

**AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
1 NATIONAL LIFE DRIVE
MONTPELIER, VERMONT 05620-3521**

**DRAFT INDIRECT
DISCHARGE PERMIT**

Permit No.: ID-9-0127
PIN : EJ96-0187

SECTION A "ADMINISTRATION"

In compliance with provisions of 10 V.S.A. §1263, and in accordance with the following conditions, the permittee:

Charlotte Central School
408 Hinesburg Road
Charlotte, Vermont 05445

is authorized to discharge treated domestic sewage from an existing subsurface disposal system serving the Charlotte Central School in Charlotte, Vermont, to groundwater and indirectly to an unnamed tributary of the La Platte River. This is a permit renewal.

A1. Permit Summary:

Expiration Date	March 31, 2022
Type of Waste	Treated Domestic Sewage
Treatment System	Septic Tanks
Disposal System	Dual Alternating Mounds
Drainage Basin	Upper Lake Champlain
Receiving Water	Unnamed Tributary of La Platte River
Drainage Area	300 acres (at point of compliance)
Stream Flow	
Low Median Monthly Flow (LMMF)	31,500 gallons per day
Design Flow	10,250 gallons per day
Disposal Capacity	6,000 gallons per day
Dilution Ratio	
(stream flow to design flow)	3.1 to 1 at LMMF

A2. Compliance Schedule:

The following schedule summarizes the actions and requirements necessary for compliance with the conditions of this permit. The permittee shall complete the requirements in accordance with the dates indicated. See the designated section for specific details.

<u>Condition # & Description</u>	<u>Schedule Date</u>
A3. Apply for renewal of Indirect Discharge Permit	December 31, 2021
C3. Evaluate water usage and disposal field loading rates	As specified
D2(A). Have a Vermont Registered Professional engineer complete an inspection of sewage collection, treatment and disposal system	Annually during April
D2(B). Submit Annual Inspection Report	Annually, by July 1st
D2(C). Submit schedule for implementing engineer's recommendations	Annually, by August 1st
E2. Collect and analyze effluent samples	Twice per year in April and October
E2. Submit results of effluent sampling	By the 15th of the second month following the date of sampling
E3. Record meter readings	Daily when school is in session
E3. Submit meter readings	By the 15th of the following month

A3. Expiration Date:

This permit, unless revoked, or amended shall be valid until March 31, 2022 despite any intervening change in Water Quality Standards or the classification of receiving waters. Renewal of this Indirect Discharge Permit will be subject to all rules applicable at the time of renewal, including biological standards to determine significant alteration of aquatic biota.

The permittee shall apply for renewal of this Indirect Discharge Permit by December 31, 2021 for continued authorization to discharge treated sewage. For the purposes of Title 3, an application for renewal of this indirect discharge permit will be considered timely if a complete application is received by the expiration date.

A4. Effective Date:

This permit is effective on the date of signature.

A5. Revocation:

The Secretary may revoke this permit in accordance with 10 V.S.A. §1267.

A6. Transfer of Permit:

This permit is not transferable without prior written approval of the Secretary. The permittee shall notify the Secretary immediately, in writing, before any sale, lease or other transfer of ownership of the property from which the permitted discharge originates. The proposed transferee shall make application for a permit to be reissued in their name. Failure to apply shall be considered a violation of this permit. Responsibility for compliance with the conditions of this permit shall be the burden of the permittee until such time as transfer of the permit to the transferee is complete. This permit shall be transferred only upon showing by the permittee or proposed transferee of compliance with the following conditions:

- a. The transferee shall be a legal entity, financially and technically competent to operate, inspect, maintain and replace the system.
- b. The transferee shall demonstrate that they have the legal authority to raise revenues for the proper operation, inspection, and maintenance of the system.
- c. The transferee shall provide a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability current and new permittees to the Secretary.

A7. Minor Modifications of Permits:

The Secretary may modify this permit without requiring a permit application, a public notice, or a public hearing to correct typographical errors or to increase the monitoring frequency in accordance with Condition E(5) of this permit.

