VERMONT

Vermont Department of Environmental Conservation *Agency of Natural Resources*
Water Supply Division
Old Pantry Building [phone] 802-241-3400
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Waterbury, VT 05671-0403 [fax] 802-241-3284
www.vermontdrinkingwater.org

July 23, 2009

Attn: Gail Beck
210 College Street, Suite 201
Burlington, VT 05401

Re: Catamount Bolton Water and Sewer Water System Amendment to *Public Water System Temporary Permit to Operate dated April 30, 2007* issued to Larry Williams, WSID #5051, PIN # EJ95-0266

Dear Gail:

Enclosed you will find the *amended* temporary permit to operate for the Catamount Bolton Water and Sewer Water System. Please pay special attention to Section IV, as it outlines the specific deficiencies of the system and a schedule for compliance. There is an alternative schedule to be followed as necessary. As specified in Section IV, Item C, Part 25 of the attached permit amendment, the Water System must report the attainment of each milestone established within this permit to the Division (Attn: Thomas Brown) and EPA Region 1 (Attn: Neil Handler) within fifteen (15) days after the required completion date of the milestone, signifying it has been attained.

The Water System has proposed to gain compliance with Disinfection By Product maximum contaminant levels through the provision of additional groundwater sources. The Division received a source permit application on July 2, 2009 for new groundwater sources. The Water System is to proceed with testing and development of these sources, depending upon the results of the source testing and the final source evaluation report; an alternative schedule may apply (see Section IV, Item C, Part 4 of the attached permit amendment).

The Water System is to optimize the existing corrosion control treatment system, evaluating the interaction of all water system sources when proposing corrosion control treatment system modifications (see Section IV, Item C, Part 12 or Part 23). Additionally, the Water System may be required to install corrosion control treatment feed systems for its well sources if the pH of the water in each well is below 7.2.

The Water System has Joiner Brook West listed as an emergency source. If the Water System requests to utilize Joiner Brook West as a permitted source or Joiner Brook East to support system expansion, a safe yield for Joiner Brook, which consists of both East and West Branches will have to be determined (see Section II, Item B, Part 2h and Section III, Item Q of the attached permit amendment).

Lastly, in addition to the surface water treatment plant monthly operation report the Water System must also report the disinfection residual entering distribution and the total water produced on a

monthly operation report for each well source. Once the disinfection for Well 4 and Well 4A is installed continuous disinfection is to be continuously applied at those locations. If source meters are not currently installed, then they must be included in the permit to construct for disinfection treatment for Well 4 and Well 4A (see Section IV, Item C, Parts 6 and 7 or 14 and 15)

If you have any questions regarding the information or requirements presented in this document, feel free to contact Tim Raymond toll free at (800) 823-6500, or on his direct line at (802) 241-3419. Please direct information regarding milestones or water system improvements to Thomas Brown at (802) 241-3428, source permit questions to Dennis Nealon (802) 241-3411, permit to construct questions to Greg Bostock (802)241-3407 and specific corrosion control treatment questions to Ray Solomon (802) 241-3894.

Sincerely,

Ben Gauthier
Environmental Analyst III
Water Supply Division

cc: WSID #5051
Larry Williams, Water System Owner
Mike Bernardine, Water System Operator
Bernie Chenette, Chenette Associates P.C.
Thomas Brown, System Operations Specialist, WSD
Neil Handler, EPA
Tim Raymond, Operations Section Manager, WSD
Susan Martin, Vermont Department of Public Service, Montpelier
Permit File

enc: Public Notice Certification Form

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Public Water System Amended Temporary Permit to Operate

Re: Amendment to *Public Water System Temporary Permit to Operate dated April 30, 2007* issued to Larry Williams, WSID #5051, PIN # EJ95-0266

WATER SYSTEM IDENTIFICATION NUMBER: **5051** PIN #: **EJ95-0266**

OWNER/PERMITTEE:	**Larry Williams**
WATER SYSTEM:	**Catamount Bolton Water and Sewer**
TOWN:	**Bolton**
AUTHORIZED REPRESENTATIVE:	**Gail Beck**
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 C**atamount Bolton Water and Sewer (the Water System)**. The Department of Environmental Conservation, Water Supply Division (Division) 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 and Sewer** does not presently comply with the requirements of the WSR identified below. The permittee shall comply with the schedule for compliance in Section IV, Item C to bring the Water System into full compliance with the Federal Safe Drinking Water Act, the Vermont Water Supply Rule.

