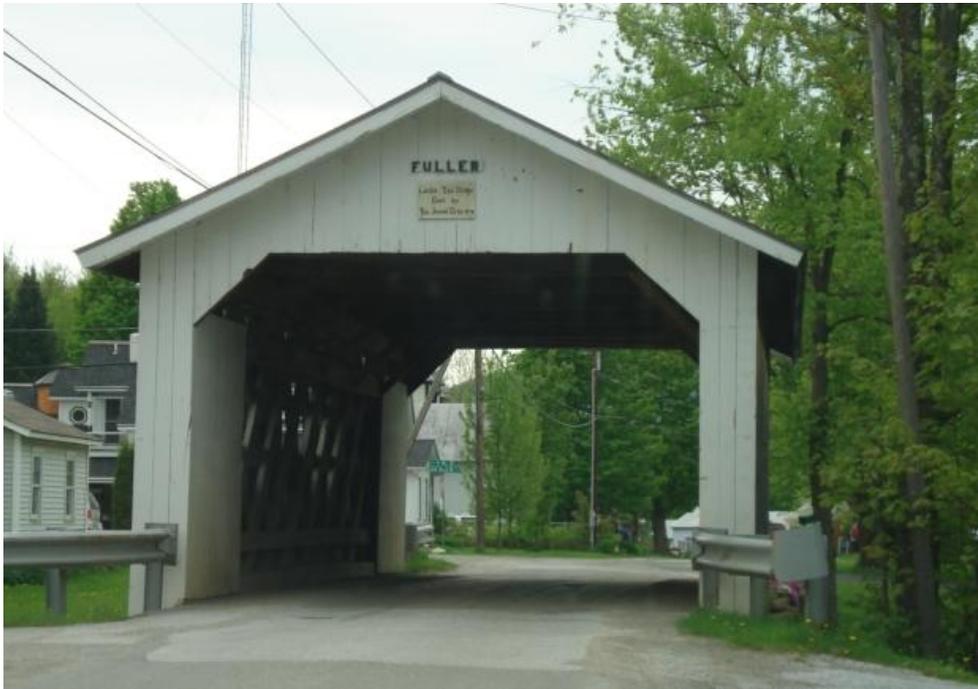


# SOURCE PROTECTION PLAN

Montgomery Water System  
WSID # 5125

Montgomery, Vermont  
Effective Date: June 2017  
State Approval: June 2017  
Update due: June 1, 2020



With assistance from:



## Montgomery Water System Source Protection Plan

Mark Brouillette

5/18/2017

Montgomery Water Commission

Date

Ross Dunham, Simon Operation Services

Kirk Path, Northern Regional Manager, Simon Operation Services

5/18/2017

System Operator

Date

***Review Annually and Update Every 3 Years***

Date Reviewed	Reviewer	Changes or Comments
June 2015		
May 2017	Simon Operation Services Montgomery Select board	Changes were made to the contingency section.

## **I. INTRODUCTION**

### **A. Background and Purpose**

The purpose of a Source Protection Plan is to identify water system vulnerabilities and to suggest techniques to manage land uses and activities that potentially may contaminate a public water source.

This Source Protection Plan covers one public well in Montgomery, Vermont – serving the Montgomery Water System (WSID 5125). This system is located in Franklin County and the Missisquoi River Drainage Basin.

A Public Water System is defined as “any system(s) or combination of systems 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.” (Vermont Water Supply Rule, Chapter 21, Subchapter Section 2.2)

This Source Water Protection Plan was developed to protect the quality and quantity of this source and was prepared by the Montgomery Water System with assistance from the Vermont Rural Water Association. The objective of this plan is to identify potential contamination sources that occur within the Source Protection Area of this public water supply and to provide specific recommendations to manage these potential threats in order to maintain quality drinking water.

This document has been prepared in accordance with the Vermont Water Supply Rule, Chapter 21, December 2010 Revision. Under the Rule, a Source Protection Plan consists of the following basic elements:

- ❖ An inventory of potential sources of contamination (PSOCs);
- ❖ An assessment of risks posed by these PSOCs;
- ❖ A management plan to minimize risks to the water source(s); and
- ❖ A contingency plan for responding to emergency loss of the water supply.

This plan is a working document that will be reviewed at least annually and updated every three years to remain current, active, and viable. A carefully researched and thoughtfully drafted Source Protection Plan is an important first step in source water protection because it sets priorities for actions to take in protecting a water source. Actions taken by water system management, surrounding landowners, and the larger community are key to achieving comprehensive protection.

### **B. Description of the Montgomery Water System**

The Montgomery Water System is a Public Community Water System that serves 189 connections to both residences and businesses. There is a year-round residential population of approximately 1200 people. Montgomery Elementary School is the most critical customer on the system.

A submersible Gould 3-phase pump (10 HP) is used in Well R. The raw water mains only include the 2-inch galvanized iron and 4-inch ductile iron supply line from the well into the building to the filter. There is no raw water storage.

The distribution system is composed of 8-inch cement lined ductile iron water main, 4-inch cement lined water mains, and 2-inch copper service lines. Each of the service connections has an individual water meter. There are approximately 45 fire hydrants connected to the distribution system. The water system has three storage facilities:

<b>Tank #</b>	<b>Tank Name</b>	<b>Size</b>	<b>Type</b>	<b>Location</b>
ST001	Fuller Bridge	150,000 gallon Two cell	Partially Buried Concrete	South Richford Road
ST002	Route 242	240,000 gallon Two cell	Buried Concrete	Route 242
ST003	Regan Road	5,000 gallon	Buried Concrete	Regan Road

The water pressure is maintained by the elevation of each of the storage tanks in the system. The system requires a booster pump station to pump from the Fuller Bridge storage tank pressure zone to the Route 242 storage tank pressure zone. In addition, a booster pump station is required from the Route 242 storage tank pressure zone to the Regan Road storage tank pressure zone. The booster pumps are located on School Drive (Route 118 Booster Pump Station 001 – two pumps) and near the Howard Road and Route 58 intersection (Route 58 Booster Pump Station 002 – one pump).

The average daily demand (given in the permit and based on population calculations) is 38,000 gallons per day (GPD). Based on meter readings, the actual ADD is closer to 30,000 GPD. The maximum daily demand is 76,000 gallons per day. The system has disinfection by continuous chlorination and a second chlorine boosting facility to maintain the residual. After disinfection, the water is filtered through greensand to remove manganese. Table 1 provides more information on the water system.

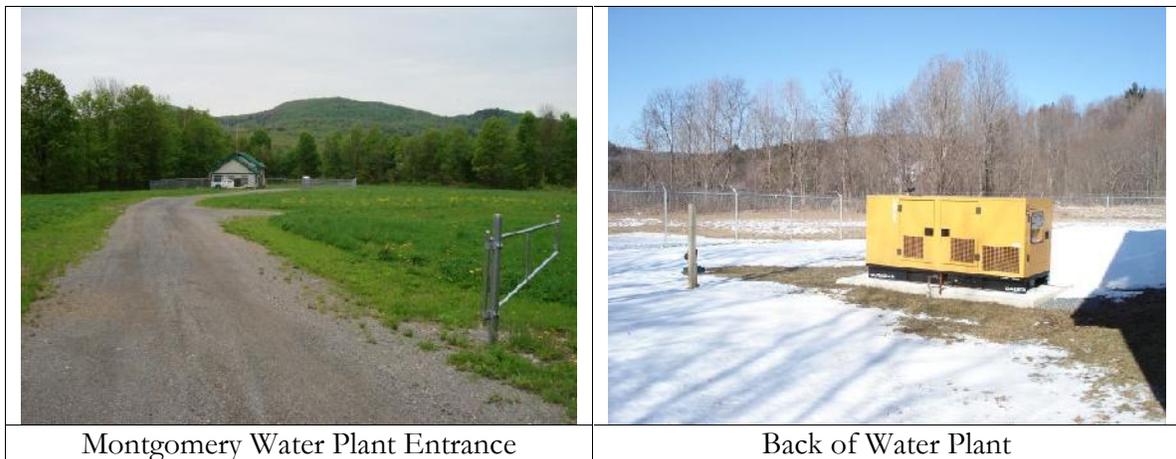
Well R (WL003) was initially permitted to operate in 2005. The most recent Permit to Operate was issued by the State Water Supply Division January 3, 2012 and it will expire on November 1, 2015. (permit reapplication no later than October 1, 2015) (Appendix G).

The most recent Sanitary Survey Inspection was performed in December 18, 2015. The System addressed two non-critical deficiencies and one significant deficiency identified by the survey. (Appendix H)

The initial Source Protection Plan (SPP) was approved October 8<sup>th</sup>, 2005. Revisions are required every three years. The State issued approval of this revised SPP Jun X, 2017 (Appendix I). The next revision of this SPP is due June 1, 2020.

**Table 1. Summary of System Information**

<b>System Name</b>	Montgomery Water System
<b>Water Supply ID Number</b>	WSID 5125
<b>Public System Type</b>	Community
<b>Number of Connections</b>	189
<b>Population Served</b>	About 500
<b>Average Daily Demand</b>	30,000 gallons per day
<b>Type(s) of Treatment</b>	Chlorination and Green sand (manganese)
<b>GWUDI? (Under Influence of Surface Water)</b>	No Determination on October 10, 2005
<b>Permit Expiration Date</b>	11/1/15
<b>Last Sanitary Survey</b>	12/18/2015
<b>System Contacts</b>	Operators - Simon Operation Services – Ross Dunham and Kirk Patch Responsible Person – Mark Bouillotte Owner – Town of Montgomery



## **II. SOURCE AND PROTECTION AREA DESCRIPTIONS**

The Town of Montgomery is located in the northwestern part of the State of Vermont in Franklin County. Montgomery, known as the Covered Bridge Town, covers a total of 57 square miles – which includes numerous streams and brooks. Due to the proximity of the Green Mountains, it is surrounded by steep, forested, mountain slopes that are drained by the Trout River and its tributaries.

### **A. Town Geology and Soils**

The Town of Montgomery is located along the foothills of the Green Mountains. Geological events that have occurred in the distant past directly affect the development of the Region's landscape. The Northwest Region is underlain by bedrock formed from sediments and volcanic materials deposited some 600 million years ago. The bedrock was then altered from the heat and pressure of mountain building. During the glacial period, which ended approximately 11,000 years ago, the Green Mountains were dominated by ice. This has also affected the lay and the look of the land.

The regional bedrock geology is mapped as the Jay Peak member of the Underhill formation, described as silver-green, quartz-sericitic-chlorite-albitic schist, locally quartzitic (1961 Centennial Geologic Map of Vermont).

The Town of Montgomery is home to soils that formed in glacial till in the Green Mountains and on uplands. The most common soil associations that are found in Montgomery are the Lyman-Marlow-Peru association and the Peru-Marlow association. The well is located in an area with agricultural soils. Most of Zone 1 and Zone 2 of the source protection area is composed of prime agricultural soils with a few sections of soils with statewide agricultural importance.

### **B. Description of the Montgomery Water Source**

Well R – Source WL003 – is a permanent, full time source for the Montgomery Water System. The drilled, bedrock well is located just northwest of Montgomery Village. The location is just west of Fuller Bridge Road, north of North Main Street. The altitude of the well is approximately 525 feet.

This well was drilled during April 2004 by H.A. Manosh (tag # 26337). The well is 375 feet deep with 127 feet of six-inch steel casing. The driller's report shows 125 feet before bedrock was reached – with 8 feet of gravel followed by clay down to 110 feet and then sand and gravel between 110 feet and 125 feet. Beyond 125 feet is green bedrock with some water, soft spots, and broken up rock at various depths.

