



State of Vermont  
Department of Environmental Conservation

Agency of Natural Resources  
Wastewater Management Division  
103 South Main St. - Sewing Bldg.  
Waterbury VT 05671-0405  
Telephone: (802) 241-3822  
FAX: (802) 241-2596

December 15, 2009

Robert Rousseau, North Hero Water Board  
Town of North Hero  
PO Box 38  
North Hero, VT 05474

**RE: Discharge Permit No. 3-1414 & Response Summary – North Hero Water Treatment Facility**

Dear Mr. Rousseau,

Enclosed is your copy of Discharge Permit No. 3-1414, which has been signed on behalf of the Commissioner of the Department of Environmental Conservation. This permit authorizes the discharge of treated filter backwash water from your potable water treatment facility to Lake Champlain.

Please review the permit carefully and make note of the effluent limitations, monitoring requirements, and other special conditions.

During the public notice period, comments were submitted by the Conservation Law Foundation regarding the draft permit. Attached is a Response Summary which addresses those comments.

If you have any questions regarding this permit please contact Randy Bean at our office.

Sincerely,

A handwritten signature in cursive script that reads "Brian D. Kooiker".

Brian D. Kooiker, Chief  
Direct Discharge and O&M Section

attachments

cc:

Mike Rapacz, Conservation Law Foundation



AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WASTEWATER MANAGEMENT DIVISION  
103 SOUTH MAIN STREET, - THE SEWING BUILDING  
WATERBURY, VERMONT 05671-0405

Permit No.: 3-1414  
File No.: 07-04  
PIN: EJ95-0322  
NPDES No.: VT0101231

**DRAFT**  
**DISCHARGE PERMIT**

In compliance with the provisions of the Vermont Water Pollution Control Act, as amended, (10 V.S.A. Chapter 47 §1251 et. seq), and the Federal Clean Water Act, as amended (33 U.S.C. § 1251 et. seq),

Town of North Hero  
PO Box 38  
North Hero, VT 05474

(hereinafter referred to as the "permittee") is authorized, by the Secretary, Agency of Natural Resources, to discharge from a facility located at:

North Hero Water Treatment Facility  
North End Road  
North Hero, Vermont

to Lake Champlain, Class B at the point of discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III hereof.

This permit shall become effective on April 1, 2010.

This permit and the authorization to discharge shall expire on March 31, 2015.

Signed this 18<sup>th</sup> day of DECEMBER, 2009.

Justin G. Johnson, Commissioner  
Department of Environmental Conservation

By John J. Akielaszek  
John J. Akielaszek, Acting Director  
Wastewater Management Division

**PART I**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- From April 1, 2010 through March 31, 2015, the permittee is authorized to discharge from outfall serial number S/N 001: Treated filter backwash water from a municipal water treatment facility. Such discharges shall be limited and monitored by the permittee as specified below:

**For the period of October 1<sup>st</sup> through May 31<sup>st</sup>.**

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow		30,000 gpd	Daily	Estimate <sup>(1)</sup>
Total Suspended Solids (TSS)		10 mg/l	1 x monthly	Grab
Turbidity	10 NTU		1 x monthly	Grab
Total Residual Chlorine		1.0 mg/l	1 x monthly	Grab
pH	Between 6.5 and 8.5 S.U.		1 x monthly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken from the outfall pipe from the settling tank prior to discharge to Lake Champlain.

- Flow shall be estimated based on the number of backwash cycles per day.

**For the period of June 1<sup>st</sup> through September 30<sup>th</sup>.**

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow		30,000 gpd	Daily	Estimate <sup>(1)</sup>
Total Suspended Solids (TSS)		25 mg/l	1 x monthly	Grab
Turbidity	25 NTU		1 x monthly	Grab
Total Residual Chlorine		1.0 mg/l	1 x monthly	Grab
pH	Between 6.5 and 8.5 S.U.		1 x monthly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken from the outfall pipe from the settling tank prior to discharge to Lake Champlain.

- Flow shall be estimated based on the number of backwash cycles per day.