1. *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 is undetermined and without the groundwater supply sources (see Section III, Item A) does not meet system maximum day design demand and peak operating requirements per the WSR Appendix A, Part 2. **The Water System was required to provide an adequate supply of drinking water by December 1, 2008; the Water System has not provided an adequate supply of safe drinking water as of the issuance date of this permit amendment.**

2. *Continuous Disinfection For All Sources Required (Well #4 and Well# 4A):* In accordance with the WSR, Subchapter 21-7 and Appendix A, Part 4, Public Community and Non-Transient Non-Community water systems shall have the capability of continuous

disinfection; minimum free chlorine residual at distant points in a water distribution system should be 0.1 milligrams per liter (mg/L); and 40 CFR, Part 141.72(b)(3)(i), the residual disinfectant concentration in the distribution system measured as total chlorine, combined chlorine, or chlorine dioxide,... cannot be undetectable in more than 5 percent of the samples each month, for any two consecutive months that the system serves water to the public. The Water System does not have the capability to provide continuous disinfection for Well #4 (WL003) and Well #4A (WL002). The Joiner Brook surface water treatment facility is unable to reliably and consistently produce an adequate supply of potable water during maximum and peak user demand periods on a sustained basis to all users. The Water System regularly supplements the surface water treatment plant's production using water from Well 4 and Well 4A, which do not have disinfection capabilities installed. Disinfection capabilities for the two well sources is to be provided to assure the Water System can maintain a consistent measured dose and a chlorine disinfectant residual throughout and to the distant ends of the distribution system.

3. *Disinfection By-Product (DBP) Maximum Contaminant Level (MCL) Exceedances:* In accordance with the WSR, Subchapter 21-6, Public Water Systems shall comply with the maximum contaminant levels (MCLs), maximum residual disinfectant levels (MRDLs), monitoring requirements, routine sampling and repeat sampling requirements, and public notification requirements for microbiological, inorganic chemical, organic chemical, and radiological contaminants established in this subchapter and in 40 CFR, Parts 141 and 143. Public Water Systems which add a chemical disinfectant to the water in any part of the drinking water treatment process or purchase water from a Public Water System which contains a chemical disinfectant shall comply with the provisions of 40 CFR, Part 141, Subpart L (Appendix E of the WSR). The Water System's Running Annual Averages (RAA) for both Total Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM) are currently exceeding the respective MCLs. The Water System was issued a Notice of Violation by EPA Region 1 on July 7, 2009 for DBP MCL exceedances.

4. *Optimization of Corrosion Control Treatment 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, when exceeding the action levels of 0.015 mg/L for lead and 1.3 mg/L for copper. The Water System has a history of exceeding the Federal action level for lead. **The Water System was required to provide for and optimize corrosion control treatment by April 1, 2009.** The Water System does not provide corrosion control treatment for Well 4 and Well 4A currently, and the corrosion control treatment system has not been optimized for the surface water treatment plant as of the issuance date of this permit amendment.

5. *Closure of Abandoned Wells:* In accordance with the WSR, Chapter 21, Appendix A, Part 12, all abandoned wells shall be closed to prevent the contamination of ground or surface water resources, the migration of fluids, and risks to the health and safety of the public. Well abandonment shall be performed only by a Vermont licensed water well driller or monitoring well driller and in conformance with all Department regulations. There is an old well located near the storage tank that is no longer usable. This well has not been properly closed according to the standards established in the WSR.

