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

## DRAFT INDIRECT DISCHARGE PERMIT

Permit No.: ID-9-0262

PIN: RU97-0042

#### SECTION A "ADMINISTRATION"

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

Corporacion El Cerrito, Inc. 25 Washington Street Rutland, Vermont 05701

is authorized to indirectly discharge treated domestic sewage from a wastewater system serving the Skyeship Inn in Killington, Vermont to groundwater and indirectly into an unnamed tributary of the Ottauquechee River. This is a permit renewal.

#### A1. Permit Summary:

Expiration Date June 30, 2021 Type of Waste Domestic Sewage

Treatment System Septic Tanks/Recirculating Sand Filter

Disposal System Leachfields/Trenches

Town Killington

Drainage Basin Ottauquechee River
Receiving Stream Unnamed Tributary of the
Ottauquechee River

Drainage Area 344 acres (0.54 square miles)

Low Median Monthly (LMM)
Summer Stream Flow
179,400 gallons per day (estimated)

7Q10 Summer Stream Flow 52,700 gallons per day (estimated)

Disposal Capacity 15,000 gallons per day Dilution Ratio

(Stream Flow to Effluent) 12.0:1 LMMF 3.5:1 7Q10

#### 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 # & Description		Schedule Date	
A3.	Apply for renewal of Indirect Discharge Permit	March 31, 2021	
C2.	Submit a copy of a contract with a Vermont registered P.E. to provide inspection of system construction	Before start of any construction on the collection treatment, and disposal system	
C3.	Submit inspecting Engineer's Certification of Construction	Within 30 days following completion of construction	
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 1 <sup>st</sup>			
D2(C)	).Submit schedule for implementing engineer's recommendations	Annually by July 1 <sup>st</sup>	
D4.	Submit Operation and Maintenance Manual	Before any building connected to the system is occupied or commences business	
D5.	Employ Certified System Operator	As specified	
E1.	Submit a Quality Assurance/ Quality Control Plan for required required monitoring	Before the connection of the first unit or building to the system	
E2.	Collect and record flow	Daily	
E2.	Collect and analyze septic tank effluent samples	February and September	

### A2. Compliance Schedule (continued):

Condition # & Description		Schedule Date
E3.	Collect and analyze recirculating sand filter effluent samples	February and September
E4.	Record pump hour readings	Daily
E5.	Record effluent volume	Daily
E6.	Inspect recirculating sand filter	Weekly
E7.	Collect and analyze groundwater monitor samples	June and September
E8.	Measure and record the depths to groundwater in the monitoring wells	Weekly, March 1 to May 31
E9.	Measure and record the depth of ponding in the observation wells	Weekly
E10.	Collect and analyze surface water samples	June and September
E11.	Conduct biological sampling	As Specified
E2, E	3, E7, E10 Submit results of monitoring	By the 15 <sup>th</sup> of the second month following the date of sampling
E4, E	5, E6, E8, E9 Submit results of monitoring and recirculating sand filter inspection	By the 15 <sup>th</sup> of the month following the date of measurement
E10.	Submit results of biological sampling	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 signing.

#### 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 discharge originates. The proposed transferee shall make application for a permit to be reissued in his 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. If the transferee is a corporation or an association of unit owners or other legal entity, it shall be demonstrated that such legal entity has 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 permittee 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 monitoring frequency, in accordance with Section F of this permit.

#### A8. Compliance Demonstration Method:

This indirect discharge was previously reviewed and qualified for an Indirect Discharge Permit in accordance with Section 14-403(C) Systems with New Indirect Discharges to Class B Waters of the Indirect Discharge Rules, effective February 29, 1996. Compliance with the Aquatic Permitting Criteria was originally demonstrated by using the Treatment Index Method (Section 14-B-100 of the Indirect Discharge Rules, effective February 29, 1996).

This indirect discharge qualifies for an Indirect Discharge Permit by demonstrating compliance with the Aquatic Permitting Criteria through the use of the Treatment Index Method, Section 14-903 of the Indirect Discharge Rules, effective April 30, 2003.