**2. Special Conditions**

- a. This discharge shall not cause a visible discoloration of the receiving water.
- b. The discharge of algicides, slimicides, or any other chemical substances for backflushing the water intake line is prohibited.
- c. Floor drains shall be used for normal raw and process water discharge only. The discharge of chlorine or any other chemical substances via the floor drains is prohibited.
- d. Only chemicals normally used in the operation of a water treatment facility shall be stored in the facility and shall be located in the designated chemical storage area. There shall be no floor drains located within the chemical storage area and any chemical spills shall be isolated and disposed of in an appropriate manner.
- e. During the months of May and September, sludge depth accumulation shall be measured in the backwash settling tanks. The dates of measurements and sludge depths shall be reported on the appropriate discharge monitoring report.
- f. The backwash settling tanks shall be cleaned as necessary to maintain design treatment specifications. The dates of sludge removal and volume of sludge shall be reported on the appropriate discharge monitoring report. All sludge shall be managed and disposed of in accordance with Condition II.A.8 of this permit.

**B. REAPPLICATION**

If the permittee desires to continue to discharge after the expiration date of this permit, he shall apply on the application forms then in use at least 180 days before the permit expires.

Reapply for a Discharge permit by September 30, 2014.

**C. OPERATING FEES**

This discharge is subject to operating fees. The permittees shall submit the operating fees in accord with the procedures provided by the Secretary.

## D. MONITORING AND REPORTING

### 1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to regulations published pursuant to Section 304(g) of the Clean Water Act, under which such procedures may be required. Guidelines establishing these test procedures have been published in the Code of Federal Regulations, Title 40, Part 136 (Federal Register, Vol. 56, No. 195, July 1, 1999 or as amended).

If applicable, *Escherichia coli* shall be tested using one of the following methods:

- a. "Most Probable Number" (MPN) method 9223B found in Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> or subsequent approved edition(s). Premade formulations are available as Colilert and Colilert 18 from IDEXX Labs Inc., Westbrook, ME;
- b. EPA "membrane filtration" (MF) method 1603 using modified mTEC; or
- c. A single step membrane filtration (MF) method using mColiBlue 24 available from Hach Company, Loveland, CO.

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The permittee shall identify the effluent sampling location used for each discharge.

### 2. Reporting

The Permittee is required to submit monitoring results as specified on a Discharge Monitoring Report (Form WR-43). Reports are due on the 15th day of each month, beginning with the month following the effective date of this permit.

If, in any reporting period, there has been no discharge, the permittee must submit that information by the report due date.

Signed copies of these, and all other reports required herein, shall be submitted to the Secretary at the following address:

Agency of Natural Resources  
Department of Environmental Conservation  
Wastewater Management Division  
103 South Main Street, The Sewing Building  
Waterbury, Vermont 05671-0405

All reports shall be signed:

- a. In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is

responsible for the overall operation of the facility from which the discharge described in the permit form originates;

- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

### **3. Recording of Results**

The permittee shall maintain records of all information resulting from any monitoring activities required including:

- a. The exact place, date, and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques and methods used including sample collection handling and preservation techniques;
- e. The results of all required analyses.
- f. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- g. The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of Section I.(A) of this permit.

The results of monitoring requirements shall be reported (in the units specified) on the Vermont reporting form WR-43 or other forms approved by the Secretary.

### **4. Additional Monitoring**

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form WR-43. Such increased frequency shall also be indicated.

## PART II

### A. MANAGEMENT REQUIREMENTS

#### 1. Facility Modification / Change in Discharge:

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 1274 and 1275 of the Vermont Water Pollution Control Act. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

#### 2. Noncompliance Notification

In the event the permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:

- a. breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including, but not limited to, all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units),
- b. accidents caused by human error or negligence, or
- c. other causes such as acts of nature,

the permittee shall notify the Secretary within 24 hours of becoming aware of such condition or by the next business day and shall provide the Secretary with the following information, in writing, within five (5) days:

- i. cause of non-compliance
- ii. a description of the non-complying discharge including its impact upon the receiving water;
- iii. anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;
- iv. steps taken by the permittee to reduce and eliminate the non-complying discharge; and

- v. steps to be taken by the permittee to prevent recurrence of the condition of non-compliance.

**3. Operation and Maintenance**

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. The permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to insure compliance with the conditions of this permit.

**4. Quality Control**

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

The permittee shall keep records of these activities and shall provide such records upon request of the Secretary.

The permittee shall analyze any additional samples as may be required by the Agency of Natural Resources to ensure analytical quality control.