6. *No Standby Power:* In accordance with the WSR, Subchapter 21-7 and Appendix A, Part 6, to ensure continuous service when the primary power has been interrupted, a power supply shall be provided from at least two independent sources or a standby/auxiliary source shall be provided. A portion of the Water System's distribution system relies on the booster pumps

and associated hydropneumatic tanks to provide adequate water pressure and flow to all customers. When power is interrupted, the hydropneumatic system that serves the distribution system is quickly depleted, allowing this portion of the distribution system to depressurize. When depressurized, distribution systems are vulnerable to contamination.

7. *No 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.

B. Summary of the Public Water System's physical conditions:

1. The date of the most recent sanitary survey inspection was May 28, 2008. System specific information may be referenced in the most recent sanitary survey or preceding surveys.

2. Major Findings:

a) Source:

The only permitted sources are; Joiner Brook East Branch (IN001), and two bedrock wells, Well 4A (WL002) a 6-inch drilled bedrock well with a depth of 599 feet and a permitted yield of 4.5 gallons per minute, and Well#4 (WL003) a 6-inch drilled bedrock well with a depth of 375 feet and a permitted yield of 9 gpm.

The Water System has the capability of providing water from an emergency source, Joiner Brook West, which is currently physically disconnected from the Water System (see Section III, Items G and Q).

b) Treatment:

Surface water treatment for this system consists of a single rapid sand filter, coagulation, and flocculation with an engineered filtration plant design rate of 50 gpm. The Water System adds Aquamag DP (potassium orthophosphate) for corrosion control, and is required to continuously disinfect. The Water System chlorinates with a sodium hypochlorite solution, pre-filtration for contact time.

The Water System reports experiencing turbidity compliance issues when the filter plant rate exceeds 43 gpm, and reports normally operating at a rate of approximately 32 gpm (see Section II, Item B, Part 2h).

c) Storage:

The Water System utilizes two storage tanks. ST002 (Chlorine Contact Tank) is a 1,845 gallon steel tank located post surface water treatment to provide chlorine disinfection contact time – for the Joiner Brook source. ST001 (Main Reservoir) is a 150,000 gallon concrete storage tank that floats on distribution.

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 lesser system demand. Submersible source pumps within each well source deliver water directly to the distribution system without undergoing any drinking water treatment. The "Billy Bump Pump Station" (PF005) provides water to three high-elevation service connections.

e) Distribution:

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

There are approximately 9 fire hydrants connected to the drinking water distribution system.

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 reported average daily production of this system is 40,000 gallons per day (gpd). The reported maximum daily water demand is approximately 71,000 gpd., or 50 gpm.

h) System Reserve:

The Water System is *not permitted* to add new service connections or expand existing water demand requirements without first demonstrating adequate supply is available to meet the anticipated maximum and peak water demand requirements as prescribed under Appendix A, Part 2 of the WSR (see Section III, Item Q).

C. Summary of most recent water quality sample results:

The Water System is in violation of certain provisions of the Safe Drinking Water Act, 42 U.S.C. § 300f, et. seq. and the National Primary Drinking Water Regulations at 40 C.F.R. Part 141. The violations consist of exceeding the maximum contaminant level (MCL) for haloacetic acids (five) (HAA5) and for total trihalomethanes (TTHM). The Water System has been out of compliance with the HAA5 MCL starting with the first quarter of 2003, and has been out of compliance with the TTHM MCL starting with the third quarter of 2008 to the present (see Section IV, Item C, Parts 8-12 or Parts 18-23). The federal MCL for HAA5 is 0.060 mg/L and the federal MCL for TTHM is 0.080 mg/L.

The Water System's 90th percentile value for lead currently exceeds the established Federal action level for lead in the drinking water distribution system. The most recent lead samples exhibited a 90th percentile value of 0.734 mg/L which exceeds the Federal action level for

lead of 0.015 mg/L. The Water System provides corrosion control treatment for Joiner Brook East Branch, but system-wide optimization of corrosion control treatment has not been achieved (see Section IV, Item C, Parts 8-12 or Parts 18-23).

