



**Vermont Department of Environmental Conservation
Water Supply Division**

Old Pantry Building [phone] 802-241-3400
103 South Main Street [in-state] 800-823-6500
Waterbury, VT 05671-0403 [fax] 802-241-3284

www.vermontdrinkingwater.org

August 28, 2009

Agency of Natural Resources

Attn: Steffanie Bourque
45 Main Street
Proctor, VT 05765

Re: Temporary Permit to Operate for Proctor Water Department WSID# 5228

Dear Steffanie:

Enclosed you will find the *new* temporary permit to operate for the Proctor Water Department. Please review this permit carefully. Pay special attention to Section IV, as it outlines the specific deficiencies 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. The schedule in the attached permit is generally consistent with the Financial Long Range Plan update prepared by the Town of Proctor in July of 2009. This Long Range Plan update has been approved by the Division in a separate letter dated August 28, 2009 which is attached for your quick reference.

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 Don Haddox at (802) 241-4226, source permit questions to Scott Stewart (802) 241-3426, permit to construct questions to David Webb, P.E. (802) 241-2599 and specific corrosion control treatment questions to Ray Solomon (802) 241-3894.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Gauthier".

Ben Gauthier
Environmental Analyst III
Water Supply Division

cc: WSID #5228

Todd Blow, Water System Operator
Kevin Smith, P.E., SVE Associates
Stephen Revell, C.P.G., Lincoln Applied Geology
Neil Handler, EPA
Don Haddox, System Operations Specialist, WSD
Julie Hackbarth, Compliance & Certification Manager, WSD
Tim Raymond, Operations Section Manager, WSD
David Webb, Environmental Engineer, WSD
Matt Guerino, Total Coliform Rule Coordinator, WSD
Doug Kievit-Kylar, DBP and Lead and Copper Rule Coordinator, WSD
Permit File

enc: Public Notice Certification Form

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August 28, 2009

Public Water System Temporary Permit to OperateWATER SYSTEM IDENTIFICATION NUMBER: **5228**PIN #: **RU96-0512**

OWNER/PERMITTEE: **Proctor Town**
WATER SYSTEM: **Proctor Water Department**
TOWN: **Proctor**

AUTHORIZED REPRESENTATIVE: **Steffanie Bourque**
ADDRESS: **45 Main Street**
Proctor, VT 05765

I. Authority

In accordance with 10 V.S.A. §1671 *et seq.*, the following findings and conclusions have been made for the **Proctor Water Department (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 **Proctor Water Department** 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 Contact Time (CT) for Disinfection:* In accordance with the Vermont Water Supply Rule (WSR), Subchapter 21-7 and Appendix A, Part 4, all Public Community and Non-Transient Non-Community Water Systems shall have the capability of continuous disinfection with a minimum 4.0 log (99.99%) inactivation of viruses prior to the first service connection. The Water System reports failing to meet required CT values at least once per month in the recent past with failures often occurring much more often than a single occurrence per month.

2. *Inadequate Cross-Connection Controls (treatment plant raw water bypass):* In

accordance with the WSR, Subchapter 21-8, no physical connection, unless approved by the Secretary, shall be permitted between the distribution system of a Public Water System and any pipes, pumps, hydrants, tanks or other water systems whereby contaminated or polluted water may be discharged or drawn into the Public Water System. The Water System has a bypass line that completely bypasses the entire treatment facility, protected by a single closed valve. This bypass must be protected by an air gap.

3. *Inadequate Cross-Connection Controls (backwash/transmission main)*: In accordance with the WSR, Subchapter 21-8, no physical connection, unless approved by the Secretary, shall be permitted between the distribution system of a Public Water System and any pipes, pumps, hydrants, tanks or other water systems whereby contaminated or polluted water may be discharged or drawn into the Public Water System. The Water System's filter backwash line is directly connected to the distribution system transmission main. In system drawings it appears that the connection is protected by a single closed valve. This connection must be protected by an air gap.