The static water level in the well is 60 feet. The driller's estimated yield is 100 GPM. Based on a step test and 96-hour pump test, the approved yield for the well is 74 GPM.

Based on well construction and distance to surface water, Well R qualified for an exemption from the MPA testing requirement. Therefore, the well was deemed not to be under the direct influence of surface water by the Water Supply Division on October 10, 2005.

**Table 2. Summary of Well Information**

WSID	System Name	Source Number	Source Name	Source Use	Type	Depth (feet)	Casing	Date Drilled	Yield (GPM)
5125	Montgomery Water System	003	Well R	Permanent Full Time	Bedrock	375'	6" steel 127 feet	2004	100 GPM (permitted)
5125	Montgomery Water System	001	Old Well	Emergency	Bedrock	173'	8" steel 121 feet	1977	25 GPM (permitted)



Montgomery – Well R Cover



Montgomery Wellhead

The Montgomery Water System has one well that is an emergency water source. The Water Supply Division must be notified prior to any use of this non-permitted, unapproved source. Details on this bedrock well are available in Table 2.

### **C. Description of the Source Protection Area**

A Source Protection Area is defined as “the surface and subsurface area through which contaminants are likely to move toward and reach water supplies” (Vermont Water Supply Rule). The purpose of delineating a Source Protection Area is to determine the recharge area that supplies water to a public water source. The recharge area or Source Protection Area for a groundwater source is defined by the nature of subsurface flow and that induced by pumping. Within a Source Protection Area, land uses and/or naturally occurring materials may cause a public water system to be vulnerable to contamination. While naturally occurring contaminants can usually be controlled by treatment methods, potentially contaminating land uses can be managed by activities outlined in a Source Protection Plan. A Source Protection Plan identifies water system vulnerabilities and enumerates techniques to manage potentially contaminating land uses.

Source Protection Areas for Public Community Water Systems may be delineated using the following methods:

1. Calculated fixed radius
2. Simplified variable shapes
3. Analytical methods
4. Hydrogeologic mapping
5. Flow models

The Source Protection Area of Public Community Water Systems is further classified into three zones:

- Zone 1 – 200 foot radius around well
- Zone 2 – Estimated zone of influence with “probable impacts”
- Zone 3 – Remainder of recharge area (2 year travel time for sewage disposal)

Zone 1: is a 200-foot radius around the well, also known as the sanitary radius. This is the area where impacts are likely to be immediate and certain. The Sanitary Radius is the most critical area for protection. Only activities that are related to the water system should occur within the sanitary radius. The sanitary radius should be under the control of the water system.

Zone 2: Consists of contributions from the monitoring radius as established as part of the Source Interference Testing for new systems and outside Zone 1. This zone is based on criteria such as water usage and pump test rate and is the area where impacts are probable from potential sources of contamination.

Zone 3: Is the outer most boundary of the Source Protection Area. Zone 3 consists of the remaining recharge area not delineated in Zone 2 and is the area where possible impacts from potential sources of contamination may occur. This area may also be thought of as the area supplying recharge to the public source simply by natural groundwater flow. A two-year travel time zone is used to identify a protection area to provide adequate protection from pathogen threats resulting from onsite disposal of sewage.

*Well R (Source 003)*

The source protection area for Well R was hydrogeologically delineated. Hoffer Consulting Inc. used recharge and infiltration calculations to recommend a delineation for the source protection area on August 25, 2005. The delineation letter from Hoffer Consulting to the Water Supply Division is included in Appendix E. The public notice for the proposed SPA was sent by the Water Supply Division on September 13, 2005. The most recent source protection plan for the old well was approved on October 8, 2005.

Zone 1 was determined to be a 200-foot sanitary radius around the well. Zone 2 is a much larger circle, with a radius of 710 feet. With a groundwater flow assumed to be downgradient, Zone 3 is a larger recharge area to the northeast of the wellhead. Zone 3 shares two boundaries with the Black Falls Brook watershed – extending to 2500 feet upgradient from the wellhead.

It appears that the new Montgomery Source Protection Area has not been delineated in the Water Supply GIS layer. The Water Supply Division has updated this SPA and it will be posted once the source protection layers are updated by ANR.

The area of the SPA is of mixed use; approximately one-third of the land is forested, one-third is farmland, and one-third is residential. There are three town roads within the SPA. Black Falls Brook is the only surface water located within the source protection area. The total source protection area is approximately 144 acres (0.23 square miles).

Zone 1 consists of open land, the water plant, and meadow; there are no surface waters or roads. The Town of Montgomery owns the majority of Zone 1.



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### **III. INVENTORY OF POTENTIAL SOURCES OF CONTAMINATION AND ASSESSMENT OF THREATS**

In order to assess current and future impacts from land uses in the Source Protection Area, past land use was reviewed, planning options were examined, and a review of current property owners and their associated land uses was conducted. This information has been combined for the current inventory of Potential Sources of Contamination for Well R.

Land use policies in the 2010 Montgomery Town Plan include protecting “water quality by limiting development in Wellhead Protection Areas, wetlands, and along stream banks.” The plan also details various Vermont statutes and policies on groundwater and drinking water source protection. ~~The Town Plan was drafted before the new water system went online.~~

After the Potential Sources of Contamination inventory was completed, PSOCs were ranked “Low”, “Medium” or “High” based upon factors such as: distance to source, toxicity of element, elevation, and geology. High risk PSOC’s include those sites of known contamination and prohibited uses within Zone 1.

#### **A. Montgomery – Well R**

Current land uses identified with the Source Protection Area for the Well include: forested, agriculture and residential development. There are a total of 50 parcels of land within the source protection area. The town owns three of these parcels that include much of Zone 1 and Zone 2 in the source protection area. Categories of potential sources of contamination for this well include septic, heating, roads, agricultural fields, and recreation. In addition, there is a slight chance that contaminants could be introduced into the groundwater through the private drinking water wells serving several nearby residences and the old village wells.

#### **B. Potential Sources of Contamination**

The potential sources of contamination for this well are within the categories of agriculture, residential, recreation, transportation, and surface water. There are five PSOCs total - with medium risks and low risks. For details on the potential sources of contamination for the Montgomery well, see Table 3.

**Table 3. Potential Sources of Contamination Inventory and Risk Evaluation**

PSOC #	PSOC Description	Property Use	SPA Zone	PSOC's	Risk
1	Residences in the area: Septic (all), heating oil (some), private wells	Residential	2 & 3	Bacteria Nitrates VOC's other	Medium
2	Agricultural fields: Hayfields (manure spread); one corn field and former corn field in Zone 1 (now abandoned)	Agriculture	1, 2, 3	Bacteria Nitrates VOC's other	Medium
3	Roads: paved and unpaved Green Mountain Rd, Fuller Bridge Rd, Brook Road	Transportation	2 & 3	Sediment Road Salt VOC's	Low
4	Recreation: VAST Trail, hunting, sugaring	Recreation	3	Sediment VOC's	Low
5	Surface Water: Black Falls Brook	Water	2 & 3	Various	Low



## **IV. MANAGEMENT OF RISK**

After reviewing the potential sources of contamination inventory for the source, the water system developed a list of management priorities. These activities are discussed more specifically below.

### **A. Outreach and Education**

The system has started doing public education and outreach to landowners. Public education and outreach are central to the plan because increased awareness leads to better management of contamination risks within the Source Protection Area. An open house at the well building and treatment plant has been done and will be repeated periodically. Zone 1 landowners have been approached and notified of their status. In addition, attempts are made on an ongoing basis to educate these landowners about ways to help protect the well through good environmental management practices.

A letter and map of the source protection area has been sent to all property owners located within the SPA, to notify them that their property is located within a SPA for a public water system. A list of property owners is provided in Appendix C. A copy of educational materials regarding relevant topics such as septic system maintenance and agricultural best management practices was sent with each notice. A sample letter is found in Appendix A.

A letter and copy of the SPP will be sent to local and regional planning boards and state agencies to notify them of the location of the public water source and the source protection area. A copy of an example letter is presented in Appendix B. This letter will be sent out within three months of receiving state approval of this plan. The mailing addresses are presented in Appendix D.

### **B. Source Protection Area – Planning & Land Use**

The Town of Montgomery completed a town plan which was updated during 2010. The plan includes information on the public water system that was current at the time. Rural Water will contact the town office and regional planning commission regarding the inclusion of the current information on the system in the next update of the town plan. Data on the source protection area should also be included.

At this time, there is no zoning or overlay protection for the wellhead and source protection area at Well R. These are some of the best options for long term protection of the groundwater and aquifer serving the community water system.

In order to ensure future protection of the well, Montgomery may also consider purchasing additional land in the source protection area, especially Zone 1. Funding assistance is available from the Vermont DEC Water Supply Division.

### **C. Contingency/Emergency Response/Security**

Montgomery has recently made several changes that will enhance emergency preparedness. The system is has a State approved operations and maintenance manual, which is also useful in

emergency situations. The wellhead, pumps, and tank areas should be inspected to determine if there are any low-cost ways to prevent tampering or possible contamination of the water supply. The system and local landowners have agreed that security will be enhanced by not posting signs that could identify the water source or source protection area.

#### **D. Source Water Protection – Plan Updates**

The system operator and administrative contact will oversee implementation of the measures outlined in this Source Protection Plan. System representatives may also comment on development proposals that are located within the Source Protection Area. After the management activities in this plan have been implemented, a designated representative should review the plan once per year. The system operator will perform an inspection of the SPA every three years to confirm that all parties are following best management practices, and to identify any changes in land uses or property owners. Updates indicating any changes in land use or PSOC's will be submitted to the Water Supply Division. The updates may simply consist of a letter, which describes any changes to the original SPP or a letter stating that there have been no changes. See Appendix F for information on updating the plan.

The Montgomery Water System reserves the right to amend or update this plan before the three-year submittal cycle has been completed.

**V. CONTINGENCY PLAN**

The Contingency Plan outlines the steps that the water system may take in the event that their well becomes contaminated, is at imminent risk of becoming contaminated (e.g., due to hazardous contaminant spill in the vicinity of the well), or declines in yield. The Vermont Water Supply Division considers a source to be in an emergency situation if the source experiences water quality problems or environmental releases. Examples of an interruption of service include power outages or mechanical failure. The plan may also be implemented if there are mechanical problems with the water system which require repair.

The above possible situations may result in a loss of water supply for a number of hours, days, weeks, or even permanently. The Contingency Plan specifies emergency response procedures including names and phone numbers of key people/officials that may be needed to solve the particular problem. The system will need to identify the appropriate people to call for each situation. In addition, short-term and long-term water supply alternatives are outlined. Being prepared for potential emergency situations will greatly improve the system’s ability to address problems.

**A. Water Supply Disruption Response Procedures**

If an emergency occurs, such as a contaminant spill in the Source Protection Area or if a regulated compound is detected in the water supply above acceptable levels, the following notification procedure should be implemented.

