

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

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Agency of Natural Resources

April 3, 2013

Rocky Martin
10632 Route 116
Hinesburg, VT 05461

Re: Permit to Operate for the Hinesburg Water Department Water System, WSID #5070

Dear Mr. Martin:

Enclosed you will find the new Permit to Operate (Permit) for the Hinesburg Water Department Water System (Water System). Please notice that the Permit does not have an expiration date, although the Permit will be amended by the Drinking Water and Groundwater Protection Division as deemed necessary over time. The Water System has received approval from the Division to take daily chlorine residual samples at the Town municipal building, the fourth service connection on the main line, as a short term remedy for a period no longer than five years from the effective date of this Permit. Within five years of the effective date of this Permit, the Water System must install a permanent means of taking daily chlorine residual samples at the entry point of the distribution system. The Division reserves the right to require the Water System to take daily chlorine residual samples at the entry point to the distribution system at any time as determined necessary by the Secretary of the Agency of Natural Resources based on Federal Groundwater Rule requirements pertaining to chlorine disinfection. Those deficiencies identified during the September 14, 2012 sanitary survey that have not yet been corrected have been entered into a compliance schedule within this Permit. This Permit also specifies the requirements that the Water System must follow.

Based on the general basis design considerations set forth in Chapter 21, Appendix A, section 2.1 of the Vermont Water Supply Rule, the Water System is operating its sources at 100% capacity and is not permitted to expand until the source issues identified within this Permit are addressed.

If you have any questions regarding the information or requirements presented in this document, feel free to contact me directly at 802-498-8981.

Sincerely,



Benjamin L. Montross
System Operations Specialist
Drinking Water and Groundwater Protection Division

C: WSID File #5070
Jean Nicolai, Operation and Compliance Section Chief, DWGWP
Rodney Pingree, Water Resources Section Chief, DWGWP
Tim Raymond, Operations Section Manager, DWGWP
Julie Hackbarth, Compliance and Certification Manager, DWGWP
Dennis Nealon, Hydrogeologist, DWGWP
Greg Bostock, Division Engineer, DWGWP

Permit to Operate
Hinesburg Water System
Page 2 of 2

Jessanne Wyman, Regional Engineer, Essex Regional Office, DWGWP
Jeff McMahon, Permit Specialist, DWGWP

Enc. Permit to Operate

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Public Community Water System Permit to Operate

WATER SYSTEM IDENTIFICATION NUMBER: VT0005070

PIN #: EJ95-0125

PERMITTEE (Owner): Town of Hinesburg

WATER SYSTEM: Hinesburg Water Department Water System

TOWN: Hinesburg

DESIGNATED CONTACT PERSON: Rocky Martin

ADDRESS: 10632 Route 116
Hinesburg, VT 05461

I. Authority

This Permit to Operate (Permit) a Public Community Water System, known as the **Hinesburg Water Department Water System** (Water System) is issued to the **Town of Hinesburg** (Permittee) in accordance with 10 V.S.A. Chapter 56 and the Vermont Water Supply Rule (Rule). Because Vermont has primacy to implement the relevant provisions of the Federal Safe Drinking Water Act, and the Rule adopted under that Act, regarding public water systems and because the Rule incorporates the relevant Federal requirements, this Permit is also issued under and implements the provisions of Federal Law.

II. Findings, Violations, and Compliance Schedule

A. The Secretary finds that the Water System is being operated in a manner that constitutes a violation of the Rule. These violations are:

1. *Diminished Source Yield – Inadequate Source Capacity:* Under Chapter 21, Appendix A, section 2.1 of the Rule, when a water system, expecting future growth, reaches 90% of the maximum capacity of its supply sources, treatment, storage and/or pumping systems capacity, it shall commence planning for the required additional capacity. When the Water System's design reaches 100% of design capacity, the Water System shall initiate construction of these facilities. As of the effective date of this Permit, the Water System is operating beyond the permitted and authorized capacity of its sources. At the time of the last sanitary survey, the operator estimated the combined withdrawal rate of Well 1 and Well 3 to be approximately 120 -130 gpm which had

diminished from the combined permitted rate of 185 gpm. To make up for the shortfall of Well 3, Well 1 is reportedly being pumped over its 45gpm permitted capacity by approximately 5 gpm. Current metered data indicates that the maximum daily demand (MDD) water needs of the community are being provided by the two well sources in excess of a 24 hour pumping period. Due to the reduced pumping capacity of Well 3, including the unauthorized over-pumping of Well 1, new source development and/or existing source(s) re-development, testing, and permitting is required.

2. *Inadequate Source Area Drainage – Depression around Well 3:* Under Chapter 21, Appendix A, section 12.4.4.1, adequate isolation distances between wells and potential sources of contamination are required. Table A11-1 of the Rule identifies potential sources of contamination and the minimum separation distance required from source wells. The required minimum horizontal separation distance between wells and surface water is 10 feet. Well 3 has a depression around the well casing; the depression promotes the collection of surface water around the well casing, representing a potential source of contamination to the source well which must be eliminated.

3. *Inadequate Source Area Drainage - Open Conduit Adjacent to Well 3 Casing:* Under Chapter 21, Appendix A, section 12.3.6.1 of the Rule, each well shall be finished to prevent damage to the well and minimize the potential for contamination. As of the effective date of this Permit, there is a piece of open conduit installed in the ground next to Well 3 that can serve as a direct source of infiltration and a vehicle for contamination of the source well.

4. *Inadequate Source Abandonment – Well 2:* Under Chapter 21, Appendix A, section 12.4.18.1 of the Rule, groundwater sources which are not in use or planned for use shall be sealed by such methods as necessary to restore the controlling geological conditions which existed prior to construction. Well 2 no longer serves the Water System and as of the effective date of this Permit the well has not been properly abandoned.

5. *Storage Tank Inspection Overdue:* Under Chapter 21, section 7.1.2 of the Rule, all water storage tanks shall be comprehensively inspected, inside and out, upon being in service for 10 years and every 5 years thereafter. The Water System's Piet Meadows storage tank went online in 1999 and has never been inspected; it is now overdue for inspection.

B. The Secretary also finds that if the following compliance schedule is met, the continued operation of the Water System does not constitute a public health hazard or a significant public health risk:

1. **On or before January 2, 2014, the Permittee shall submit a preliminary engineering plan, including source improvements plan and schedule, to the Secretary for review and approval. The Preliminary Engineering Plan is to provide a projection of the maximum day water demand needs of the community for the next 10 years, minimum, as specified under Appendix A, Part 2, of the Rule and outline a proposed improvements plan and schedule for meeting the anticipated supply source, treatment, storage, and pumping system capacity needs of the Water System.**

2. **On or before May 15, 2013, the Permittee shall backfill around Well 3 using a material with a high clay content and grade the area to slope away from the well casing.**

3. **On or before May 15, 2013, the Permittee shall fill or cap the open conduit in the ground adjacent to Well 3.**
4. **On or before May 15, 2014, the Permittee shall properly abandon Well 2 in accordance with the Rule.**
5. **On or before July 1, 2013, the Permittee shall perform a comprehensive inspection and, if necessary, cleaning of the Piet Meadows water storage tank.**

C. The Permittee shall **submit a report to the Drinking Water and Groundwater Protection Division (Division) within fifteen (15) days after the required compliance date** indicating whether the required action(s) have been completed. If the required actions have not been completed by the specified date, the Permittee shall document the reasons for non-compliance in the report and shall make a written request that the Division modify the compliance schedule in this Permit. A compliance schedule will only be modified if there is good cause for the modification.

D. The Permittee shall give public notice to the users of the Water System of the requirements of the compliance schedule contained in this Permit on or before July 1 of each year that the items on the compliance schedule remain uncorrected. The Permittee shall also give notice to the users of the Water System whenever there is a change in the compliance schedule.