The most recent water quality results demonstrate that all *other* 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 H).

D. Groundwater Under The Direct Influence of Surface Water Determination:

Supply wells 4 and 4A were determined to be not under the direct influence of surface water on January 27, 1994. These determinations were based upon each well's construction and its distance from surface water.

E. Isolation Zone:

Isolation zones are prescribed by the Division, Chapter 21, Appendix A, Part 3.3. The only reported land use activities occurring within 200 feet the water supply sources for the Water System are a *driveway/road, a vehicle garage, and the sewer system for Ardec Condominiums*. Any of these land use activities could compromise water quality; however, current water quality data yields no evidence of drinking water contamination. 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 November 3, 2008 that includes sample locations in the pressure zone served by Billy Bump Pump Station and sample locations in vulnerable portions of the distribution system.

•The Division approved a Stage 2 Disinfection By-Product Rule (DBPs) Standard Monitoring Plan on May 1, 2009.

• 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.

•The Division has not received an Operation and Maintenance Manual as of the issuance date of this permit (see Section IV, Item C, Part 11 or Part 22).

•The Division last approved a Source Protection Plan update on July 20, 2006 (See Section III, Item P).

G. Certified System Operator(s):

The certified operators for this **Class 4B** water system are; **Mike Bernardine**, (Operator ID #1960, Class 4B) and **Paul Prim**, (Operator ID #2984, Class 4B). Both operators' current certifications expire **June 30, 2011** (see Section III, Item I).

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	Permitted	50*
WL002	Well#4A	Bedrock Well	Permitted	4.5(permitted)
WL003	Well#4	Bedrock Well	Permitted	9 (permitted)

*The safe yield of the source has not been determined. This rate represents the maximum flow rate of the existing treatment system (see Section II, Item B, Part 2b).

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 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 *prior* to using a non-permitted water source to supply water to the water system (e.g., emergency source connection, hauled or bulk water delivery). The permittee shall immediately issue a Boil Water or Do Not Drink notification to all its users upon use of a non-permitted source, and as otherwise directed by the Water Supply Division. For calls placed within Vermont during Division office hours call 800-823-6500 or 802-241-3400, calls placed after 4:30 p.m. and weekends call 802-741-5311 (pager).

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. Sampling schedules can be found on our website at http://www.vermontdrinkingwater.org. These schedules are updated every quarter to reflect changes in your schedule, and sampling points, requirements.

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.

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 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).

P. The Source Protection Plan (SPP) shall be updated by the permittee every three years in accordance with the WSR, Subchapter 21-16. The next SPP update will be due by **July 1, 2009**.

Q. The Water System is *not permitted* to add new service connections or expand existing water demand requirements without first demonstrating adequate supply is available to meet the anticipated maximum and peak water demand requirements as prescribed under Appendix A, Part 2 of the WSR. If the Joiner Brook West emergency source is being used, this condition requires determining the safe yield of that intake from Joiner Brook in accordance with the WSR Appendix A, Part 3.2.3.1.

IV. Special Conditions

A. **This permit expires on December 1, 2011**. 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 a permit prior to the expiration date of this permit. The permittee shall reapply between **November 1, 2011** and the expiration date of this permit. In addition, the permittee is responsible for responding to the most recent sanitary survey inspection report, to ensure current and reliable information is available to the Division in its preparation of the operating 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 and Sewer** into full compliance with the Federal Safe Drinking Water Act, the Vermont Water Supply Rule, and all applicable statutes and regulations. This schedule may be modified or amended by the Division *prior to the expiration date of the permit or upon request by the permittee.*

1. **Received July 2, 2009**
*Application Under Review

Submit a Source Permit Application for a Minimum of Two Sources – First Application

The Water System must submit a source permit application for a minimum of two well sources addressing inadequate water quantity, and minimizing disinfection by product formation to comply with the established MCLs. A substantially complete source permit application must be submitted to the Division by August 14, 2009 (*the Water System is to address inadequate water quality, optimization of corrosion control treatment and minimizing disinfection by product formation to comply with the established MCLs*).