A Wastewater System and Potable Water Supply Permit is required for all buildings to be connected to the system.

#### A9. Right of Department to Inspect:

The permittee shall permit the Secretary or the Secretary's authorized representative upon the presentation of his credentials:

- To enter upon permittee's premises in which any effluent treatment or disposal system is located or in which any records are required to be kept under the conditions of the permit;
- 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, or groundwater monitor; and
- e. To inspect at reasonable times, any collection, treatment, pollution management or monitoring equipment required by this permit.

#### A10. Permit Availability:

A copy of the approved plans and 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 a permit amendment.

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

#### A12. Operating Fees:

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

#### SECTION B "INDIRECT DISCHARGE"

#### B1. Location of Indirect Discharge:

The proposed subsurface disposal system is located on Spruce Knoll in the Town of Killington, Vermont. The proposed indirect discharge is located in the unnamed tributary of the Ottauquechee River immediate east of Spruce Knoll.

The location of the proposed subsurface disposal system and indirect discharge can be found on the United States Geological Survey, Killington Peak, Vermont 7.5' quadrangle at approximately Longitude 72°45'00" and Latitude 43°36'45".

#### B2. Nature of Indirect Discharge:

There are three leachfield disposal areas proposed to handle the design flow of 15,000 gallons per day. Disposal Area A, B, and C each consists of two trench disposal fields, each field having a disposal capacity of 5,000 gallons per day. The fields will be alternated on an annual basis. The approved application rate to the leachfields is 1.05 gallons per day per square foot.

Wastewater from the Skyeship Inn will be initially collected in two septic tanks in series, the first with a capacity of 8,000 gallons and the second with a capacity of 5,000 gallons. The Skyeship Inn will also be serviced by a 10,000-gallon grease trap. Septic tank effluent will be pumped to a recirculating sand filter, where further treatment takes place. Pressure distribution to the trench disposal fields is provided by pumping the recirculated sand filter effluent to the disposal fields via a network of force mains and manifolds.

#### SECTION C "SYSTEM CONSTRUCTION"

#### C1. Approved Plans:

The sewage collection, treatment, and disposal systems shall be completed in accordance with the following plans and specifications prepared and stamped by John M. Bruno, P.E. of Bruno Associates Inc. P.C., and which have been stamped "APPROVED" by the Secretary. No changes shall be made to the plans without prior written approval from the Secretary.

SHEET#	TITLE	DATE PREPARED	LAST REVISION DATE
1 of 9	Site Plan for Spruce Knoll	9/28/95	7/24/96
1A of 9	Overall Site Plan for Spruce Knoll	4/3/96	7/24/96
2 of 9	Wastewater Disposal System & Distribution Layout	1/26/96	7/26/96
3 of 9	Wastewater Disposal System Pressure Distribution	1/25/96	7/24/96
4 of 9	Wastewater Disposal Details	1/26/96	7/26/96
5 of 9	Recirculating Sand Filter Details	1/26/96	7/24/96
6 of 9	Sand Filter System Details	1/26/96	7/26/96
7 of 9	Leach Field Sections	1/26/96	7/24/96
8 of 9	Leach Field Sections	1/26/96	7/26/96

The sand filter building ventilation and interior access shall be completed in accordance with the following plan and specifications prepared and stamped by David G. Beilman, Licensed Architect of Beilman Architecture and which have been stamped "APPROVED" by the Secretary. No changes shall be made to the plans without prior written approval from the Secretary.

