



5051

Agency of Natural Resources

State of Vermont
Department of Environmental Conservation

Water Supply Division
The Old Pantry Building
103 South Main Street
Waterbury, VT 05671-0403
www.vermontdrinkingwater.org

[Phone] (802) 241-3400
[Fax] (802) 241-3284

April 30, 2007

Catamount Bolton Water and Sewer
Attn: John Wakefield
210 College Street, Suite 201
Burlington, VT 05401

Re: Temporary Operating Permit for the Catamount Bolton Water and Sewer Water System

Dear Mr. Wakefield:

Enclosed you will find the *new* temporary operating permit for the Catamount Bolton Water and Sewer Water System. As you mentioned in your April 10, 2007 letter (email) to Don Haddox and myself, you have completed preliminary engineering and you are in the final stages of closing out a loan through Vermont Economic Development Authority and the Drinking Water State Revolving Fund. The Division understands that the Water System is relying on access to loan money to make water system improvements, and has provided sufficient room within the milestones to square away funding and to begin development and construction.

Please pay special attention to Section IV, as it outlines a specific deficiency of the system and a schedule for compliance. The Water System must report the attainment of each milestone established within this permit to the Division (Attn: Don Haddox) within fifteen (15) days after the required completion date of the milestone, signifying it has been attained.

If you have any questions regarding the information or requirements presented in this document, feel free to contact me toll free at (800) 823-6500, or on my direct line at (802) 241-4293. Please direct information regarding milestones or water system improvements to Don Haddox toll free at (800) 823-6500, or (802) 241-4226.

Sincerely,

Ben Gauthier
Environmental Analyst II
Water Supply Division

cc: WSID #5051
Tim Raymond, Operations Section Manager, WSD
Alex Elliott, Division Counsel

enc: Temporary Permit to Operate





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April 30, 2007

Public Water System Temporary Permit to Operate

WATER SYSTEM IDENTIFICATION NUMBER: 5051

PIN #: EJ95-0266

OWNER/PERMITTEE: Larry Williams
WATER SYSTEM: Catamount Bolton Water & Sewer
TOWN: Bolton

RESPONSIBLE PERSON: John Wakefield
ADDRESS: 210 College Street, Suite 201
Burlington, VT 05401

I. Authority

In accordance with 10 V.S.A. §1671 *et seq.*, the following findings and conclusions have been made for the **Catamount Bolton Water and Sewer Water System (the Water System)**. The Department of Environmental Conservation has determined that the operation of this Public Community Water System does not presently comply with the Vermont Water Supply Rule (WSR) without meeting certain conditions, and that the system, subject to the following conditions, and in accordance with the following compliance schedule, will not unreasonably contribute to a public health risk; therefore, a temporary operating permit is hereby issued.

II. Findings and Conclusions

A. Based upon the results of the most recent sanitary survey, it has been determined that the **Catamount Bolton Water & Sewer Water System** does not presently comply with the following requirements:

1. *Optimization of Corrosion Controls Necessary:* In accordance with the WSR, Subchapter 21-6, all Public Water Systems shall comply with the provisions of 40 CFR, Part 141, Subpart I, Control of Lead and Copper, including § 141.80-91, which requires water systems to optimize corrosion control,



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when exceeding the action levels of 0.015 mg/L for lead and 1.3 mg/L for copper. *The Water System failed to meet the federal action level for copper in November 2006 (0.142 > 0.015 mg/L).*

