AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
1 NATIONAL LIFE DRIVE, MAIN 2
MONTPELIER, VT 05620-3521

DRAFT INDIRECT DISCHARGE PERMIT

Permit No.: ID-9-0007
PIN: NS88-0028

SECTION A - "ADMINISTRATION"

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

Fox Hill Homeowner's Association
P.O. Box 332
Vernon, Vermont 05354

is authorized to discharge treated domestic sewage from a subsurface disposal system serving the Fox Hill Subdivision in Vernon, Vermont to groundwater and indirectly to Newton Brook. **This is a permit renewal.**

A1. Permit Summary:

Expiration Date	December 31, 2022
Type of Waste	Domestic Sewage
Treatment System	Septic Tanks
Disposal System	Leachfields
Town	Vernon
Drainage Basin	Lower Connecticut River
Receiving Stream	Tributary to Newton Brook
Drainage Area	2.5 sq. mi.
Disposal Capacity	13,816 gallons per day
Stream Flow:	
Low Median Monthly Flow (LMMF)	Est. 0.60 c.f.s. (387,800 gallons per day)
Dilution Ratio (at LMMF)	
Stream Flow : Effluent	30 : 1

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.

Condition # and Description	Schedule Date
A3. Apply for renewal of Indirect Discharge Permit	September 30, 2022
D2(A). Have a Vermont Registered Professional Engineer complete an inspection of the sewage collection, treatment and disposal system.	Annually in April
D2(B). Submit Annual Inspection Report	Annually by July 1st
D2(C). Submit Schedule for Implementing engineer's recommendations	Annually by August 1st
D3. Notify the Secretary of pumping of tanks and septage disposal.	As specified
E2(A). Collect and analyze effluent samples	February and September
E2(B). Record sewage meter readings	First 11 consecutive days in February, May, September and December each year
E3(A). Collect and analyze groundwater samples	February, June and September
E4(A). Collect and analyze receiving stream samples	February, June and September
E4(B). Perform biological sampling of receiving stream	Upon the Secretary’s request

A3. Expiration Date:

This permit, unless revoked, or amended shall be valid until December 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 should apply for an Indirect Discharge Permit renewal by September 30, 2022 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 becomes effective on January 1, 2018.

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. All application and operating fees must be paid in full prior to transfer of this permit. 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.

A6. Transfer of Permit (continued):

c. The transferee shall provide a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee(s) to the Secretary.

A7. Minor Modifications of Permit:

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(6) 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 14-406 (b) of the Indirect Discharge Rules for new indirect discharges of sewage. The water quality data from 2013 – 2017 indicates that the discharge is in compliance with the Aquatic Permitting Criteria of the Indirect Discharge Rules, effective April 30, 2003.

A9. Right of the Agency 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.

A13. Operating Fees:

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

SECTION B "INDIRECT DISCHARGE"

B1. Location of Indirect Discharge:

The indirect discharge is located on a tributary to Newton Brook (a tributary to Connecticut River) in the Town of Vernon, Vermont with a drainage area of 2.5 square miles at the point of compliance. The indirect discharge can be located on the USGS Northfield, MA 7.5' quadrangle map at Latitude N 42° 44' 57" and Longitude W 72° 29' 14".

B2. Nature of Indirect Discharge:

The indirect discharge is from a subsurface wastewater disposal system with an approved disposal capacity of 13,816 gallons per day, including infiltration. The system is comprised of a 12,000 gallon septic tank, pump station and three sets of disposal fields. The system has a design loading rate of 1.5 gallons/ft^2/day.

SECTION C "SYSTEM CONSTRUCTION"

C1. Previous Approvals:

The sewage disposal system was reported to have been completed in accordance with the following plans prepared by Peter Boemig, P.E. of Southern Vermont Engineering and stamped approved by the Secretary:

a. Sheet 1 of 8, entitled "Site Plan", dated March 7, 1986, last revision June 19, 1987;

b. Sheet 5 of 8, entitled "Sewer, Erosion Control, Roadway Details and Roadway Notes", dated March 7, 1986, last revision January 16, 1987;

c. Sheet 6 of 8, entitled "Sewage Disposal Plan", dated March 7, 1986, last revision December 29, 1988 (As-Built);

d. Sheet 7 of 8, entitled "Sewage Disposal Details", dated March 7, 1986, last revision February 19, 1988; and

e. Sheet 8 of 8, entitled "Sewer Profiles", dated March 7, 1986, last revision December 29, 1988 (As-Built).

SECTION D "SYSTEM OPERATION"

D1. General Operating Requirements:

The wastewater 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; (4) not result in a violation of the Vermont Water Quality Standards; and (5) not cause a significant alteration of the aquatic biota in the receiving stream.

D1. General Operating Requirements (continued):

In accordance with accepted design practices, the effluent disposal rate to the disposal fields shall not exceed 13,816 gallons per day except as may occur on an occasional basis during normal operation. No increase in sewage volume limits is allowed without the written approval of the Secretary.