**Step 1: The person discovering the emergency situation will call the responsible person and/or the operator of the water system:**

<b>MONTGOMERY WATER SYSTEM</b>	
SOS – Ross Dunham, Operator	(508) 776-7462 (cell) (802) 326-2278 (plant) (802) 741- 1828 (Pager)
SOS – Kirk Patch Montgomery Town Clerk - Administrative Contact	(802) 793-9178  (802) 326-4719

**Step 2: The responsible person and/ or operator will then be responsible for notifying some of the following officials, depending on the nature of the situation:**

<b>EMERGENCY CONTACT LIST</b>	
Statewide Emergency Services	911
Vermont State Police – St Albans Station	(802) 524-5993
Franklin County Sheriff	(802) 524-2121
Ambulance – Montgomery Rescue	(802) 326-4555
Montgomery Fire Department	(802) 326-4555

<b>STATE CONTACT LIST</b>	
Vermont Water Supply Division	(800) 823-6500 (802) 241-3400
Vermont DEC Hazardous Materials Spills Hotline	(800) 641-5005
Vermont Department of Health	(800) 439-8550
VTrans St Albans – Maintenance District #8	(802) 524-5926

<b>SERVICE/REPAIR NOTIFICATION LIST</b>	
Local Plumber – Jeremy Rondo	(802) 744-6161W (802) 323-8540 Cell
Construction – SD Ireland	(802) 863-2222
Chlorine Supplier/Well Driller – Manosh	(802) 888-5722
Water Testing Laboratory – Enydne Laboratories	(802) 879-4333

<b>TOWN CONTACTS</b>	
Montgomery Town Clerk – Renee Patterson	(802) 326-4719
Montgomery Health Officer – Susan Regan	(802) 326-2105
Montgomery Select Board/Water Commission Chair – Charlie Hancock	(802) 326-2093 (Home) 617-548-3566 (Cell)
Montgomery Zoning Administrator Ann Lavery	(802) 326-9001
Montgomery Road Commissioner – Michael Snider	(802) 326-4418

It will be the RP's responsibility to determine who should be called on this list. If the RP is not available, the operator will assume this responsibility. Actions that may be considered include:

- Seeking advice from a consultant or the Vermont Water Supply Division
- Providing an alternate water source (bottled water, hauled water)
- Ordering repair equipment, or contracting for repair
- Remediating or cleanup related to a hazardous materials spill
- Providing water system treatment
- Implementing water conservation measures

## **B. Notification of Water System Users**

In the event of a shutdown and use of an alternative source, the system operator will notify water users by one or more of the following methods:

- Letters delivered to all water users
- Door-to-door notification
- Public posting in common areas
- Posting on the Town web site

Users will be told the nature of the problem and expected duration. Short-term treatment options will be specified – such as boiling or do-not-drink orders. Notice of interruption of service for emergency repairs and maintenance is not typically required.

### C. Short-Term Contingency Options

In the event that water from the Montgomery Water System is determined to be unsuitable to drink or use, the following situation may occur:

- The first option is to shut down the unsuitable source
- When the water is deemed unsuitable for drinking, the Water System Operator will issue a Boil Water notice and/or recommend that bottled water be utilized for drinking water purposes. In the event of a coliform hit, notification and sampling procedures from the Vermont Water Supply Division should be followed.
- When the water supply has been deemed temporarily unsuitable for use, the Water System Operator will issue a “Do Not Use” notice indicating that water is only to be used for flushing toilets. In addition, treatment alternatives should be considered.
- In the event that water quantity problems arise, conservation measures will go into effect.

Short-term water supply alternatives include bottled water delivery or bulk water delivery to fill the reservoir. Bottled water is available from the following suppliers:

<b>BOTTLED WATER SUPPLIERS</b>		
Vermont Heritage	Newport, VT	802-334-2528
Booth Brothers Dairy	Barre, VT	802-476-6605

A short term supply of water can be provided by filling the water tanks. A number of bulk water suppliers can provide 4000 to 6000 gallon loads. A water use restriction should be put in place to conserve supply in the event of water hauling. Sanitary tank truck delivery can be provided from:

<b>BULK WATER SUPPLIERS</b>		
Wright’s Plumbing	Derby, VT	802-334-6976
Clear Water Deliveries Stafford & Son Well Drilling	Jericho, VT	802-899-5873
A-1 Water Deliveries Wright Family Farm	St Albans, VT	802-524-9361
Fresh Water Haulers	Burlington, VT	802-658-2223

### D. Long-Term Contingency Options

The Montgomery Water System has one well that is an emergency water source. The Water Supply Division must be notified prior to any use of this non-permitted, unapproved source. Detailed instructions for using this source are found in the O&M Manual – Section 6.3 Alternate Water Supply.

If the source becomes continuously unavailable due to quantity or quality issues, the system will initiate a program to determine future necessary steps. Decisions will be made to determine if, in the case of contamination, water can be treated until contamination is no longer present, or if the contaminated source will need to be abandoned.

If an existing source must be abandoned or permanently modified, long-term options include:

- Drilling one or more new wells
- Installing an appropriate water treatment system

In addition, the water system participates in the Vermont WARN network – which will provide mutual aid from nearby systems during emergency situations.

## **E. Water System Shut Down & Start Up Procedures**

If the contamination requires that the system well must be shut down for an emergency situation, the operator should follow the procedures outlined below:

### **Shut Down Procedures**

The following steps must be completed, in order, to ensure the safe shutdown of the main water system.

- 1) Turn the well pump HOA switch to OFF on the motor control center.
- 2) Contact Pureflow to notify them that the filters will be out of operation if it is from more than a week. Periodic backwash of the filter media may be necessary.
- 3) If the filter system is the reason for the shutdown, close the gate valve in the water treatment plant that goes to the distribution system

### **Start Up Procedures**

In order to start the operation of the water system, the following sequence of events must be completed, in order (this is a partial list – the full procedure is available in the O&M Manual Section 3.2):

- 1) Verify the appropriate panel breakers are ON and the touch screen display reads “Auto” for each component
- 2) Open the gate valve next to the filter skid and open all gate valves in the system that may have been closed
- 3) Verify that the well pump, feed pumps, filters, and storage tanks are operating properly
- 4) Verify that the pump station pump are set to “Auto”

## **VI. REFERENCES**

Public Water System Permit to Operate  
Montgomery Center Water System  
WSID #5125  
March 13, 2009

Operations and Maintenance Manual  
Montgomery Water System  
WSID #5125  
June 2010

Vermont Water Supply Rule  
Agency of Natural Resources, Department of Environmental Conservation  
Revision Date December 1, 2010

Montgomery Town Plan  
Amended and Adopted August 19, 2010

### **Online References:**

Vermont Water Supply Division  
<http://www.anr.state.vt.us/dec/watersup/wsd.htm>

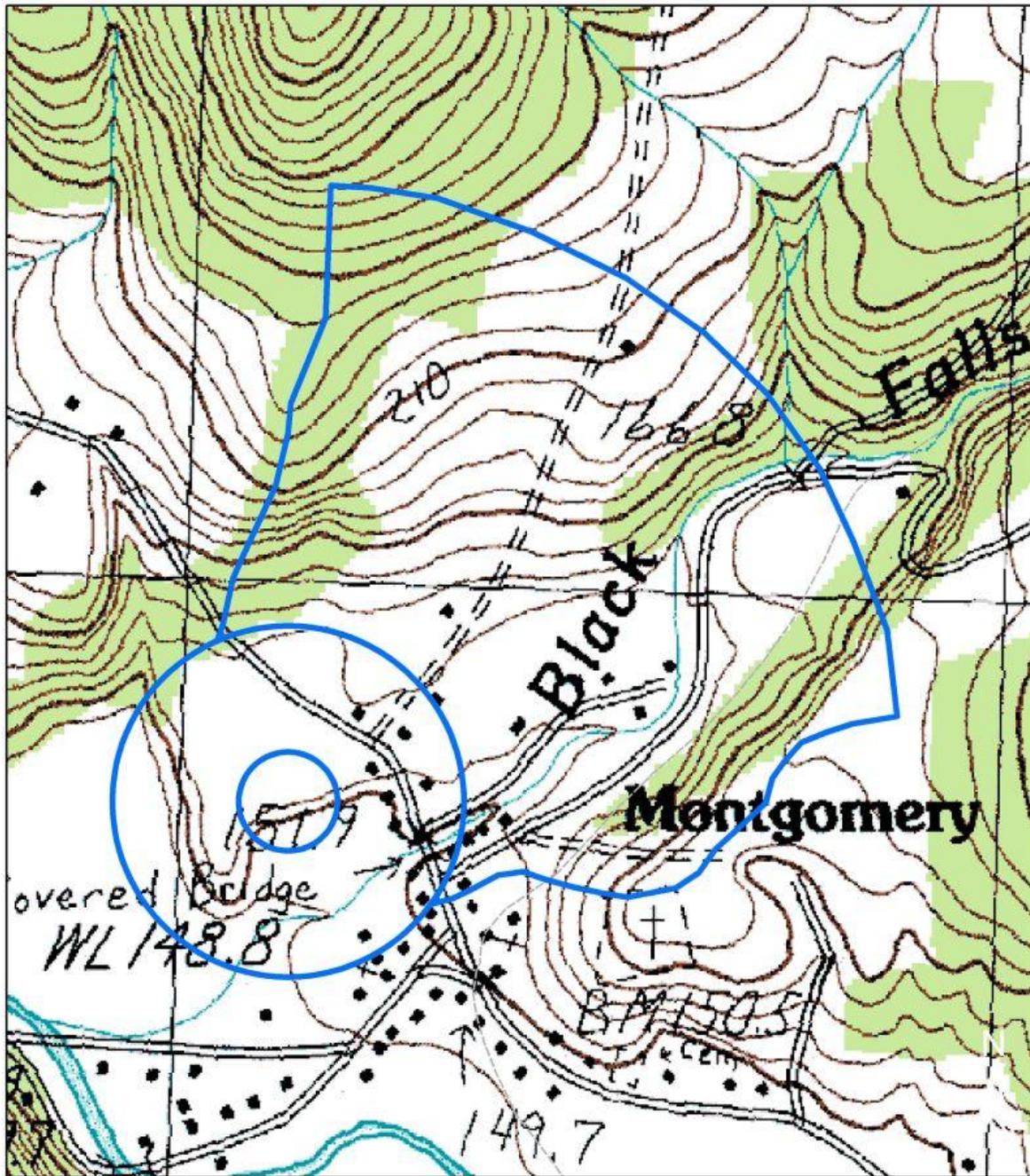
Vermont Geological Survey  
<http://www.anr.state.vt.us/dec/geo/vgs.htm>

Northwest Regional Planning Commission  
<http://www.nrpcvt.com/>

Vermont Rural Water Association  
<http://www.vtruralwater.org/>



Figure 2. Topographic Map –



0 500 1,000 2,000 Feet

**Montgomery Source Protection Area  
WSID # 5125 - Montgomery, VT**

Data Sources: 1:24K Topographic Map from VCGI & USGS  
DEC Water Supply & VT Rural Water; map created 5/09

