

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

INDIRECT DISCHARGE PERMIT
FACT SHEET

November 2017

PERMIT NO.: ID-9-0007
 PERMITTEE: Fox Hill Homeowners Association
 NATURE OF WASTE: Treated Domestic Sewage
 DISPOSAL METHOD: Leachfields
 DISPOSAL LOCATION: Latitude N 42° 44' 57" and Longitude W 72° 29' 14"
 RECEIVING WATERS: Tributary to Newton Brook
 DRAINAGE BASIN: Lower Connecticut River

Aquatic Permitting Criteria

Based on water quality monitoring data for the period February 2013 – September 2017, the following table demonstrates that the indirect discharge of treated domestic sewage from the Fox Hill subdivision in Vernon, Vermont meets the aquatic permitting criteria of the Indirect Discharge Rules in Newton Brook:

Parameter	Discharge Conc. (a)	Upstream Conc. (b)	Calculated Downstream Conc. (c)	Downstream Conc. (d)	IDR Limits
TDP	0.016 mg/L	0.074 mg/L	0.072 mg/L	0.048 mg/L	0.075 mg/L (e)
NO3	11.8 mg/L	0.5 mg/L	0.9 mg/L	1.4 mg/L	2.0 mg/L
pH	5.5 S.U.	6.7 S.U.	-	6.7 S.U.	6.5 – 7.3 (f)

Notes:

All total dissolved phosphorus (TDP) and Nitrate (NO3) values based on normal distribution of raw or transformed data.

- (a) Mean value based on 43 groundwater sampling results from monitoring wells downgradient of leachfields.
- (b) 95% Confidence Value based on 11 upstream sampling results from Newton Brook. Mean value used for pH.
- (c) Based on permitted discharge of 13,816 gpd and estimated low median monthly flow of 387,800 gpd in Newton Brook.
- (d) 95% Confidence Value based on 11 downstream sampling results from Newton Brook. Mean value used for pH.
- (e) Reflects 0.001 mg/L allowed increase above background concentration.
- (f) Based on background pH range.

Proposed Action

The Department of Environmental Conservation intends to issue an indirect discharge permit renewal to the permittee. The following changes have been made to the draft permit:

- Condition E2 (Effluent Monitoring): Total dissolved phosphorus has been removed from the analytical list, and nitrate nitrogen replaces nitrite nitrogen.
- Condition E4 (Receiving Stream Monitoring): Turbidity has been removed from the analytical list.

No other significant changes to permit conditions have been made.

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.