

Wastewater Management Division  
103 South Main Street - Sewing Bldg.  
Waterbury, Vermont 05671-0405

Telephone: (802) 241-3822  
Fax: (802) 241-2596  
[www.anr.state.vt.us/dec/ww/wwmd.cfm](http://www.anr.state.vt.us/dec/ww/wwmd.cfm)

February 8, 2008

Craig Myotte  
Village of Morrisville  
PO Box 460  
Morrisville, VT 05661

**Re: Final Discharge Permit #3-1155**

Dear Mr Myotte:

Enclosed is your copy of the above referenced permit, which has been signed by the Director of the Wastewater Management Division for the Commissioner of the Department of Environmental Conservation. Please read the permit carefully and familiarize yourself with all its terms and conditions. Your attention is particularly directed to those conditions which may require written responses by certain dates.

In addition, because public comments were received during the public notice period, a response summary addressing those comments is enclosed. If you have any questions concerning your permit, please contact Carol Carpenter at 241-3828.

Sincerely,



Brian D. Kooiker, Chief  
Discharge Permits Section

Enclosure

cc: Joseph Duncan, Forcier Aldrich & Associates



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

**Permit No. 3-1155  
File No. 08-07  
PIN. BR98-0031  
NPDES No. VT0100480**

Name of Applicant: Village of Morrisville  
PO Box 460  
Morrisville, VT 05661

**AMENDED DISCHARGE PERMIT**

In compliance with the provisions of the Vermont Water Pollution Control Act as amended (hereinafter referred to as the "Act") and the Federal Clean Water Act, as amended (33 U.S.C. §1251 et seq), the Village of Morrisville, Vermont (hereinafter referred to as the "permittee") is authorized by the Secretary, Agency of Natural Resources, Waterbury, Vermont, to discharge from the Morrisville Wastewater Treatment Facility to the Lamoille River in accordance with the following general and special conditions.

**This permit shall become effective on the date of signing, and shall expire on September 30, 2008.**

Laura Q Pelosi, Commissioner  
Department of Environmental Conservation

By: Christine Thompson  
Christine Thompson, Director  
Wastewater Management Division

Date February 7, 2008

## I. SPECIAL CONDITIONS

### A. EFFLUENT LIMITS

1. **Until the upgrade is complete**, the permittee is authorized to discharge from S/N 001 - outfall, the Morrisville Wastewater Treatment Facility, to the Lamoille River, an effluent whose characteristics shall not exceed the values listed below:

DISCHARGE LIMITATIONS								
Effluent Characteristic	Annual Limit	Monthly Average	Weekly Average	Maximum Day	Monthly Average	Weekly Average	Maximum Day	Instantaneous Maximum
		..... (lbs / day) .....			..... (Concentration) .....			
Flow (Annual Avg)	0.425 MGD							
Biochemical Oxygen Demand, 5-day, 20° C		106	160		30 mg/l	45 mg/l	50 mg/l	
Total Suspended Solids		106	160		30 mg/l	45 mg/l	50 mg/l	
Total Phosphorus (Total Annual Pounds)	776 lbs (1)				0.8 mg/l			
Settleable Solids								1.0 ml/l
Total Residual Chlorine (2)						0.85 mg/l		1.5 mg/l
<i>Escherichia coli</i> Bacteria								77/100 ml
pH				Between 6.5 and 8.5 Standard Units				

- (1) **Total Annual Pounds of Phosphorus** discharged shall be defined as the sum of all **Total Monthly Pounds of Phosphorus** discharged for the calendar year. **Total Monthly Pounds of Phosphorus** discharged shall be calculated as follows:  
 (Monthly Average Phosphorus Concentration) x (Total Monthly Flow) x 8.34. (See Total Phosphorus monitoring report form WR-43-PO4.)
- (2) Total Residual Chlorine shall be monitored until the installation/operation of the UV disinfection system is complete.

