site: Documentation of ownership or control of the source location, and source isolation zone if one is required. Include the deed's town, book and page numbers.
- B Source Construction: Submit as-built engineering plans for Source Construction (Well Completion Report, spring box/tile details, or surface water intake structure).
- C Interference Analysis:
  - 1. Analysis and determination of interference effects on existing sources or uses of water. If undue adverse interference is present or calculated, describe the method of resolution. Show interference monitoring data and all calculations;
  - 2. Analysis and determination of no undue adverse effect on wetlands under the Vermont wetland rules or on other water resources hydrologically interconnected with the source of withdrawal;
  - 3. Submit completed Production Well and Observation Well ID Sheets. These can be found at: <http://www.drinkingwater.vt.gov/pcwsapps.htm>
- D Surface waters: An evaluation and determination of undue adverse impacts to any surface waters (i.e. streams, brooks, rivers, ponds, reservoirs, lakes) in the area of influence.
- E Source Yield:
  - For wells: submit analysis for determination of safe yield that satisfies the project demands, submit constant rate, step test, and other pumping test data;
  - For springs: submit high and low flow analysis;
  - For surface water withdrawals: submit safe yield analysis.
- F Water Quality:
  - 1. Attach results of all required water quality testing. Initial source testing water samples are to be collected immediately following the end of the Constant Rate Discharge Test, or immediately following the Peak Instantaneous Flow Test. If yield testing is not required, then the source is to be flushed and purged (run to waste) for several hours or for 2-3 well volumes prior to taking the water quality samples. The source sample shall NOT contain a disinfectant;
  - 2. When **initial source water quality sampling** is performed the following information is to be included on the testing laboratory's report and chain of custody forms:
    - i. *Water System ID #*: This is the WSID # (i.e. WSID 5001, WSID 20345).
    - i. *FacilityID #*: This is the well/spring/intake number assigned by the Division (i.e. WL001, IN001).
    - ii. *Sample Point #*: This is the Raw Water sample point number assigned by the Division (i.e. RW001).
    - iii. *Sample Type*: Write "Special".
    - iv. *Description*: Write "**Raw Water, Initial, Source Water Permitting for** (insert Project Identification # here)". (This is the PID # assigned by the Division (i.e. S-2878-13.0)).
  - 3. If Microscopic Particulate Analysis (MPA) testing is required, follow the laboratory sampling protocols.
- G Source Protection Area (SPA):
  - 1. For Public Community (PCWS) and Non-Transient, Non-Community (NTNC) water systems submit an analysis and map of the Source Protection Area (SPA) and the Zones within it.
  - 2. List of land owners within the SPA and their mailing and email addresses; Submit a tax map if available.
  - 3. Electronic submittal procedure for Source Protection Areas following the Division's approval:  
The format to be used for all submittals of new or changed Source Protection Areas and is to be included along with the Source Evaluation Final Report. Please visit <http://www.drinkingwater.vt.gov/pcwspermits.htm> Look under the heading 'Electronic Submittal Procedure for Source Protection Areas (SPAs)' to find the electronic format template;
  - 4. For multiple water sources – each water source is to have a specific SPA associated with it.
- H Special Studies: Analysis and conclusions for any additional studies as required, showing rationale for assumptions and calculations.
- I Source Protection Plan (SPP): At the Applicant's discretion, to expedite the issuance of the Source Permit, the SPP may be submitted at a date following issuance of the Permit (to be included as a Permit Condition) and shall conform to the requirements of Subchapter 21-16 of the VT Water Supply Rule.
- J Include in the Report any additional information that is required by the Groundwater Withdrawal Reporting and Permitting Rule, Chapter 24 as appropriate (for bottled or bulk water sources or for non-drinking water sources requiring a *Withdrawal Permit*).