

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

**DRAFT  
INDIRECT DISCHARGE PERMIT**

File Code: LLC-9-0050

Permit No.: ID-9-0050  
PIN: RU96-0022

**SECTION A - "ADMINISTRATION"**

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

"Basin Harbor Club"  
Beach Properties, Inc.  
4800 Basin Harbor Road  
Vergennes, Vermont 05491

is authorized to discharge treated domestic sewage from aerated treatment lagoons, evaporation/percolation lagoons and a spray disposal system to groundwater and indirectly to Lake Champlain. **This is a permit renewal for an existing indirect discharge.**

A1. Permit Summary:

Expiration Date	June 30, 2021
Type of Waste	Domestic Sewage
Treatment System	Septic Tank and Aerated Lagoons
Disposal Systems	Evaporation/Percolation Lagoons 2 Sprayfields: Upper (to be constructed) Lower (existing)
Town	Ferrisburgh
Drainage Basin	Lower Lake Champlain
Receiving Water	Lake Champlain
Design Capacity	67,071 gallons per day
Sprayfield Disposal Capacity	
Upper Sprayfield	23,695 gallons/zone per 7-day period (71,085 gallons/sprayfield per 7-day period)
Lower Sprayfield	23,695 gallons/zone per 7-day period (142,170 gallons/sprayfield per 7-day period)

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 # &amp; Description</u>	<u>Schedule Date</u>
A3. Apply for renewal of Indirect Discharge Permit	March 31, 2021
C6. Construction Inspection	As specified
C7. Construction Certification	As specified
D5(A). Have a Vermont Registered Professional engineer complete an inspection of sewage collection treatment and disposal system (evaporation/percolation lagoons only)	Annually during May
D5(B). Submit Annual Inspection Report and submit schedule for implementing engineer's recommendations	Annually by July 1 <sup>st</sup>
D6(A). Have a Vermont Registered Professional engineer complete an inspection of the spray disposal system	During the first week of operating the spray disposal system each year
D6(B). Submit Inspection Report and schedule for implementing engineer's recommendations	Annually, within 30 days of the spray disposal system inspection
D7. Notify Secretary of pumping of tanks and septage disposal	Annually
D8. Notify Secretary of removal of sludge from lagoons	As specified
E2(A) Collect and analyze sewage effluent samples	As specified
E2(B) Record water meter readings	Daily while facility is in operation

A2. Compliance Schedule (continued):

<u>Condition # &amp; Description</u>	<u>Schedule Date</u>
E2(C) Record spray volume and other spray operational parameters	Daily when spraying
E2(D) Record sewage volume pumped at LCMM	When the BHC system is not in operation
E3(A) Collect and analyze groundwater samples	In July and September
E3(B) Measure and record the depths to groundwater in the monitor wells	Weekly March - December Weekly when spraying and during sampling
E2(A-D), E3(A-B) Submit results of monitoring and analyses to the Secretary	As specified

A3. Expiration Date:

This permit, unless revoked, or amended shall be valid until June 30, 2021 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, 2021. 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 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 between the 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(4) 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 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 systems 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 in the Lower Lake Champlain drainage basin in the Town of Ferrisburgh, Vermont. The indirect discharge can be located on the USGS Port Henry, NY - VT 15' quadrangle map at Latitude N 44° 11' 43" and Longitude W 73° 21' 40".

B2. Nature of Indirect Discharge:

The Basin Harbor Club (BHC) is a resort facility located on Lake Champlain in the Town of Ferrisburgh, Vermont. A list of the connections to the sewage treatment and disposal system, including the Lake Champlain Maritime Museum (LCMM), were identified in a June 2006 Fact Sheet.

The permit authorizes the indirect discharge of treated domestic sewage only. The wastewater is treated in treatment lagoons #1 and #2 which are equipped with an aeration system. Following passage through aerated treatment lagoons, the effluent is chlorinated and then pumped to the following lagoons in sequence: #3, #4 and #5 which are evaporation/percolation lagoons. Effluent may also be drawn from the 5<sup>th</sup> evaporation/percolation lagoon and sprayed in the Lower Sprayfield (6 zones, 23,695 gallons per zone per 7 consecutive days, maximum) or the Upper Sprayfield once it is constructed (3 zones, 23,695 gallons per zone per 7 consecutive days, maximum). The combined disposal capacity when the Upper Sprayfield is constructed and both sprayfields are in operation is 213,255 gallons per any 7 consecutive day period, maximum.