2. **Following completion of the upgrade** the permittee is authorized to discharge from S/N 001 - outfall, the Morrisville Wastewater Treatment Facility, to the Lamoille River, an effluent whose characteristics shall not exceed the values listed below:

DISCHARGE LIMITATIONS								
Effluent Characteristic	Annual Limit	Monthly Average	Weekly Average	Maximum Day	Monthly Average	Weekly Average	Maximum Day	Instantaneous Maximum
		.....	(lbs / day)	.....	.....	(Concentration)	.....	
Flow (Annual Avg)	0.550 MGD							
Biochemical Oxygen Demand, 5-day, 20° C		106	160		30 mg/l	45 mg/l	50 mg/l	
Total Suspended Solids		106	160		30 mg/l	45 mg/l	50 mg/l	
Total Phosphorus (Total Annual Pounds)	776 lbs (1)				0.8 mg/l			
Settleable Solids								1.0 ml/l
<i>Escherichia coli</i> Bacteria								77/100 ml
pH				Between 6.5 and 8.5 Standard Units				

- (1) **Total Annual Pounds of Phosphorus** discharged shall be defined as the sum of all **Total Monthly Pounds of Phosphorus** discharged for the calendar year. **Total Monthly Pounds of Phosphorus** discharged shall be calculated as follows:

(Monthly Average Phosphorus Concentration) x (Total Monthly Flow) x 8.34. (See Total Phosphorus monitoring report form WR-43-PO4.)

3. At least 60 days prior to commencement of any construction on the proposed upgrade and expansion project, the permittee shall submit to the Wastewater Management Division for review and written approval, detailed operating procedures which will assure proper operation of the wastewater treatment facility and full compliance with all the effluent limitations established by this permit during construction of the upgrade and expansion of the wastewater treatment facility. A Vermont registered professional engineer shall be engaged to develop these procedures in conjunction with the Chief Operator of the wastewater treatment facility. The procedures shall address, in detail, the proposed construction sequence for the upgrade project and shall provide detailed information to substantiate that the effluent limits will be met during all stages of construction, and during periods of equipment start-up and switch-over. Schematics and any supporting design calculations shall be provided for any temporary modifications that will need to be made to a particular component or treatment unit.
4. At least 60 days prior to the commencement of construction on the proposed project, the permittee shall submit to the Wastewater Management Division for review and approval, design details for influent and effluent sampling locations at the upgraded facility. A Vermont registered professional engineer shall be engaged to establish the sampling locations in conjunction with the Chief Operator of the wastewater treatment facility and in accordance with the written guidance developed by the Wastewater Management Division.
5. The upgrade and expansion of the Morrisville Wastewater Treatment Facility shall be considered complete when the permittee notifies the Department, by means of an engineer's certification, that the new facility is operational and the Department issues a written acknowledgment of its operational status.
6. Following installation/operation of the UV disinfection system, the permittee shall clean the quartz sleeves of the ultraviolet light disinfection system at a frequency that assures that effective disinfection is maintained and shall replace the ultraviolet light disinfection system lamps **as necessary to maintain compliance with the *E. coli* bacteria effluent limitation**. The dates and a description of the UV light disinfection system maintenance activities shall be included on the monthly discharge monitoring report form.
7. The effluent shall not have concentrations or combinations of contaminants including oil, grease, scum, foam, or floating solids which would cause a violation of the water quality standards of the receiving waters.
8. The discharge shall not cause visible discoloration of the receiving waters.
9. The monthly average concentrations of BOD<sub>5</sub> and total suspended solids in the discharge shall not exceed 15 percent of the monthly average concentrations of BOD<sub>5</sub> and total suspended solids in the influent to the permittee's wastewater treatment facility. For the purposes of determining whether the permittee is in compliance with this condition, samples from the discharge and the influent shall be taken with appropriate allowance for detention times. See Part I, Special Conditions, Paragraph G, Monitoring and Reporting 2.

10. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the permittee shall submit to the permitting authority projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
11. Any action on the part of the Agency of Natural Resources in reviewing, commenting upon or approving plans and specifications for the construction of wastewater treatment facilities shall not relieve the permittee from the responsibility to achieve effluent limitations set forth in this permit and shall not constitute a waiver of, or act of estoppel against any remedy available to the Agency, the State of Vermont or the federal government for failure to meet any requirement set forth in this permit or imposed by state or federal law.

## **B. WASTE MANAGEMENT ZONE**

In accordance with 10 V.S.A. Section 1252, this permit hereby establishes a waste management zone that extends from the outfall of the Morrisville Wastewater Treatment Facility in the Lamoille downstream 0.7 miles.

## **C. WHOLE EFFLUENT TOXICITY TESTING**

The permittee shall complete the following Whole Effluent Toxicity testing:

One two-species (Pimephales promelas and Ceriodaphnia dubia) acute Whole Effluent Toxicity (WET) test, conducted on a 24-hour composite effluent sample taken during the month of **August or September 2005**.

The results of the WET testing shall be submitted to the Department by **December 31, 2005**.