4. *Inadequate Water Pressure (treatment plant backwash)*: In accordance with the WSR, Chapter 21, Appendix A, Part 8 a system shall be designed to maintain a minimum of 20 psi at ground level at all points in the distribution system under all conditions of flow. The normal working pressure in the distribution system should be approximately 60 psi and *not less than 35 psi*. During the sanitary survey it was reported that during backwash conditions, multiple connections near the head-works of the system may experience pressures as low as 0 psi and in some cases, negative pressures as no water leaves the treatment plant during backwash. This is not an acceptable mode of operation and must be remedied. The Water System is unable to provide adequate water pressures under normal, peak, and maximum flow conditions (including fire flow) for the Chittenden Service Area and throughout the Cain St. and East Side Distribution Systems.

5. *Inadequate Cross-Connection Controls (eyewash chemical shower drain)*: In accordance with the WSR, Subchapter 21-8, no physical connection, unless approved by the Secretary, shall be permitted between the distribution system of a Public Water System and any pipes, pumps, hydrants, tanks or other water systems whereby contaminated or polluted water may be discharged or drawn into the Public Water System. During the sanitary survey, it was observed that the eyewash/chemical shower drain is directly connected to the distribution system piping in the treatment plant. This must be protected by an adequate backflow prevention device (an air gap is recommended) as the drain line may not be directly connected to potable water. A thorough evaluation of the treatment facility's piping system should be completed by a Professional Engineer (P.E.) or cross-connection specialist to verify the integrity of the system. All connections to non-potable water must be physically disconnected from the distribution system.

6. *Building Layout/Operator Safety Inadequate*: In accordance with the WSR, Chapter 21, Appendix A, Part 2, building design shall provide for adequate ventilation, adequate lighting and heating, adequate drainage, dehumidification equipment (if necessary); accessibility of equipment for operation, servicing and removal; flexibility of operation, operator safety, convenience of operation, and chemical and feed equipment in a separate room to reduce hazards and dust problems. The Water System treatment facility has a dirt-floor pit that houses meters, chemical injection points, electrical controls, valves etc. that is accessed by a portable ladder and old wooden stairs. The pit is a confined space with poor drainage, very little space for maintenance and significant operator safety concerns.

7. *Inadequate Water Quality Testing*: 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. A monitoring schedule has been provided to the Water System that outlines the testing that is required and timeframe that this testing is to be conducted within. The Water System does not include the Field Street Well (WL002) when conducting water quality testing. This testing *must include all sources* either independently or as a blended sample (blending is the most commonly practiced means of accomplishing representative samples and has been practiced previously by the Water System).

8. *Inadequate Water Quality (DBP exceedance)*: 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. The Water System has exceeded, and continues to exceed, the running annual average (RAA) for disinfection byproducts (DBPs) – both haloacetic acids and trihalomethanes. The Water System's current RAAs as of the second Quarter of 2009 are 0.097 mg/L and 0.098 mg/L respectively, significantly exceeding the established federal MCLs of 0.80 mg/L for TTHMs and 0.060 mg/L for HAA5s.

9. *No Source Meter(s)*: In accordance with the WSR, Chapter 21, Appendix A, Part 2, all water supplies shall have an acceptable means of metering the finished water. The Water System does not have a means of monitoring the individual sources of water (although a master meter is present at the treatment facility). The Water System also has no means of controlling the amount of water entering the treatment facility nor a way of monitoring for loss between the source and treatment facility.

10. *Treatment Technology needs to be Reconsidered/Optimized (chlorinated discharge)*: In accordance with the WSR, Chapter 21, Appendix A, Part 4 the design of treatment processes and devices shall depend on evaluation of the nature and quality of the particular water to be treated and the desired quality of the finished water. The Water System treats approximately 390,000 gallons of water per day through the treatment plant. Of this volume, as much as 120,000 gallons are then discharged through an overflow from the Eastside Storage Tank (ST001) directly to a water of the State (a small brook that runs along the storage tank property). The overflowing water is fully treated and contains both chlorine and fluoride.

