AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3521

INDIRECT DISCHARGE PERMIT
FACT SHEET

October 2017

PERMIT NO.: ID-9-0276

APPLICANTS: Arbor Gardens/Fox Brook Homeowners Association
218 Overlake Drive
Colchester, VT 05446
and
Peoples Trust Company of St. Albans
P.O. Box 320
St. Albans, VT 05478

NATURE OF WASTE: Treated Domestic Sewage

TREATMENT SYSTEM: Septic tanks and recirculating textile filters

DISPOSAL SYSTEM: Leachfields

DISPOSAL LOCATION: The indirect discharge is located near Allen Brook in Colchester, Vermont. The location of the disposal system is at approx. Latitude 44° 35' 39" and Longitude W 73° 09' 51".

RECEIVING WATERS: Allen Brook

DEMONSTRATION OF COMPLIANCE

Compliance with Effluent Limits:

Based on recirculating textile filter lab results from February 28, 2012 to August 16, 2017, effluent limits were exceeded, as follows:

Parameter	Permit Limits	Number of Exceedances	Number of Samples
Biochemical Oxygen Demand (5-day)	15 mg/L	3	14
Total Suspended Solids	15 mg/L	7	16

Compliance with Aquatic Permitting Criteria:

Based on monitoring data from February 28, 2012 to August 16, 2017, the following table shows that the aquatic permitting criteria of the Indirect Discharge Rules are being met in Allen Brook:

Parameter	Discharge Conc. (a)	Upstream Conc. (b)	Calculated Downstream Conc. (c)	Downstream Conc. (d)	IDR Limits
TDP	0.029 mg/l	0.025 mg/l	0.025 mg/l	0.025 mg/l	0.026 mg/l (e)
NO3	25 mg/l	1.3 mg/l	1.6 mg/l	1.3 mg/l	2.0 mg/l
pH	6.19 S.U.	7.53 S.U.	-	7.68 S.U.	6.96-7.95 S.U. (f)

Notes:

All Total Dissolved Phosphorous (TDP) and Nitrate Nitrogen (NO3) values based on normal distribution of data or best fit.

(a) Mean Value based on 69 groundwater samples collected downgradient of the disposal fields.
(b) 95% Confidence Value based on 11 stream samples collected upstream of the disposal fields. Mean value used for pH.
(c) Based on permitted discharge limit of 12,960 gallons per day and a low median monthly flow rate of 750,300 gallons per day in Allen Brook.
(d) 95% Confidence Value based on 11 stream samples collected downstream of the disposal fields. Mean value used for pH.
(e) Reflects 0.001 mg/L allowed increase above background concentration
(f) Based on background pH range.

Compliance with Disposal Capacity:

A review of the effluent flow data for the period January 1, 2012 – July 31, 2017 shows that the disposal capacity of 12,960 gallons per day was rarely exceeded. In general, flows were roughly half of the disposal capacity.

Performance of Textile Filters

During the period February 28, 2012 to August 16, 2017, the textile filters removed 91% of the biological oxygen demand (BOD) and 62% of the total suspended solids (TSS) from the septic tank effluent at Arbor Gardens. The mean BOD and TSS values for effluent pumped to the disposal fields was 10 mg/L and 17 mg/L, respectively.

PROPOSED ACTION

The Department intends to issue an indirect discharge permit renewal to the permittees. No significant changes to the permit are proposed.

Tentative determinations regarding conditions to be included in the pending Vermont Indirect Discharge Permit have been made by the Vermont Agency of Natural Resources, Department of Environmental Conservation. The conditions imposed will assure that the Vermont Water Quality Standards and applicable provisions of 10 V.S.A. Chapter 47 will be met.