**5. Bypass**

The diversion or bypass of facilities, necessary to maintain compliance with the terms and conditions of this permit, is prohibited, except where authorized under terms and conditions of an emergency pollution permit issued pursuant to 10 V.S.A. Section 1268.

**6. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State resulting from non-compliance with any condition specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

**7. Records Retention**

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, and shall be submitted to Department representatives upon request. This period shall be extended during the course of

unresolved litigation regarding the discharge of pollutants or when requested by the Secretary.

## **8. Solids Management**

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated and disposed of in accord with 10 V.S.A., Chapter 159 and with the terms and conditions of any certification, interim or final, transitional operation authorization or order issued pursuant to 10 V.S.A., Chapter 159 that is in effect on the effective date of this permit or is issued during the term of this permit.

## **9. Emergency Pollution Permits**

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the permittee immediately applies for, and obtains, an emergency pollution permit under the provisions of 10 V.S.A., Chapter 47, Section 1268. The permittee shall notify the Department of the emergency situation by the next working day.

10 V.S.A., Chapter 47, Section 1268 reads as follows:

"When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The permit may be issued without prior public notice if the nature of the emergency will not provide sufficient time to give notice; provided that the secretary shall give public notice as soon as possible but in any event no later than five days after the effective date of the emergency pollution permit. No emergency pollution permit shall be issued unless the applicant certifies and the secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;
- (3) the granting of an emergency pollution permit will result in some public benefit;
- (4) the discharge will not be unreasonably harmful to the quality of the receiving waters;
- (5) the cause or reason for the emergency is not due to wilful or intended acts or omissions of the applicant."

Application shall be made to the Secretary of the Agency of Natural Resources, Department of Environmental Conservation, 103 South Main Street, Waterbury, Vermont 05671-0405.

**10. Power Failure**

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. Provide an alternative power source sufficient to operate the wastewater control facilities, or if such alternative power source is not in existence,
- b. Halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

**B. RESPONSIBILITIES**

**1. Right of Entry**

The permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials:

- a. to enter upon the permittee's premises in which an effluent source or any records required to be kept under terms and conditions of the permit are located;
- b. to have access to and copy any records required to be kept under the terms and conditions of the permit;
- c. to inspect any monitoring equipment or method required in the permit; or
- d. to sample any discharge of pollutants.

**2. Transfer of Ownership or Control**

This permit is not transferable without prior written approval of the Secretary. All application and operating fees must be paid in full prior to transfer of this permit. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall provide a copy of this permit to the succeeding owner or controller and shall send written notification of the change in ownership or control to the Secretary. The permittee shall also inform the prospective owner or operator of their responsibility to make an application for transfer of this permit.

This request for transfer application must include as a minimum:

- a. A properly completed application form provided by the Secretary and the applicable processing fee.
- b. A written statement from the prospective owner or operator certifying:

- i. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership.
  - ii. The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit.
  - iii. The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.
- c. The date of the sale or transfer.

The Secretary may require additional information dependent upon the current status of the facility operation, maintenance, and permit compliance.

### **3. Confidentiality**

Pursuant to 10 V.S.A. 1259(b):

“Any records, reports or information obtained under this permit program shall be available to the public for inspection and copying. However, upon a showing satisfactory to the secretary that any records, reports or information or part thereof, other than effluent data, would, if made public, divulge methods or processes entitled to protection as trade secrets, the secretary shall treat and protect those records, reports or information as confidential. Any records, reports or information accorded confidential treatment will be disclosed to authorized representatives of the state and the United States when relevant to any proceedings under this chapter.”

### **4. Permit Modification**

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. violation of any terms or conditions of this permit;
- b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

### **5. Toxic Effluent Standards**

That if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Federal Act for a toxic pollutant which is present in the permittee's discharge and

such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the secretary shall revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the permittee.

**6. Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 10 V.S.A. §1281.

**7. Civil and Criminal Liability**

Except as provided in, "Bypass" (Part II, paragraph A.5.), "Power Failure" (Part II, paragraph A.10.), and "Emergency Pollution Permits" (Part II, paragraph A.9.), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Civil penalties, as authorized under 10 V.S.A. §1274 and 10 V.S.A. §8010, shall not exceed \$10,000 a day for each day of violation. Criminal penalties, as authorized under 10 V.S.A. §1275, shall not exceed \$25,000 for each day of violation, imprisonment for up to six months, or both.