This wastewater treatment and disposal system does not receive sewage during the winter months; on-site leachfields are utilized during the winter. Wastewater generated by the LCMM is stored in four 3,500 gallon equalization tanks during the winter months and discharged to the BHC system when that system is in operation.

**SECTION C "SYSTEM APPROVALS"**

C1. Previous Approvals:

There are no known previous approvals for the sewage treatment and disposal system. The existing sewage treatment and disposal system was reportedly constructed in accordance with the following plans by Paulsen Assoc. Inc:

Sheet 1 of 2 entitled "Air-Aqua Oxidation System #5218-A - Domestic & Industrial Waste Lagoons for Basin Harbor Club, dated 7/12/72; and

Sheet 2 of 2 entitled "Air-Aqua Oxidation System #5218-A - Domestic & Industrial Waste Lagoons for Basin Harbor Club, dated 9/20/72.

C2. Lining of Aerated Treatment Lagoons and Lower Sprayfield Approvals:

The lining of the aerated treatment lagoons was accomplished in accordance with the Heindel and Noyes document entitled "Basin Harbor Club, Wastewater Lagoon Liner & Temporary Spray Site: Basis of Design" and the following engineering plans stamped by Bernard Chenette, P.E.:

Sheet 1 of 1 entitled "Basin Harbor Club, Lagoon Site Plan, AS-BUILT" dated April 25, 2006, last revised June 6, 2008.

The construction of the Lower Sprayfield was completed in accordance with the following Heindel & Noyes engineering plans stamped by Bernard Chenette, P.E.:

Sheet 2 of 3 entitled "Basin Harbor Club, Proposed Spray Plan, AS-BUILT" dated April 25, 2006, last revised September 14, 2006; and

Sheet 3 of 3 entitled "Basin Harbor Club, Construction Details and Notes, AS-BUILT" dated April 25, 2006, last revised September 14, 2006.

C3. Approved Plans and Specifications for the Upper Sprayfield:

The construction of the Upper Sprayfield at the Basin Harbor Club shall be accomplished in accordance with the following plans, prepared by Shane M. Mullen, P.E., which have been stamped "Approved" by the Department of Environmental Conservation. No changes shall be made to the approved plans without the written approval of the Secretary.

<u>DRAWING</u>	<u>TITLE</u>	<u>DATE</u>
Sheet 1 of 2	Basin Harbor Club, Ferrisburgh, Vermont Spray Site Expansion	6-15-10
Sheet 2 of 2	Basin Harbor Club, Ferrisburgh, Vermont Spray Site Expansion Details	6-18-10

C3. Approved Plans and Specifications for the Upper Sprayfield (continued):

Additional construction details can be found on Sheet 1 of 1 entitled "Basin Harbor Club – Proposed Spray Area Disposal Map" prepared by Heindel and Noyes, Inc. as well as the application entitled "Basin Harbor Club – Proposed Indirect Discharge Permit Amendment – ID-9-0050" dated June 15, 2010, also prepared by Heindel and Noyes, Inc. The construction of the Upper Sprayfield shall conform to the specifications in that document and the above referenced plans and map (see Condition E1 of this permit regarding monitoring wells).

As part of the construction of the Upper Sprayfield, the permittee shall install the following monitoring wells: MW-130, MW-131, MW-132, MW-133, and MW-134. Monitoring wells MW-130 through MW-133 shall be located as depicted on the plan entitled "Basin Harbor Club, Ferrisburgh, Vermont, Spray Site Expansion" stamped by Shane M. Mullen, P.E. and dated 6-15-10. MW-134 shall be installed approximately 250 feet due south of MW-130 and shall be installed to the same specifications as the other monitoring wells.

The construction of the Upper Sprayfield shall be accomplished under the inspection of a Vermont registered professional engineer. The engineer shall provide certification of construction in accordance with Condition C5 below.

C4. Construction Inspection:

Before the start of any construction on the Upper Sprayfield, the permittee shall submit a copy of a signed contract with a Vermont Registered Professional Engineer to provide inspection of the approved construction to the Secretary. The contract, at a minimum, shall provide for the following items:

- a. The names and qualifications of personnel providing inspection.
- b. The location of the major components of the Upper Sprayfield shall be staked out by a Vermont Registered Professional Engineer or surveyor in accordance with the approved plans.
- c. The engineer shall, following completion of construction of the Upper Sprayfield, verify the proper operation of the system including even distribution of spray effluent.
- d. For the construction of the Upper Sprayfield, the engineer shall provide general inspection of the work at reasonable intervals to assure that construction is in accordance with the approved documents, plans and specifications.



