

**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-9-0003
PIN: SJ96-0285

SECTION A - "ADMINISTRATION"

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

Holbrook Bay Homeowners Association, Inc.
286 Holbrook Bay Commons
Newport Center, VT 05857

is authorized to discharge treated domestic sewage from a subsurface disposal system serving the Holbrook Bay Commons to groundwater and indirectly to unnamed tributaries of Lake Memphremagog. This is a permit renewal.

A1. Permit Summary:

Expiration Date	June 30, 2022
Type of Waste	Treated Domestic Sewage
Treatment System	Septic Tanks
Disposal System	Leachfield
Town	Newport
Drainage Basin	Lake Memphremagog
Receiving Water	Unnamed tributaries of Lake Memphremagog
Drainage Area	1.74 sq. mi.
Design Capacity	9,950 gallons per day
Stream Flow:	
Low Median Monthly Flow (LMMF)	Est. 36,900 gpd (North Tributary) Est. 68,950 gpd (South Tributary)
Dilution Ratio at LMMF (stream flow to wastewater): (Assumes 20:80 split in effluent flow)	18:1 North 8.7:1 South

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	March 31, 2022
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
D3. Notify Secretary of pumping of septic tanks and septage disposal	As specified
D8. Record water meter readings	First 11 consecutive days during Feb., May, Aug., and Nov. each year
E2. Collect and analyze effluent samples	Twice per year (Feb. & Sept.)
E3(A). Collect and analyze groundwater samples	Twice per year (Feb. & Sept.)
E3(B). Measure and record the depths to groundwater in monitoring wells	Weekly, March, April and May
E4(A). Collect and analyze receiving stream samples	Twice per year (Feb. & Sept.)
E5. Submit evaluation by a water quality specialist of all groundwater and surface water quality data	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 should 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.
- 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(6) of this permit.

A8. Indirect Discharge Rules:

This indirect discharge was originally reviewed and qualified for an Indirect Discharge Permit in accordance with Section 14-603 (d) of the Indirect Discharge Rules (effective April 30, 2003) for new indirect discharges of sewage. The water quality data collected during the period February 2012 – February 2017 indicates that this indirect discharge is in compliance with the Aquatic Permitting Criteria of the Indirect Discharge Rules.

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 permit 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:

This indirect discharge is located on two unnamed tributaries to Holbrook Bay of Lake Memphremagog, 1300 feet upstream of the lake, in the Town of Newport, Vermont. The indirect discharge system is located at Latitude N 44° 57' 35.8" and Longitude W 72° 14' 34.1"

B2. Nature of Indirect Discharge:

The discharge is from an expanded subsurface wastewater disposal system which increased the design capacity from 5,678 gallons per day approved in Certification of Compliance PB-7-0544 issued on November 14, 1986, to 9,950 gallons per day. The indirect discharge permit was originally issued July 2, 1987. Sewage is treated in septic tanks and discharged to the disposal fields. The system has a design loading rate of 0.65 gallons/ft²/day, and has a horizontal separation of at least 100 feet to any stream or groundwater discharge zone.

SECTION C "SYSTEM CONSTRUCTION"

C1. Previous Approvals:

The sewage treatment and disposal system was completed in accordance with the following plans prepared by David Lawes, P.E.

<u>Sheet #</u>	<u>Title</u>	<u>Date</u>	<u>Revised</u>
S1	"Site Grading & Landscaping Plan"	7-30-86	3-26-87
S1-A	"Subsurface Diversion Trench-Profile"	3-26-87	-----
S2	"Leachfield Plan-Details"	8-22-86	1-29-87
V1	"Utilities Plan"	7-31-86	1-29-87
V2	"Water & Sewer Details"	8-14-86	1-29-87

and the Construction Specifications for Holbrook Bay Condominiums Wastewater Facilities, dated August 1986.

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.

In accordance with accepted design practices, the effluent disposal rate to the disposal fields shall not exceed 9,950 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. verifying the alternation of the disposal fields;
2. verifying the proper operation of the lift station pumps, alarms, and controls;
3. evaluating the accumulation of solids and scum in the septic tanks; and
4. 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. an evaluation of water meter usage data and groundwater table levels; and
3. a discussion of the recommended repairs and maintenance items.

(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 submittal of a schedule for the required repair and maintenance items which have not yet been completed.

D3. Alternation of Fields:

The subsurface sewage disposal fields shall be alternated annually during the engineer's annual inspection in April.

