



Vermont Department of Environmental Conservation

Watershed Management Division
1 National Life Drive, Main 2
Montpelier VT 05620-3522
www.watershedmanagement.vt.gov

Agency of Natural Resources

[phone] 802-828-1535
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March 20, 2015

Mr. Edward Devino
Tri-Town Water District #1
P.O. Box 85
Bridport, VT 05734

Re: Amended Discharge Permit #3-1250

Dear Mr. Devino:

Enclosed is your copy of the amended Discharge Permit No. 3-1250 which has been signed on behalf of the Commissioner of the Department of Environmental Conservation. This permit authorizes the discharge of treated filter backwash from the Tri-Town Water Plant in Addison, VT to the Oven Bay of Lake Champlain.

Please review the permit carefully and make note of the effluent limitations, monitoring requirements and other special considerations. Per your application, this amended permit increases the monthly average flow limitation from 120,000 gallons per day to 160,000 gallons per day.

Since we did not receive any comments on the draft permit during the public notice period, the final permit is unchanged from the draft permit that was placed on public notice for comment.

If you have questions regarding this permit, please contact Julia Butzler at (802) 490-6182.

Sincerely,

Ernest F. Kelley, Manager
Wastewater Management Program

Enclosures (2)

cc:

Liz Dickson, Wastewater Management Program VT DEC

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2ND FLOOR
MONTPELIER, VT 05620-3522

Permit No.: 3-1250
PIN: RU95-0232
NPDES No.: VT0000680

AMENDED¹ DISCHARGE PERMIT

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

Tri-Town Water District #1
P.O. Box 85
Bridport, VT 05734

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

822 Tri-Town Road
Addison, Vermont

to Oven Bay, Lake Champlain, Class B at the point of discharge in accordance with the following conditions.

This permit shall become effective on the date of signing.

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

State of Vermont
Agency of Natural Resources

David K. Mears, Commissioner
Department of Environmental Conservation

BY:



Digitally signed by Pete LaFlamme
DN: cn=Pete LaFlamme
Date: 2015.03.18 16:25:10 -04'00'

Peter LaFlamme, Director
Watershed Management Division

¹ *Amended sections of the permit are in bold and italics*

I.

A. EFFLUENT LIMITS and MONITORING REQUIREMENTS

1. From the date of signing through December 31, 2015, the Permittee is authorized to discharge from outfall serial number S/N 001: filter backwash water and settling pond overflow water after treatment to Oven Bay of Lake Champlain. Such discharges shall be limited and monitored by the Permittee as specified below:

From October 1 through May 31:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Maximum Day	Measurement Frequency	Sample Type
Flow	160,000 GPD		Daily	Total flow
Turbidity		10 NTU ¹ annual average	1 × month	Grab
Total Suspended Solids		10 mg/L	1 × month	Grab
Total Residual Chlorine		1.0 mg/L	1 × month	Grab
pH	6.5 – 8.5 Standard Units		1 × month	Grab

Samples collected in compliance with the monitoring requirements specified above shall be collected at locations which are representative of the effluents discharged. This location has been designated as the outlet of the settling pond prior to discharge to Oven Bay of Lake Champlain.

¹ If a turbidity sample exceeds 10 NTU, then the Permittee shall immediately collect and analyze another sample of the discharge for turbidity.

From June 1 through September 30:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Maximum Day	Measurement Frequency	Sample Type

Flow	160,000 GPD		Daily	Total flow
Turbidity		25 NTU ¹ annual average	1 × month	Grab
Total Suspended Solids		10 mg/L	1 × month	Grab
Total Residual Chlorine		1.0 mg/L	1 × month	Grab
pH	6.5 – 8.5 Standard Units		1 × month	Grab

Samples collected in compliance with the monitoring requirements specified above shall be collected at locations which are representative of the effluents discharged. This location has been designated as the outlet of the settling pond prior to discharge to Oven Bay of Lake Champlain.

¹ If a turbidity sample exceeds 25 NTU, then the Permittee shall immediately collect and analyze another sample of the discharge for turbidity.

2. Special Conditions

- a. Upon removal from a settling pond, the sludge shall be managed in compliance with Section II.A.8 Solids Management. Notations regarding sludge removal activities shall be included on the Discharge Monitoring Report (DMR) form WR-43 of that month.
- b. This discharge shall not cause a violation of the water quality standards of the receiving water.
- c. Floor drains shall be used for disposing of small amounts of normal floor washing solutions only. Accidental chemical spills shall be segregated and disposed of properly.
- d. The use of corrosion control products that contain priority pollutants or phosphorus is prohibited without prior written approval from the Department.