SHEET#	TITLE	DATE PREPARED	LAST REVISION DATE
A-1	Sand Filter Building	7/20/96	NONE

#### C1. Approved Plans (continued):

The connection of the Skyeship Inn to the wastewater treatment and disposal system shall be completed in accordance with the following plans and specifications for Corporation El Cerrito, Killington, Vermont, Skyeship Inn Water Supply and Wastewater Project, prepared and stamped by Charles K. Goodling, P.E., of DuBois & King, Inc.:

SHEET#	TITLE	DATE PREPARED	LAST REVISION DATE
1 of 10	Sewer and Water Plan	February, 2001	None
2 of 10	Water Line and Force Main Profile	February 2001	None
4 of 10	Sanitary Sewer Plan and		
	Profile	February, 2001	None
6 of 10	Wastewater Pump Station		
	Details	February, 2001	None
7 of 10	Grease Trap and Septic Tank		
	Details	February, 2001	None
8 of 10	Miscellaneous Details	February, 2001	None
9 of 10	Electrical Site Plan and Details	February, 2001	None
10 of 10	Electrical Details	February, 2001	None

and the document entitled "Skyeship Inn - Water Supply and Wastewater Project - Killington, Vermont - Technical Specifications - R16678 - February, 2001" and which have been stamped "APPROVED" by the Secretary. No changes shall be made to the plans without prior written approval from the Secretary.

#### C2. <u>Construction Inspection</u>:

Before the start of any construction on any portion of the sewage collection, treatment, and disposal system, 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 grease trap, septic tanks, pump stations, manholes, sewer force mains, gravity sewer lines, and the disposal fields shall be staked out by a Vermont Registered Professional Engineer or surveyor in accordance with the approved plans.
- c. The engineer or designated representative shall be present for the installation of all major system components.

#### C2. <u>Construction Inspection (continued)</u>:

- d. The engineer or designated representative shall be present for the leakage and pressure testing of the sewer force mains and sewer gravity lines (including building sewers), and leakage testing of all tankage (including the sand filter).
- e. The engineer or inspector shall inspect the preparation of the infiltration surface of the disposal fields before the crushed stone and distribution piping is installed.
- f. The engineer or designated representative shall, prior to backfilling the distribution piping in each disposal field, supervise the testing of each network with clean water to assure that there is complete and even distribution. The minimum pressure at the end of each distribution line shall be one (1) psi (or 2.3 feet of head). The difference in discharge rate between any two orifices in the same disposal field shall not exceed 15%. Differences in discharge rates greater than 15% and/or pressures less than one psi will require corrective action.
- g. The engineer shall verify the media for the recirculating sand filter meets the specifications.
- h. The engineer or designated representative shall perform testing of the distribution system of the recirculating sand filter with clean water to assure that there is complete and even distribution.
- The engineer shall provide general inspection of the work at reasonable intervals to assure that construction is in accordance with the approved plans and specifications.
- j. 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.
- k. When the system construction is complete and before the inspecting engineer has issued his certification, the permittee shall arrange an inspection of the system with the inspecting engineer and the Secretary. This is applicable to the connection of the Skyeship Inn as well as the construction of the wastewater treatment and disposal system.

#### C3. Construction Certification:

Within 30 days following completion of construction of the Skyeship Inn grease trap, septic tanks, pump station and forcemain and again following completion of construction of the remainder of the wastewater treatment and disposal system, the inspecting professional 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 plans for the system. The numerical results of the leakage tests on the sewer forcemains, gravity sewer lines, manholes, all tankage, and pressure distribution testing shall be submitted as part of the inspecting engineer's certification of construction. The engineer's certification of construction shall be subject to the review and acceptance of the Secretary.

#### **SECTION D "SYSTEM OPERATION"**

#### D1. System Operation:

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 Water Quality Standards; and (5) not result in a significant alternation of the aquatic biota.

The disposal fields shall be alternated on an annual basis.

The sand filter cells shall be alternated so that each cell is rested for six months at least once every three years.