C4. Construction Inspection (continued):

- e. For the construction of the Upper Sprayfield, the engineer shall maintain written reports of all inspections performed including dates, items inspected and comments. Copies of all inspection reports shall be submitted to the Secretary a minimum of once every two weeks.
- f. For the construction of the Upper Sprayfield, when the system construction is complete and before the inspecting engineer has issued their certification, the permittee shall arrange an inspection of the system with the engineer and the representatives of the Secretary.

C5. Construction Certification:

Within 30 days following completion of construction of the Upper Sprayfield, the engineer shall certify in writing to the Secretary that the construction is complete and in accordance with approved plans and specifications, and shall submit As-Built drawings for the component(s) of the system constructed.

The numerical results of the pressure and leakage tests on the sewer force main, shall be submitted as part of the inspecting engineer's certification of construction. The engineer's certifications of construction shall be subject to the review and acceptance of the Secretary.

**SECTION D "SYSTEM OPERATION"**

D1. General Operating Requirements:

The sewage collection, treatment, evaporation/percolation lagoon disposal system and spray disposal system shall be operated at all times in a manner that will (1) not permit the discharge of untreated sewage onto the surface of the ground; (2) not result in the resurfacing of spray effluent after disposal onto the ground; (3) not result in the direct discharge of sewage into the waters of the State; and (4) not result in a violation of Water Quality Standards.

In accordance with accepted design practices, the effluent disposal rate to the evaporation/percolation lagoon disposal system shall not exceed 67,071 gallons per day except as may occur on an occasional basis during normal operation.

The permittee shall not allow any person to discharge or cause to be discharged, anything other than sanitary (domestic) wastewater to this treatment and disposal facility.

D2. Spray Disposal Fields Operating Requirements:

The Upper and Lower Sprayfields shall be operated at all times in accordance with the following limits:

- a. The groundwater table shall not rise closer than one foot to ground surface in the disposal area as a result of spraying. Spraying shall not be conducted when groundwater is within one foot of ground surface or when surface runoff is occurring.
- b. Spraying shall only occur during the months of May – October.
- c. In any consecutive seven (7) day period, the total wastewater applied shall not exceed 1.0 inch (23,695 gallons) on the wetted area of any sprayfield zone, shall not exceed 142,170 gallons in the Lower Sprayfield, or shall not exceed 71,085 gallons in the Upper Sprayfield.
- d. The application rate in either sprayfield shall be reduced to a maximum of 0.5 inches in any consecutive seven (7) day period when groundwater levels in the sprayfield area are between 1.25 feet and 1.0 foot below ground surface.
- e. The maximum hourly rate of wastewater application shall not exceed 0.25 inches per hour.
- f. There shall be a minimum of a 24-hour rest period between spray applications for any spray zone.
- g. No more than two zones in the Lower Sprayfield or one zone in the Upper Sprayfield shall be utilized on any given day.
- h. Effluent which is sprayed must have passed through Lagoons 3, 4 and 5 in sequence following treatment in the aerated lagoons.
- i. No spraying shall be conducted when anemometer measurements indicate any winds from the North or East equal or exceeding 15 mph in velocity.

D3. Lagoon Effluent Limitations:

The effluent discharged to the evaporation/percolation lagoons shall meet the following limitations at all times:

<u>Parameter</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Biochemical Oxygen Demand (5-day)	30 mg/L	50 mg/L
Total Suspended Solids	30 mg/L	50 mg/L
Escherichia coli (E. coli)	---	77 col/100 mL <sup>(1)</sup>

(1) Based on chlorination of the treated effluent discharged to the evaporation/percolation lagoons.

D4. Effluent Spray Disposal Limitations:

The spray effluent shall meet the following effluent limitations:

<u>Parameter</u>	<u>Maximum at any Time</u>
Biochemical Oxygen Demand (5-day)	30 mg/L
Total Suspended Solids	30 mg/L
Escherichia coli (E. coli)	77 col/100 mL <sup>(1)</sup>
Chlorine Residual Total or Free	4 mg/L (minimum) <sup>(1)</sup>
	1 mg/L (minimum)

<sup>(1)</sup> The treated sewage effluent is chlorinated prior to discharge to the three evaporation/percolation lagoons. Should the spray effluent fail to meet the Escherichia coli effluent limitation of 77 col/100 mL, the chlorine residual minimum concentrations must be met at the spray nozzle.