2. *Disinfection Byproducts Sampling Plan:* In accordance with the WSR, Subchapter 21-6, Public Water Systems which add a chemical disinfectant to the water in any part of the drinking water treatment process shall comply with the provisions of 40 CFR, Part 141, Subpart L (Appendix E of the WSR). The Water System does not have an approved DBP Sampling Plan *and the Water System reported high levels of Total Haloacetic Acids (HAA5's), and Total Trihalomethanes (TTHM's) byproducts of disinfection, in each quarterly sample taken in 2006.*
3. *Inadequate Water Quantity:* In accordance with the WSR, Subchapters 21-3 and 21-7, all Public Water Systems shall reliably and consistently produce an adequate supply of potable water from permitted, non-emergency sources to meet normal and peak demands. The yield from Joiner Brook East Branch does not meet system demands during dry seasons. The Water System must plan for additional source capacity with the appropriate treatment.
4. *Inadequate Storage Tank Integrity:* In accordance with the WSR, Appendix A, Part 7, all structures shall be watertight with no openings except those that are properly constructed. The concrete storage tank has been patched numerous times, and during the sanitary survey was observed weeping water from the corners. The finished water storage tank is not watertight, and as a result does not adequately protect the sanitary quality of the drinking water.
5. *Storage Facility Alarm/Level Controls:* In accordance with the WSR, Appendix A, Part 7, controls shall be provided to maintain levels in distribution system storage structures. Level indicating devices should be provided at a central location. Low level alarms are required. The Water System's storage tank does not have level controls, or a low-water level alarm.
6. *Tank Inspection:* In accordance with the WSR, Subchapter 21-7, all water storage tanks shall be comprehensively inspected within 10 years of being placed in service and every 5 years thereafter. The inspection, findings, and servicing documentation shall be retained in the Water System's files for review upon request. There are cinder blocks and sediment in the bottom of the storage tank. The storage tank must be comprehensively inspected and cleaned as necessary.
7. *Bacteriological Sampling Plan:* In accordance with the WSR, Subchapter 21-6, all Public Water Systems shall collect total coliform samples at sites that are representative of water throughout the distribution system according to a written sampling plan and rationale that includes a map of the system. The Water System has an approved bacteriological sampling plan but it is outdated. The bacteriological sampling plan must be re-evaluated and updated using a rationale that will include monitoring in areas of the distribution system of potential concern due to age, materials, frequency of line breaks, etc.
8. *Operation and Maintenance (O&M) Manual:* In accordance with the WSR, Subchapter 21-7, all Public Community Water Systems shall have an O&M Manual approved by the Division and shall be operated in a manner consistent with the approved O&M Manual. The Water System does not have a Division approved O&M Manual.

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B. Summary of sanitary survey physical conditions:

1. The date of the most recent sanitary survey was May 26, 2005. System specific information may be referenced in the most recent sanitary survey or preceding surveys.

2. Major findings:

a) Source(s):

The only permitted sources are; two surface water sources, IN001 (Joiner Brook East Branch), and IN004 (Joiner Brook West Branch), and two bedrock wells, WL002 (Well#4A) a 6-inch drilled bedrock well with a depth of 480 feet and a permitted yield of 4.5 gallons per minute, and WL003 (Well#4) a 6-inch drilled bedrock well with a depth of 375 feet and an unknown yield.

b) Treatment:

Surface water treatment for this system consists of rapid sand filtration, coagulation, and flocculation. The Water System adds orthophosphate for corrosion control, and is required to continuously disinfect. The Water System chlorinates with a sodium hypochlorite solution, post-filtration.

c) Storage:

The Water System has three storage tanks. ST002 (Chlorine Contact Tank) is a 1,845 gallon steel tank located post-treatment to provide chlorine contact time. ST001 (Main Reservoir) is a 150,000 gallon concrete storage tank that floats on distribution. ST003 (Joiner Brook West Storage) a 45,000 gallon concrete storage tank is currently inactive.

d) Booster/Pump Stations:

Water from the East Branch of the Joiner Brook is pumped via "Raw Water Pumps" (PF002) through treatment and to the Chlorine Contact Tank. The "Effluent Pumps" (PF004) then serve water to the distribution system, and fill the Main Reservoir at times of low demand. The "Billy Bump Pump Station" (PF005) provides water to three high-elevation service connections. The "Joiner Brook West Pump Station" (PF003) is no longer in use, since the Joiner Brook West Source has been inactivated.

e) Distribution:

The distribution system is composed of 8-inch Ductile Iron piping and 4 to 8-inch PVC piping.

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f) Population Served:

This system serves a year-round residential population of approximately 340 people through 130 service connections. Plus an estimated transient population of approximately 660 during the ski season.

g) System Demand:

The average daily demand of this system, based on master meter readings, is 37,000 gallons per day (gpd). The system daily maximum water demand is approximately 45,000 gpd.

h) System Reserve:

System may demonstrate reserve capacity as prescribed under the WSR, Chapter 21, Appendix A, Part II.

C. Summary of most recent water quality sample results:

Recent water quality results show that the Water System routinely exceeds the Federal Maximum Contaminant Level (MCL) for total trihalomethanes (TTHMs) and total haloacetic acids (HAA5s) in the distribution system (see Section IV, Item C, Part 3).

Total Trihalomethanes (TTHM)	12/18/2006	The December 2006 monitoring period exceeded the federal MCL for TTHMs (0.0929 > 0.08 mg/L)
Total Haloacetic Acids (HAA5)	12/18/2006	The December 2006 monitoring period exceeded the federal MCL for HAA5s (0.112 > 0.06 mg/L)
Total Trihalomethanes (TTHM)	9/19/2006	The December 2006 monitoring period exceeded the federal MCL for TTHMs (0.114 > 0.08 mg/L)
Total Haloacetic Acids (HAA5)	9/19/2006	The December 2006 monitoring period exceeded the federal MCL for HAA5s (0.145 > 0.06 mg/L)

The most recent water quality results demonstrate that all *other* drinking water quality requirements specified under the WSR, Chapter 21, Subchapter 6 and in 40 CFR, Part 141 (WSR Appendix E) are in compliance with the established MCLs to ensure the protection of public health and welfare.