Based upon the results of this test or any other tests conducted on this discharge, this permit may be amended to include effluent limitations, or to require additional testing, or to require a Toxicity Reduction Evaluation.

Whole Effluent Toxicity tests shall be conducted in accordance with the methods recommended by EPA: Peltier, W. And Weber, C.I., Methods for Measuring Acute Toxicity of Effluents to Freshwater and Marine Organisms (the most recent edition).

## **D. OPERATION, MANAGEMENT, AND EMERGENCY RESPONSE PLAN**

1. The permittee shall prepare and submit to the Agency for review and approval an Operation, Management and Emergency Response Plan according to the following schedule:
  - a. **By April 1, 2008**, for the sewage pump/ejector stations and stream crossings.
  - b. **By June 30, 2008, unless construction on the upgrade/expansion has begun and documentation by the permittee of such is submitted to and approved by the Secretary**, for the components of the existing wastewater treatment facility.

2. Each element of the Plan shall include the following, as applicable to either the wastewater treatment facility, the sewage pump/ejector stations and stream crossings:
  - a. the identification of the components that are determined to be prone to failure based on installation, age, design or other relevant factors and which, if one or more failed, would result in a significant release of untreated or partially treated sewage to waters of the State.
  - b. an inspection schedule for the components identified in subsection D.2.a. above.
  - c. an emergency contingency plan to reduce the volume of a detected sewage release and to mitigate the effect of such a release on public health and the environment.

Upon the Secretary's approval of each individual inspection schedule as specified in D.2.b. above, the permittee shall implement the Operation, Management, and Emergency Response Plan.

#### E. 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: March 31, 2008.

#### F. OPERATING FEES

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

#### G. MONITORING AND REPORTING

##### 1. Representative Sampling

The permittee shall monitor and record the quality and quantity of discharge(s) S/N 001 - outfall, the Morrisville Wastewater Treatment Facility, according to the following schedule and other provisions: until September 30, 2008.

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	Continuous	Daily Total, Max., Min.
BOD <sub>5</sub>	1 x monthly	8-hour composite <sup>(1)</sup>
TSS	1 x monthly	8-hour composite <sup>(1)</sup>
Total Phosphorus	1 x monthly	8-hour composite <sup>(1)</sup>
Settleable Solids	1 x daily	grab <sup>(2,5)</sup>

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
<i>Escherichia coli</i> Bacteria	1 x monthly <sup>(3)</sup>	grab <sup>(4,5)</sup>
Total Residual Chlorine	1 x daily	grab <sup>(4)</sup>
pH	1 x daily	grab <sup>(5)</sup>

- (1) Composite samples for BOD<sub>5</sub>, TSS, and Total Phosphorus shall be taken during the hours 6:00 a.m. to 6:00 p.m., unless otherwise specified. Eight hours is the minimum period for the composite.
- (2) Settleable Solids samples shall be collected between 10:00 a.m. and 2:00 p.m. or during the period of peak flow.
- (3) Following installation of the UV disinfection system, twice monthly *E coli* monitoring is required.
- (4) On the day that the *Escherichia coli* grab sample is collected, the daily total residual chlorine grab sample for that day shall be collected at the same time and location as the *E. coli* sample. *Following installation/operation of the UV disinfection system, TRC monitoring is no longer required.*
- (5) *Following the upgrade, grab samples shall be collected in an alternating manner to be representative of each SBR cell discharge. (For example, on Monday the sample shall be collected as cell #1 discharges, on Tuesday the sample shall be collected as cell #2 discharges, etc.)*

**2. Influent Sampling**

The permittee shall monitor the quality of the **influent** according to the following schedule and other provisions.

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Influent BOD <sub>5</sub>	1 x monthly	8 - hour composite, minimum
Influent TSS	1 x monthly	8 - hour composite, minimum

**3. Sampling Requirements**

- a. Samples and measurements as required herein shall be representative of the volume and nature of the monitored discharge.
- b. All grab or composite samples required to be taken less frequently than daily shall be taken between the hours of 6:00 am and 6:00 pm during the period of Monday through Friday, inclusive, unless otherwise specified.

#### 4. Reporting

The permittee is required to submit monthly reports of monitoring results on 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  
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.

In addition to the monitoring and reporting requirements given above, daily monitoring of certain parameters for operational control are required by the Agency. Operations reports (reporting form WR-43) shall be submitted monthly.