11. *Inadequate Storage Vent(s)*: In accordance with the WSR, Chapter 21, Appendix A, Part 7, finished water storage structures shall be vented and on ground level structures, terminate in an inverted J construction with the opening 24 to 36 inches above the roof and be protected with 24-mesh non-corrodible screen installed within the pipe at a location least susceptible to vandalism. The Eastside storage tank (ST001) has a visible vent at the top of the tank located on a sidewall. Because of the height of the tank, the vent could not be inspected, but it appeared (from distance) that the screen for the vent was missing.

12. *Inadequate Storage Facility Alarms*: In accordance with the WSR, Chapter 21, Appendix A, Part 7, all Public Community Water System storage tanks must have a low water level alarm and level controls. The Eastside storage tank (ST001) does not have low-water level alarms or water-level controls installed.

13. *Operation and Maintenance (O&M) Manual Update Necessary*: In accordance with the

WSR, Subchapter 21-7, all Public Community Water Systems and all Public Water Systems except Transient Non-Community systems shall have an O&M Manual approved by the Secretary and shall be operated in a manner consistent with the approved O&M Manual. The Water System has an O&M Manual dated May of 1996 that must be updated. The Water System's permit to construct requires that the document be updated to reflect the components of the construction project and resubmitted to the Division (see Section IV, Item C, Part 11).

14. *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 December 1, 2007.** The Water System has not optimized corrosion control treatment for the surface water treatment plant as of the issuance date of this permit amendment.

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

1. The date of the most recent sanitary survey inspection was February 12, 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 "Kiln Brook" (IN001), "Furnace Brook" (IN003) and "Well" (WL002) a 6-inch gravel well with a depth of 147 feet and a historically accepted withdrawal rate (safe yield undetermined) equal to 380 gallons per minute.

b) Treatment:

The Water System utilizes the surface water treatment facility to provide drinking water to the public and adds a cationic polymer as a flocculant aid and sodium hypochlorite for disinfection prior to rapid sand filtration. The maximum capacity of the municipal water filtration facility is 597,000 gallons per day. Combined finished water effluent is continuously monitored for turbidity. In the post-filtration stage, the Water System adds soda ash to adjust pH and control corrosion and fluoride for dental benefits. The Field Street Well source is currently utilized as a permitted backup supply of water for the Water System.

c) Storage:

The East Side Tank, an elevated steel storage tank, holds 100,000 gallons of finished water. The West Side Tank, a glass-fused, bolted steel storage tank, holds an additional 628,000 gallons of finished water. Both storage tanks float on the system.

d) Booster/Pump Stations:

There are no booster pump stations serving the Water System. Raw water from Kiln Brook (IN001) and Furnace Brook (IN003) flows by gravity through the coagulation basin, the filter plant to the distribution system and the two storage tanks.

A submersible source pump in the Well (WL002) delivers water through a chlorination disinfection system and into the distribution system in the center of the village of Proctor.

e) Distribution:

The distribution system consists of 4 and 6-inch cast iron and 6, 8, 10, and 12-inch ductile iron piping.

There are approximately 60 fire hydrants connected to the drinking water distribution system.

f) Population Served:

The Water System serves a year-round residential population of approximately 2,200 people through 754 service connections.

g) System Demand:

The reported average daily production of this system, based on master meter readings at the SW treatment facility, is 400,000 gallons per day (gpd). The reported maximum daily water production of this system, based on master meter readings, is approximately 594,000 gpd. (see monthly report data for November 15, 2008). Treated water flows from the treatment facility unrestricted and during lower demand periods overflows at the East Side Water Storage Tank. The service connections on distribution system are not metered. Maximum daily demands are estimated per Appendix A, Part 2 of the WSR to be approximately 316,600 gpd or 220 gpm.

h) System Reserve:

There is no permitted reserve capacity. The Water System may demonstrate reserve capacity as prescribed under Appendix A, Part 2 of the WSR.