D. Isolation Zone:

Isolation zones are prescribed by the Water Supply Division (the Division), Chapter 21, Appendix A, Part 3.3. The only known potential sources of contamination (PSOC) within 200 feet the water supply

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sources for the Water System are a *driveway/road, a vehicle garage, and the sewer system for Ardec Condominiums*. One or all of these PSOCs could compromise water quality. However, current water quality data yields no evidence of drinking water contamination.

E. Operating Status:

- The Division approved a Source Protection Plan (SPP) on May 17, 2006. All SPPs are required to be updated every three years; thereby an update of the SPP must be submitted to the Division for approval by July 1, 2009.
- The Division approved a Bacteriological Sampling Plan on August 6, 1992; the Bacteriological Sampling Plan is outdated and an update must be submitted (see Section IV, Item C, Part 1).
- The Water System does not have a Division approved Operation and Maintenance Manual as of the issuance date of this permit (see Section IV, Item C, Part 6).
- The Water System is currently collecting water quality samples for Disinfection By Products (DBPs) at maximum residence time locations in accordance with a Stage 1 DBP monitoring plan. *The Water System is to submit a Stage 2 DBP sampling plan to the Division for review and approval* (see Section IV, Item C, Part 3).

F. Certified System Operator(s):

The Class 4B operators for this water system are **Paul Prim** (Operator ID# 2984), and **Michael Bernardine** (Operator ID# 1960). Both operators' certifications expire on **June 30, 2008**.

III. General Conditions

A. Only the following permitted sources shall be connected and supply water to the water system:

Source #	Source Name	VT Source Type	Source Use	Yield (gpm)
IN001	Joiner Brook East Branch	Surface Water	Permanent Active	(unknown)
WL002	Well#4A	Bedrock Well	Permanent Active	4.5(permitted)
WL003	Well#4	Bedrock Well	Permanent Active	(unknown)
IN004	Joiner Brook West Branch	Surface Water	Permanent Inactive	(unknown)

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 thereunder, 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

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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 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). The permittee shall issue a Boil Water or Do Not Drink notification to all its users within the same 12 hours, unless otherwise directed by the Water Supply Division.
- 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 permittee must submit a signed report to the Division *once a month* (as required by WSR, Subchapter 21-9) *no later than ten (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.

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2. Daily chlorine residual entering the distribution system and the chlorine residual in the distribution system at a location and frequency corresponding to bacteriological sampling, for each day that chlorine is introduced into the water system.
3. Results of daily water temperature measurements.
4. Results of all microbiological and turbidity analyses for raw and finished water. A daily high and average should be reported based on either continuous monitoring or a minimum sample frequency every four hours.
5. Results of daily finished water pH analysis.
6. Calculated CT values once per month using the following data:
 - a) Pipe/storage volume credited for chlorine contact time prior to the first service connection and;
 - b) Highest peak hourly flow/demand for the month and the corresponding pH, temperature, and chlorine residual of finished water entering the distribution system.
7. Phosphate concentration at the point where polyphosphate first enters the distribution system and at the end of the distribution system (every two weeks).

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 as well) 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

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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 on-line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. #802-828-1660).

IV. Special Conditions

- A. **This permit becomes effective on March 1, 2007 and expires on July 1, 2011.**
- B. **Reapplication:** The permittee shall submit a complete application for re-issuance of this permit 30 days before this permit expires. **The permittee must reapply between June 1, 2011 and the expiration date of this permit.**
- C. **Schedule for Compliance:**

Based on the foregoing Findings and Conclusions, the permittee shall comply with the following schedule to bring the **Catamount Bolton Water & Sewer Water System** into full compliance with the Federal Safe Drinking Water Act, the Vermont Water Supply Rule, and all applicable statutes and regulations by **December 1, 2010**. This schedule may be modified or amended by the Division *prior to the expiration date of the permit or upon request by the permittee.*

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1. June 1, 2007

Submit a Bacteriological Sampling Plan Update

The Water System must submit a bacteriological sampling plan including a distribution system map that is representative of water throughout the entire distribution system and, pending Division review and approval, follow that plan for all bacteriological samples by June 1, 2007.

2. September 1, 2007

Submit Corrosion Control Plan

The Water System must submit a plan outlining corrosion control optimization to the Division by September 1, 2007.