2. **August 21, 2009** — **Construct Additional Well Sources**

The Water System must construct additional sources (see item 1 above) by August 21, 2009, and submit a proposal identifying the testing the Water System must complete per Subchapter 21-4 of the WSR in order to acquire a permit for each source (*source yield, water quality site location, source interference, water allocation, source protection area delineation, ground water under the direct influence of surface water, and risk of potential sources of contamination.*)

3. **September 30, 2009** — **Properly Close All Abandoned Wells**

The Water System must properly close all abandoned wells in accordance with the WSR, Appendix A, Part 12 by September 30, 2009. The Water System should contact the Division's Water Resource Section (Rodney Pingree) with any questions regarding well closure.

4. **September 30, 2009**

Complete Source Testing (Item 2 above) and Prepare a Comprehensive Source Evaluation Report

The Water System must conduct source testing as approved in writing by the Division (see

item 2 above) and prepare a comprehensive source evaluation report which must be submitted to the Division for review and source(s) permitting approval by September 30, 2009. If the consulting hydrogeologist and/or engineer indicate that the existing groundwater/surfacewater sources in combination with the new groundwater sources have insufficient source(s) yield to meet the expected maximum daily demand and water quality requirements of the system per Subchapter 21-6 and 21-7 and Appendix A, Part 2 of the WSR, the Water System is to submit to the Division a second source permit application (go to Item 13 below) **or** submit a letter of intent to reconstruct the surface water treatment plant (go to Item 5 below).

Based on the conclusion of the comprehensive source evaluation report that indicate ample quantities of groundwater are available to adequately address the quantity and quality concerns of the Water System as specified in this permit, the Water System is to proceed with preliminary engineering and final design of the groundwater and surface water treatment facility and (Items 13 through 23 below are not applicable) the following schedule shall apply:

5. **September 30, 2009** — **Submit Letter of Intent to Pursue Groundwater and Surface Water Treatment Improvements**

The Water System has chosen to proceed with preliminary engineering and final design of the groundwater and surface water treatment facility (see Item 4 above), a letter expressing the Water System's intent to pursue groundwater and surface water treatment facility improvements must be submitted to the Division by September 30, 2009.

6. **October 1, 2009** — **Submit a Permit to Construct Application to Install Disinfection Treatment for Well 4A and Well 4**

The Water System must submit a permit to construct application for the installation of disinfection treatment and source meters (if not already in place) for the existing wells; Well 4 and Well 4A by October 1, 2009.

7. **November 1, 2009** — **Install Disinfection Treatment for Well 4A and Well 4 in Accordance with Division Issued Permit to Construct**

The Water System must install disinfection treatment system(s) for Well 4 and Well 4A in accordance with Division issued permit to construct (see Item 6 above) by November 1, 2009. The Water System must continuously apply disinfection treatment at each of the groundwater sources once construction is complete.

8. **December 1, 2009** — **Obtain Source Permit for New Sources**

If the newly constructed groundwater wells (see Items 1, 2 and 4 above) are to be connected to the drinking water system the Water System must submit any/all remaining Division requested submittals so the Division may issue a source permit for the newly constructed groundwater wells by December 1, 2009.

9. **December 15, 2009** — **Complete and Submit Final Engineering Design as Part of a Permit to Construct Application**

The Water System must complete and submit the engineering design for a groundwater supplemented with surface water supply and treatment system by December 15, 2009 as part of a permit to construct application. The water system improvements proposed in the final engineering design of the permit to construct application must be engineered to resolve (at a minimum) the findings in Section II, Item A, Parts 1, 3, 4, and 6 of this permit (water quantity, disinfection by product MCL exceedances, optimized system-wide corrosion control treatment for all sources, and the provision of emergency power).