D4. 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.

D5. 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.

D6. 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.

D7. 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.

D8. Water Meter Readings:

For the first 11 consecutive days during the months of February, May, August and November 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 (in gallons per day) and individual meter readings shall be submitted to the Secretary by the 15th of the following month.

SECTION E "MONITORING"

E1. Quality Assurance/Quality Control Plan:

A Quality Assurance/Quality Control Plan (QA/QC Plan) of all required monitoring, prepared by Wagner, Heindel & Noyes, Inc. was submitted to the Secretary and approved. The QA/QC Plan identifies all analysis procedures, sampling methods, sample preservation methods, sampling locations, sampling frequency, reporting times, and quality control measures for both sampling and analysis. The sampling and monitoring shall be completed in accordance with the QA/QC Plan and this permit.

The laboratory identified in the QA/QC Plan shall analyze any check samples provided. Failure to obtain an acceptable result may be a basis for requiring an alternate analytical laboratory.

E2. Effluent Monitoring:

The permittee shall sample septic tank effluent and have the samples analyzed in accordance with the following:

Parameter	Units	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

Notes:

Samples shall be taken at the pump station.

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:

A. Chemical & Bacteriological Monitoring:

The permittee shall sample groundwater in monitoring wells #102, #301, #302, #303 and #304 and have the samples analyzed in accordance with the following:

Parameter	Units	Type	Sample Frequency
Nitrate Nitrogen	mg/L	Grab	February and September
Total Dissolved Phosphorus	mg/L	Grab	February and September
Chloride	mg/L	Grab	February and September
pH	S.U.	Grab	February and September
Escherichia coli	Col/100 mL	Grab	February 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 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 a single sample is required to be collected and analyzed from that well.

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

B. Groundwater Levels:

The permittee shall measure and record the depth to groundwater (below ground surface) in each monitoring well weekly during the months of March, April and May.

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

E4. Receiving Stream Monitoring:

A. Chemical and Bacteriological:

The permittee shall sample the South Tributary at locations upstream and downstream of the indirect discharge and have the samples analyzed for the following:

Parameter	Units	Type	Sample Frequency
Nitrate Nitrogen	mg/L	Grab	February and September
Total Phosphorus	mg/L	Grab	February and September (See note #1)
Total Dissolved Phosphorus	mg/L	Grab	February and September (See note #1)
Chlorides	mg/L	Grab	February and September
Temperature	Degrees Centigrade	Grab	February and September
pH	S.U.	Grab	February and September

Notes:

- (1) Two independent samples shall be taken and analyzed on each sampling date.
- (2) The permittee shall not sample the receiving stream within 24 hours of any storm event affecting the watershed of that stream.
- (3) The results shall be submitted to the Secretary by the 15th day of the second month following the date of sampling.

B. Biological:

If required, the permittee shall conduct biological sampling in the receiving stream (South Tributary only) upstream and downstream of the indirect discharge in accordance with the procedures approved by the Secretary.

E5. Summary Water Quality Evaluation:

By March 31, 2022, the permittee shall have a qualified water quality specialist submit to the Secretary an evaluation of all 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 results of the biological stream monitoring in Condition E4(B) shall be included, if required.

E6. Additional Monitoring Requirements:

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

SECTION F "PUBLIC HEALTH PROTECTION"

This indirect discharge is located within or adjacent to the current Well Head Protection Area for the following water supply source, as designated by the Commissioner of Health in accordance with EPR Chapter 12 Groundwater Protection Rule and Strategy:

1. Bedrock Well serving Holbrook Bay Commons (WSID # 5655)

This does not imply that this water supply is adversely affected by this indirect discharge. If future replacement of this system is required, the potential impact on the public water supply should be evaluated.

SECTION G "COMPLIANCE REVIEW"

If the results of any inspection or monitoring indicate that a violation of the effluent disposal rate, a violation of the Vermont Water Quality Standards, or a significant alteration of the aquatic biota in the receiving streams 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-9-0003, to the Holbrook Bay 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 H "EFFECTIVE DATE"

This Indirect Discharge Permit, ID-9-0003, issued to the Holbrook Bay Homeowners Association, Inc. for the indirect discharge of treated domestic sewage from Holbrook Bay Commons located in Newport Center, Vermont, is effective on this ____ day of October, 2017.

Emily Boedecker, Commissioner
Department of Environmental Conservation

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