D5. System Inspection, Report and Implementation Schedule:

(A) Annual Inspection:

Annually during the month of May, the permittee shall engage 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. verification of the proper operation of all lift station pumps, alarms, and controls;

D5. System Inspection, Report and Implementation Schedule:

(A) Annual Inspection (continued):

3. evaluation of the accumulation of solids and scum in all BHC and LCMM septic tanks and determine if any of the septic tanks should be pumped out that year;
4. verifying the proper operation of the aeration system in the aerated treatment lagoons;
5. measurement and evaluation of sludge levels in the aerated lagoons and evaporation/percolation lagoons;
6. evaluating the performance of the sewage treatment facility over the past year against the permitted effluent limits and related requirements (including flows and spray disposal); and
7. noting any necessary repairs or maintenance that needs to be performed on the sewage collection, treatment, and disposal system.

(B) Annual Inspection Report:

By July 1<sup>st</sup> 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. a discussion of the recommended repairs and maintenance required; and
3. an evaluation of metered water use, effluent monitoring data, lagoon sludge level measurements, groundwater elevation measurements and spray disposal operational records to verify compliance with permit requirements.

(C) Implementation Schedule:

By July 1<sup>st</sup> 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.

D6. Spray Disposal System Inspection, Report and Implementation Schedule:

(A) Annual Inspection:

Annually, during the first week of operating the spray disposal system, the permittee shall engage a Vermont Registered Professional engineer to make a thorough inspection, evaluation, and report of the complete spray disposal system. The engineer's inspection shall include, but not be limited to the following:

1. verification of the proper operation of all pumps, alarms, and controls;
2. verifying the proper operation of the disinfection system;
3. walking each spray lateral in the spray fields and checking for the proper operation of the spray system, noting any repairs needed and any areas of erosion or concentrated surface runoff;
4. checking the calibration of the spray effluent flow metering system; and
5. noting any necessary repairs or maintenance that needs to be performed on the spray disposal system.

(B) Annual Inspection Report:

Within 30 days of the date of the spray disposal system inspection, the permittee shall have a professional engineer submit a report including the following items:

1. a complete list of the items inspected and the results of the inspection;  
and
2. a discussion of the recommended repairs and maintenance required;

(C) Implementation Schedule:

Within 30 days of the spray disposal system inspection, 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.

D7. Septage Disposal:

The main septic tank in the system shall be pumped out annually. Other septic tanks in the system, including the Lake Champlain Maritime Museum septic tanks, shall be pumped out when determined necessary by the inspecting engineer. When it is determined by the inspecting engineer during the annual inspection that pumping is required, the septic tanks shall be pumped out by July 1<sup>st</sup> of the year of the inspection. Before pumping the tanks, the permittee shall notify the Secretary in writing, of the name and address of the pumper and the municipal sewage treatment facility where the septage is to be disposed or other facility approved by the Secretary.

D8. Sludge Disposal:

When determined necessary by the inspecting engineer, sludge from the aerated lagoons and evaporation/percolation lagoons shall be pumped out. All sludge removed from the sewage treatment facility shall be disposed of at locations approved by the Department of Environmental Conservation. The permittee shall comply with the reporting procedures specified in the approved Sludge Management Plan.

D9. Lagoon Freeboard Requirements:

A minimum three (3) feet of freeboard shall be maintained in the aerated lagoons and a minimum two (2) feet of freeboard maintained in the evaporation/percolation lagoons at all times.

D10. Wastewater Treatment Plant Operator Qualifications:

The permittee is required at all times to employ a wastewater treatment plant operator with a minimum Grade II operator certificate from the Department of Environmental Conservation in accordance with the September 25, 2014 Wastewater Treatment Facility Operator Certification Rule to operate the treatment and disposal system. The permittee shall notify the Agency in writing of any change in the operator employed to operate the treatment facility and shall submit their names to the Secretary in writing.

D11. 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.

D12. 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.

D13. 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.

D14. Miscellaneous Requirements:

The banks and berm around the aerated lagoons and evaporation/percolation lagoons shall be mowed and/or otherwise cleared of vegetation at least once per year.

D15. Potential Increase in Spray Application Rate:

The permittee may submit a proposed operational plan to the Secretary for review and approval for the evaluation of higher application rates in the Lower Sprayfield. The permittee may not apply more than 1.0 inch (23,695 gallons) on the wetted area of any sprayfield zone in any consecutive seven (7) day period without prior approval from the Secretary.

**SECTION E "MONITORING"**

E1. Quality Assurance/Quality Control Plan:

The permittee shall perform all sampling and monitoring in accordance with the October 25, 2010 Quality Control/Quality Assurance plan and the schedules specified below.