#### H. DRY WEATHER FLOWS

Dry weather flows of untreated municipal wastewater from any sanitary or combined sewers are not authorized by this permit and are specifically prohibited by State and Federal laws and regulations.

#### I. BYPASS

The diversion or bypass of facilities (including pump stations) necessary to maintain compliance with the terms and conditions of this permit is prohibited, except where

authorized under the terms and conditions of an Emergency Pollution Permit issued pursuant to 10 V.S.A. Section 1268.

#### **J. EMERGENCY ACTION - ELECTRIC POWER FAILURE**

The permittee shall indicate in writing to the Secretary that the discharge shall be handled in such a manner that, in the event the primary source of electric power to the waste treatment facilities (including pump stations) fails, any discharge into the receiving waters will attempt to comply with the conditions of this permit, but in no case shall the wastes receive less than primary treatment (or its equivalent) plus disinfection.

The permittee shall either provide an alternative source of power for the operation of its treatment facilities, or demonstrate that the treatment facility has the capacity to store the wastewater volume that would be generated over the duration of the longest power failure that would have affected the facility in the last five years, excluding catastrophic events.

The alternative power supply, whether from a generating unit located at the plant site or purchased from an independent source of electricity, must be separate from the existing power source used to operate the waste treatment facilities. If a separate unit located at the plant site is to be used, the permittee shall certify in writing to the Secretary when the unit is completed and prepared to generate power.

The determination of treatment system storage capacity shall be submitted to the Wastewater Management Division upon completion.

#### **K. 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 willful 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.

#### **L. SEWER ORDINANCE**

The permittee shall have in effect a sewer use ordinance acceptable to the Secretary which, at a minimum, shall

1. Prohibit the introduction by any discharger into the permittee's sewerage system or treatment facilities of any pollutant which:
  - a. is a toxic pollutant in toxic amounts as defined in standards issued from time to time under Section 307(a) of the Clean Water Act;
  - b. creates a fire or explosion hazard in the permittee's treatment works;
  - c. causes corrosive structural damage to the permittee's treatment works, including all wastes with a pH lower than 5.0;
  - d. contains solid or viscous substances in amounts which would cause obstruction to the flow in sewers or other interference with proper operation of the permittee's treatment works; or
  - e. in the case of a major contributing industry, as defined herein, contains an incompatible pollutant, as further defined herein, in an amount or concentration in excess of that allowed under standards or guidelines issued from time to time pursuant to Sections 304, 306, and/or 307 of the Clean Water Act.
2. Require 45 days prior notification to the permittee by any person or persons of a:
  - a. proposed substantial change in volume or character of pollutants over that being discharged into the permittee's treatment works at the time of issuance of this permit;
  - b. proposed new discharge into the permittee's treatment works of pollutants from any source which would be a new source as defined in Section 306 of the Clean

Water Act if such source were discharging pollutants; or

- c. proposed new discharge into the permittee's treatment works of pollutants from any source which would be subject to Section 301 of the Clean Water Act if it were discharging such pollutants.
3. Require any industry discharging into the permittee's treatment works to perform such monitoring of its discharge as the permittee may reasonably require, including the installation, use, and maintenance of monitoring equipment methods, to keep records of the results of such monitoring, and to report the results of such monitoring to the permittee. Such records shall be made available by the permittee to the Secretary upon request.
4. Authorize the permittee's authorized representatives to enter into, upon, or through the premises of any industry discharging into the permittee's treatment works to have access to and copy any records, to inspect any monitoring equipment or method required under subsection 3 above, and to sample any discharge into the permittee's treatment works.

The permittee shall notify the Secretary of any discharge specified in subsection 2 above within 30 days of the date on which the permittee is notified of such discharge. This permit may be modified accordingly.

## **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 as provided for in Section 1274 and 1275 of the Vermont Water Pollution Control Act. Any anticipated facility expansions 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.

In addition, the permittee shall provide notice to the Secretary of the following:

- a. any new introduction of pollutants into the treatment works from a source which would be a new source as defined in Section 306 of the Clean Water Act if such source were discharging pollutants;
- b. except for such categories and classes of point sources or discharges specified by

the Secretary, any new introduction of pollutants into the treatment works from a source which would be subject to Section 301 of the Clean Water Act if such source were discharging pollutants; and

- c. any substantial change in volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into such works at the time of issuance of the permit.

The notice shall include:

- i. the quality and quantity of the discharge to be introduced into the system, and
- ii. the anticipated impact of such change in the quality or quantity of the effluent to be discharged from the permitted facility.