III. Water System Description

This Permit authorizes the use of the following components of the Water System, the permitted water system demand, and the other specified aspects of the design and operation of the Water System described below:

A. Sources: The Water System has been determined to be a groundwater system, subject to the Rule and the Federal Groundwater Treatment Rule, 40 CFR 141.400-141.405. The following sources are connected to and supply water to the Water System:

Source #	Source Name	Source Type	Source Yield (gpm)	Authorized Rate (gpm)
WL001	Well Number One	Bedrock well	45 (permitted)	45
WL003	Well 3	Bedrock well	140 (permitted)	75*
Total Authorized Rate				120

* The Authorized Rate of Well 3 has reportedly diminished from 140 gpm to approximately 75 gpm.

B. Land Use Within 200 feet of Permitted Source: Land use activity within 200 feet of the source wells include an access road and Water System equipment. All identified land use activities within the sources' recharge areas are subject to a routine vulnerability assessment and are managed by the Water System through a Source Protection Plan Update that is subject to review and approval of the Secretary once every three years. Current water quality data indicate drinking water contamination from Methyl tert-butyl ether (MTBE); however, as of the effective date of this Permit, the MTBE level is below the US EPA advisory level.

C. Treatment Components, Processes, and Capacity: The Water System has the capability of applying continuous disinfection using a sodium hypochlorite solution and a positive displacement pump. The Water System also has the capability of applying fluoride for dental benefits. As of the effective date of this Permit, the Water System is choosing to apply

continuous disinfection and fluoride treatment to its water.

D. Storage Components and Capacity: There is one storage tank serving the Water System, Piette Meadows Storage is a 500,000 gallon concrete water storage tank.

E. Pump Stations: There are two pump stations serving the Water System. Under normal operation the Cemetery Pump Station serves as a pressure reducing valve, reducing water pressure from approximately 215psi to 90psi. The Piette Meadow pump station utilizes dual booster pumps with soft start; this pump station serves 52 service connections. System pressure from the Piette Meadow pump station is regulated by a single rubber-bladdered tank.

F. Distribution System: The distribution system is comprised of 8-inch cement-lined ductile iron; 2-inch, 8-inch, and 12-inch PVC; 2-inch, 4-inch, and 6-inch asbestos cement; 2-inch galvanized iron; and 1 ½-inch copper piping. The Water System provides for fire protection through approximately 80 fire hydrants.

G. Permitted Water System Demand: The Water Systems serves a year-round residential population of approximately 2,400 through 900 service connections. The maximum daily demand of the Water System is not able to be established in this Permit. The demand and permitted source capacities will be identified in a future Permit upon review of the preliminary source improvement plan required in Section II, Part B, Item 1 above. **The Water System is not permitted to expand without first addressing the source capacity violation identified in Section II, Part A, Item 1 above.**

IV. Conditions, Requirements, and Restrictions

A. Water Quality Monitoring.

1. **Water Quality Monitoring Requirements.** The Permittee shall comply with all of the Drinking Water Quality Monitoring Requirements set forth in the Rule at the frequency described in the Rule. The Permittee shall monitor for contaminants not listed in the Rule if the Secretary determines that the additional monitoring is necessary to protect human health and notifies the Water System of those additional monitoring requirements. The Secretary shall, on at least an annual basis, provide the Permittee with a monitoring schedule in order to assist the Permittee with its obligation to comply with the requirements of the Rule.

2. **Notification of Water Quality Violations.** 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).

3. **Reporting of Water Quality Analytical Testing Results.** The Permittee shall be responsible for the submission of all water quality monitoring analytical testing results in accordance with the reporting timeframes in the Rule.

B. Reporting Requirements.

1. The Permittee shall submit a signed report to the Division once a month, no later than ten (10) days following the end of the month, with the following information:

- a) A summary of the Public Water System operation, including the amount of water produced daily for each source. Water production summaries shall contain metered data;
- b) Daily disinfectant residual taken at the Town municipal building each day that disinfectant is introduced; and
- c) The highest fluoride residual entering the distribution system each day.