**8. State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

**9. Property Rights**

Issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

**10. Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**11. Authority**

This permit is issued under authority of 10 V.S.A. §1259 which states that: "No person shall discharge any waste, substance, or material into waters of the State, nor shall any person discharge any waste, substance, or material into an injection well or discharge into a publicly owned treatment works any waste which interferes with, passes through without treatment, or is otherwise incompatible with those works or would have a substantial adverse effect on those works or on water quality, without first obtaining a

permit for that discharge from the Secretary", and under the authority of Section 402 of the Clean Water Act, as amended.

### PART III

#### A. OTHER REQUIREMENTS

This permit shall be modified, suspended or revoked to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (C), and (D), 304(b) (2), and 307 (a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified under this paragraph shall also contain any other requirements of the Vermont Water Pollution Control Act then applicable.

#### B. DEFINITIONS

For purposes of this permit, the following definitions shall apply:

**The Act** - The Vermont Water Pollution Control Act, 10 V.S.A. Chapter 47

**Annual Average** - The highest allowable average of daily discharges calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar year divided by the number of daily discharges measured during that year.

**Average** - The arithmetic means of values taken at the frequency required for each parameter over the specified period.

**The Clean Water Act** - The federal Clean Water Act, as amended.

**Composite Sample** - A sample consisting of a minimum of one grab sample per hour collected during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportionally to flow over that same time period.

**Daily Discharge** - The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

For pollutants with limitation expressed in pounds the daily discharge is calculated as the total pounds of pollutants discharged over the day.

For pollutants with limitations expressed in mg/l the daily discharge is calculated as the average measurement of the pollutant over the day.

**Grab Sample** - An individual sample collected in a period of less than 15 minutes.

**Incompatible Substance (Pollutant)** - Any waste being discharged into the treatment works which interferes with, passes through without treatment, or is otherwise incompatible with said works or would have a substantial adverse effect on these works or on water quality. This includes all pollutants required to be regulated under the Federal Clean Water Act.

**Instantaneous Maximum** - A value not to be exceeded in any grab sample.

**Major Contributing Industry** - One that: (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its wastes a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Act; or (4) has a significant impact, either singly or in combination with other contributing industries, on a publicly owned treatment works or on the quality of effluent from that treatment works.

**Maximum Day** (maximum daily discharge limitation) - The highest allowable "daily discharge" (mg/l, lbs or gallons).

**Mean** - The mean value is the arithmetic mean.

**Monthly Average** - (Average monthly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar month, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

**NPDES** - The National Pollutant Discharge Elimination System.

**Secretary** - The Secretary of the Agency of Natural Resources

**State Certifying Agency**      Agency of Natural Resources  
   Department of Environmental Conservation  
   Wastewater Management Division  
   103 South Main Street  
   Waterbury, Vermont 05671-0405

**Weekly Average** - (Average weekly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar week, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar week divided by the number of daily discharges measured during that week.

RESPONSE SUMMARY  
DRAFT DISCHARGE PERMIT No. 3-1414  
Proposed NPDES Industrial Discharge Permit  
for the  
Town of North Hero

This permitting action was the proposed renewal of an existing discharge permit which authorizes discharge of 30,000 gallon per day of treated filter backwash water from the North Hero Water Treatment Facility to Lake Champlain.

A draft permit for this discharge was placed on public comment from November 2, 2009 through December 2, 2009.

Public comments were received during the notice period from Mike Rapacz, Lake Champlain Lakekeeper and Staff Scientist, a staff member of the Conservation Law Foundation (CLF), an environmental advocacy group. The following is a summary of the relevant comments received on this draft Discharge Permit, and the Agency's responses to those comments.

**Comment A:** The Permit lacks the basic information that makes it difficult if not impossible to understand the ramifications of this discharge on water quality. Drafting a permit that is not understandable to the public is excluding the public.

**Response A:** The Agency disagrees with this comment. The information on which the Agency based its determination is found in the application and any accompanying documents. That information is available for public review. The Agency acknowledges that to fully understand all the permit requirements and the information in the application knowledge of the applicable legal requirements, water quality issues, and wastewater and water treatment is necessary. However this does not mean the public is not encouraged to comment or inquire about the discharge and its impacts on water quality.