## 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; and
- c. The operation and maintenance of this facility shall be performed only by qualified personnel. The personnel shall be certified as required under the Vermont Water Pollution Abatement Facility Operator Certification Regulations.

### 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 demonstrate the accuracy of the flow measurement device **weekly** and report the results on the monthly report forms. The acceptable limit of error is  $\pm 10\%$ .

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

### 5. 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, 18th 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.

## 6. 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.

## 7. 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.

## 8. 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.

## 9. 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.

## **10. 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.

## **B. RESPONSIBILITIES**

### **1. Right of Entry**

The permittee shall permit 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 application must include as a minimum; a written statement from the prospective owner or operator certifying:

- a. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership.
- b. 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.

- c. 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.
- d. The date of the sale or transfer.

The Department 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**

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 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. Other Materials

Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- a. They are not:
  - i. designated as toxic or hazardous under provisions of Sections 307 and 311, respectively, of the Clean Water Act, or
  - ii. known to be hazardous or toxic by the permittee,

except that such materials indicated in (a) and (b) above may be discharged in certain limited amounts with the written approval of, and under special conditions established by, the Secretary or his designated representative, if the substances will not pose any imminent hazard to the public health or safety;

- b. The discharge of such materials will not violate applicable water quality standards; and
- c. The permittee is not notified by the Secretary to eliminate or reduce the quantity of such materials entering the watercourse.

## 8. Navigable Waters

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

## 9. Civil and Criminal Liability

Except as provided in, "Bypass" (Part I, paragraph I.), "Emergency Action - Electric Power Failures" (Part I, paragraph J.), and "Emergency Pollution Permits" (Part I, paragraph K.), 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.

## 10. 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.

## 11. 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.

## 12. 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.

## 13. 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.

## 14. 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 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.

**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 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  
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.

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

FACT SHEET  
(January 2008)

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

NPDES NO: VT0100480  
FILE NO: 08-07  
PERMIT NO: 3-1155  
PROJECT ID NO: BR98-0031

NAME AND ADDRESS OF APPLICANT:

Village of Morrisville  
PO Box 460  
Morrisville, VT 05661

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Morrisville Wastewater Treatment Facility  
Sewer Plant Road  
Morrisville, Vermont

RECEIVING WATER: Lamoille River

CLASSIFICATION: Class B with a waste management zone. Class B waters are suitable for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable for public water supply with filtration and disinfection. A waste management zone is 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.

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

The above named applicant applied on September 27, 2007 to the Vermont Department of Environmental Conservation for an amendment to their permit to discharge into the designated receiving water. At this time the Department has made a tentative decision to amend the discharge permit. The facility is engaged in the treatment of municipal wastewater. The discharge is from the outfall of the Village of Morrisville Wastewater Treatment Facility to the Lamoille River.

## II. Description of Discharge

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:	Pages 2 and 3 of 20
Monitoring Requirements:	Pages 5, 6 and 7 of 20

## IV. Permit Basis and Explanation of Effluent Limitation Derivation

The Village of Morrisville has applied for an amendment to their permit to upgrade and expand the existing wastewater treatment facility. According to the September 2007 (and revised December 2007) Basis for Final Design submitted by Forcier Aldrich and Associates and approved by the Agency, the Village is proposing to change the technology from the existing activated sludge with chlorination facility to sequential batch reactor (SBR) with ultraviolet light disinfection. The Village's existing treatment facility was constructed in 1974 and is in need of refurbishment/upgrade. In addition, the Village needs additional hydraulic capacity and seeks a flow increase to 0.550 MGD, annual average, but no increase in permitted pollutant loading. According to the amendment application, there is no plan to expand the service area of the facility.

**Flow** – Until the upgrade is complete, the effluent flow limitation remains at 0.425 MGD, annual average, representing the facility's design flow. The facility maintains a continuous discharge. Following the upgrade, the permitted flow limitation is 0.550 MGD, annual average.

**Biochemical Oxygen Demand, Total Suspended Solids, Total Phosphorus, pH, and Settleable Solids** – All limitations and monitoring requirements remain unchanged from the previous permit.

***E. coli* Bacteria** - The *E. coli* limitation is 77/100 ml as specified in Section 3-04 B.3., Vermont Water Quality Standards, effective February 9, 2006. Monthly monitoring remains the same as in the previous permit until the UV system is installed/operating. Because of the technology change to UV disinfection, monitoring will become twice monthly.