A8. Indirect Discharge Rules:

This permit authorizes an existing indirect discharge.

This indirect discharge was reviewed and qualified for an Indirect Discharge Permit in accordance with Section 14-403 (A) of the Indirect Discharge Rules for existing indirect discharges of sewage. No increase in sewage volume is allowed without the written approval of the Secretary.

A9. Right of Secretary to Inspect:

The permittee shall allow the Secretary or the Secretary's authorized representative upon the presentation of their credentials and at reasonable times:

- a. To enter upon permittee's premises in which any effluent source, treatment or disposal system is located or in which any records are required to be kept under the conditions of the permit;
- b. To have access to and copy any records required to be kept under conditions of this permit;
- c. To inspect any monitoring equipment or method required in this permit;
- d. To sample any discharge of waste, groundwater or surface water; and
- e. To inspect any collection, treatment, pollution management and disposal facilities required by this permit.

A10. Permit Availability:

A copy of this permit shall remain at the office of the permittee and upon request shall be made available for inspection by the Secretary.

A11. Minor Modifications to System:

Minor modifications of the engineering design which do not reduce the treatment effectiveness or increase the capacity of the system may be approved in writing by the Secretary without permit amendment.

Before making modifications to the treatment and/or disposal system the permittee shall submit plans to the Secretary for review and approval. These plans must be approved before any of the modifications or additions are made.

A12. Correction of Failed Systems:

The Secretary may, upon discretion, issue an Amendment to the Indirect Discharge Permit for the design and reconstruction of a failed wastewater disposal system where the replacement system design was not previously approved.

Before reconstruction of the failed system the permittee shall submit plans to the Secretary for review and approval. These plans must be approved before any reconstruction occurs. Due to the urgency of the need to correct failed disposal systems, the Secretary will process these Amendments as soon as possible.

SECTION B "INDIRECT DISCHARGE"

B1. Location of Indirect Discharge:

This existing indirect discharge is located in the Upper Lake Champlain drainage basin in the town of Charlotte, Vermont. The indirect discharge can be located on the USGS Mount Philo, Vermont 7.5' quadrangle map at Latitude N 44°18'52" and Longitude W 73°13'46".

B2. Nature of Indirect Discharge:

According to the approved plans for the wastewater system, the wastewater is treated in septic tanks then pumped to the mound disposal area. The disposal area consists of dual alternating mounds with an innovative "wedge" of select gravels beneath the mounds to facilitate the renovation of the wastewater. The system is designed for an average daily flow of 6,000 gallons per day based on a combination of metered data and the 1982 Environmental Protection Rules.

SECTION C "SYSTEM APPROVALS AND LIMITS"

C1. Previous Approvals:

The plans approved in the Innovative System Approval were prepared by Richard F. Hamlin of Donald L. Hamlin Consulting Engineers, Inc.:

- a. Sheet 1 of 3, entitled "Sewage Disposal System Renovation - Site Plan", dated July 27, 1987;
- b. Sheet 2 of 3, entitled "Sewage Disposal System Renovation - Cross Sections", dated July 27, 1987; and
- c. Sheet 3 of 3, entitled "Sewage Disposal System Renovation - Details", dated July 27, 1987.

The system was constructed in accordance with the Record Drawings of these plans.

C2. Effluent Limits:

The following limits apply to the treated effluent discharged to the existing disposal system:

<u>Parameter</u>	<u>Disposal Limits</u>
Flow	6,000 gallons per day
Biochemical Oxygen Demand (BOD) (5-day)	7.50 lbs./day BOD ₅
Total Suspended Solids (TSS)	3.75 lbs./day TSS

Note: The average daily loading rate for BOD and TSS shall be calculated using the following equation:

$$\text{Daily flow (MGD)} * \text{concentration (mg/L)} * 8.34 = \text{lbs./day}$$

C3. Evaluation of Effluent Limits:

A. Water Usage:

If the average water usage for any two consecutive months equals or exceeds 80% of the disposal capacity (i.e. 4,800 gallons per day), the permittee shall take the following actions:

1. Investigate the reason for the increased demand for water and take measures to reduce the volume of wastewater discharged to the system, if possible; and
2. Immediately collect and analyze an effluent sample in accordance with Condition E2.