In accordance with accepted design practices, the effluent disposal rate to the disposal fields shall not exceed 15,000 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. verification of the use of alternate disposal fields and sand filter cells;
- 2. verification of the proper operation of all pumps, alarms, and controls in each pump station;

#### D2. <u>Annual Inspection, Report and Implementation Schedule (continued)</u>:

- A. <u>Annual Inspection (continued)</u>:
- 3. perform a drawdown test on the leach field pump station pumps;
- 4. inspection of the entire collection system, which includes removing each manhole cover to observe the condition of the sewers and manholes, and noting any signs of inflow or excess infiltration;
- 5. walking each disposal field, noting any signs of ponding effluent and the general condition of the surface of the disposal field;
- 6. inspecting the surface of each cell of the sand filter;
- 7. measuring the accumulation of solids and scum in the septic tanks and verifying the pumping of the tanks if necessary;
- 8. checking the grease trap and verifying pumping of the grease trap;
- 9. checking all the observation wells and note the depth of liquid level in each well;
- 10. checking all groundwater monitoring wells and noting the depth to groundwater below the ground surface; and
- 11. noting any necessary repairs or maintenance that needs to be performed.
- (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. the measured depths of scum and sludge in the septic tanks;
- 3. a discussion of the performance of the recirculating filter relative to effluent quality; and
- 4. a discussion of the recommended repairs and maintenance required.

#### (C) <u>Implementation Schedule</u>:

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 and including a schedule for recommended repairs and maintenance.

#### D3. Septage Disposal:

During the system's annual inspection, the depth of sludge and scum shall be measured in all septic tanks in the system. 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 where the septage is to be disposed or other facility approved by the Secretary.

Before the septic tanks are first pumped, the permittee shall notify the Department of Environmental Conservation in writing, of the name and address of the pumper to be used. If there is a change in the name of the pumper to be used the permittee shall notify the Department in writing thirty (30) days prior to pumping the tanks. The sludge must be disposed of at a municipal sewage treatment facility or at a disposal site approved by the Secretary.

#### D4. Operation and Maintenance Manual:

Before any building connected to the sewage collection, treatment and disposal system is occupied or commences business, the permittee shall submit for review and approval a detailed Operation and Maintenance Manual for the sewage collection, treatment and disposal system. The manual shall be prepared by a Vermont Registered Professional Engineer, and submitted to the Secretary.

#### D5. System Operator:

Before any operation of the wastewater system, the permittee is required to employ a wastewater treatment facility Chief Operator with a Grade I certification at all times. An applicant for Grade I certification with provisional certification from the Secretary may be employed for the first 18 months. If the Secretary establishes an alternate certification for operators of treatment facilities such as approved in this permit then the permittee will be required to employ an operator certified for that level within 18 months of operation of the system.

The permittee shall notify the Secretary, in writing, before the operation of the wastewater system, as to the name of the chief operator for the system. The permittee shall notify the Secretary in writing of any change in chief operators.

#### D6. System Operation and Maintenance:

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

#### D7. Reporting of Failures:

The permittee shall immediately report any failure of the wastewater 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.

#### D8. <u>Discharge Restrictions</u>:

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

#### SECTION E "MONITORING"

#### E1. Quality Assurance/Quality Control Plan:

Before the connection of the first unit or building to the wastewater system, the permittee shall submit a Quality Assurance/Quality Control plan of all required monitoring for review and approval. The plan shall include identification of all analytical procedures, detection limits, sampling methods, sample preservation methods, all sampling locations, sampling frequency, reporting times, and quality control measures for both sampling and analysis. A map shall be included indicating the sampling locations.

The laboratory identified in the Quality Assurance/Quality Control Plan shall demonstrate successful performance for U.S. EPA check samples for all parameters and shall analyze any check samples provided by the Department. Failure to obtain an acceptable result for either the Department or EPA check samples may be a basis for requiring an alternate analytical laboratory.

#### E2. Septic Tank Effluent Monitoring:

Upon the connection of the first building or unit to the system, the septic tank effluent shall be sampled as per the QA/QC Plan and analyzed as follows:

<u>Parameter</u>	Measurement Units	Sample Type	Sample Frequency
рН	S.U.	grab	Feb, Sept
Biochemical Oxygen Demand (5-day)	mg/L	grab	Feb, Sept
Total Suspended Solids (TSS)	mg/L	grab	Feb, Sept
Chloride (CI-)	mg/L	grab	Feb, Sept
Total Phosphorus (TP)	mg/L	grab	Feb, Sept
Total Dissolved Phosphorus (TDP)	mg/L	grab	Feb, Sept
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	Feb, Sept
Ammonia Nitrogen (NH₃)	mg/L	grab	Feb, Sept
Nitrate Nitrogen (NO <sub>3</sub> as N)	mg/L	grab	Feb, Sept
Nitrite Nitrogen (NO <sub>2</sub> as N)	mg/L	grab	Feb, Sept

The septic tank effluent samples shall be collected at the inlet end of the building pump station.