On March 26, 2007 EPA published new guidelines establishing new bacterial testing procedures for wastewater and sewage sludge as part of 40 CFR Part 136 (see Federal Register Vol. 72, No. 57, Monday, March 26, 2007, p.14220). The new guidelines establish the *E. coli* analytical methods cited in Part II.A.5. of the permit as the only approved methods for enumerating *E. coli* in wastewater and sewage sludge. The guidelines are effective April 25, 2007.

**Notably the membrane filter method using the two step incubation technique (i.e. Method 9213D, Standard Methods) which was previously approved by prior NPDES discharge permits is no longer cited by EPA as an approved method.** Therefore permittees who are currently using Method 9213D for *E. coli* analysis must switch over to one of the three approved methods listed in Part II.A5. of the permit.

**Total Residual Chlorine (TRC)** - The current TRC limits of 0.85 mg/l, weekly average, and 1.5 mg/l, instantaneous maximum, are based on meeting the instream water quality acute and chronic chlorine criteria (0.019 mg/l and 0.011 mg/l respectively) in the Vermont Water Quality Standards, effective February 9, 2006 for the protection of aquatic biota. Daily monitoring is required until the UV system is installed and operating and chlorination no longer occurs.

**Waste Management Zone** - As defined under 10 V.S.A. §1251(16), a waste management zone is “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”.

The proposed permit retains the existing waste management zone (WMZ) that extends downstream from the outfall for approximately 0.7 miles in the Lamoille River. The Department has made a determination that the WMZ is sufficient in length following the increase in flow from 0.425 to 0.550 MGD.

**Operation, Management, and Emergency Response Plans** - As required by the revisions to 10 V.S.A. Section 1278, promulgated in the 2006 legislative session, Condition 1.D. has been included in the proposed permit. This condition requires that an Operation, Management and Emergency Response Plan be developed and submitted to the Agency for review and approval by *April 1, 2008* (pump stations, and stream crossings), and by *June 30, 2008* (the existing treatment facility, unless construction has begun on the new facility by such date. (If construction has begun, there will be no requirement to develop a plan for the existing facility.) Because the amended permit will expire on September 30, 2008, future dates indicating submittal of other portions of the plan cannot be included in this permit. It is the intent of the Agency, however, to propose dates in the renewed permit to include a submittal for the new facility and the collection system. Following approval of each element, the plan must be implemented.

#### **Special Conditions relative to the upgrade/expansion –**

*Previous* Permit Condition I.A.2. related to phosphorus state funding (if needed as flows to the facility increase) has been removed from the proposed amended permit as the upgrade will address the phosphorus issue including any applicable phosphorus funding.

Condition I.A.3 requires the permittee to submit for review and approval, a plan of operation to ensure that the WWTF will comply with all permit conditions during construction of the upgrade and expansion project.

Condition I.A.4 requires the permittee to submit for review and approval, design details for influent and effluent sampling locations at the upgraded and expanded WWTF.

Condition I.A.5. requires an engineer’s certification that the upgrade/expansion is complete.

Condition I.A.6 requires maintenance of the ultraviolet light disinfection system.

V. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from January 7 through February 6, 2008 during which time interested persons may submit their written views on the draft permit. All written comments received by 4:30 PM on February 6, 2008 will be retained by the Department and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Department.

Written comments should be sent to:

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

Comments may also be faxed to: 802-241-2596.

Any interested person or groups of persons may request or petition for a public hearing with respect to this draft permit. Any such request or petition for a public hearing shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a hearing is warranted.

The Department will hold a hearing if there is significant public interest in holding such a hearing. Any public hearing brought in response to such a request or petition will be held in the geographical area of the proposed discharge or other appropriate area, at the discretion of the Department and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public hearing. The Department may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public hearing will be retained by the Department and considered in the formulation of the final determination to issue, deny, or modify the draft permit.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Wastewater Management Division, Waterbury Office. Copies will be made at a cost based on the current Secretary of State Official Fee Schedule for Copying Public Records from 8:00 AM to 4:30 PM, Monday through Friday. The draft permit and fact sheet may also be viewed on the Division's website at [www.anr.state.vt.us/dec/ww/wwmd.cfm](http://www.anr.state.vt.us/dec/ww/wwmd.cfm).

*Comments received during the public notice period are addressed in the Response Summary.*

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 **USGS Morrisville, Vermont, United States** 09 May 1995



Morrisville  
WWT

0 100M

0 100yd

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