D2. Annual Inspection, Report and Implementation Schedule:

(A) Annual Inspection:

Annually, during the month of April, the permittee shall retain a Professional Engineer registered in the State of Vermont 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. Evaluating the accumulation of solids and scum in the septic tank and verifying the pumping of the tank, if necessary;

3. Verifying the proper operation of the lift station pumps and alarms and noting the dosing volume in relation to the lots connected;

4. Checking the levelness of all distribution boxes for proper distribution of the effluent;

5. Verifying the alternation of the disposal fields;

6. Walking the disposal fields noting the general condition of the fields and checking for any signs of surfacing effluent; and

7. Noting any necessary repairs, or maintenance that needs to be performed.

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. The measured depths of sludge and scum in each septic tank;

3. A discussion of the recommended repairs and maintenance required;

4. An evaluation of metered water use and groundwater table levels in the vicinity of the disposal fields;

5. A chronological listing of complaints received during the period May 1 - April 30 regarding odors associated with the system and the results of investigation of those complaints; and

6. An evaluation of measures taken to minimize odors emitted by the system.

(C) Implementation Schedule:

By August 1st each year, the permittee shall notify the Secretary in writing stating how the engineer's recommendations were or 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 was or is to be disposed.

D4. System Operation and Maintenance:

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.

D5. Reporting of Failures:

The permittee shall immediately report any failure of the sewage collection, treatment or disposal system to the Secretary, first by telephone within 24 hours of the failure and then in writing within 5 days of the failure. The written notice shall include a discussion of the actions take or to be taken to correct the failure.

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. Sampling and Testing Procedures:

All wastewater, groundwater and surface water 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 the 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.

E2. Sewage Effluent Monitoring:

A. Chemical:

The effluent discharged to the disposal fields shall be sampled and analyzed as follows:

Parameter	Units	Sample Type	Sample Frequency
Biochemical Oxygen Demand (5-day)	mg/L	Grab	February and September
Total Suspended Solids	mg/L	Grab	February and September
Chloride	mg/L	Grab	February and September
Total Phosphorus	mg/L	Grab	February and September
pH	S.U.	Grab	February and September
Total Kjeldahl Nitrogen (TKN)	mg/L	Grab	February and September
Ammonia Nitrogen	mg/L	Grab	February and September
Nitrate Nitrogen	mg/L	Grab	February and September
Samples shall be taken at the pump station. The results of the effluent analysis shall be submitted to the Secretary prior to the 15th day of the second month following the date of sampling.			

B. Sewage Volume:

For the first 11 consecutive days during the months of February, May, September and December of each year, the permittee shall record the daily sewage meter readings for the sewage collection, treatment, and disposal system, to determine the total volume of sewage discharged each day. The sewage meter readings and gallons of sewage discharged per day shall be submitted to the Secretary by the 15th of the month following the recording period.

E3. Groundwater Monitoring:

A. Chemical and Bacteriological Monitoring:

The groundwater in monitoring wells #105, 106 and 110 shall be sampled and analyzed for the following parameters:

Parameter	**Units**	**Sample Type**	**Sample Frequency**
Nitrate (as N)	mg/L	Grab	February, June and September
Total Dissolved Phosphorus (as P)	mg/L	Grab	February, June and September
Chloride	mg/L	Grab	February, June and September
pH	S.U.	Grab	February, June and September
Escherichia coli	Colonies/100 ml	Grab	February, June and September
Depth to Groundwater (below ground surface)	Feet and tenths of feet	----	At time of sampling
Because of changing water table conditions, the samples from the groundwater monitoring wells may not be able to be collected on the same day or in the same week. If a monitoring well has water at any time during the month, then the single sample from that well is required to be collected and analyzed.			
The results of these analyses shall be submitted to the Secretary prior to the 15th day of the second month following the date of sampling.			

E4. Receiving Stream Monitoring:

A. Chemical

The receiving stream shall be sampled at locations upstream and downstream of the indirect discharge as per the Quality Assurance/Quality Control Plan and analyzed for the following:

Parameter	Units	Sample Type	Sample Frequency
Nitrate (as N)	mg/L	Grab	February, June and September
Total Phosphorus (as P)	mg/L	Grab	February, June and September **(see Note #1)**
Total Dissolved Phosphorus (as P)	mg/L	Grab	February, June and September **(see Note #1)**
Chloride	mg/L	Grab	February, June and September
pH	S.U.	Grab	February, June and September
Temperature	Degrees Centigrade	Instantaneous	February, June and September
Note #1: Two independent samples shall be taken and analyzed on each sampling date.			
The permittee shall not sample the receiving stream within 24 hours of any storm event affecting the watershed of that stream.			
The results of these analyses shall be submitted to the Secretary prior to the 15th day of the second month following the date of sampling.			

B. Biological

Upon written request from the Secretary, the permittee shall conduct biological sampling in the receiving stream upstream and downstream of the indirect discharge in accordance with procedures approved by the Secretary.

E5. Summary Water Quality Evaluation:

By September 30, 2022, the permittee shall have a qualified water quality specialist submit an evaluation to the Secretary of all the past water quality data and determine what, if any, short or long-term impacts there have been on groundwater and/or surface water quality. The biological monitoring data (if any) shall also be included. The biological data shall be subjected to analysis by the Secretary to determine if there have been any significant alterations to the aquatic biota.

E6. Additional Reporting Requirements:

The permittee shall submit copies of the results of all monitoring of the system to the Town of Vernon (P.O. Box 116, Vernon, Vermont 05354) at the same time those results are reported to the Secretary.

E7. 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-9-0007, to the Fox Hill Homeowners Association, Inc. 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-9-0007, issued to the Fox Hill Homeowners Association, Inc., for the discharge of treated domestic sewage from the community sewage treatment and disposal facility serving the Fox Hill subdivision located in Vernon, Vermont, is effective on January 1, 2018.

Emily Boedecker, Commissioner
Department of Environmental Conservation

By: _____DRAFT_____
Mary Clark, Program Manager
Indirect Discharge Program