C. Summary of most recent water quality sample results:

The Water System's Running Annual Averages (RAA) for the Disinfection By Products (DBP) Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) as of the second Quarter of 2009 are 0.097 mg/L and 0.098 mg/L respectively, significantly exceeding the established federal MCLs of 0.80 mg/L for TTHMs and 0.060 mg/L for HAA5s. The Water System is required to provide a solution to the DBP contamination in the drinking water system (see Section IV, Item C, Part 10

Additionally, the Water System's lead 90th percentile value 0.022 mg/L exceeds the established federal action level of 0.015 mg/L. The Water System is required to provide and optimize treatment to reduce the levels of lead in the drinking water to below the federal

action level (see Section IV, Item C, Part 10 The East Side Storage Tank has been identified as containing a lead lining.

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 well WL002 was determined to be not under the direct influence of surface water on May 24, 1994. This determination was based upon the Division's review of microscopic particulate analysis test results from this source.

E. Isolation Zone:

Isolation zones are prescribed by the WSR, Appendix A, Part 3.3. There are no reported land use activities occurring within 200 feet of either the Kiln Brook intake or the Furnace Brook intake. Land use activities occurring within 200 feet of Well (WL002) include a *wetland*, *residences*, and *roadways*. Any one or all of these land use activities could compromise water quality. However, current water quality data indicates no evidence of drinking water contamination. The source isolation zones and land use requirements, including prohibited land uses, are to be maintained in accordance with its approval and permits.

F. Operating Status:

- The Division approved a Bacteriological Sampling Plan on March 22, 1991. The Water System is to take an additional monthly bacteriological sample (marked "special" on the laboratory reporting form) and chlorine residual at the Fish Hatchery to verify the potable water system is not contaminated by raw water. The Water System must take this additional special bacteriological sample until the raw water bypass line is disconnected (see Section IV, Item C, Part 6 below).
- The Division approved a Standard Monitoring Plan for the Water System on May 8, 2008 to meet the Stage 2 Disinfection By-Products Rule Initial Distribution System Evaluation Sampling Plan requirements.
- The Division approved a Lead and Copper Sampling Plan for the Water System on January 7, 2008. 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 (see Section IV, Item C, Part 5 and Part 9).
- The Division approved an Operation and Maintenance Manual on December 1, 2006, which has not been updated to reflect recent construction (see Section IV, Item C, Part 11).
- The Division last approved a Source Protection Plan update on April 25, 2007 (See Section III, Item P).

G. Certified System Operator(s):

The certified operators for this **Class 4B** water system are **Todd Blow**, (Operator ID #889, Class 4B) and John Corliss, (Operator ID# 2938, 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	Kiln Brook	Surface Water	Permitted	415(treatment capacity)
IN003	Furnace Brook	Surface Water	Permitted	
WL002	Kiln Brook	Gravel Well	Permitted	385(historic estimate)

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 disinfectant residual entering the distribution system for each day that disinfectant is introduced.
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 chlorination disinfection contact time values once per day 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 each day and the corresponding pH, temperature, and chlorine residual of finished water entering the distribution system.
7. Highest fluoride residual entering the distribution system each day.

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 online 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 for all three permitted sources will be due by **July 1, 2010**.

IV. Special Conditions

A. **This permit expires on December 1, 2012.** 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, 2012** 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 **Proctor Water Department** 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. **August 31, 2009** **Represent All Sources in all Future Compliance Monitoring**

The Water System must include all permitted sources per Section III, Item A, either independently or as a blended sample when conducting compliance monitoring immediately. A formal blending program to follow when conducting all compliance monitoring must be established and included in the Water System's O&M Manual (see item 11 below).

2. **March 30, 2010** **Complete the Engineering Design for the Proposed Field Street Well Improvements**

The Water System must complete and submit the proposed final engineering design for improvements to the field street well source including: evaluation/replacement of existing well and/or pump, modification of the well casing to allow for future maintenance, reconstruction of the well pump station, provision of pump controls and necessary water treatment (disinfection & corrosion control). The Water System is to begin using the well, on an intermittent basis and on a continuous basis as soon as practicable in order to reduce disinfection byproducts in the drinking water system. The Engineering Design for the Field Street Well improvements as specified in the July 2009 LRP update as approved by the Division is to be completed and submitted to the Division by March 30, 2010.