B. REAPPLICATION

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

Reapply for a Discharge Permit by: June 30, 2015

C. OPERATING FEES

This discharge is subject to operating fees as required by 3 V.S.A. § 2822.

D. MONITORING AND REPORTING

1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures published in 40 C.F.R. Part 136.

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 monthly reports of monitoring results on DMR 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
Watershed Management Division
One National Life Drive, Main Building, 2nd Floor
Montpelier VT 05620-3522

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 and the authorization is made in writing and submitted to the Agency;
- 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 or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The dates and times the analyses were performed;
- d. The individual(s) who performed the analysis;
- e. The analytical techniques and methods used including sample collection handling and preservation techniques;
- f. The results of such analyses.
- g. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- h. 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 DMR WR-43 or other forms approved by the Agency.

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 DMR WR-43. Such increased frequency shall also be indicated.

II. GENERAL CONDITIONS

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 pursuant to 10 V.S.A. chapters 47, 201, and/or 211. Any anticipated facility alterations or expansions or process modifications which will result in new, different, or increased discharges of any 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 Agency of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

The Permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

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 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,
- c. any unanticipated bypass or upset which exceeds any effluent limitation in the permit,
- d. Violation of a maximum day discharge limitation for any of the pollutants listed by the Agency in this permit, or

- e. other causes such as acts of nature,

the Permittee shall notify the Agency within 24 hours of becoming aware of such condition and shall provide the Agency with the following information, in writing, within five 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 and control facilities and systems (and related appurtenances) installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the 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; and
- c. The operation and maintenance of this facility shall be performed only by qualified personnel.

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 Agency.

The Permittee shall analyze any additional samples as may be required by the Agency to ensure analytical quality control.

5. Bypass

The bypass of facilities (including pump stations) is prohibited, except where authorized under the terms and conditions of an Emergency Pollution Permit issued pursuant to 10 V.S.A. § 1268. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the activity in order to maintain compliance with the conditions of this permit.

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, all calibration and maintenance of instrumentation records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a minimum of three years, and shall be submitted to the Agency upon request. This period shall be extended during the course of unresolved litigation regarding the discharge of pollutants or when requested by the Agency.

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 accordance 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. § 1268. The Permittee shall notify the Agency of the emergency situation by the next working day.

10 V.S.A. § 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 at the following address: Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Main Building, 2nd Floor, Montpelier VT 05620-3522.

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 Agency or authorized representative, upon the presentation of proper credentials:

- a. to enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. to have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
- c. to inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. to sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the federal Clean Water Act, any substances or parameters at any location.

2. Transfer of Ownership or Control

This permit is not transferable without prior written approval of the Agency. 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 Agency **at least 30 days in advance of the proposed transfer date**. The notice to the Agency shall include a written agreement between the existing and new Permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them. 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 Agency 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 Agency 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.

Claims for confidentiality for the following information will be denied:

- a. The name and address of any permit applicant or Permittee.
- b. Permit applications, permits, and effluent data.
- c. Information required by NPDES application forms, including information submitted on the forms themselves and any attachments used to supply information required by the forms.

4. Permit Modification, Suspension, and Revocation

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 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.

The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance shall not stay any permit condition.

The Permittee shall provide to the Agency, within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit

5. Toxic Effluent Standards

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 Clean Water 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 this permit, then this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

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" (Section II.A.5), "Emergency Pollution Permits" (Section II.A.9), and "Power Failure" (Section II.A.10), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance. Civil and criminal penalties for non-compliance are provided for in 10 V.S.A. Chapters 47, 201 and 211.

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 federal 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. Other Information

If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Agency, it shall promptly submit such facts or information.

11. 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.

12. Authority

This permit is issued under authority of 10 V.S.A. §§1258 and 1259 of the Vermont Water Pollution Control Act, the Vermont Water Pollution Control Permit Regulation, and Section 402 of the federal Clean Water Act, as amended.

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 federal 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.

Agency – The Agency of Natural Resources

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.

Bypass – the intentional diversion of waste streams from any portion of the treatment facility

The Clean Water Act – The federal Clean Water Act, as amended (33 U.S.C. § 1251, *et seq.*).

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 limitations 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.

Discharge – Any wastes, directly or indirectly, that are placed, deposited or emitted into waters of the state.

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

Incompatible Substance – 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 federal Clean Water 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
Watershed Management Division
One National Life Drive, Main Building, 2nd Floor
Montpelier VT 05620-3522

Waste -- effluent, sewage or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to waters.