10. **March 1, 2010** — **Obtain Permit to Construct for Water System Improvements**

The Water System must address all comments provided by the Division and obtain a permit to construct by March 1, 2010.

11. **October 31, 2010** — **Complete Groundwater and Surface Water Treatment Improvements – Satisfy all Conditions of Permit to Construct**

The Water System must complete all construction improvements to the groundwater and surface water treatment facility, so that the groundwater and surface water sources and treatment system is complete and operational in accordance with a Division issued permit to construct by October 31, 2010. Submission of O&M Manual and as-built records drawings per Subchapter 21-7 and Appendix D is required.

12. **December 1, 2010** — **New Water System to be Operational and Optimized**

The new water supply system (new sources, newly constructed surface water treatment, etc.) must be operational and optimized by October 31, 2011. Optimization includes management of lead and copper drinking water concentrations to less than EPA established action levels and disinfection by products to below their respective MCLs.

Based on the conclusion of the comprehensive source evaluation report (see Item 4 above) that indicate quantities of groundwater are not available to adequately address the quantity and quality concerns of the Water System as specified in this permit, the Water System is to proceed with provision of additional well sources (second source permit application) and (Items 5 through 12 above are not applicable) the following schedule shall apply:

13. **September 30, 2009** — **Submit *Second* Source Permit Application for a Minimum of Two Additional Sources**

If the consulting hydrogeologist and/or engineer indicate that the exisiting sources in combination with the new sources have insufficient source(s) yield to meet the expected maximum daily demand and quality requirements of the system per Subchapter 21-6 and 21-7 and Appendix A, Part 2 of the WSR, or there is insufficient groundwater supply available to resolve the water quality MCL exceedances outlined in Section II, C of this permit; the Water System is to pursue the development and permitting of additional well sources the Water System must submit a *second* substantially complete source permit application for a minimum of two *additional* well sources. A substantially complete source permit application must be submitted to the Division by September 30, 2009. The Water System must address inadequate water quantity, optimization of corrosion control treatment and minimizing disinfection by

product formation to comply with the established MCLs.

14. **October 1, 2009** — **Submit a Permit to Construct Application to Install Disinfection Treatment for Well 4A and Well 4**

The Water System must submit a permit to construct application for the installation of disinfection treatment system and source meters (if not already in place) for the existing wells; Well 4 and Well 4A by October 1, 2009.

15. **November 1, 2009** — **Install Disinfection Treatment for Well 4A and Well 4 in Accordance with Division Issued Permit to Construct**

The Water System must install disinfection treatment system(s) and source meters (if not already in place) for Well 4 and Well 4A in accordance with Division issued permit to construct (see Item 14 above) by November 1, 2009. The Water System must continuously apply disinfection treatment at each of the groundwater sources once construction is complete.

16. **November 6, 2009** — **Construct Additional Well Sources**

The Water System must construct a minimum of two additional groundwater sources by November 6, 2009, and submit a proposal identifying the testing the Water System must complete per Subchapter 21-4 of the WSR in order to acquire a permit for each source (*source yield, water quality site location, source interference, water allocation, source protection area delineation, ground water under the direct influence of surface water, and risk of potential sources of contamination*).

17. **January 30, 2010** — **Complete Source Testing and Prepare a Comprehensive Source Evaluation Report**

The Water System must conduct source testing as approved in writing by the Division (see item 16 above) for the additional well sources (second source permit application) and prepare a comprehensive source evaluation report which must be submitted to the Division for approval by January 30, 2010.

18. **February 28, 2010** — **Obtain Source Permit**

The Water System must submit any/all remaining Division requested submittals so the Division may issue a source permit for a minimum of two new groundwater wells by February 28, 2010.