B. Loading Rates:

If effluent monitoring results indicate that BOD or TSS loading reaches 80% of the BOD₅ and/or TSS effluent limitations in any month (i.e. 6.0 and 3.0 lbs./day respectively) as specified in Condition C2 above, the permittee shall take the following actions:

1. Sample the effluent by taking composite samples once per week for four (4) consecutive weeks and have the samples analyzed accordance with Condition E2. Using the water usage readings during that period, determine the BOD and TSS loading rates to the disposal system; and
2. Take appropriate measures to reduce the BOD and TSS loading rate to the disposal system.

C. Approval of Alternative Treatment and/or Disposal Systems:

If, after taking the measures addressed in Conditions C3(A) and (B) above, the average water usage for any two consecutive months equals or exceeds 90% of the disposal capacity (i.e. 5,400 gallons per day), or the BOD or TSS loading rate reaches 90% of the BOD₅ and/or TSS effluent limitations in any month (i.e. 6.75 and 3.38 lbs./day respectively) as specified in Condition C2 above, the permittee shall take the following actions:

1. Retain an engineer to evaluate the existing wastewater system and/or alternative treatment and/or disposal systems; and
2. Apply for a permit amendment for proposed changes to the existing treatment and disposal system, including the submittal of engineering plans, specifications and other required information.

SECTION D "SYSTEM OPERATION"

D1. General Operating Requirements:

The sewage treatment and disposal system shall be operated at all times in a manner that will: (1) not permit the discharge of sewage onto the surface of the ground; (2) not result in the surfacing of sewage; (3) not result in the direct discharge of sewage into the waters of the State; and (4) not result in a violation of the Vermont Water Quality Standards.

In accordance with accepted design practices, the effluent disposal rate to the disposal fields shall not exceed 6,000 gallons per day without prior written approval from the Secretary except as may occur on an occasional basis during normal operation.

D2. Annual Inspection, Report and Implementation Schedule:

A. Annual Inspection:

Annually during the month of April, the permittee shall retain a Vermont Registered Professional engineer to make a thorough inspection, evaluation and report of the complete sewage collection, treatment and disposal system. The engineer's inspection shall include, but not be limited to the following:

1. inspecting the entire collection system, removing manhole covers to observe the condition of the sewers and manholes, and noting any signs of inflow or excess infiltration;
2. verifying the proper operation of the lift station pumps, valves, alarms and controls, and the proper distribution of flow throughout the disposal field;
3. evaluating the accumulation of solids and scum in the septic tanks and determining if the septic tanks should be pumped out that year;
4. measuring and recording the depth to water below the ground surface in the monitoring wells in and around the disposal field;
5. walking the disposal fields and checking for evidence of surfacing sewage;
6. verifying the alternation of the disposal fields;
7. checking the proper operation of the water meter; and
8. noting any necessary repairs or maintenance that needs to be performed on the sewage collection, treatment, and disposal system.

D2. Annual Inspection, Report and Implementation Schedule (continued):

B. Annual Inspection Report:

By July 1st each year, the permittee shall have a professional engineer submit an annual inspection report including the following items:

1. a complete list of the items inspected and the results of the inspection;
2. a summary of water usage and groundwater table levels;
3. a determination as to whether the effluent limits in Condition C2 or the thresholds in Condition C3 were exceeded during the previous school year based on average monthly water usage and/or effluent loading rates; and
4. a discussion of the recommended repairs and maintenance required.

C. Implementation Schedule:

By August 1st each year, the permittee shall notify the Secretary in writing stating how the engineer's recommendations are to be implemented, including a schedule for the required repair and maintenance items which have not yet been completed.