3. **March 30, 2010** **Complete the Engineering Design for the Proposed East Side Distribution System Improvements**

The Water System must complete and submit the proposed final engineering design for improvements to the East Side distribution system as outlined in the Comprehensive Preliminary Engineering Study (CPES) dated February 2009; project(s) to include: Olympus Avenue, Grove Street, Park Street, Holden Avenue, the provision of backflow prevention devices a new East Side Storage tank, modification to the existing West Side Storage Tank and a new water tank on Bluff Street. These engineered improvements are to enable the Field Street Well to be utilized as a permitted backup or sole source of drinking water for the Town of Proctor and provide for minimum storage volume and distribution system pressures in the project(s) area. Design of these distribution system improvements as outlined in the CPES dated February 2009 and the July 2009 LRP update as approved by the Division is to be completed and submitted to the Division by March 30, 2010.

4. **September 1, 2010** **Complete Construction Improvements for the Field Street Well and the East Side Distribution System**

The Water System must complete the proposed improvements for the Field Street Well and the East Side Distribution system project(s) as outlined in Item 3 and Item 4 above and approved in writing and/or permitted by the Division by September 1, 2010. The Water System must obtain a permit to construct prior to modifying the Water System. Successful completion of this milestone will satisfy Section II, Item A; Part 9, *No Source Meters*, Part 10, *Treatment Technology needs to be Reconsidered/Optimized (chlorinated discharge)*, Part 11 *Inadequate Storage Vent(s)*, Part 12 *Inadequate Storage Facility Alarms* and Part 13, *Inadequate Storage Facility Alarms*.

5. **September 1, 2010** **Install Source Meters**

The Water System must install source meters on each source capable of providing the amount of water produced by each source by September 1, 2010. This information must be included on the monthly operations reports (see Section III, Item K).

6. **September 10, 2010** **Submit Bacteriological Sampling Plan Update**

The Water System must submit an updated bacteriological sampling plan for approval which includes an additional monthly "special" bacteriological sample taken at the fish hatchery to continue until the raw water interconnection is eliminated from the drinking water supply line. The updated bacteriological sampling plan must be submitted by September 10, 2010.

7. **December 1, 2010** **Submit Annual Long Range Plan Update**

The Water System must submit an annual report updating the Division (Attention Gary Schultz, Director) on the status of the schedule of capital improvements (summarized in Table 1 of the LRP dated July 31, 2009) and the status of the LRP approved by the Secretary on February 10, 2006 and updated on July 31, 2009. The LRP annual report for 2010 is to be provided to the Division by December 1, 2010.

8. **December 1, 2011** **Submit Annual Long Range Plan Update**

The Water System must submit an annual report updating the Division (Attention Gary Schultz, Director) on the status of the schedule of capital improvements (summarized in Table 1 of the LRP dated July 31, 2009) and the status of the LRP approved by the Secretary on February 10, 2006 and updated on July 31, 2009. The LRP annual report for 2011 is to be provided to the Division by December 1, 2011.

9. **October 1, 2012** **Submit Annual Long Range Plan Update**

The Water System must submit an annual report updating the Division (Attention Gary Schultz, Director) on the status of the schedule of capital improvements (summarized in Table 1 of the LRP dated July 2009) and the status of the LRP approved by the Secretary on February 10, 2006 and updated on July 31, 2009. The LRP annual report* for 2011 is to be provided to the Division by October 1, 2012. The information contained in this LRP annual report will be considered by the Secretary prior to the reissuance of any permit.

*The LRP annual report is to specifically address additional or remaining water system capital improvements in detail, and a schedule under which these remaining improvements will be corrected. The Water System's LRP annual report for 2012 is to be comprehensively reviewed, evaluated, and amended as appropriate by the Selectboard to address: recognized deficiencies, improvement requirements, permit conditions and regulatory requirements governing conformance with federal safe drinking water requirements and the Water Supply Rule, Chapter 21 including but not limited to the federal Stage 2 DBP Rule. Intake improvements at the Furnace Brook and/or Kiln Brook intakes may or may not meet additional Long Term 2 Enhanced Surface Water Treatment Rule (Lt2ESWTR) requirements without the provision of supplemental treatment. Under the federal Lt2ESWTR, if the surface water treatment plant is retained for use in the Public Water System, the Water System must submit a bin classification to the Division by October 1, 2012 and comply with additional Lt2ESWTR treatment requirements by October 1, 2014.