19. **May 30, 2010** — **Complete Engineering Design**

The Water System must complete the engineering design for; a groundwater supply and treatment system or for a groundwater supplemented with surface water supply and treatment system in accordance with the technical standards of the WSR by May 30, 2010.

20. **June 15, 2010** — **Complete and Submit Final Engineering Design as Part of a Permit to Construct**

Application

The Water System must submit its final engineering design for a groundwater supply and treatment system or for a groundwater supplemented with surface water supply and treatment system to the Division by June 15, 2010 as part of a permit to construct application. The water system improvements proposed in the final engineering design of the permit to construct application must be engineered to resolve (at a minimum) the findings in Section II, Item A, Parts 1, 3, 4, and 6 of this permit (*water quantity, disinfection by product MCL exceedances, optimized system-wide corrosion control treatment for all sources, and the provision of emergency power*).

21. **August 31, 2010** — **Obtain Permit to Construct for Water System Improvements**

The Water System must address all comments provided by the Division and obtain a permit to construct for all necessary water system improvements by August 31, 2010.

22. **September 30, 2011** — **Complete Construction – Satisfy all Conditions of Permit to Construct**

The Water System must complete all water system improvements in accordance with its permit to construct by September 30, 2011. Completion of all permit to construct conditions will include submittal of an Operation and Maintenance Manual and as-built records drawings.

23. **October 31, 2011** — **New Water System to be Operational and Optimized**

The new water supply system must be operational and optimized by October 31, 2011. Optimization includes management of lead and copper and disinfection by products to below their respective MCLs.

24. 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.

25. The Water System must report the attainment of the milestones established within this permit to the Division **and** Neil Handler of EPA (EPA Region 1, Water Technical Unit, 1 Congress Street, Suite 1100 (SEW), Boston MA, 02114) 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.

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 (January 1st and July 1st) by hand delivery or direct mail (e.g. water bill), in a local daily or weekly newspaper, radio, television, and any other method as needed to reach all customers served by the system as 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: Julie Hackbarth, 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 and Sewer (the Water System)**, a public water system under the laws of the State of Vermont, was recently reissued a Temporary Operating Permit. The Secretary of the Agency of Natural Resources found that such issuance will not unreasonably contribute to a public health risk, although the **Catamount Bolton Water and Sewer** 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 quantities of safe drinking water to meet the anticipated maximum and peak user demand requirements of the system. Corrosion control treatment for the Water System is required to reduce drinking water lead and copper concentrations to less than the lead and copper action levels of 0.015 mg/L and 1.3 mg/L respectively. Improvements to the existing treatment systems are necessary and required to meet the requirements of the Vermont Water Supply Rule.

Chlorine disinfection by products; total haloacetic acids (HAA5) and total trihalomethanes (TTHM) exceed their federal maximum contaminant levels of 0.060 mg/L and 0.080 mg/L respectively. *Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Additionally, some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems, and may have an increased risk of getting cancer.* Users may choose to utilize carbon filtration (pitcher style or faucet mounted) which is known to reduce disinfection by products, and are encouraged to consult their doctor with specific health concerns. The Water System is required under a schedule for compliance within a temporary permit to operate issued by the Department of Environmental Conservation to achieve compliance with the MCLs for disinfection by products and the lead action level by October 31, 2011, at the latest – compliance with the MCLs may be achieved as early as December 1, 2010.

The Water System is following through on specific recommendations made by the Water Supply Division to eliminate all 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 extension 21 (attn: Gail Beck).

Agency of Natural Resources

Department of Environmental Conservation
Justin Johnson, Commissioner

By _____
Gary Schultz, Director
Water Supply Division

Dated at Waterbury, Vermont this 23rd day of July, 2009

BG

cc: WSID #5051
Larry Williams, Water System Owner
Mike Bernardine, Water System Operator
Bernie Chenette, Chenette Associates P.C.
Thomas Brown, System Operations Specialist, WSD
Neil Handler, EPA
Tim Raymond, Operations Section Manager, WSD
Susan Martin, Vermont Department of Public Service, Montpelier
Permit File

enc: Public Notice Certification Form

VERMONT
ENVIRONMENTAL CONSERVATION
Water Supply Division

FORM

PUBLIC NOTICE CERTIFICATION

Pursuant to the Vermont Water Supply Rule (Chapter 21, Subchapter 21-10), water systems shall provide public notification in a manner that ensures that all users of the system are notified. You are required to ***return this form and a copy of each type of notice*** that you issued to the below address within 10 days of issuing the public notice.