**Comment B:** The staff at CLF has specialized training and experience in the area of filter backwash discharges and is aware that toxic heavy metals, nutrients, pathogen, toxic algae, and other pollutants compounded by the filtration and screening process can be present in these types of discharges. Therefore the effluent limitations in the permit are not appropriate.

**Response B:** The Agency disagrees with this comment. Based on the source water, design and operation of this water treatment facility, the filter backwash process, and the treatment of the filter backwash discharge, there is no reasonable potential for these pollutants to be present in this discharge. This facility intakes raw water from Lake Champlain for treatment as finished drinking water. The drinking water treatment process consists of polymer addition for settling of solids, filtration to remove solids, chlorination for disinfection. The finished water is then distributed to the residents of North Hero. The filter backwash process uses the finished water, which has been chlorinated, as the source water for the backwash process. This wastewater then flows into a detention tank for settling and the overflow is discharged into the lake. Consequently, there is no reasonable potential for these pollutants to be present in this discharge above the naturally occurring concentrations in Lake Champlain. Additionally, since chlorinated finished water is used in the backwash process, the bacteria, pathogens, and algae in the discharge will significantly less than in the raw lake water that is taken into the facility.

**Comment C:** Why is this discharge necessary?

**Response C:** The Safe Drinking Water Act mandates that surface water supplies be filtered prior to distributing the drinking water to the community. To properly operate and maintain a surface water treatment facility, the filters must be backwashed to remove accumulated material from the system to prevent clogging. In turn, the “filter backwash” water generated during the filter cleaning process must be removed from the system

**Comment D:** Why isn't the supernatant not being added back into the wastestream and the discharge eliminated ?

**Response D:** The supernatant is the wastestream and since a finite volume of storage is available in this treatment system to hold the wastewater, a discharge must occur.

**Comment E:** CLF specifically requests that a Fact Sheet be developed for this discharge and all other discharges into any impaired waters. The Fact Sheet should include or address the following:

1. Permit number, Town, date of issuance, date of expiration.
2. A topographic map (USGS) showing the location of the discharge and giving GPS coordinates.
3. An explanation for why the discharge is necessary and why this site was selected for the discharge.
4. Alternatives to the discharge, including different sites and/or different technologies that may alter or negate the need for a discharge.
5. An explanation of the process that prompts the need for a discharge.
6. A description of the components in the discharged water and explanation for how or why they could change.
7. A discussion of the receiving water inclusive of the segments status under the TMDL criteria, recent water quality history, and how the discharge will be affected by the hydrodynamics of the receiving location. For example it might be valuable to know that portions of North Hero suffered from some of the worst algal blooms they've historically experienced last summer. Residents of North Hero might like to know that this discharge will not exacerbate that condition or prolong it.
8. A discussion of how the five-year permit timeframe may influence water quality and what steps can be taken if water quality problems become enhanced mid permit life.
9. A local contact person (plant manager) who can explain particulars about the operation.
10. A contact and number for a state oversight person should citizens observe water quality issues associated with the discharge.
11. Safeguards built into the plant that will handle spills, power outages and storms.

**Response E:** The Agency disagrees with the comment and does not believe a Fact Sheet is required or necessary for this discharge for several legal and practical reasons

Specifically:

Neither the Vermont Water Pollution Control Regulations or the federal NPDES regulations require that a Fact Sheet be developed in this instance. Section 13.3.d.1 of the Vermont Water Pollution Control Regulations require that Fact Sheets be developed for discharges greater than 500,000 gallons per day. In addition the federal NPDES regulations, 40 CRF 124.8, only require Fact Sheets be developed for major NPDES facilities (ie discharges greater than 1,000,000 gpd), general permits, permits where there is wide-spread public interest or which raise major issues. Since this permit renews the authorization for an existing discharge of 30,000 gpd from a facility that has been discharging for over a decade with no public interest, these legal criteria are not met.

From a practical perspective, both the Vermont Water Pollution Control Regulations and the NPDES regulations require that Fact Sheets contain a description of the activity and its discharge, a brief description of the receiving water and its uses, a brief description and/or summary of the effluent limitations and how they were derived, a fuller description of procedures used formulate a final permit, and fuller description of the public participation/comment process. Therefore this comment requests information significantly beyond the information that is required for Fact Sheets by state and federal regulations even if a Fact Sheet was required.