10. **December 1, 2012**

Complete Final Design and Construction of Surface Water Treatment Plant and Remaining Water Distribution System Improvements

The Water System must complete final engineering design and construction for all remaining project(s) including; surface water treatment plant improvements (or disconnection if groundwater system is determined to be adequate), water distribution system improvements necessary to eliminate Stage 1 and Stage 2 disinfection/disinfection byproduct MCL concentrations, and water distribution system improvements necessary meet minimum and maximum pressure requirements, including those on the transmission main line and to the Chittenden users, to attain conformance with the Vermont Environmental Protection Rules, Chapter 21, Vermont Water Supply Rules, as outlined in the CPES dated February 2009 and the LRP approved by the Secretary on February 10, 2006 and updated in July 2009. Construction is to be completed by December 1, 2012 (*improvement projects include: the completion of distribution system improvements on the East Side (Upper Park Street & Chatterton Park) and for users of the transmission main line located in the Town of Chittenden*). If the Water System is to retain and utilize the filter plant, the provision of a finished water storage tank at the treatment plant, raw water piping modifications and gallery improvements are required. The final design engineering and construction improvements for the surface water treatment plant, the plant's clear well and the transmission line improvements as detailed in the July 2009 LRP update is to be completed by December 1, 2012. Successful completion of this milestone will satisfy Section II, Item A; Part 1 *Inadequate Contact Time (CT) for Disinfection*, Part 2 *Inadequate Cross-Connection Controls (raw water bypass)*, Part 3 *Inadequate Cross-Connection Controls (backwash/transmission main)*, Part 4 *Inadequate Water Pressure*, Part 5 *Inadequate Cross-Connection Controls*, Part 6 *Building Layout/Operator Safety Inadequate*, Part 8 *Inadequate Water Quality (DBP exceedance)* and Part 14 *Optimization of Corrosion Control Treatment Necessary*.

11. **March 1, 2013**

Submit O&M Manual

The Water System must submit a comprehensive O&M Manual detailing all the above described water system improvements including all elements in Appendix D of the WSR by March 1, 2013.

12. 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.

13. 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 (January 1st and July 1st) 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: 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 Proctor Water Department (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 **Proctor Water Department** 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 meet the technical standards pertaining to the reliable and safe provision of drinking water including the maintenance of adequate distribution system pressure in all areas of the Water System under all conditions of flow (including a fire). The Water System is following through on specific recommendations made by the Division and is following an improvements plan outlined by the Water System in its Long Range Plan Update approved by the Division on August 28, 2009.


Chlorine disinfection by products; total haloacetic acids (HAA5) and total trihalomethanes (TTHM) currently exceed the established 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*

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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 as issued by the Department of Environmental Conservation to achieve compliance with the MCLs for disinfection by products and lead concentrations by December 1, 2012.

The Water System is aggressively following through on specific requirements of 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 Proctor Water Department at (802) 459-3333 extension 13 (attn: Steffanie Bourque).

Agency of Natural Resources
Department of Environmental Conservation
Justin Johnson, Commissioner

By 
Gary Schultz, Acting Director
Water Supply Division

Dated at Waterbury, Vermont this 28th day of August, 2009

BG

cc: WSID #5228
Todd Blow, Water System Operator
Kevin Smith, P.E., SVE Associates
Stephen Revell, C.P.G., Lincoln Applied Geology
Neil Handler, EPA
Don Haddox, System Operations Specialist, WSD
Julie Hackbarth, Compliance & Certification Manager, WSD
Tim Raymond, Operations Section Manager, WSD
David Webb, Environmental Engineer, WSD
Matt Guerino, Total Coliform Rule Coordinator, WSD
Doug Kievit-Kylar, DBP and Lead and Copper Rule Coordinator, WSD
Permit File

enc: Public Notice Certification Form