

**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-9-0001
PIN: RU96-0494

SECTION A - "ADMINISTRATION"

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

"The Village at Eagle Rise"
Eagle Rise Homeowners Association, Inc.
P.O. Box 2693
Manchester Center, Vermont 05255

is authorized to indirectly discharge treated domestic sewage from a subsurface disposal system serving the Village at Eagle Rise development in Manchester, Vermont to groundwater and indirectly to an unnamed tributary of the Battenkill River. **This is a permit renewal.**

A1. Permit Summary:

Expiration Date	June 30, 2022
Type of Waste	Domestic Sewage
Treatment System	Septic Tanks
Disposal System	Leachfield
Town	Manchester
Drainage Basin	Battenkill River
Receiving Stream	Unnamed tributary of Battenkill
Drainage Area	1.53 sq. mi.
Low Median Monthly Stream Flow (LMMF)	0.25 cfs (est.)
Disposal Capacity	9,965 gallons per day
Dilution Ratio (stream flow to effluent)	16 : 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 # and Description</u>	<u>Schedule Date</u>
A3. Apply for renewal of indirect discharge permit	by March 31, 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
D7. Record and submit water meter readings	Quarterly, as specified
E2. Collect and analyze effluent samples	Twice per year, June and September
E3. Collect and analyze groundwater monitoring well samples	Twice per year, June and September
E4(A). Collect and analyze receiving stream samples	Twice per year, June and September
E4(B). Perform biological sampling of receiving stream	If required
E2, E3, E4(A). Submit results of water quality monitoring	By the 15th of the second month following sampling
E5. Submit water quality evaluation	by March 31, 2022

A3. Expiration Date:

This permit, unless revoked, or amended shall be valid until June 30, 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 an Indirect Discharge Permit renewal by March 31, 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 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. 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 systems.
- b. The transferee shall demonstrate that it has 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 permittees 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(8) of this permit.

A8. Indirect Discharge Rules:

This indirect discharge was originally reviewed and qualified for an Indirect Discharge Permit in accordance with Section 14-403(C) of the Indirect Discharge Rules, effective February 29, 1996, as a New Indirect Discharge of Sewage. Water quality data and water meter records from the period 2012 – 2016 indicate that this indirect discharge is in compliance with the Aquatic Permitting Criteria of the current Indirect Discharge Rules, effective April 30, 2003.

No increase in sewage volume is allowed without the written approval of the Secretary.

A9. Right of 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 facility 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 System:

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 permittees 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 an unnamed tributary of the Battenkill River in the town of Manchester, Vermont with a drainage area of 1.53 square miles at the point of compliance. The indirect discharge can be located on the USGS Manchester, Vermont 7.5' quadrangle map at Latitude N 43°12' 32.6" and Longitude W 73°04' 18.0".

B2. Nature of Indirect Discharge:

The Village at Eagle Rise Development consists of 24 single family residences located off Wideawake Road in Manchester, Vermont.

The treated wastewater is discharged from a subsurface wastewater disposal system with an approved disposal capacity of 9,965 gallons per day. The complete system has a design loading rate of 0.85 gallons/sq.ft./day.

The low median monthly flow of the receiving stream is 0.25 cfs and results in a stream flow to effluent dilution of 16 to 1 at the point of discharge.

SECTION C "SYSTEM CONSTRUCTION"

C1. Previous Approvals:

The sewage collection, treatment, and disposal system was approved to be constructed in accordance with the following plans and specifications prepared by Donald Bergstrom, P.E. of Northeast Environmental Associates:

- a. Sheet C1, entitled "Area Plan", dated 11/22/85, last revised 7/18/86;
- b. Sheet C2, entitled "Site Plan, Water & Sewer Plan", dated 3/17/86, last revised 12/4/86;
- c. Sheet C3, entitled "Disposal Systems Design", dated 10/23/86, last revised 12/3/86;
- d. Sheet C3a, entitled "Disposal systems Cross Sections", dated 10/24/86;
- e. Sheet C4, entitled "Sewer Profiles", dated 6/17/86, last revised 12/4/86;
- f. Sheet C5, entitled "Soils Information", dated 12/12/85; and
- g. Sheet C6, entitled "Wastewater Disposal System Details", dated 12/12/85, last revised 12/3/86.

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; (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 9,965 gallons per day 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 engage 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 tanks and verifying the pumping of the tank, if necessary;
3. verifying the proper operation of the lift station pumps, alarms, and controls;
4. checking the distribution of flow through the diversion box and the primary distribution box;
5. verifying the alternation of the disposal fields and walking the disposal field area to determine if any surfacing of sewage is occurring; and
6. noting any necessary repairs, or maintenance that needs to be performed.