Additionally, much of the information requested is available in the Agency's files for this facility and any interested member of the public may review and copy these records.

Finally, the Agency cannot corroborate the statement in #7, which stated that "portions of North Hero suffered from some of the worst algal blooms they've historically experienced last summer." Agency personnel familiar with Lake Champlain could not find any documentation that indicated severe algal blooms occurred in North Hero last summer.

**Comment F:** CLF requests that the permit specify the volume of the discharge.

**Response F:** The volume of this discharge is specified in the permit, see Condition I.A.1.

**Comment G:** CLF request that the permit specify the chemical components of the discharge.

**Comment G:** The chemical components of the pollutants that have a reasonable potential to be present in this discharge based on the operation of this facility are specified in the permit, see Condition I.A.1.

**Comment H:** CLF request that the permit contain an explanation of how the plant operates, what the process is, and what it accomplishes be included in the permit.

**Response H:** Condition I.A.1 contains a brief description of the activities that result in this discharge.

**Comment I:** CLF request that the permit contain the permitted daily maximum volumes and loads and the permitted annual average loads and volumes.

**Response I:** The permitted daily maximum volumes and loads are specified in the permit, see Condition I.A.1. Due to the type pollutants in this discharge, annual average loads and volumes are not relevant effluent limitations.

**Comment J:** CLF request that the permit contain an explanation of all limitations placed on all chemical loads and discharge volumes.

**Response J:** The Agency does not agree with this comment. There is no legal basis to include this type of information in a discharge permit.

**Comment K:** CLF request that the permit contain a sampling plan with explanations for parameters and sample timing

**Response K:** Sampling and monitoring requirements are specified in the permit, see Conditions I.A.1, Condition I.D.1, Condition I.D.3, Condition I.D.4, Condition II.B.3.b and Condition II.B.4.

**Comment L:** CLF request that the permit contain an explanation for reporting requirements.

**Response L:** Reporting requirements are specified in the permit, see Conditions I.A.1, Condition I.A.2.e, Condition I.A.2.f, Condition I.D.2, Condition I.D.3, Condition I.D.4, Condition II.A.2, Condition II.A.4, and Condition II.A.7.

**Comment M:** CLF request that the permit contain a detailed explanation of the receiving waters upstream and downstream (up-lake and down-lake) of the proposed discharge.

**Response M:** The Agency disagrees with this comment. This permitting action is a renewal of an existing discharge permit for a discharge that has been occurring for over a decade. In addition, there is no legal basis to include this type of information in a discharge permit.

**Comment N:** CLF request that the permit contain a detailed explanation of how the discharge will affect all surface waters to which it is hydraulically connected.

**Response N:** Due to the very small volume and low pollutant concentrations in this discharge, it is not scientifically feasible to model the impacts of this discharge in the "Main Lake" segment

of Lake Champlain, the Richelieu River, the St. Lawrence River, and the Atlantic Ocean. Additionally, there is no legal basis to include this type of information in a discharge permit.

**Comment O:** CLF request that the permit contain an explanation of the spill and emergency response plan.

**Response O:** The Agency believes that this comment references to the language in 10 V.S.A. Sections 1263 and 1278 regarding Operation, Management, and Emergency Response Plans which were promulgated in the 2006 and 2008 legislative sessions. These requirements apply to municipal wastewater treatment facilities that treat sewage and are not applicable to this facility.

However with respect to this facility, spill and emergency response are specifically addressed in this permit, see Conditions I.A.2, Condition II.A.2., Condition II.A.6, Condition II.A.9 and Condition II.A.10.

**Comment P:** CLF request that the permit contain a description of required plant maintenance, time tables, and operational variability resulting.

**Response P:** Plant maintenance requirements and time tables are specified in the permit, see Condition I.A.2.e, Condition I.A.2.f, Condition II.A.3, and Condition II.A.4.

**Comment Q:** CLF request that the permit contain state and local contacts should citizens observe issues associated with the plant.

**Response Q:** Page 4 and Page 13 of the permit contain the state agency, department, and division and address responsible for the oversight of this permit. Regarding local contacts, Page 1 of the permit identifies the permittee and their address.