2. If a chemical disinfectant is applied or if water within the distribution system may contain a chemical disinfectant, the Permittee must report disinfectant residual in the distribution system at a location and frequency corresponding to the approved bacteriological sampling plan, and verify the free chlorine concentrations (if no free chlorine is available, the Permittee must measure total chlorine concentration as well) on the laboratory reporting form.

C. Requirement for Certified Operator. The Permittee shall assure that the appropriate class of Vermont certified operator is available to operate the Water System as required by the Rule. “Available” means based on Water 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. If the Permittee is not a certified operator, the Permittee shall designate a certified operator to carry on the daily operations of the Water System. This designation shall be made in writing, signed by both the owner and the certified operator, and available to the Secretary upon request. The certified operator shall hold a valid certification equal to or greater than the classification of the Water System. For Water Systems which only have one certified operator, the Permittee must notify the Division with 24 hours of changing their certified operator.

D. Notification of Change in Designated Contact. The Permittee shall notify the Secretary within 30 days of a change in the Designated Contact Person identified in this Permit. This notification shall include the new name, address, and telephone number of the individual who is authorized by the Permittee to act as the primary contact person for all matters related to the operation of the Water System.

E. Consumer Confidence Reports. The Permittee shall prepare and deliver to the customers of the Water System and the Secretary an annual consumer confidence report (CCR) on or before July 1 of each year. The Permittee shall comply with the requirements of 40 CFR Subpart O, including Appendix A, and Subchapter 10 of the Rule as it relates to the preparation, content, and distribution of the CCR.

F. Operation and Maintenance Manual. The Permittee shall operate the Water System in a manner consistent with the Water System’s Operation & Maintenance (O&M) Manual, approved by the Secretary on July 26, 2007. The O&M Manual shall be amended as needed when significant changes are made to the infrastructure and operations of the Water System. All amendments to the O&M Manual shall comply with the Rule and be approved by the Secretary. The O&M Manual shall be kept in a location so that it is readily available to the Permittee and the operator(s) of the Water System. If the O&M Manual cannot be located during an inspection or sanitary survey by the Secretary, the Permittee shall prepare a new O&M Manual and submit an electronic copy to the Division for approval.

G. Water System Modification Prohibited Without Required Permits. The Permittee shall

obtain all required Source and/or Construction Permits before proceeding with modifications to the Water System, including, but not limited to, Water System expansions that require a Public Water Supply Permit, source deepening, reconstruction, and new treatment systems.

H. Use of Unpermitted Sources of Water. The Water System shall not use or connect to an unpermitted water source, including designated emergency sources, or hauled or bulk water, unless an emergency exists, (e.g. malfunctioning equipment, punctured storage tanks, unacceptable levels of contaminants with acute effects, acts of god that affect the functionality of the Water System, etc.) The unpermitted source shall be used for no more than 90 cumulative days unless the Permittee has submitted a written request to the Secretary for an extension and the Secretary has determined that there is good cause for granting an extension. When an unpermitted source is used in an emergency situation, the Permittee shall:

1. Notify the Division as soon as possible, but no later than within 12 hours of the connection and/or use; and
2. Issue either Boil Water or Do Not Drink notification to all users of the Water System within 12 hours of the connection and/or use.

I. Maintenance and Periodic Update of Approved Plans. The Permittee shall comply with the plans approved by the Secretary for the Water System. In the event of significant structural or operational changes to the Water System, the applicable plans shall be revised and submitted to the Secretary for approval. In addition, the plans shall be updated when specified in the Rule. The approved plans for the Water System are:

1. Bacteriological Sampling Plan, approved on June 18, 2012;
2. Lead and Copper Sampling Plan, approved in October of 1993;
3. Disinfection Byproducts (DBP) Compliance Monitoring Sampling Plan, Stage 2, approved on March 10, 2008; and
4. Source Protection Plan, last update approved on June 1, 2012.