Public Water System Name:	WSID Number:
Public Notice issued for:	
Date System first learned of violation or situation:	

For **Tier 1 violations:** Consultation with Water Supply Division took place on _____. (date)
(Tier 1 includes all MCL violations and disease outbreaks)

Please indicate the method(s) and date of distribution[1]:

- ☐ Hand or direct delivery on _____. (date)
- ☐ Radio, aired on _____. (date and time(s) aired)
- ☐ Television, aired on _____. (date and time(s) aired)
- ☐ Posted[2] in conspicuous locations on _____. (date)
- ☐ Distributed with the Consumer Confidence Report[3] on _____. (date)

[1]- The required method of delivery depends on system type (i.e., community, non-transient non-community, or transient water system) and the reason for the public notice (e.g., Tier 1, 2, or 3 violation). Please see reverse side for the delivery methods you may use.
[2]- Community Water Systems may use ***posting as a secondary method***, but must also use radio, television, or hand or direct delivery.
[3]- Applicable for Community Water Systems and only for Tier 3 violations.

I certify, as the Responsible Person (or authorized representative) of the water system indicated above, that public notice has been provided to customers in accordance with the delivery, content, and format requirements and deadlines in the Vermont Water Supply Rule (Chapter 21, Subchapter 21-10)

_____ _____
Signature (must be signed by Responsible Person) Date

_____
Please type or print name

Requirements for Issuing Public Notice

The following table lists the time deadlines and required delivery methods for issuing public notices. Be sure to take steps to inform people if they would not be reached by the most commonly used methods of notification.

Tier	Deadline for Notice	Delivery Methods
Temporary Operating Permit	30 Days	***Community Water Systems*** 1) Radio, television, or hand or direct delivery[1]; and 2) Another method as needed to reach all customers. ***Non-Transient Non-Community*** 1) Radio, television, posting, or hand or direct delivery; and 2) Another method as needed to reach all customers.
1	24 hours	***Community Water Systems*** 1) Radio, television, or hand or direct delivery[1]; and 2) Another method as needed to reach all customers. ***Non-Transient Non-Community and Transient Non-Community Water Systems*** 1) Radio, television, posting, or hand or direct delivery; and 2) Another method as needed to reach all customers.
2	30 days	***Community Water Systems*** 1) Mail or hand or direct delivery[1]; and 2) Another method as needed to reach all customers. ***Non-Transient Non-Community and Transient Non-Community Water Systems*** 1) Posting, or hand or direct delivery; and 2) Another method as needed to reach all customers.
3	1 year	***Community Water Systems*** 1) Consumer Confidence Report[2], mail or hand or direct delivery[1]; and 2) Another method as needed to reach all customers. ***Non-Transient Non-Community and Transient Non-Community Water Systems*** 1) Posting, or hand or direct delivery; and 2) Another method as needed to reach all customers.

[1] - CWS may use posting as a secondary method, but must also use radio, television, or hand or direct delivery.

[2] - CWS may use the Consumer Confidence Report (CCR) as a delivery method for Tier 3 violations. However, the timing and delivery requirements for CCRs differ from those for public notices. If you use the CCR to deliver Tier 3 notices, be sure is delivered to your customers no later than 1 year from the date the violation occurred. Also note that the CCR must include all language required for the public notice.

Honorable Jim Douglas, Governor George Crombie, ANR Secretary Jeffrey Wennberg, DEC Commissioner

This (fact sheet/form/application) 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