Waste Management Zone – a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings. Throughout the receiving waters, water quality criteria must be achieved but increased health risks exist due to the authorized discharge.

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.

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2ND FLOOR
MONTPELIER, VT 05620-3522

FACT SHEET
(FEBRUARY 2015)

**AMENDED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES**

PERMIT NO: 3-1250
PIN: RU96-0232
NPDES NO: VT0000680

NAME AND ADDRESS OF APPLICANT:

Tri-Town Water District #1
P.O. Box 85
Bridport, VT 05734

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Tri-Town Water Plant
822 Tri-Town Road
Addison, Vermont

RECEIVING WATER: Oven Bay of Lake Champlain

CLASSIFICATION: Class B. Class B waters are suitable for swimming and other forms of water-based recreation, and irrigation of crops and other agricultural uses without treatment; good aesthetic value; aquatic biota and wildlife sustained by high quality aquatic habitat; suitable for boating, fishing, and other recreational uses; acceptable for public water supply with filtration and disinfection.

I. Proposed Action, Type of Facility, and Discharge Location

The Vermont Agency of Natural Resources (Agency) received an application from the above-named applicant on December 24, 2014 to amend their existing permit which authorizes the discharge of wastewater into the designated receiving water. The facility is engaged in the treatment of drinking water; the wastewater generated from this process is discharged after treatment from the settling pond (outfall S/N 001) to Oven Bay of Lake Champlain. At this time the Agency has made a tentative decision to reissue the discharge permit.

The applicant has requested an increase in the average monthly flow limitation from 120,000 GPD to 160,000 GPD. No other changes to the existing permit are requested.

II. Description of Discharge

This permit authorizes the discharge of treated filter backwash. A quantitative description of the discharge in terms of significant effluent parameters is based on state and federal laws and regulations, the discharge permit application, and the recent self-monitoring data.

III. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements, and any implementation schedule (if required), may be found on the following pages of the permit:

Effluent Limitations: Page 2 and 3 of 17

Monitoring Requirements: Pages 2 and 3 of 17

IV. Permit Basis and Explanation of Effluent Limitation Derivation

History and Summary:

The Tri-Town Water District #1 produces potable water for the towns of Addison, Bridport and Shoreham, and generates filter backwash wastewater as part of the treatment process. This occurs at the water treatment plant at 822 Tri-Town Road in Addison, Vermont.

The wastewater is conveyed to one of two settling ponds prior to discharge. The treated wastewater is then discharged from the settling pond to Oven Bay of Lake Champlain. A single settling pond is in use at any given time; after two or three years, the flow is diverted to the second settling pond, while the first pond is drained to remove the accumulated sludge.

In 2014, the Tri-Town Water District #1 modified the chemical treatment regime to reduce the Disinfection Byproducts as necessitated by the drinking water standards. A result of the chemical change is an increase in filter backwashing frequency.

Flow – The draft permit increases the flow limitation from 120,000 GPD to 160,000 GPD, monthly average, to accommodate the additional volume resulting from the increased filter backwashing rate. Flow monitoring shall remain daily.

Turbidity – The draft permit contains seasonal turbidity limitations based on Section 3-04.B and Appendix A (Fish Habitat Designation) of the Vermont Water Quality Standards effective October 30, 2014.

For the period of October 1 through May 31, the turbidity limitation is 10 NTU. For the period June 1 through September 30, the turbidity limitation is 25 NTU. These limitations are unchanged from the current permit. Turbidity sampling is required once per month.

Total Suspended Solids (TSS) – The effluent limitation of 10 mg/L, maximum day, for TSS remains unchanged from the current permit. Monitoring is required once per month.

Total Residual Chlorine – The Total Residual Chlorine limit of 1.0 mg/L remains unchanged from the current permit. Monitoring is required once per month.

pH – The pH limitation remains 6.5-8.5 Standard Units as specified in Section 3-01.B.9 in the Vermont Water Quality Standards. Monitoring is required once per month.

Solids Management – Sludge removal activities shall be noted on the DMR WR-43 of the appropriate month.

Antidegradation Discussion – See attachment.