Figure 3. Orthophoto –

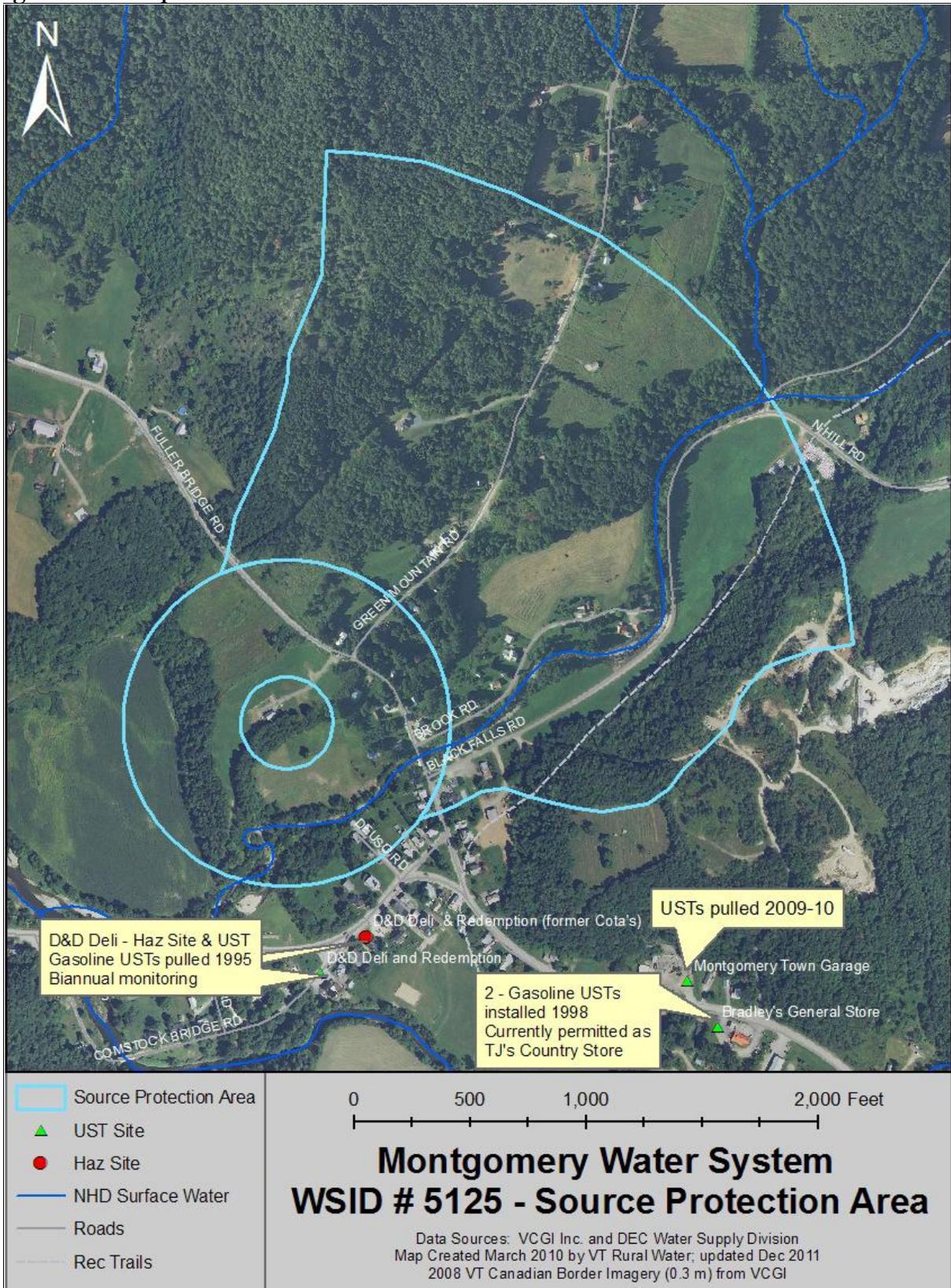


Figure 4. Potential Sources of Contamination Map

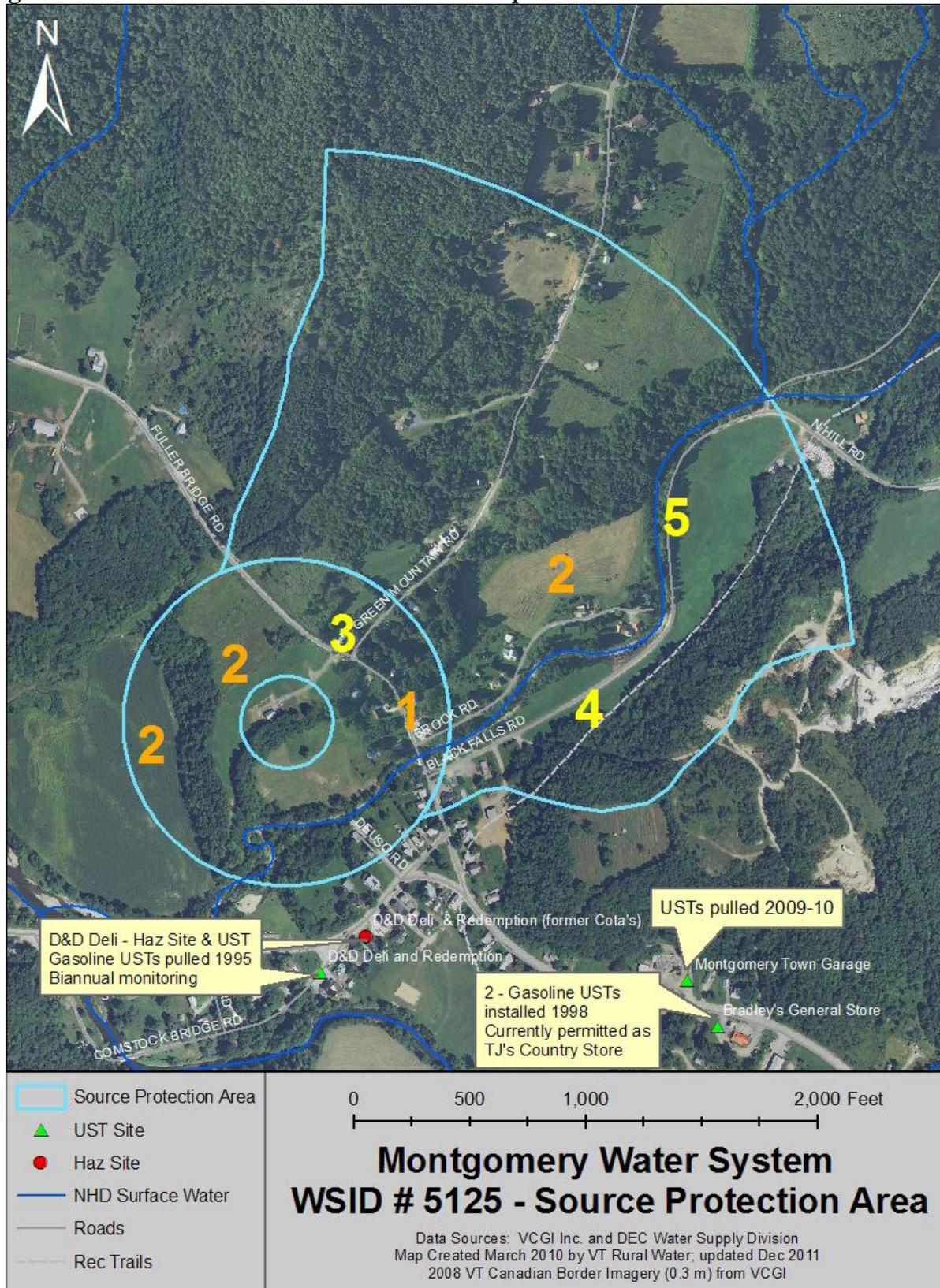


Figure 5. Parcel Map –



- Public Water Source
- ▭ Source Protection Area
- ▭ Montgomery Parcels
- Roads
- - - Rec Trails

0 410 820 1,640 Feet

### Montgomery Source Protection Area WSID # 5125 - Parcel Map

Data Sources: NAIP 2003 Imagery from VCGI Inc & USDA  
VCGI, DEC Water Supply & NW Regional Planning; map created 5/09

## VIII. APPENDICES

### Appendix A. Letter to Landowners

Montgomery Water Department  
PO Box 442  
Montgomery Ctr, VT 05471

July 2017

Dear Landowner,

As required by the State of Vermont, Montgomery Water Department has been working to renew our Source Protection Plan to protect our drinking water well. Montgomery is being assisted by the Vermont Rural Water Association, a non-profit group, to update this plan. The purpose of the plan is to identify potential contaminants and to manage and maintain the quality and quantity of our public drinking water source.

Your land is located in the source protection area (see enclosed map). If you own a home in the source protection area, you may have already been contacted to provide information necessary in the development of this plan. A source protection area is the land from which contaminants are considered likely to reach a well. Within a source protection area, human land uses and naturally occurring materials may cause a public water system to become vulnerable to contamination. While naturally-occurring contaminants can usually be controlled by treatment methods, property owners are often able to manage their land uses to further lower the risk of contamination.

Land use activities that occur within a Source Protection Area have the ability to negatively impact a water source. For example, activities such as improperly disposing of household hazardous wastes and motor oil, septic system failures, and spillage of gasoline or home heating fuel all have the potential to contaminate a water source. Many of the negative impacts associated with these activities can be avoided with good management.

If you have any questions, please contact the Montgomery Water Department at 802-326-4719 or the Water System Operator at 802-309-8574. Copies of our Source Protection Plan will be available for review at the Town Clerk's Office and the State of Vermont Water Supply Division in Waterbury.

Thank you in advance for helping us protect the drinking water in our community.

Sincerely,

Montgomery Water Commission

## Appendix B. Letter to Public Officials

Montgomery Water Department  
PO Box 442  
Montgomery Ctr, VT 05471

July 2017

Dear State, Local and Regional Officials,

As required by the State of Vermont, Montgomery Water Department has been working to renew our Source Protection Plan to protect our drinking water well. Montgomery is being assisted by the Vermont Rural Water Association, a non-profit group, to update this plan. The purpose of the plan is to identify potential contaminants and to manage and maintain the quality and quantity of our public drinking water source.

Enclosed is a map showing the Source Protection Areas for one well serving the Montgomery Water System. A Source Protection Area consists of the surface and subsurface area from or through which contaminants are likely to reach a water supply source. Land use activities located in the protection area have the potential to adversely impact water quality of the associated well. If the ground water that supplies our well becomes contaminated, it may be impossible to eliminate the contamination so that the source can continue to be used for drinking water. We are proactively trying to protect our water source by implementing a source protection plan of which this letter of notification is a part.

We are contacting you to request your assistance in protecting this water supply. There are a number of ways in which your agency may be able to help with protection that can help reduce the possibility of contamination of the water supply. For example, please keep us informed of any related land use decisions or permitting issues and involve us in the planning and decision process where it is deemed appropriate.

On behalf of the drinking water system, I would like to thank you for your attention to this matter. If you have any questions, please contact the Montgomery Water Department at 802-326-4719 or Operator at 802-309-8574.

Sincerely,

Montgomery Water Commission

## Appendix C. Addresses of Source Protection Area Landowners

Information from: Town of Montgomery Parcel ID Map (Northwest Regional Planning) and 2011 Montgomery Grand List & Parcel List Names Reference. Two of the original 51 parcels were combined leaving 50 parcels in the protection area.

