

Elizabeth Hughes, Town Planner
Heather Carey, ZBA Administrative Assistant
Zoning Board of Appeals
Town of Concord
22 Monument Street
Concord, MA 01742
Sent via email to: ehughes@concordma.gov, hcarey@concordma.gov
cc: acathcart@concordma.gov

August 20, 2022

Dear Ms. Hughes and Ms. Carey,

I am writing to provide citizen input on the Zoning Board of Appeals review of Quarry North PRD, 48Y Fitchburg Turnpike, to be held on September 8, 2022. My comments focus on the plan for each dwelling to have an individual on-site sewage disposal system.

The proximity of the development to White Pond suggests that run-off from the approved Title V septic systems will reach White Pond water, contributing to the growth of toxic algae blooms that have closed the pond in recent years.

The White Pond Vision 2021, created by the Town of Concord White Pond Advisory Committee, noted that “The basic design of a septic system, including those approved under Title V, is to leach wastewater into the surrounding soil. These septic systems remove harmful bacteria but do not remove nutrients, which move into the groundwater and eventually leach into White Pond.”¹ It is accepted science that Title V approval does not protect against groundwater runoff that reaches local bodies of water.

A map of Concord, MA groundwater conservation districts prepared by the Town of Concord Planning Department shows where septic tanks and other groundwater run-off can reach White Pond (see Exhibit 1). The project Stormwater Management Report prepared by Civil Design Group shows that 48Y Fitchburg Turnpike is part of the purple highlight around White Pond (see Exhibit 2).² The project stormwater report states that “The proposed stormwater conveyance system does not include new *untreated* discharges” (original emphasis).³ However, treated septic system discharges contain phosphorous and nitrogen that run off into groundwater. The Massachusetts Dep Stormwater (DEP) Handbook Standard does not protect the important waters of White Pond.

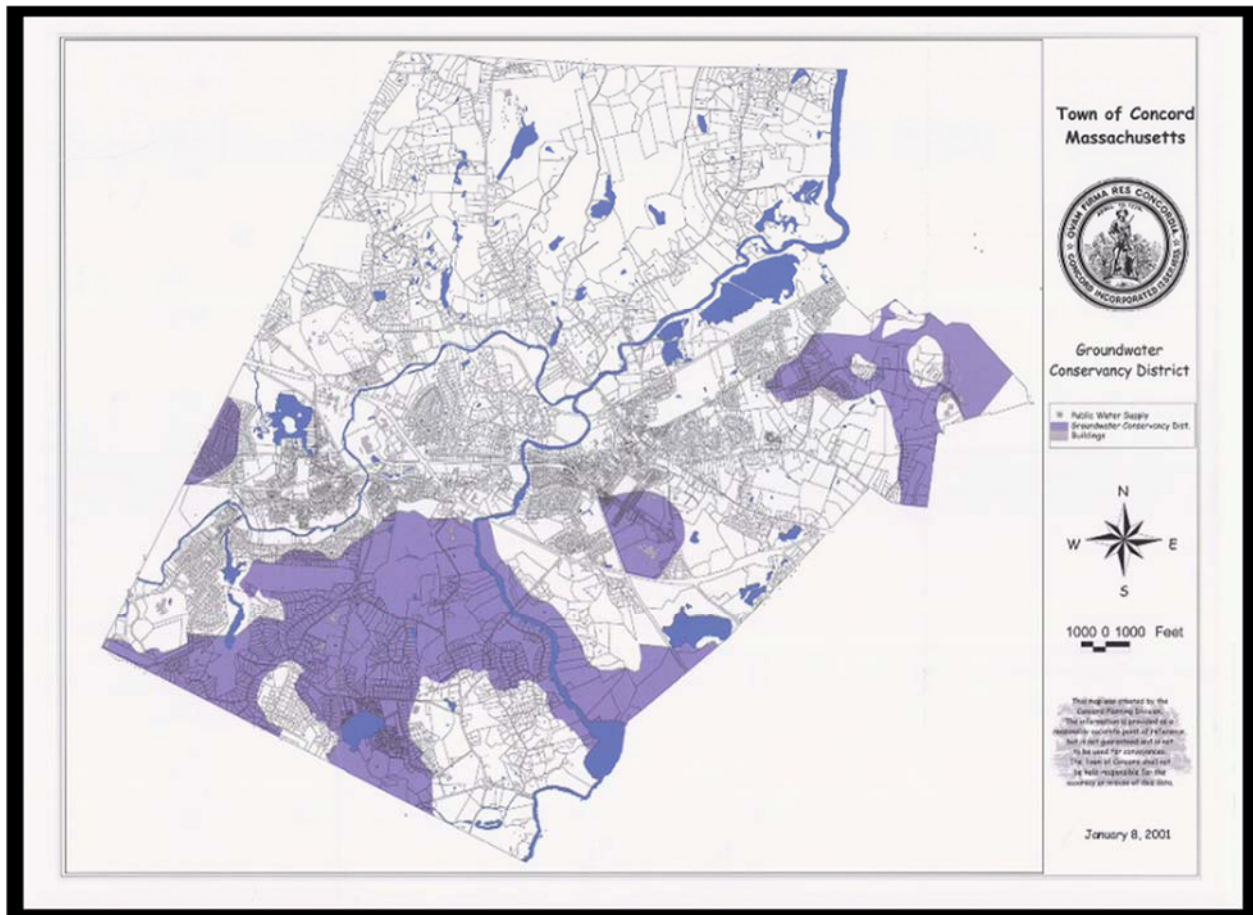
¹ “White Pond Vision 2021,” White Pond Advisory Committee, Town of Concord, available at <https://concordma.gov/DocumentCenter/View/32979/White-Pond-Vision-2021-Final>