V. Procedures for Formulation of Final Determinations

*The public comment period for receiving comments on this draft permit was from **February 16 through March 18, 2015**. The Agency received no comments concerning the draft permit.*

ATTACHMENT A

Tri-Town Water District #1
Water Treatment Facility
822 Tri-Town Road
Addison, VT

Antidegradation Discussion

Section 1-03.B.1 of the Vermont Water Quality Standards (2014) requires that the existing uses of the receiving waters be protected and maintained (also Section VII.F of the Interim Antidegradation Procedure); the Secretary must consider the following factors in making a determination:

- a. Aquatic biota and wildlife that utilize or are present in the waters;
- b. Habitat that supports existing aquatic biota, wildlife and plant life;
- c. The use of the waters for recreation or fishing;
- d. The use of the water for water supply, or commercial activity that directly depends on the preservation of an existing high level of water quality; and
- e. with regards to the factors considered under (a) and (b) above, the evidence of the use's ecological significance in the functioning of the ecosystems or evidence of the use's rarity.

These factors have been considered in conjunction with this discharge and it has been determined that the existing uses of the receiving water will be maintained.

Section 1-03.C.2 of the Vermont Water Quality Standards requires that higher quality water be protected and the risk minimized to existing and designated uses. In addition, a limited reduction in the existing higher quality of the waters may only be allowed if:

- a. the adverse economic and social impacts on the people of the state from maintaining the higher quality waters would be substantial and widespread;
- b. these adverse impacts would exceed the environmental, economic, social, and other benefits of maintaining the higher water quality; and
- c. there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources, and all cost effective and reasonable accepted agricultural practices and best management practices, as appropriate for nonpoint source control, consistent with state law.

The Tri-Town Water District #1 provides potable water to the towns of Addison, Shoreham and Bridport, servicing approximately 1,500 customers. The water treatment plant recently changed the chemical regime to reduce the Disinfection Byproducts; this change was necessary to meet drinking water standards. The frequency of which the plant must backwash the filters has increased due to this chemical change, resulting in a higher volume of backwash wastewater. Therefore, it is necessary to increase the flow limit or the facility will not be able to backwash the filters as needed to produce the potable water for the customers, resulting in widespread impacts across these three towns. Therefore the requirements of a. and b. above have been met. With respect to c. above, except for the volume of the discharge (flow), the pollutant limitations in this discharge will not change from the concentrations in the currently permitted discharge and should not result in a measurable change in the quality of the receiving water.

Section 1-04.A of the Vermont Water Quality Standards states that new discharges of wastes may be allowed only when all the following criteria are met:

1. The proposed discharge is in conformance with all applicable provisions of these rules including classification of the receiving waters adopted by the Board as set forth in Chapter 4 of these rules.
2. There is neither an alternative method of waste disposal, nor an alternative location for waste disposal, that would have a lesser impact on water quality including the quality of groundwater, or if there is such an alternative method or location, it would clearly be unreasonable to require its use.
3. The design and operation of any waste treatment or disposal facility is adequate and sufficiently reliable to ensure the full support of uses and to ensure compliance with these rules and with all applicable state and federal treatment requirements and effluent limitations.
4. Except as provided for in 10 V.S.A. 1259 (d) and (f), the discharge of wastes other than nonpolluting wastes and stormwater is prohibited in Class A waters regardless of the degree of treatment provided.
5. Except as provided for in 10 V.S.A. 1259, the discharge of wastes that, prior to treatment, contained organisms pathogenic to human beings is prohibited.
6. The receiving waters will have sufficient assimilative capacity to accommodate the proposed discharge.
7. Assimilative capacity has been allocated to the proposed discharge consistent with the classification set forth in Chapter 4 of these rules.
8. The discharge of wastes to the thermocline or hypolimnion of any lake in manner that may prevent full support of uses is prohibited.

9. The discharge of sewage into Class B waters shall not pose more than a negligible risk public health. Compliance with this criterion shall include an assessment of both the level and reliability of treatment achieved and the impact of the discharge on the water quality of the receiving waters.

The Agency finds that these criteria have been met. Specifically,

1. The discharge conforms with the classification of the receiving water.
2. Due to the volume of water, geologic formations, and site limitations, infiltration or spray irrigation is not a feasible alternative for disposal of this wastewater. Therefore, the only alternative is to discharge the wastewater to waters of the State.
3. Based on the current design of the facility, the pollutants will not result in any measurable change in the receiving water and will ensure full support of all uses.
4. The discharge is not to a Class A water.
5. The discharge, prior to treatment, does not contain organisms pathogenic to humans.
6. Adequate assimilative capacity exists to accommodate this discharge.
7. See 6 above.
8. While the receiving water is Lake Champlain, the discharge enters the lake via a pipe approximately 40 feet into the shallow waters of Oven Bay, not to the thermocline or hypolimnion portion of the lake.
9. The discharge does not contain sewage