PARCEL ID	OWNER 1	MAILING ADDRESS	CITY	STATE	ZIP
00001.002X	WALKER TREVOR	PO BOX 12	MONTGOMERY	VT	05470
00001.005X	SCHLEY JAMES T	PO BOX 162	MONTGOMERY	VT	05470
00001.006X	ELKINS MAGGIE	PO BOX 235	MONTGOMERY	VT	05470
00001.007X	LUMBRA FRANCIS	PO BOX 74	MONTGOMERY	VT	05470
00001.008X	BACKMAN MURRAY	364 AV REDFERN	WESTMOUNT QUE	CANADA	H3Z 2G5
00001.009X	ST ONGE ARTHUR	PO BOX 65	MONTGOMERY	VT	05470
00001.011X	DOMINA KENNETH	PO BOX 212	MONTGOMERY	VT	05470-0212
00001.012X	PELLETIER SUZANNE	PO BOX 19	MONTGOMERY	VT	05470
00001.013X	RACINE PATRICK	PO BOX 145	MONTGOMERY	VT	05470
00001.014X	BARTSCH DONNA	PO BOX 25	MONTGOMERY	VT	05470
00001.015X	MAY ALLISON AND JOHN WITHERSPOON	PO BOX 173	MONTGOMERY CTR	VT	05471
00001.016X	TOWN OF MONTGOMERY	PO BOX 356	MONTGOMERY CTR	VT	05471
00001.027X	JACOB WEBSTER	PO BOX 161	MONTGOMERY	VT	05570
00001.029A	SIANO WENDY	FULLER BRIDGE ROAD	RICHFORD	VT	05471
00001.029X	BROUILLETTE MARK F	529 FULLER BRIDGE ROAD	RICHFORD	VT	05476
00005.002X	VITTUM NICHOLAS	PO BOX 98	MONTGOMERY	VT	05470
00005.003X	BARNARD ABRAM	PO BOX 191	MONTGOMERY CTR	VT	05471
00005.004X	HACKER RANDI	2043 NEW HAMPSHIRE ST	LAWRENCE	KS	66046
00005.005X	THOMAS STICH	7 MOSS GLEN LANE	S. BURLINGTON	VT	05403
00005.006X	CLOWES DOUGLAS	PO BOX 201	MONTGOMERY	VT	05470
00005.006Z	BOSLEY FRANCES J	PO BOX 84	MONTGOMERY	VT	05470
00005.007X	MURPHY TIMOTHY L	PO BOX 176	MONTGOMERY	VT	05470
00005.008X	HAYS STEPHEN E	175 FOREST PARK AVE	SPRINGFIELD	MA	01108
00005.011X	CREIGHTON, DAVID	3047 DE BRESLAY RD	MONTREAL, QUE	CANADA	H3Y 2G8
00005.013X	TRYHORNE DAVID K	374 GREEN MOUNTAIN RD	RICHFORD	VT	05476
00005.014X	CHARLES HAROLD E	GENERAL DELIVERY	MONTGOMERY	VT	05470
00005.015X	WOOLHOUSE LADDIE S	PO BOX 125	MONTGOMERY	VT	05470
00005.016A	MCGREGOR CAROL M	469 GREEN MOUNTAIN RD	RICHFORD	VT	05476-9410
00007.003A	TOWN OF MONTGOMERY	PO BOX 356	MONTGOMERY CTR	VT	05471
00007.003X	ST ONGE ARTHUR	PO BOX 65	MONTGOMERY	VT	05470
00007.005X	FAIRPOINT NEW ENGLAND	908 WEST FRONT VIEW	DODGE CITY	KS	67801
00007.008X	SOULE JESSE	PO BOX 35	MONTGOMERY	VT	05470
00007.021X	VON CONTA	PO BOX 347	MONTGOMERY CTR	VT	05471
00037.002X	LEBRUN, JOHN	67 TRAFALGAR DR, PLATTSBURGH, NY 12901	WARRENTON	VA	20186
00037.006X	HARROCKS JOHN M	PO BOX 186	MONTGOMERY	VT	05470
00037.008X	DEUSO VIVIAN	PO BOX 153	MONTGOMERY	VT	05470
00037.010X	GERSTEIN WILLIAM	504 LANSDOWNE AVE	MONTREAL QUE	CANADA	H3Y 2V2
00037.014X	BAKER MARILYN	PO BOX 95	MONTGOMERY	VT	05470
00037.015X	ST CYR SHEILA	PO BOX 53	MONTGOMERY	VT	05470

00037.018X	KENNISON DANA	PO BOX 106	MONTGOMERY	VT	05470
00039.002X	CARPENTER PATRICIA P	PO BOX 62	MONTGOMERY	VT	05470
00039.004X	WADE RENA	66 BRISTOL RD.	MEDFORD	MA	02155
00039.005X	TOWN OF MONTGOMERY	PO BOX 356	MONTGOMERY CTR	VT	05471
00039.006X	ELKINS FRANCIS F	18 ON THE COMMON	EAST BERKSHIRE	VT	05447
00039.008X	MAURACIE LEGAULT	308 S.MAIN ST	RICHFORD	VT	05476
00049.003X	DEUSO CHARLOTTE	PO BOX 24	MONTGOMERY	VT	05470
00049.004X	SHERMAN GEORGE D JR	PO BOX 102	MONTGOMERY	VT	05470
0N118.137X	MONTGOMERY HISTORICAL SOC	PO BOX 47	MONTGOMERY	VT	05470
0N118.139X	PAUL CHAUN	75 NUTTING ROAD	MONTGOMERY CTR	VT	05471
0N118.149X	ZARTARIAN THERESE A	11 AIRFIELD DR, UNIT 15 RYE, NH 03870	MONTGOMERY	VT	05470

Appendix D. Addresses of Public Officials

**List of Local, Regional and State Agencies  
(to receive letter and Source Protection Area Map)**

<p><b>Montgomery Town Clerk</b> Dianna Robitallic PO Box 356 Montgomery Ctr, VT 05471</p>	<p><b>Montgomery Health Officer</b> Sorenson, Colon PO Box 356 Montgomery Ctr, VT 05471</p>
<p><b>Montgomery Zoning Administrator</b> Ann Lavery PO Box 356 Montgomery Ctr, VT 05471</p>	<p><b>Montgomery Select Board Chair</b> Charlie Hancock PO Box 356 Montgomery Ctr, VT 05471</p>
<p><b>Montgomery Road Commissioner</b> Michael Snider PO Box 356 Montgomery Ctr, VT 05471</p>	<p><b>Northwest Regional Planning Commission</b> 155 Lake Street St. Albans, VT 05478</p>
<p><b>VT Water Supply Division</b> Dept of Environmental Conservation 103 South Main St Waterbury, VT 05671-0403 802.241.3400</p>	

## Appendix E. Hoffer Consulting Letter on Water Quality and SPA Delineation

Jul 14 09 04:13p

Montgomery Water Dept

18023262278

p.3



PO Box 122  
East Burke, VT 05832  
(802) 626 - 3077

Groundwater Supply Development  
Hydrogeologic Site Investigations  
Contaminated Site Remediation  
Downhole Video Surveys

3427

August 25, 2005

Ken Yelsey, Regional Manager  
Water Supply Division  
103 South Main Street/Pantry Building  
Waterbury, VT 05671-0403

Re: Town of Montgomery Well R, Well Interference & Water Quality Issues  
Preliminary Source Protection Area Delineation  
PID #E-1133

Dear Ken:

This report summarizes water quality and well interference issues for the Montgomery Water System's Well R. A preliminary source protection area is also presented for your review and comment. Figure 1 is a site location map.

### WELL INTERFERENCE ANALYSIS

Per the Water Supply Rule, interference on neighboring wells is determined by calculating drawdown from the source well pumping at the approved rate for 180 days at average day demand plus 3 days at the maximum day demand. In most cases, water-level data from an individual well is used to calculate the interference effects on that well, either by an extension of the drawdown trend and/or using well equations and aquifer coefficients derived for the well. If no water-level data is obtained for a well, a generally accepted procedure is to substitute aquifer coefficients derived for the closest well from which data is available.

As mentioned in previous correspondence, water-level data collected from private wells within 2500 feet of Well R during the 96-hour pumping test cannot be resolved for a valid interference analysis. However, there is some usable water-level data from two nearby observation wells. These two observation wells are bedrock wells that were drilled on Town property as part of the initial drilling efforts. The drawdown trends observed in these wells can be used to estimate interference in the aquifer under the future design pumping of Well R.

Figure 2 identifies locations of known water supplies within 2500 feet of Well R, and Table 1 summarizes available information for each source. An assumption of this interference evaluation is that the shallow dug wells are not in direct hydraulic connection with the bedrock aquifer tapped by Well R. This assumption is based on the fact that Well R's water-bearing zones are located deep within the bedrock aquifer, at depths of 146-147 feet and 260-268 feet. In addition, the depth to bedrock at Well R is 125 feet, with a thick sequence of clay from 8 to 110 feet. The static level in Well R is relatively low, on the order of 55 to 60 feet below ground surface. Most of the shallow dug wells appear to be constructed within overburden materials, at altitudes higher than the static level in Well R.

During the 96-hour pumping test conducted on Well R in July of 2004, the well was pumped at an average rate of 74 gpm with a maximum drawdown of only 27.51 feet (static level of 57.75 feet to a final

**GROUNDWATER SUPPLY & ENVIRONMENTAL SERVICES**

Ken Yelsey  
August 25, 2005  
Page 2

level of 85.26 feet). Well R was the third of three bedrock wells drilled on the Town property. The first two wells were relatively low yielding, more characteristic of the well yields of the private bedrock wells in the area. The "Upper Field" observation well is located 225 feet west of Well R and is 299 feet deep with a driller's yield of 2.0 gpm (Tag #26335). The "Lower Cornfield" observation well is 440 feet west of Well R and was also drilled to a depth of 299 feet with a 1/2-gpm driller's yield (Tag #26336). Well locations are included on Figure 3, an orthophotograph of the well site that shows all bedrock wells within 2500 feet of Well R.

Water levels measured in the two bedrock observation wells during the pumping test are given on Table 2, and Figure 4 is a semi-log plot of drawdown for these two wells. Transmissivity (T) and storativity (S) values were calculated for the observation wells using the Jacob straight-line method. Table 3 summarizes the T and S values calculated for the observation wells, and also a T value for Well R.

Using the observation well T and S values, and an approved pumping rate of 74 gpm, drawdown in the aquifer at various distances from Well R was calculated using the Jacob modification of the Theis equation. Drawdown was calculated after 183 days of Well R pumping continuously at 37 gpm (to simulate 180 days of Well R pumping 74 gpm for 12 hrs/day), plus the drawdown from 3 days of pumping continuously at 37 gpm. Table 4 summarizes these calculations, and the results are illustrated on Figure 5 in the form of a distance-drawdown chart. Of the two observation wells, the drawdown calculated using the Upper Field well coefficients is greater. Figure 6 illustrates aquifer drawdown under the design pumping of Well R, using the more conservative data from the Upper Field well.

Interference drawdown on the bedrock wells within 2500 feet of Well R is calculated on Table 5, using the T and S values from the Upper Field well and the Jacob modification of the Theis equation. An approved pumping rate of 74.0 gpm for Well R is used. These calculations show 180 + 3 day interference drawdown ranging from 15.90 feet in the St. Onge well to 8.69 feet in the Charles well.

Table 6 provides calculations of the effect of the predicted interference on each well. The total available head (TAH) is calculated for each well, which is then reduced by the amount of interference predicted on Table 5. The reduction in TAH, as a percentage, is then subtracted from the well yield and also from the borehole storage volume. The remaining available water, in gallons per day, is then compared against an estimated daily demand of 600 gallons per day (assuming 4 bedrooms x 150 gpd/bedroom). These calculations show that all of the bedrock wells will retain sufficient yield to meet expected demands.

In summary, interference calculations indicate that Well R will not cause undue interference on the surrounding bedrock wells.

#### **WATER QUALITY**

Copies of all water quality testing results for Well R are compiled in Appendix A. The original laboratory report sheets are enclosed separately.

Table 7 compares drinking water standards against the Well R results from the initial 96-hour pumping test sampling (July 2004), and the initial follow-up sampling (September 2004). Table 8 summarizes results for all sampling events, and includes field measurements, radionuclides, and selected inorganics.