D3. Septage Disposal:

During the system's annual inspection, the depth of sludge and scum shall be measured in all septic tanks. The septic tanks shall be pumped if: 1) the sludge is closer than twelve (12) inches to the outlet baffle or; 2) the scum layer is closer than three (3) inches to the septic tank outlet baffle or; 3) if otherwise recommended by the inspecting engineer. The permittee shall notify the Secretary in writing of the name and address of the pumper and the municipal sewage treatment facility or other facility approved by the Secretary where the septage is to be or was disposed.

D4. System Operation and Maintenance:

The wastewater collection, treatment, and disposal system shall be operated and maintained at all times in a manner satisfactory to the Secretary and not to cause health hazards, contamination of drinking water supplies, groundwater and/or surface water.

D5. Reporting of Failures:

The sewage collection, treatment, and disposal system shall be operated and maintained at all times in a manner satisfactory to the Secretary and in a manner that will not pose a risk to the public health and safety, or cause contamination of drinking water supplies, groundwater and/or surface water.

D6. Discharge Restrictions:

The permittee shall not allow any person to discharge or cause to be discharged anything other than sanitary sewage to this collection, treatment and disposal system.

SECTION E "MONITORING"

E1. Effluent Monitoring:

The effluent from the septic tanks shall be sampled at the pump station to the disposal fields and analyzed for the following parameters:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Biochemical Oxygen Demand (5-day)	mg/L	composite	Twice per year in April & October
Total Suspended Solids (TSS)	mg/L	composite	Twice per year in April & October

Notes:

Sampling shall be conducted while school is in session.

The results of the effluent analysis shall be submitted to the Secretary by the 15th day of the second month following the date of sampling.

E2. Meter Readings:

The permittee shall record the daily water meter readings each day that school is in session to determine the total volume of water used during each school day. The volume of water used and the individual meter readings shall be submitted to the Secretary by the 15th day of the following month.

E3. Sampling and Testing Procedures:

All wastewater and groundwater sampling, preservation, handling and test procedures used to comply with the monitoring requirements herein shall conform to procedures specified in the most current edition of Standard Methods for the Examination of Water and Wastewater APHA-AWWA-WPCF, and Vermont Water Quality Standards unless written approval of an alternate method is received from the Agency.

The laboratory utilized for analyzing the samples shall demonstrate successful participation in third party proficiency testing recognized by ISO or NELAP for all parameters and shall analyze any check sample provided by the Secretary. Failure to obtain an acceptable result for either the Secretary's check sample or successful third party proficiency testing may be a basis for requiring an alternate analytical laboratory.

E4. Miscellaneous:

If the permittee monitors any required parameter set forth in this permit for this treatment and disposal system more frequently or at additional locations outside the treatment facility than required by this permit, the results of such monitoring shall be submitted to the Secretary.

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Secretary. Records shall include laboratory bench sheets showing exact location, time and composites of sample as well as analytical procedures used, interim results obtained and all calculations supporting the reported test results.

E5. Additional Monitoring Requirements:

No other water quality monitoring of the system is required under this permit. However, the Secretary reserves the right to require monitoring of the system in accordance with Condition A(7) should operation of the system fail to meet the requirements of Sections D(1) and D(4).

SECTION F "COMPLIANCE REVIEW"

If the results of any inspection or monitoring indicate that a violation of the effluent disposal rate, or a violation of the Vermont Water Quality Standards, is occurring, or is likely to occur, the Secretary may require the permittee to take appropriate corrective actions to eliminate or reduce the possibility of a violation.

The issuance of this permit, ID-9-0127, to Charlotte Central School by the Secretary relies upon the data, designs, judgement and other information supplied by the applicant, the applicant's consultants and other experts who have participated in the preparation of the application. The Secretary makes no assurance that this system will meet the performance objectives of the applicant and no warranties or guarantees are given or implied.

SECTION G "EFFECTIVE DATE"

This Indirect Discharge Permit ID-9-0127, issued to Charlotte Central School for the discharge of treated domestic sewage from the Charlotte Central School in Charlotte, Vermont is effective this _____ day of April, 2017.

Emily Boedecker, Commissioner
Department of Environmental Conservation

By _____ **DRAFT** _____
Bryan Redmond, Director
Drinking Water and Groundwater Protection Division