² “Stormwater Management Report for Rookery Lane,” Civil Design Group, June 9, 2022, available at <https://concordma.gov/DocumentCenter/View/37671/48Y-Fitchburg-Turnpike-PRD---Revised-Stormwater-Drainage-Report-7-21-22>

³ Ibid

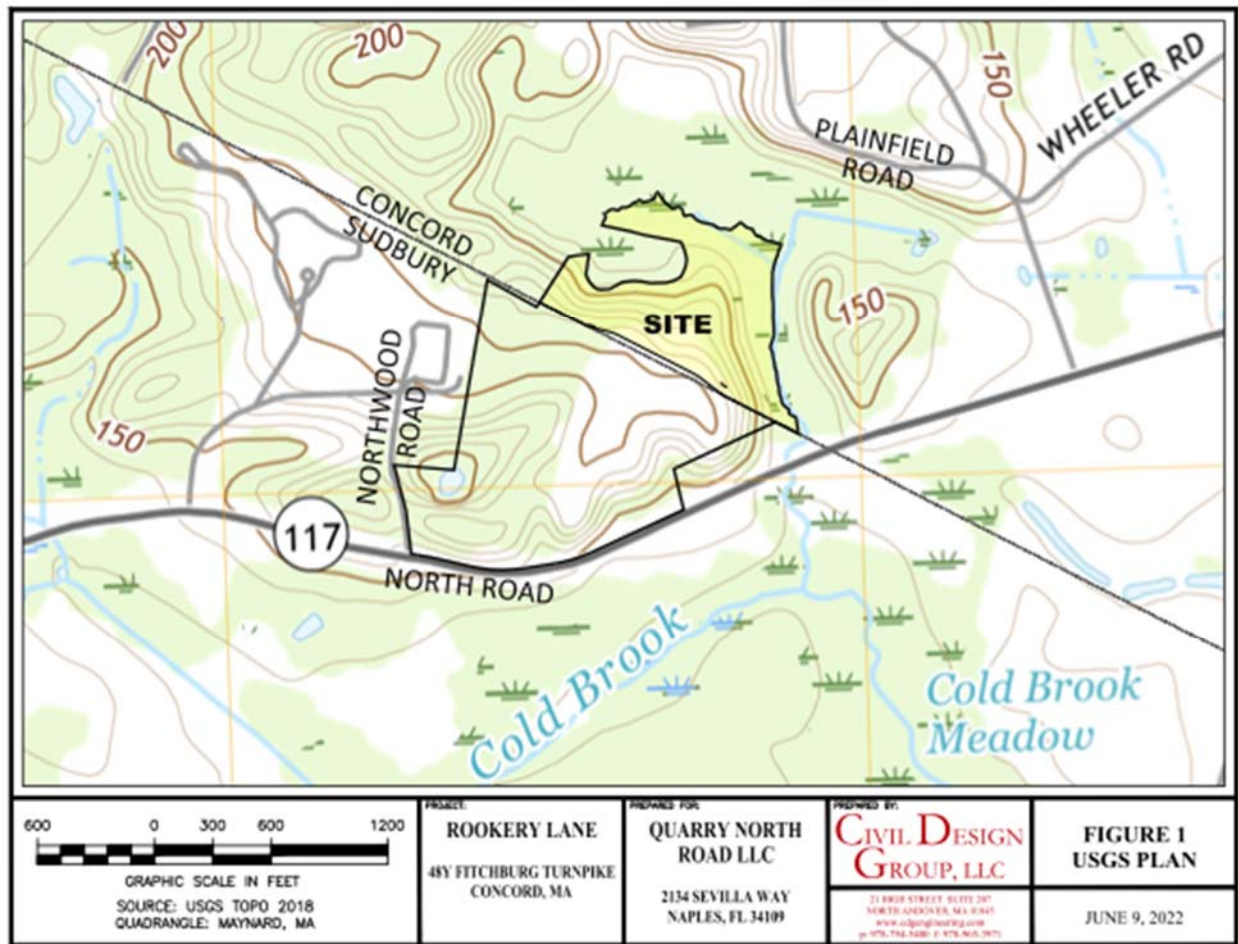
Other Massachusetts communities have identified sewage treatment as a primary contributor to toxic algal blooms in pond water. The White Pond Advisory Committee has spoken with dozens of state and New England pond experts to validate these results and its Sewage Subcommittee has confirmed that septic tanks are a primary source of damaging nutrients to White Pond. The White Pond Advisory Committee presented to the Town of Concord Select Board on November 8, 2021 with its identification of septic systems as a primary concern for White Pond.

Exhibit 1: Town of Concord, Massachusetts ; groundwater conservancy district



Source: Harvard University

Exhibit 2: Location of 48Y Fitchburg Road development



Source: Civil Design Group

Following the Town's investment in the White Pond beach and its vested interest in maintaining water quality at White Pond, we offer three recommendations in order of priority:

1. Require that the Rookery Lane development be connected to other 48Y Fitchburg Turnpike units' sewage treatment.