The initial Well R samples were collected at the conclusion of the 96-hour pumping test conducted in July of 2004, at a rate of 74 gpm. This sample showed a uranium activity of 51 +/- 2 pCi/L per liter

Ken Yelsey  
August 25, 2005  
Page 3

(pCi/L), which was translated by the laboratory to a concentration of 76 +/- 3 parts per billion (ppb). A uranium concentration of 76 ppb exceeds the USEPA maximum contaminant level (MCL) of 30 ppb, and the Vermont standard of 20 micrograms per liter (equivalent to 20 ppb). The only other parameter to exceed drinking water standards was manganese, which was detected at concentration of 0.27 mg/L, exceeding the secondary standard of 0.05 mg/L.

Follow-up radionuclide sampling of Well R was conducted on September 22, 2004, using a small capacity well pump. Well R was pumped for approximately one hour at a rate of 10 to 12 gpm prior to collecting the sample. In addition, a sample was collected from the closest observation well (Upper Field observation well, Tag #26335) using the small capacity pump and pumping this well for 15 to 20 minutes at 10 gpm. These samples were analyzed for radionuclides by the same laboratory that conducted the initial Well R testing. The reported uranium result for Well R was much lower than the initial sample; 4.0 +/- 0.4 pCi/L or 6.0 +/- 0.6 ppb. Even lower uranium concentrations were found in the nearby observation well, 2.1 +/- 0.5 ppb.

Our initial reaction to the disparity in uranium concentrations between the two sampling events was to contact the laboratory (SCITEST) to have them review the data. KNL Laboratory Services, who was sub-contracted by SCITEST, conducted the radionuclide analyses. KNL had retained portions of the initial pumping test sample as well as the follow-up sample, and agreed to run them both again in sequence. As verbally reported to SCITEST, this second sample run again showed over an order of magnitude difference in uranium concentrations between the two samples.

The initial sample, which showed the elevated uranium concentration, was collected after 96 hours of pumping Well R at 74 gpm. The follow-up sample was collected after only one hour of pumping Well R at 10 to 12 gpm. As a result, we surmised that the duration of pumping might have led to the disparate results. A decision was made to conduct a second 96-hour pumping test on Well R, and collect samples at various time intervals to assess potential time-related changes in uranium concentrations. This test started on November 1 (2004) at a rate of 70 to 80 gpm, with samples collected after 10 minutes and 22 hours of pumping. After this time period, the generator/pump failed, so another test was re-started on November 8, 2004. Samples were then collected after 78 and also 96 hours of pumping. These four interval samples were submitted to the Vermont Health Department Laboratory for analysis of Kit ID analytes, (nitrate, chloride, odor, arsenic, iron, manganese, sodium, and uranium), gross alpha, and radon. In addition, sample splits from the 96-hour sample were submitted to KNL Laboratory Services for radionuclide testing to permit comparison between these two laboratories. For uranium analyses, KNL uses a radioactive particle counting procedure, while the VT Health Department Laboratory uses an ICP-MS analytical method that was approved in August of 2004. As with the initial follow-up sampling round, uranium concentrations during the second 96-hour pumping test were well below the drinking standard, and more than an order of magnitude lower than the initial concentration of 76 ppb. The results for the second 96-hour pumping test sampling episodes are included on Table 8, and are illustrated graphically on Figure 7 as a line chart, and on Figures 8 and 9 as a time-series plots.

A final sample was collected from Well R on February 1, 2005, after pumping the well for one hour at a rate of 75 gpm. This sample was analyzed by the VT Health Department Laboratory for Kit ID analytes, gross alpha, and radon. The results are similar to those obtained from the second 96-hour test, with uranium at a concentration below the drinking water standard.

One parameter that was below the drinking water standard during the initial test, but exceeded the standard in the follow-up sampling rounds was "odor". Testing results for the "odor" standard ranged

Ken Yelsey  
August 25, 2005  
Page 4

from 1.0 to 8 threshold odor units, exceeding the secondary standard of 3 threshold odor units. The cause of the odor problem is hydrogen sulfide, a dissolved gas that is not a regulated drinking water parameter, but can be aesthetically displeasing at high concentration. During the various pumping tests, a "rotten-egg" odor was noticeable in the discharge water, indicative that hydrogen sulfide gas was degassing from the pumped water.

Arsenic was detected in the Well R samples at concentrations ranging from 5 to 6 ppb, which is slightly elevated but below the current MCL of 10.0 ppb for this parameter.

In summary, the numerous re-sampling efforts of Well R have not been able to verify the existence of elevated uranium concentrations. Uranium was found at concentrations below the drinking water standard during all follow-up sampling events. Manganese was observed at a consistent concentration throughout all of the sampling events, exceeding the 0.05 mg/l standard. Arsenic was found at detectable concentrations, but below the drinking water standard. The "odor" standard was exceeded in several of the follow-up samples, due to the presence of hydrogen sulfide. Since the eventual use of Well R will include some type of treatment for manganese removal, it is likely that both the sulfide and the arsenic concentrations will also be reduced.

#### **SOURCE PROTECTION AREA**

Source protection areas for Well R have been delineated on the basis of an approved yield of 74 gpm and the hydrogeologic setting.

By default, Zone 1 for Well R is the 200-foot isolation zone around the well. Zone 2 is defined as the contributions outside of Zone 1 from the monitoring radius established in Subpart 3.3.5.2 (c), which is 2500 feet for Well R. Zone 3 is defined as the remaining watershed area above Zone 2, but may be reduced on a case-by-case basis giving consideration to the size of the watershed and the likelihood of contamination of the source.

Delineating recharge areas for wells completed in fracture-bedrock aquifers such as the one tapped by Well R is difficult, particularly in the absence of detailed information on the aquifer (fracture network, piezometric surface configuration, etc.).

As a starting point, the uniform flow equations can be used to define a capture zone to a well under sloping water table conditions. For Well R, we have estimates of the aquifer transmissivity ranging from 1,500 to 3,000 gpd/ft. The slope of the piezometric surface probably mimics the surface topography, which ranges considerably in the vicinity of Well R. Table 9 presents uniform flow equation calculations, using a range of slope values (0.025 to 0.10), the transmissivity range, and an average day pumping rate of 37 gpm (to simulate 12 hours of pumping Well R at 74 gpm). These calculations define a capture zone with a downgradient null point of 113 feet and lateral extents of 355 feet on both sides of the well perpendicular to the hydraulic gradient. The capture zone described by these calculations may be appropriate for a porous aquifer (i.e., sand and gravel), but may not very accurate for a fractured-bedrock aquifer, particularly the downgradient null point distance of 113 feet.

As a starting point, Zone 2 can be delineated using the 355-foot lateral boundaries as the radius of circle around Well R. The boundaries can then be extended, based on the surface topography, upslope to the 2500-foot monitoring radius. As illustrated on Figure 10, this configuration results in a land area of 240 acres. If this drainage area is extended to a distance of 5000 feet, the total drainage area to the well is

750 acres. The area between the 2500 and 5000-foot boundaries could be considered ZONE 3, rather than incorporating the entire upgradient watershed of Black Falls brook.

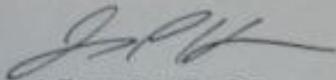
Potential recharge rates can be used to assess the size of the proposed source protection area. Table 10 provides calculations of recharge rates using infiltration rates of 4.5 and 9 inches/year. At these recharge rates, the minimum land area required to balance the 53,280 gpd volume is 80 acres for an infiltration rate of 9 inches/year, and 160 acres for 4.5 inches/year. These calculations assume that all infiltration will be available and/or captured by the well, which may be an invalid assumption given the complexity of fracture-bedrock aquifers and the hydrogeologic setting of Well R. Nonetheless, these calculations provide for a simple means to assess the appropriate size of the recharge area.

Table 10 also calculates the infiltration rate needed to balance the 53,280 gpd withdrawal using the 240 acre land area (Zone 2 on Figure 10) and the 750 acre land area (entire area plus Zone 3 on Figure 10). These calculated infiltration rates are 1.0 inches/year for the 750-acre area, and 3.0 inches/year for the 240-acre area. Given that 9 inches/year is a generally accepted infiltration rate for till soils in Vermont, the 1.0 inches/year rate for the 750-acre area may be considered too low, thus the 750 acre area is perhaps excessive.

Based on these calculations, we recommend using the 240-acre area as the entire source protection area for Well R. As shown on Figures 11 and 12, this area can be configured as one Zone 2 area, or assigning the upgradient area beyond the 710-foot circular radius as Zone 3. Any input from the Water Supply Division on these possible source protection area delineations would be appreciated.

If you have any questions concerning this information, please feel free to e-mail (geohoff@AOL.com) or call me (802-626-3077) at your earliest convenience.

Sincerely,  
HOFFER CONSULTING INC.



Jefferson P. Hoffer, P.G.  
President/Senior Hydrogeologist

enc.

cc: Tosca Smith, Montgomery Water System, PO Box 546, Montgomery VT 05471  
Ken Trask, PE, Leach Engineering Consultants, PA, 36 Eastern Ave, Suite 6, St. Johnsbury, VT 05819

## Appendix F. Preparing a Source Protection Plan Update

 VERMONT	GUIDANCE
ENVIRONMENTAL CONSERVATION	
Water Supply Division	
<b>PREPARING A SOURCE PROTECTION PLAN UPDATE</b> Guidance for Public Community and Non-Transient Non-Community Water Systems	
<p>The Water Supply Division (WSD) has been assisting water systems with their source protection needs for over ten years. This program is successful at protecting and preserving safe drinking water for the people of Vermont. The hard work and diligence of those involved in protecting their water is very evident. An excellent job of keeping up with the ever-changing requirements mandated by state and federal agencies is also apparent. The following guideline was developed to streamline the approval and updating process, making the most efficient use of the time and resources we have available to us.</p>	
<p>Please use each section when organizing your Source Protection Plan (SPP) update. At the end of the process, you may find you don't need to make many changes. Even if this is so, it is important to say so in writing when addressing each section in your SPP update.</p>	
<b><u>Inspect the Source Protection Area</u></b>	
<p>Visually inspect the Source Protection Area (SPA) and review the potential sources of contamination (PSOC) identified in your original Source Protection Plan (SPP) or most recent SPP Update. Your inspection should consist of a physical walk through, in addition to a drive through. Some questions you should be asking while completing the PSOC section of your update include:</p>	
<ul style="list-style-type: none"><li>• Is the farmer still growing corn on the field within your SPA? If so, does he use any pesticides? If not still growing corn, what is he now doing with the land? Is he haying it? Does he spread manure? How often? Can you ask him to reduce or eliminate spreading in the area closest to your source?</li><li>• Is there a gas station or other place that stores petroleum products in your SPA? Establish a relationship with the owner to alert you when and/or if a spill occurs and to help you evaluate the following questions. How old are the tanks? Is there proper containment should a spill occur? Has it been tested for leaks? If the tank is no longer in service, has it been removed or properly closed in place?</li><li>• Are the septic systems in the area properly maintained? Have landowners received outreach material on how to maintain their septic system?</li><li>• Is there a household hazardous waste collection day or a safe place for homeowners to drop off their hazardous waste so it does not end up in their septic tanks?</li></ul>	
<b><u>Update Your PSOC Maps and Inventory</u></b>	
<p>You must make reference to all PSOCs within your SPA in your update. Please also weigh their risk (high, medium, low) to your source and identify a management plan for each. Please indicate if a PSOC has been added and consider the same circumstances as followed in the original SPP for their risk assessment (your well construction, proximity to the source, nature of contamination, probability of contamination). If a PSOC has been removed, please describe why. Also modify your PSOC map to reflect your observations, if any. If necessary, the WSD is available to create an updated map for use in your SPP update.</p>	
1/2	

### **Update Your Landowner List**

Visit your town clerk's office to determine whether any land or land rights within your SPA have changed hands. Add any new landowners to your list and remove anyone who no longer owns property in your SPA. A complete list of landowners should be included in each update. Those who are new to the SPA should be sent a copy of your landowner letter and pertinent outreach material.