J. Posting of Permit. The Permittee shall post the current valid operating Permit in a conspicuous place at the public Water System headquarters or treatment plant.

K. Permit Modification. Based upon information received (e.g., findings of a facility inspection, or information submitted by the Permittee), the Secretary shall determine whether one or more of the following causes to modify a Permit exist. If cause exists, the Secretary may modify the Permit, and may request an updated application and/or administrative contacts information if necessary. When a Permit is modified, only the conditions subject to modification are reopened. Cause for modification includes, but is not limited to:

1. Material and substantial additions or alterations to the Water System, or the Water System's operations or any other change in conditions, that occurred after the issuance of the Permit that justify the application of conditions different or absent from this Permit;
2. The receipt of information that was not available when the Permit was issued which justifies the application of conditions different or absent from this Permit;
3. The statutes, standards or Rule, on which the Permit was based, were revised by adoption or judicial decision after the Permit was issued and those revisions justify the

application of conditions different or absent from this Permit;

4. A determination by the Secretary that other good cause exists for amendment, based on the need to protect human health or the environment; or
5. Cause exists for revocation of the Permit, but the Secretary determines that modification of the Permit is appropriate.

L. Permit Suspension or Revocation. This Permit may be suspended or revoked in accordance with the Rule.

M. Transfer of ownership or Control.

1. This Permit is not transferable or assignable without prior written approval of the Secretary. All operating fees must be paid in full prior to any transfer or assignment of the Permit. In the event of a proposed change in control or ownership of the Water System, the Permittee shall provide a copy of this Permit to the prospective owner and/or operator and shall send written notification of the proposed change in ownership or control to the Secretary. The Permittee shall also inform the prospective owner and/or operator of their responsibility to make an application for transfer of this Permit.
2. Any request for transfer of ownership and/or control must, at a minimum, include:
 - a. A properly completed application form provided by the Secretary including the Permit application fee and administrative contacts information;
 - b. A written statement from the prospective owner or operator certifying:
 - i. The conditions of the operation of the Water System will not be materially different under the new ownership or control;
 - ii. The prospective owner or operator has read and is familiar with the terms of the Permit and agrees to comply with all terms and conditions of the Permit; and
 - iii. The prospective owner or operator has the technical, managerial, and financial capability to operate and maintain the Water System and remain in compliance with the terms and conditions of the Permit.
 - c. The date of the sale or transfer; and
 - d. Any other additional information the Secretary may require in light of the current status of the facility operation, maintenance, and Permit compliance.

N. Right of Access to the Water System. By acceptance of this Permit, the Permittee agrees to allow any duly authorized representative of the Secretary, upon presentation of the appropriate credentials, to:

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 the Water System;
2. Sample, monitor, or test the Water System; or

3. Gain access to and copy any records, reports or other documents related to the operation and maintenance of the Water System.

O. Fees. The Permittee shall pay the annual operating fees specified in 3 V.S.A. §2822.

P. Compliance with the Rule and Other Laws. Compliance with this Permit does not relieve the Water System of the need to comply with all applicable provisions of the Rule and all other applicable requirements of Federal, State, and Local laws.

Q. Appeals. Pursuant to 10 V.S.A. Chapter 220, any appeal of this Permit must be filed with the clerk of the Environmental Court within 30 days of the date of this Permit in accordance with the Rule governing appeals to the Environmental Court.

R. Effective Date. This Permit becomes effective on the date of signing.

This Operating Permit for the Operation of the Water System located in Vermont is effective on April 3, 2013.

Agency of Natural Resources
Department of Environmental Conservation
David K. Mears, Commissioner

By

A handwritten signature in blue ink that reads "Christine Thompson". The signature is written in a cursive, flowing style.

Christine Thompson, Director
Drinking Water and Groundwater Protection Division