2. Require that 48Y Fitchburg Turnpike units have upgraded septic systems that focus on removing nitrogen, carbon and suspended solids prior to leaching. The NitROE and SanTOE systems developed by KleanTu Wastewater Treatment Technologies (with whom I have no affiliation) are two solutions being tested on Martha's Vineyard and Cape Cod.⁴ Going forward, the ZBA may require that all new septic tanks in Town of

⁴ "He came to relax; he ended up taking on the Island's nitrogen problem," Martha's Vineyard Times, January 20, 2021, available at <https://www.mvtimes.com/2021/01/20/came-relax-ended-taking-islands-nitrogen-problem/>

Concord groundwater conservation areas contain run-off capture that meets a higher standard than today's Title V.

3. Require that the 48Y Fitchburg Turnpike developers make a financial and land contribution to the creation of a White Pond-area sewer system and commit to connecting their units to the system. The Town of Concord Comprehensive Wastewater Management Plan of August 21, 2000 recognized the need for sewer treatment in the White Pond area. No action has been taken since, due to a combination of finances and resources. While a financial and land contribution will not create a local sewage treatment plan on its own, this could go a long way towards jump-starting a solution to a long-standing problem of neighborhood-wide septic run-off to the pond.

Thank you for your time and attention to this matter.

Beth Kelly
39 White Avenue
Concord, MA 01742