The results of the analyses shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the second month following the date of sampling.

#### E3. Sand Filter Effluent Monitoring:

Upon the connection of the first building or unit to the system, the sand filter effluent shall be sampled as per the QA/QC Plan and analyzed as follows:

Parameter	Measurement Units	Sample Type	Sample Frequency
рН	S.U.	grab	Feb, Sept
Biochemical Oxygen Demand (5-day)	mg/L	grab	Feb, Sept
Total Suspended Solids (TSS)	mg/L	grab	Feb, Sept
Chloride (CI-)	mg/L	grab	Feb, Sept
Total Phosphorus (TP)	mg/L	grab	Feb, Sept
Total Dissolved Phosphorus (TDP)	mg/L	grab	Feb, Sept
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	Feb, Sept
Ammonia Nitrogen (NH <sub>3</sub> )	mg/L	grab	Feb, Sept
Nitrate Nitrogen (NO <sub>3</sub> as N)	mg/L	grab	Feb, Sept
Nitrite Nitrogen (NO <sub>2</sub> as N)	mg/L	grab	Feb, Sept

Samples shall be taken at the inlet to the leachfield pump station.

The results of the analyses shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the second month following the date of sampling.

#### E4. Pump Hour Readings:

Daily, and at approximately the same time each day, the permittee shall record the readings on the pump hour clocks by pump station for all the pumps in the system. The daily readings, totals for the month, and daily average for the month shall be submitted to the Department of Environmental Conservation by the 15<sup>th</sup> of the month following the date of the readings.

#### E5. <u>Effluent Flow Volume</u>:

Daily, and at approximately the same time each day, the permittee shall record the volume of recirculated sand filter effluent discharged to the disposal fields. The daily total, monthly total, and daily average for the month shall be submitted to the Department of Environmental Conservation by the 15<sup>th</sup> of the month following the date of the readings.

#### E6. Inspection of Recirculating Sand Filter:

The depth of ponding in each recirculating sand filter cell shall be measured and recorded weekly. The overall condition of the media surface in each recirculating sand filter cell shall be recorded at the time of the ponding measurements. If ponding exceeds six (6) inches the media surface shall be exposed and the surface rehabilitated by raking and removing surface sand if necessary. Complete removal of the surface sand may be necessary if the effluent quality has deteriorated.

Results of the weekly measurements and observations shall be submitted to the Department of Environmental Conservation by the 15<sup>th</sup> of the month following the date of measurement and observation period.

#### E7. Groundwater Monitoring:

The Quality Assurance/Quality Control plan shall include the installation of at least 1 groundwater monitoring well upgradient, and 2 groundwater monitoring wells downgradient of the leachfield disposal area. The two downgradient monitoring wells shall be placed in the flow path of the soil renovated effluent. All groundwater monitoring wells shall be located and constructed to a standard which insures groundwater samples that will characterize any impacts occurring at the site from the disposal system.

#### E7. Groundwater Monitoring (continued):

Sampling of the groundwater shall commence upon the connection of the first building or unit to the system. The groundwater in each of the groundwater monitoring wells shall be sampled as per the QA/QC Plan and analyzed as follows:

Parameter	Measurement Units	Sample Type	Sample <u>Frequency</u>
Escherichia coli	Colonies per 100 mL	grab	June & Sept
рН	S.U.	grab	June & Sept
Chloride (CI-)	mg/L	grab	June & Sept
Total Dissolved Phosphorus (TDP)	mg/L	grab	June & Sept
Nitrate Nitrogen (NO <sub>3</sub> as N)	mg/L	grab	June & Sept
Depth to Groundwater	inches (Below Ground surface)		At time of sampling

Because of the changing water table conditions, the samples from the ground water monitors might not be collected on the same day or in the same week. If a monitor has water at any time during the month, then a sample is required to be collected and analyzed.