### **Update Your Management Plan**

Each PSOC management plan should describe a way to ensure the least amount of impact is occurring to your source. This may be something as simple as sending outreach material to residents or it might involve establishing a direct relationship with the owner of the service station across the street from your source. Or you might only have to maintain awareness on your site if your activities are the only PSOC in the SPA.

### **Update Your Contingency Plan**

You should update your contingency plan to reflect changes, if any, which have occurred among the personnel of your system. For example, if the responsible person or operator has changed this needs to be indicated in the contingency plan for easy reference. You should also use this section to update any emergency procedure changes that have occurred. Also, be sure the WSD is aware of changes in personnel by submitting a 'blue form' for administrative updates to our records.

### **Communicate with Relevant Landowners and Town/County/State Officials**

Send out letters to regulatory agencies to remind them that you are concerned about land use activities in your SPA. Also, send letters to newly identified landowners who may not know about your water source. Although not required, it's a good idea to contact the other landowners within your SPA with a positive message about actions they can take to help protect your supply, and to thank them for any efforts they have made since your last letter. You do not need to include a copy of the landowner letter with your SPP update, unless you wish.

### **Other Useful Information**

An example of what might be useful to include in your update is if your town passes zoning rules or establishes a conservation district around your source. Look back over the last three years and think about what actions you have taken to make your source less vulnerable to contamination. Have you worked with a local farmer to reduce pesticide and fertilizer use in your SPA? Have you purchased development rights for land in your SPA? Have you posted signs at key locations to notify people when they enter your SPA? Have you responded swiftly and appropriately to an emergency situation? Use the SPP Update as an opportunity to boast about the progress you have made

This list may appear daunting; however, you will quickly realize the above steps are what you followed to create your initial SPP. Once you develop a format for your update, future revisions will become easier. These steps are integral in protecting your water supply for present and future generations.

**Please send your Source Protection Plan Update to the address below**

This guidance document 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 VT WSD directly at <http://www.vermontdrinkingwater.org>

Water Supply Division  
103 South Main Street  
Waterbury, VT 05671-0403  
Toll free 1-800-823-6500  
Out of State 1-802-241-3400  
Fax 1-802-241-3284

Appendix G: Permit To Operate



**Vermont Department of Environmental Conservation  
Drinking Water and Groundwater Protection Division**  
Old Pantry Building (phone) 802-241-3400  
103 South Main Street (toll-free) 800-823-6500  
Waterbury, VT 05671-0403 (fax) 802-241-3284  
[www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org)

*Agency of Natural Resources*

January 3<sup>rd</sup> 2012

Montgomery Center Water System  
Attn. Mr. Scott Perry  
PO Box 356  
Montgomery Center VT 05471



Re: Permit to Operate for Montgomery Center Water System WSID# 5125

Dear Mr. Perry:

Enclosed you will find a new Permit to Operate (PTO) for the Montgomery Center Water System (the Water System).

No significant sanitary survey deficiencies were identified in the most recent inspection of the Public community Water System. Section IV – Special Condition, Item C, requires the correction of minor deficiencies identified in the sanitary survey inspection report dated 10/28/10. Please let me know when each of these deficiencies has been resolved and I will update the compliance status for the Water System in our division's database.

If you have any questions regarding the information or requirements presented in this document, or any information regarding milestones or water system improvements, please contact me toll free at (800) 823-6500, or on my direct line at (802) 654-8957.

Sincerely,

Robert G Farley  
Hydrogeologist/ Systems Specialist

cc: WSID #5125  
Jean Nicolai, Chief, Operations and Compliance Section, DWGPD  
Tim Raymond, Operations Section Manager, DWGPD  
Jessanna Wyman, Regional Engineer, DWGWSID, Essex Regional Office  
Mark Brouillette, Water System Operator

enc: Permit to Operate

*To preserve, enhance, restore, and conserve Vermont's natural resources, and protect human health, for the benefit of this and future generations.*



**Vermont Department of Environmental Conservation**  
**Drinking Water and Groundwater Protection Division**  
 Old Pantry Building (phone) 802-241-5400  
 103 South Main Street (fax) 800-833-6500  
 Waterbury, VT 05671-0403 (tel) 802-241-3284  
[www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org)

*Agency of Natural Resources*

January 3<sup>rd</sup> 2012

**Public Water System Permit to Operate**

WATER SYSTEM IDENTIFICATION NUMBER: 5125

PIN #: E.P.06-0544

OWNER/PERMITTEE: **Montgomery Town**  
 WATER SYSTEM: **Montgomery Center Water System**  
 TOWN: **Montgomery**

AUTHORIZED REPRESENTATIVE: **Scott Perry**  
 ADDRESS: **PO Box 356**  
**Montgomery Center VT 05471**

**I. Authority**

In accordance with 10 V.S.A. §1671 *et seq.*, the following findings and conclusions have been made for the **Montgomery Center Water System (the Water System)**. The Department of Environmental Conservation has determined that the operation of this Public Community Water System, subject to the following conditions, will not constitute a public health hazard or a significant public health risk; therefore, a permit is hereby issued.

**II. Findings and Conclusions**

This Public Water System is in compliance with the standards in accordance with 10 V.S.A. §1675(b), and will not constitute a public health hazard or a significant public health risk:

**A. Summary of sanitary survey physical conditions**

1. The date of the most recent sanitary survey was October 22<sup>nd</sup> 2010. System specific information may be referenced in the most recent sanitary survey report dated October 28<sup>th</sup> 2010 or preceding inspection reports.

**2. Major Findings:**

**a) Source:**

The only permitted source (Permit #E-1762) "Well It - Montgomery Center" (WT.003) a 10-inch drilled bedrock well with a depth of 175 feet and a permitted yield of 74 gallons per minute (gpm).

**b) Treatment:**

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*To preserve, enhance, restore, and conserve Vermont's natural resources, and protect human health, for the benefit of this and future generations.*

The Water System utilizes two treatment facilities, TP002 and TP003. Water from Well R is first treated at the "New Treatment Facility" (TP002) where chlorine disinfection is continuously applied for the purpose of oxidizing manganese for removal utilizing a greensand filtration process. Secondary disinfection is applied at the "School Treatment Facility" (TP003) where the

free chlorine disinfection residual is raised as necessary to maintain a measurable disinfectant level in the distribution system (see letter dated March 17, 2009 from Robert Nichols, P.E., concerning 4.0 log inactivation of viruses). The Water System is required to maintain a measurable disinfectant residual in the distribution system at all times.

c) Storage:

The Water System has three storage facilities, "Storage 1 – Route 242 Tank" (ST001) a 250,000 gallon concrete storage tank, "Storage 2 – Route 58 Tank" (ST002) a 5,000 gallon concrete storage tank and "Fuller Bridge Storage Tank" (ST003) a 150,000 gallon concrete storage tank.

d) Booster/Pump Stations:

A submersible source pump serves water from "Well R – Montgomery Center" (WL002) through treatment (TP002) to the distribution system. The Water System operates two separate booster pump facilities to move water through the distribution system. The Booster Pump Stations maintain supply to three storage tanks which maintain distribution system pressure in three separate areas of the water distribution system.

The Well pump is controlled by the water level in the "Fuller Bridge Storage Tank" (ST003), which serves the Montgomery Village portion of the distribution.

The "School Pump Station" (PF002), consists of two pump which draw water from the distribution system main supply line following the School Treatment. The School Pump Station serves the Montgomery Center portion of the distribution system. The Pump(s) operating controls are located in the Rt. 242 Tank (ST001).

The "Miller Hill Pump Station" (PF001) moves water through the distribution system to maintain water supply to the Rt. 58 Tank (ST002). The Miller Hill Pump Station is controlled the water level in the Rt.58 Tank, which serves 4 connections.

e) Distribution:

The distribution system consists of 6-inch and 8-inch cement lined ductile iron piping, with ¾ -inch copper service lines.

There are approximately 41 fire hydrants connected to the drinking water distribution system.

f) **Population Served:**

It is reported that the Water System serves a year-round residential population of approximately 500 residential customers through 165 service connections.

g) **System Demand:**

The average daily demand of this system, based on master meter readings is approximately 21,200 gallons per day (gpd). The maximum daily water demand of this system based on master meter readings is approximately 25,000 gpd.

h) **System Reserve:**

There is no permitted reserve capacity. The Water System may demonstrate reserve capacity as prescribed under Appendix A, Part II of the WSR.

**B. Summary of most recent water quality sample results:**

"Well R – Montgomery Center" (WL003) exhibited levels of manganese that exceeded the Federal Secondary Maximum Contaminant Level (SMCL), and is required (source permit L-1769) to treat for manganese removal.

All other recent water quality results demonstrate that all drinking water quality requirements specified under the WSR, Subchapter 21-6, and in 40 CFR, Part 141 (WSR Appendix E) are in compliance with the established Maximum Contaminant Levels (MCLs) to ensure the protection of public health and welfare (see Section III, Item 11).

**C. Groundwater Under The Direct Influence of Surface Water Determination**

"Well R – Montgomery Center" (WL003) was determined to be not under the direct influence of surface water on October 10, 2005. This determination was based upon the well's construction and its distance from surface water.

**D. Isolation Zone:**

Isolation zones are prescribed by the WSR, Appendix A, Part 3.3. Land use activities occurring within 200 feet of "Well R – Montgomery Center" (WL003) are identified in the Source Protection Plan. The source Isolation zone and land use requirements, including prohibited land uses, is to be maintained in accordance with its approval and permits.

**F. Operating Status:**

- The Division approved a Bacteriological Sampling Plan on March 29<sup>th</sup> 2011.
- The Water System is collecting lead and copper samples in accordance with an approved lead and copper sampling plan. The Water System must submit a new lead and copper sampling plan to the Division for approval if the Lead and Copper sampling results and/or the Federal rule require sampling location changes in the future.

**Permit to Operate**  
 Montgomery Center Water System WSJD# 5125  
 January 3<sup>rd</sup> 2012  
 Page 4 of 7

- The Division approved a Disinfection By-Products (DBPs) Sampling Plan on April 10<sup>th</sup> 2008 and was granted a 40/30 Certification. The Water System will have to submit a Stage 2 Compliance Monitoring Plan to the Division for review and approval prior to the commencement of Stage 2 Compliance Monitoring of October 1<sup>st</sup> 2014.
- The Division approved an Operation and Maintenance Manual on July 16<sup>th</sup> 2009. (See Section III. Item M).
- The Division approved a Source Protection Plan (SPP) on October 8, 2005. A SPP was last updated on November 10<sup>th</sup> 2011 (See Section III. Item P).

**F. Certified System Operator(s):**

The certified operator for this Class 2 water system is, Mark Brouillette, (Operator ID# 3327, Class 2). His current certification expires **June 30, 2014** (see Section III. Item L).