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 evaporation/percolation lagoons shall be sampled and analyzed as follows:

Parameter	Units	Sample Type	Sample Frequency
Biochemical Oxygen Demand (5-day)	mg/L	Grab	Monthly <sup>(1)</sup>
Total Suspended Solids	mg/L	Grab	Monthly <sup>(1)</sup>
Total Kjeldahl Nitrogen	mg/L	Grab	July & September
Ammonia (as N)	mg/L	Grab	July & September
Nitrate (as N)	mg/L	Grab	July & September
Total Phosphorus	mg/L	Grab	July & September
Total Dissolved Phosphorus	mg/L	Grab	July & September
Chlorides	mg/L	Grab	July & September
pH	S.U.	Grab	July & September
Escherichia coli	Col/100mL	Grab	Monthly <sup>(1)</sup>
Levels in all Lagoons	feet	Staff Gage	Weekly, April - November

All samples shall be taken prior to discharge to the evaporation/percolation lagoons. 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.

<sup>(1)</sup> In addition to the sample taken for the discharge to the evaporation/percolation lagoons, a grab sample for Escherichia coli shall be taken each month when the spray disposal fields are in use. That sample shall be taken from a spray nozzle or spray sampling tap in the sprayfield after the system has been in operation at least 20 minutes.

B. Sewage Volume

The permittee shall record water meter readings for all buildings connected to the sewage treatment and disposal system daily for the period that the Basin Harbor Club is in operation. The total daily volume and the individual water meter readings shall be submitted to the Secretary by the 15th day of the month following the date of recording. Alternatively, sewage flow measurements based on pump run time may be submitted on the same schedule.



E2. Sewage Effluent Monitoring (continued):

C. Spray Volume and Other Measurements

The permittee shall record the sprayfield operational parameters including daily spray volume, spray rate, inches of spray applied, etc., on monthly forms supplied by the Secretary for that purpose [WR-43-3; WR-43-12; WR-43-13; and WR-43-14]. Wind speed and direction measurements taken at the start and end of each spray disposal event shall also be recorded. The forms shall be completed, signed and submitted by the 15th of the month following the date of spraying.

D. Equalization Tankage Usage

On a weekly basis, the permittee shall record the gallons of sewage pumped to the four 3,500 gallon equalization tanks at the Lake Champlain Maritime Museum during the period when the Basin Harbor Club WWTF is not in operation. The total weekly volume shall be submitted to the Secretary by the 15th day of the month following the date of recording.

E3. Groundwater Monitoring:

A. Chemical and Bacteriological Monitoring:

The permittee shall sample one (1) groundwater monitoring well upgradient and three (3) groundwater monitoring wells around and downgradient of the treatment and evaporation/percolation lagoon disposal system (MW-1 through MW-4).

The permittee shall also sample three (3) groundwater monitoring wells downgradient of the Lower Sprayfield (MW-127, MW-128, MW-129). The permittee shall sample two (2) additional monitoring wells downgradient of the Upper Sprayfield (MW-130, and MW-134) after the Upper Sprayfield is constructed and operational.

A. Chemical and Bacteriological Monitoring (continued):

The groundwater in these monitoring wells shall be sampled and analyzed for the following parameters at the following frequency:

Parameter	Units	Sample Type	Sample Frequency
Nitrate (as N)	mg/L	Grab	July & September
Total Dissolved Phosphorus	mg/L	Grab	July & September
Chlorides	mg/L	Grab	July & September
pH	Standard Units	Grab	July & September
Escherichia coli	Colonies/100 mL	Grab	July & September
Depth to groundwater below ground surface	feet and inches	At time of sampling	Weekly <sup>(1)</sup>

<sup>(1)</sup> All wells shall be checked at least weekly and a sample shall be taken if the well has water at any time during the month.

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. Groundwater Levels:

The depth to groundwater (below ground surface) shall be measured and recorded weekly during the months of March through December for the four (4) groundwater monitoring wells installed around the evaporation/percolation lagoons.

During the months the sprayfields are in operation, the depth to groundwater (below ground surface) shall be measured and recorded weekly in the following monitoring wells (MW-121 through MW-134, MW-101 through MW-104). The wells in and around the Upper Sprayfield shall be monitored after the Upper Sprayfield is constructed and operational.

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

E4. Additional Monitoring Requirements:

No other 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 A7 should operation of the system fail to meet the requirements of Conditions D1, D2, D3, D4 or D11.

**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-9-0050, to Beach Properties, 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-9-0050, issued to Beach Properties, Inc. for the discharge of treated domestic sewage from the Basin Harbor Club located in Ferrisburgh, Vermont, is effective on this \_\_\_\_\_ day of November, 2016.

Alyssa B. Schuren, Commissioner  
Department of Environmental Conservation

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