The results of these analyses and measurements shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the second month following the date of groundwater level measurement.

#### E8. Groundwater Levels:

For each groundwater monitoring well installed, the depth to groundwater (below ground surface in inches) shall be measured and recorded weekly for the period March 1 to May 31 each year.

The results of measurements shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the month following the date of sampling.

#### E9. Observation Wells:

The depth of ponding in each of the observation wells shall be measured and recorded weekly.

The results of measurements shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the month following the date of sampling.

#### E10. Receiving Stream Monitoring:

The Quality Assurance/Quality Control plan shall include establishing a total of two (2) surface water sampling stations. One surface water sampling station shall be upstream of the leachfields and one surface water sampling station downstream of the indirect discharge.

Sampling of the surface water shall commence upon the connection of the first building or unit to the system. The surface water at each of the surface water sampling stations shall be sampled as per the QA/QC Plan and analyzed as follows:

Parameter	Measurement Units	Sample Type	Sample <u>Frequency</u>
Escherichia coli	Colonies/100 mL	grab	June & Sept
рН	S.U.	grab	June & Sept
Chloride (CI-)	mg/L	grab	June & Sept
Total Phosphorus (TP)	mg/L	grab	June & Sept (see Note #1)
Total Dissolved Phosphorus (TDP)	mg/L	grab	June & Sept (see Note #1)
Nitrate Nitrogen (NO <sub>3</sub> as N)	mg/L	grab	June & Sept
Temperature	Degrees C	grab	June & Sept
Dissolved Oxygen	mg/L	grab	June & Sept
Turbidity	NTU	grab	June & Sept

<sup>&</sup>lt;sup>1</sup> 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.

#### E10. Receiving Stream Monitoring (continued):

The results of the surface water monitoring shall be submitted to the Department of Environmental Conservation prior to the 15<sup>th</sup> of the second month following the date of sampling.

#### E11. Biological Sampling:

The following requirement is effective upon the connection of the first building or unit to the system.

By May 1, 2020, the permittee shall submit a procedure to the Department for review and approval for biological monitoring during the months of August and September, 2020 in the receiving stream.

In August and September, 2020, the permittee shall conduct biological monitoring in the receiving stream upstream and downstream of the indirect discharge in accordance with the procedures approved by the Department.

Results of the biological sampling shall be submitted to the Department of Environmental Conservation no later than March 31, 2021.

#### E12. 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 permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements or shall ensure that both activities will be conducted. Samples shall be representative of the volume and quality over the sampling and reporting period.

#### E13. <u>Miscellaneous Monitoring</u>:

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 monthly report.

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 as well as analytical procedures used, interim results obtained and all calculations supporting the reported test results.

#### **SECTION F "COMPLIANCE REVIEW"**

If the results of monitoring and analysis of the effluent, groundwater, or surface water indicates that a violation of the effluent disposal limits, or a violation of the Vermont Water Quality Standards, or a Significant Alteration of the Aquatic Biota has occurred, is occurring, or is likely to occur, the Secretary may increase the frequency of, or change the location and/or type of monitoring of the ground and surface water, and/or require the permittee to take appropriate corrective actions to eliminate or reduce the possibility of a violation.

The issuance of this permit, ID-9-0262, to Corporation El Cerrito by the Department 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 Department 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 "FFFFCTIVE DATF"

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waste	Indirect Discharge Permit, ID-9-0262, to Corporation El Cerrito for the discharge of ewater from the Skyeship Inn in Killington, Vermont is effective on this f September, 2016.
•	a B. Schuren, Commissioner rtment of Environmental Conservation
Ву:	DRAFT Bryan Redmond, Director Drinking Water and Groundwater Protection Division