(B) Annual Inspection Report:

By July 1st each year, the permittee shall have a professional engineer submit an annual 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; and
3. a discussion of the recommended repairs and maintenance required.

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

(C) Implementation Schedule:

By August 1st each year, the permittee shall notify the Secretary in writing stating how the engineer's recommendations were 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 taken 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.

D7. Water Meter Reporting:

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

SECTION E "MONITORING"

E1. Quality Assurance/Quality Control Plan:

A Quality Assurance/Quality Control plan of all required monitoring, prepared by Scitest, Inc., was submitted to the Secretary and approved on 7/22/93. The plan identified all analysis procedures, all sampling methods, sample preservation methods, all sampling locations, sampling frequency, and reporting times, and quality control measures for both sampling and analysis. The sampling and monitoring shall be completed in accordance with the plan and this permit.

E2. Effluent Monitoring:

The effluent discharged to the disposal field shall be sampled at the influent to the pump station and analyzed as follows:

Parameter	Units	Sample Type	Sample Frequency
Biochemical Oxygen Demand (5-day)	mg/L	Grab	June and September
Total Suspended Solids	mg/L	Grab	June and September
pH	S.U.	Grab	June and September
Total Kjeldahl Nitrogen	mg/L	Grab	June and September
Ammonia (as N)	mg/L	Grab	June and September
Nitrate (as N)	mg/L	Grab	June and September
Total Phosphorus	mg/L	Grab	June and September
Chloride	mg/L	Grab	June and September

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.

E3. Groundwater Monitoring:

The groundwater in monitoring wells #1, #4, #5, and #6 shall be sampled and analyzed as follows:

Parameter	Units	Sample Type	Sample Frequency
Nitrate (as N)	mg/L	Grab	June and September
Total Dissolved Phosphorus	mg/L	Grab	June and September
Chloride	mg/L	Grab	June and September
pH	S.U.	Grab	June and September
Escherichia coli	Colonies/ 100 ml	Grab	June and September
Depth to Groundwater (below ground surface)	Feet and tenths of feet	---	At time of sampling

Notes:

Because of changing water table conditions, the samples from the groundwater monitoring wells may not be collected on the same day or in the same week. If a monitoring well has water in it at any time during the month, then a single sample from that well is required to be collected and analyzed. Wells must be checked at least once a week for this purpose. Once a monitoring well has been sampled, the well does not need to be sampled or checked until the next sampling period.

In accordance with Condition E4(A) below, if downstream water quality samples are collected and analyzed, groundwater from the infield monitoring wells (#4 and #5) does not have to be collected and analyzed.

The results of these analyses shall be submitted to the Secretary by 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 a minimum, upstream⁽¹⁾ of the indirect discharge and analyzed as follow:

Parameter	Units	Sample Type	Sample Frequency
Nitrate (as N)	mg/L	Grab	June and September
Total Phosphorus	mg/L	Grab	June and September (see Note #2)
Total Dissolved Phosphorus	mg/L	Grab	June and September (see Note #2)
Chloride	mg/L	Grab	June and September
pH	S.U.	Grab	June and September
Temperature	°C	grab	June and September

Notes:

#1 Prior to the June 2018 sampling event, the permittee shall have a water quality specialist determine whether sampling of the receiving stream downstream of the discharge would yield water quality results representative of stream quality potentially influenced by only the Village at Eagle Rise disposal system. If representative samples can be obtained, upstream and downstream samples shall be collected and analyzed in June and September of each year and sampling and analyses of the infield groundwater monitoring wells can be discontinued.

#2 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 stream's watershed.

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

E4. Receiving Stream Monitoring (continued):

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 March 31, 2022, the permittee shall have a qualified water quality specialist submit an evaluation to the Secretary of all the past groundwater and surface water quality data and determine what, if any, short or long term impacts there have been on ground or surface water quality. The in-stream biological monitoring data, if available, shall also be included. The biological data shall be analyzed by the Secretary to determine if there have been any significant alterations to the aquatic biota.

E6. 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 Secretary.

The laboratory used for water quality analyses 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.

E7. 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 included in the appropriate monthly reports, and analyzed in the engineer's annual inspection report.

E7. Miscellaneous (continued):

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.

E8. 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, or a significant alteration of the aquatic biota in the receiving stream 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-9-0001, to the Eagle Rise Homeowners Association by the Secretary relies upon the data, designs, judgement and other information supplied by the applicant, his 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-9-0001, for the discharge of treated domestic sewage from a subsurface disposal system serving the Village at Eagle Rise in Manchester, Vermont, is effective this ____ day of August, 2017.

Emily Boedecker, Commissioner
Department of Environmental Conservation

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