3. April 1, 2008

Submit a Stage 2 Disinfection By Products Plan

Stage 2 Disinfection By-Products Sampling Plan: In accordance with the WSR, Subchapter 21-6, Public Water Systems which add a chemical disinfectant to the water in any part of the drinking water treatment process shall comply with the provisions of 40 CFR, Part 141, Subpart L (Appendix E of the WSR). **The Water System must submit a Stage 2 Disinfection By-Products (DBPs) Sampling Plan including a distribution system map that is representative of water throughout the distribution system for Water Supply Division review and approval, by April 1, 2008.** The Water System must comply with all DBP monitoring requirements and any treatment requirements set forth by the Division.

4. December 1, 2008

Install a Low-Water Level Alarm/Level Controls

The Water System must install water level controls and a low-water level alarm in the storage tank by December 1, 2008.

5. December 1, 2008

Repair or Replace Storage Tank

The Water System must inspect and, depending on the findings, clean the storage tank and make all other necessary improvements (including replacing the tank) to meet the technical standards of Subchapter 21-7 and Appendix A, Part 7 of the WSR by December 1, 2008. The Water System will need to apply for a permit to construct before repairing or replacing the storage tank.

6. December 1, 2008

Provide an Adequate Supply of Water

The Water System must provide an adequate supply of potable water and demonstrate a reserve capacity (combined permitted source yield greater than maximum day demand) to the Division by December 1, 2008. As a reminder, the Water System will need to apply for a source permit prior to developing sources and a permit to construct before making any modifications to the water system.

7. April 1, 2009

Optimize Corrosion Control Treatment

The Water System must optimize corrosion control treatment in accordance with; the corrosion control plan (see Part 2 above), any resulting permits to construct, and any associated correspondence from the

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Division by April 1, 2009.

8. December 1, 2010

Submit O&M Manual

The Water System must include health and safety measures, a flushing program, a schematic with the best possible approximation of pipe locations, and connections and all elements listed in Appendix D of the WSR in their O&M Manual. The Water System must submit an Operation and Maintenance Manual to the Division for review and approval by December 1, 2010.

9. Non-compliance with the schedule set forth herein may result in the imposition of injunctive relief and/or penalties, including, but not limited to, penalties set forth in 10 VSA, Chapter 201 and/or 211.

10. The Water System must report the attainment of the milestones established within this permit to the Division within fifteen (15) days after the required completion date of the milestone, signifying it has been attained. If the milestone has not been attained, the Water System shall document the reasons for non-compliance and shall request in writing that the Division revise the permit.

V. Public Notice Requirements

In accordance with 10 V.S.A. §1676(b)(2) and the WSR, Subchapter 21-10 §10.2 *et seq.*, the permittee shall inform all persons using the system of the nature and extent of noncompliance with federal and state statutes and regulations.

A. The following methods of notification shall be followed:

1. Through publication in a local daily or weekly newspaper, radio, television, hand delivery, or direct mailings, and another method as needed to reach all customers served by the system *within 30 days of the effective date of this permit*.
2. Repeat notification shall be made every 6 months by hand delivery or direct mail (e.g. water bill), or otherwise directed by the Division.
3. *Within ten days of issuing the initial public notice*, and following each repeat notification, a signed copy of the notice you issued, along with a copy of the attached Public Notice Certification form shall be sent to: *Water Supply Division, Attn: Jeannine McCrumb, The Old Pantry Building, 103 South Main Street, Waterbury, VT 05671-0403.*

B. The following language shall be contained in all public notices until such time as the Division informs you in writing that the public notice may be amended:


The Catamount Bolton Water & Sewer Water System (the Water System), a public water system under the laws of the State of Vermont, was recently issued a Temporary Operating Permit. The Secretary of the Agency of Natural Resources found that such issuance will not unreasonably

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contribute to a public health risk, although the Catamount Bolton Water & Sewer Water System does not presently comply with certain requirements of the Federal Safe Drinking Water Act and applicable state statutes and rules. The nature and extent of the noncompliance are as follows:

The Water System does not provide adequate source yield, corrosion control or storage tank integrity to meet the requirements of the Vermont Water Supply Rule. The Water System has not submitted an operation and maintenance manual. The Water System is following through on specific recommendations made by the Water Supply Division to eliminate potential sanitary hazards and provide for future system durability and reliability. In accordance with the Vermont Water Supply Rule, the Division has requested the timely resolution of all water system deficiencies. To obtain more specific information regarding these necessary public drinking water improvements, please call Catamount Bolton Water & Sewer at (802) 658-7400.

Agency of Natural Resources
Department of Environmental Conservation
Jeffrey Wennberg, Commissioner

By 
Gary Schultz, Acting Director
Water Supply Division

Dated at Waterbury, Vermont this 30 day of APR, 2007

BG

cc: WSID #5051
Don Haddox, System Operations Specialist, WSD
Eileen Parr Doering, Compliance & Certification Manager, WSD
Alex Elliott, Division Counsel, WSD
Permit File