**III. General Conditions**

- A. Only the following permitted sources shall be connected and supply water to the Water System:

Source #	Source Name	V.L. Source Type	Source Use	Yield (gpm)
WT-003	Well R – Montgomery Ctr	Bedrock Well	Permitted	74 (permitted)

- B. The person to whom this permit is issued must comply in full with all applicable provisions of 10 V.S.A. §1671 *et seq.*, the rules adopted hereunder, and the Federal Safe Drinking Water Act and subsequent regulations.
- C. This permit may be suspended or revoked in accordance with 10 V.S.A. §1675, and WSR, Subchapter 21-3.
- D. This permit is not transferable or assignable and shall automatically become invalid upon a change of ownership of the Water System.
- E. The permittee shall post the current and valid operating permit or temporary operating permit in a conspicuous place at the public water system headquarters or treatment plant.
- F. The permittee shall contact the Division before beginning any modifications to a water supply system (e.g., source deepening, reconstruction, treatment, etc.). The permittee shall obtain written approval or required permits before proceeding with system modifications to a public water system.
- G. The permittee shall notify the Division within 12 hours (in VT call 800-823-6500 or 802-241-3400, and after 4:30 p.m. and weekends at 802-741-5311) if at any time another water source is used to supply water to the system (e.g., emergency source connection, hauled or bulk water delivery). After consultation with the Division, the permittee shall then issue a Boil Water or Do Not Drink notification to all its users within the same 12 hours.
- H. The permittee shall notify the Division immediately (and no later than 24 hours) following any test result greater than or equal to the Maximum Contaminant Levels (MCL), Maximum Residual Disinfectant Levels (MRDL), or turbidity levels as specified under 40 CFR, Part 141 (National Primary Drinking Water Regulations).

I. *Certified Operator:* The permittee shall be a certified operator or shall place the direct supervision of the Water System under the responsible charge of a certified operator. The owner shall be accountable for all responsibilities and duties pursuant to Subchapter 21-12 of the WSR. If the permittee is not a certified operator, the permittee shall designate a certified operator to carry on the daily operations of the system; this designation shall be made in writing, signed by both the owner and the certified operator, and available to the State upon request. The certified operator shall hold a valid certification equal to or greater than the classification of the treatment facility and distribution system.

The permittee must have a designated certified operator in responsible charge available at all times. "Available" means based on system size, complexity, and source water quality, a certified operator must be on site or able to be contacted as needed to initiate the appropriate action in a timely manner. For Water Systems which only have one certified operator on record, the permittee must notify the Division within 24 hours of changing their certified operator.

J. *Monitoring Requirements:* The permittee shall comply with all of the Drinking Water Quality Monitoring Requirements pursuant to the WSR, Subchapter 21-6 *et seq.* To the extent that such requirements are not set forth in the aforesaid Rule or corresponding federal regulations, the Water Supply Division of the Vermont Agency of Natural Resources shall notify the permittee by mail of such requirements. Failure to monitor and report in accordance with the aforesaid requirements shall constitute a violation of this permit.

K. *Reporting Requirements:* The Water System must submit a signed report to the Division once a month (as required by WSR, Subchapter 21-9) no later than (28 (10) days following the end of the month, with the following information:

1. A summary of the Public Water System operation, including amount of water produced (daily, if water system provides treatment) for each source.
2. Daily disinfectant residual entering the distribution system for each day that disinfectant is introduced.

In addition, the Water System must report disinfectant residual in the distribution system at a location and frequency corresponding to the bacteriological sampling plan, and verify the free chlorine concentrations (if no free chlorine is available, the Water System must measure total chlorine concentration) on the laboratory reporting form.

L. The permittee shall pay all fees as required for public water supplies pursuant to 3 V.S.A. §2822. Nonpayment of fees shall be considered a violation of this permit.

M. The permittee shall operate the water system in a manner consistent with the system's Operation & Maintenance Manual as approved by the Secretary in accordance with Subchapter 21-7 and Appendix D of the Water Supply Rule. The Secretary recommends the O & M Manual be amended as needed when significant changes are made to the infrastructure and operations to the system, to insure the manual remains useful to the system owners and operators.

The O & M Manual shall be readily available to all owners and operators for the system, in order to assist them with the daily operations of the system. The Secretary may require an owner to develop a new O & M Manual and submit it for approval if the current manual cannot be located upon request of the Secretary.

N. Any duly authorized representative of the Agency may, upon presentation of appropriate credentials:

1. Inspect or investigate any portion of the permittee's property, fixtures, or other appurtenances belonging to or used by the permittee for the operation and maintenance of any water system regulated by the Secretary;
2. Sample, monitor, or test any regulated water system;
3. Gain access to and copy any records, reports or other documents related to the operation and maintenance of the water system;
4. Perform necessary corrective actions to the system to prevent or decrease a public health risk.

O. Pursuant to 10 V.S.A., Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal the entry fee of \$225.00, payable to the State of Vermont.

The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court, and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal.

The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available online at [www.vermontjudiciary.org](http://www.vermontjudiciary.org). The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. #802-828-1650).

P. The Source Protection Plan (SPP) shall be updated by the permittee every three years in accordance with the WSR, Subchapter 21-16. The SPP was updated on November 10<sup>th</sup> 2011. The Water System is required to submit a SPP update to the division (attention: Ken Yelsey) by **June 1<sup>st</sup> 2014**.

#### IV. Special Conditions

A. **This permit expires on November 1, 2015**. The expiration of this permit does not relieve the Water System of the responsibility to function satisfactorily (WSR, Chapter 21), nor does it limit the permittee's responsibility or liability for the conditions specified in this permit, or other applicable statutes and rules.

B. **Reapplication:** The permittee shall submit a complete application for re-issuance of this permit 30 days before this permit expires. **The reapplication deadline is October 1<sup>st</sup> 2015**.

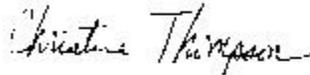
C. The Water System must resolve any/all remaining minor deficiencies identified in its most recent sanitary survey inspection report (attached).

**Permit to Operate**  
Montgomery Center Water System WSID# 5125  
January 3<sup>rd</sup> 2012  
Page 7 of 7

D. The Water System is to develop a formal improvements plan and proposal with date specific deadlines for removing the fire hydrants or modifying the existing storage, hydraulics (pressures and flows) and distribution system to meet the fire flow standards as specified by the Water Supply Rule, Chapter 21, by October 1, 2014.

Agency of Natural Resources  
Department of Environmental Conservation  
David Meats, Commissioner

By



Christine Thompson, Director  
Drinking Water and Groundwater Protection Division

Dated at Winnski, Vermont this 3<sup>rd</sup> day of January, 2012

RP



**Vermont Department of Environmental Conservation  
Drinking Water and Groundwater Protection Division**  
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*Agency of Natural Resources*

January 10<sup>th</sup> 2012

Montgomery Center Water System  
Attn. Mr. Scott Perry  
PO Box 356  
Montgomery Center VT 05471

Re: Permit to Operate for Montgomery Center Water System WSID# 5125 – Compliance and Update

Dear Mr. Perry:

Thank you for the information provided in our conversation of January 5<sup>th</sup> 2012 and your follow up email of January 6<sup>th</sup> 2012. Please except this letter as the Division response to the Water System compliance status. We have also taken the information you provided to update our database.

First you are correct that there are no sanitary survey deficiencies currently identified for the Water System, so Section IV – Special Condition, Item C, in the Permit to Operate is not applicable and the Water System is in compliance with that condition. You are correct that Section IV – Special Condition, Item D does not apply to your Water System and was a carryover from the permit template used. Our apologies, no action required by the Water System

The Division has updated our database to reflect that your water system is a Class 3 water system and not a Class 2. We have changed the number of connections to 189 on the water system.

If you have any questions, please contact me toll free at (800) 823-6500, or on my direct line at (802) 654-8957.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. G. Farley".

Robert G Farley  
Hydrogeologist/ Systems Specialist

cc: WSID #5125  
Tim Raymond, Operations Section Manager, DWGPD  
Mark Brouillette, Water System Operator

*To preserve, enhance, restore, and conserve Vermont's natural resources, and protect human health, for the benefit of this and future generations.*

Appendix H: Sanitary Inspection



**Town Of Montgomery**

P.O. Box 356

Montgomery Center, VT 05471

802-326-4719

<http://www.montgomeryvt.us>

September 19, 2013

Benjamin L, Montross  
VT DEC  
Drinking Water and Groundwater Protection Div.  
One National Life Drive Main 2  
Montpelier, VT 05620-3521

Ref 1: Our letter dated May 20, 2013, Subj: Sanitary Survey WSID #5125

Ref 2: Your email dated August 9, 2013, Subj: Request for 30 day extention.

Dear Mr. Montross,

1. This letter is in response to your inspection of May 2013 identifying one significant and four minor deficiencies. Our letter (Ref 1) indicated action required by Item 2 was taken and completed.

a. The following 3 items have also been completed:

Item 3: Storage Tank Access Hatch: The a new gasket was installed on September 9, 2013.

Item 4: Backflow Prevention Testing: All backflow devices were tested and passed on June 12<sup>th</sup>.

Item 5: Required Disinfection By-Product Testing: A Stage 2 DBP was submitted to the State and accepted by them on September 12, 2013. (atch)

Additionally the system operator has been directed to order a backup pump for the Route 58 pump station as recommended in your letter.

b. The following item is ongoing:

Item 1: Inadequate Cross Connection Controls: Testing indicated the two sites do require the air gap systems. Owners of the two residences have agreed to installation of the required air gap and coordination has been done with Don Haddox, Division Engineer. Our system operator has contracted with Rondeau Plumbing to install the required air gap architecture at the two locations. Rondeau Plumbing has installed the same air gap architectures in other systems and is experienced in the requirement but the system operator will be present to oversee each installation. This work was rescheduled from this week but should be done this month depending on homeowner and installer schedules. We will confirm the installations via email as soon as they are complete.

For the Selectboard and Water Commission:

Scott Perry  
Chairman

Copy to: Simon Operation Systems Inc.

Appendix I: State SPP approval letter dated Nov 10, 2011



**Vermont Department of Environmental Conservation**  
**Drinking Water & Groundwater Protection Division**  
Old Pantry Building [phone] 802-241-3400  
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Waterbury, VT 05671-0403 [fax] 802-241-3284  
[www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org)

*Agency of Natural Resources*

November 10, 2011

Scott Perry  
Town of Montgomery  
P.O. Box 356  
Montgomery Center, Vermont 05471

Re: Source Protection Plan Update Approval  
Montgomery Water System, WSID #5125, Source WL003

Dear Mr. Perry:

Thank you for submitting the Source Protection Plan Update for the Montgomery Water System. The Water Supply Division has reviewed the update and found that it meets the requirements of the Water Supply Rule. This Source Protection Plan Update, received by the Division on November 10, 2011, is therefore approved.

A Source Protection Plan (SPP) represents a valuable tool for protecting a water system's drinking water sources, and we encourage the water system to continue with the actions outlined in the plan's risk management strategy.

The water system's next Source Protection Plan Update is due on June 1, 2014.

Feel free to contact the Water Resources Section if you have any questions about this letter or would like to discuss additional ways to protect the water system's water sources. The Water Resources Section staff member for your area is Ken Yelsey. He can be reached at 802-241-3427 (direct line), 800-823-6500 (toll free in VT) or [ken.yelsey@state.vt.us](mailto:ken.yelsey@state.vt.us). You may also wish to visit our website [www.vermontdrinkingwater.org](http://www.vermontdrinkingwater.org).

Signed: Ken Yelsey

Water Resources Section  
Drinking Water & Groundwater Protection Division

cc WSID #5125  
Helen Banevicius, DW&GWPD  
Rodney Pingree, Chief, WRS