

TO: Vern E. Carlson, Chairman, and Members of the North Haven
Planning and Zoning Commission

RE: Comments on #P20-38S Special Permit Application of Timothy J. Lee, Applicant, The Slate
School, Inc., Owner, relative to 5100 Ridge Road, (Map 97, Lot 2).

DATE: July 12, 2021

FROM: Margaret Miner

Thank you for accepting the following comments. I write as an environmental consultant, in particular for Rivers Alliance (formerly I was executive director). I also serve on the Water Planning Council Advisory Group, and the Work Group on drinking-water lands. I was a leading participant in the creation of the State Water Plan.

The goal of state policies and of water advocacy groups is to protect all the waters of the state, with a recent emphasis on protecting headwaters and aquifers. These resources are the basis of future drinking water supply and healthy, cold-water streams.

North Haven's water policies align with state policies, as expressed in state planning. I provide a few excerpts here from policy documents, with emphasis added. However, good policies are of little use if there is not implementation. In Connecticut, the Department of Energy and Environmental Protection and its sister agencies rely heavily on local commissions to meet the goal of effective water protection. This hardly seems fair, but fair or not:

You are the de facto stewards of the high-quality waters in this town.

Here follow excerpts from the policy documents relating to your task.

CT STATE WATER PLAN: MAINTAIN HIGHEST QUALITY DRINKING WATER. Connecticut leads the nation in reserving only the **highest quality water (Class A) for drinking water purposes** – no other state does so as consistently. **The Plan reaffirms the state's dedication to this high standard into the future through both water and land protection.**

STATE PLAN OF CONSERVATION AND DEVELOPMENT: Avoid activities that could negatively affect rare or unique ecological communities and **natural areas, including** habitats of endangered, threatened and special concern species, other critical wildlife habitats identified in the Connecticut Wildlife Action Plan, **river and stream corridors, aquifers, ridgelines**, large or connected forest areas, highland areas, coastal marsh migration areas, and Long Island Sound.

NORTH HAVEN PLAN OF CONSERVATION AND DEVELOPMENT The area south of Mt. Carmel Avenue was identified as a sewer avoidance area. **Development in this area is recommended to be limited to preserve the rural and pastoral nature of the area which is also slated for future scenic road.**

NORTH HAVEN ZONING REGULATIONS 10.1.2.3 **Considerations of the project's impact on the natural environment, with emphasis on minimizing any potential adverse effects thereon.** The applicable requirements specified in Section 6 shall be met.

NORTH HAVEN AQUIFER PROTECTION REGULATION X. [Do not permit] storage of **de-icing chemicals**, unless such storage takes place within a weather-tight water-proof structure for the purpose of retail sale or purpose of de-icing parking areas or access roads to parking areas.

(Comment: Heavy use of de-icing materials is a major cause of widespread elevated salt levels in Connecticut drinking water. Storage and use of sand and brine products in de-icing are often problematic)

Is The Property at 5100 Ridge Road Suitable for a High School?

A school of the size proposed in this application is a bad choice for this property, given its location within an aquifer protection area of the Mount Carmel wellfield and the watershed of Lake Whitney. The policy goal would be limited lot coverage and disturbance -- this project covers or disturbs most of the lot area.

A community septic system can work well, but normally requires professional monitoring and maintenance. Most septic systems work best with regular flows. Too much water all at once floods the system; too little, and the area dries out, changing soil quality and attracting roots of any nearby trees. **Schools are characterized by uneven flows.** Over weekends and vacations, there is little flow. Come Monday, and everyone flushes at once (hopefully not when the system is already half swamped by a heavy rain event or sequence of events).

Most residential septic systems and groundwater resources tolerate usual home cleaning products. But schools are more apt to use **heavy cleaners, such as wax strippers, disinfectants, and indoor pesticides in relatively large quantities.** Slate School might resist the temptation to use outdoor pesticides, but when parents worry about ticks or mosquitos one's options can be limited.

The large parking area and access road will contribute to runoff, and, perhaps more important, will require heavy treatment with **de-icing materials.** These substances pollute groundwater and nearby surface waters, the most common problem being elevated salt levels. (My own well is slightly salt contaminated. I am on a school street.) Small **fuel and oil spills**, with larger spills occurring in the case of accidents, can be expected. (The school will be the scene of students and/or their parents rushing to get to school on time and rushing at dismissal times to leave the property.)

The 100-Year Storm

A water-management system based on the 100-year storm standard is unrealistic given the storms we are having today. The 100-year storm estimate was set by the National Oceanic and Atmospheric Administration in the 1950s, and is widely regarded as out of date. The science strongly suggests that the 100-year-storm design standard is not adequate to prevent washouts and local flooding. At the Council on Environmental Quality, members have noted that a standard explanation for the failure of storm-water control systems is the occurrence of an "unprecedented rain event." There are new precedents regularly.

The Northeast Regional Climate Center at Cornell estimates that storm events formerly considered likely once every 100 years are now likely once every 50 years. The National Climate Assessment showed in the Northeast a 71 percent increase since 1958 in the intensity of 100-year storms since 1958. These numbers become more alarming in climate predictions for future years.

A local land-use commission can ask an applicant to design for the storms of today and tomorrow, using science data. Science, common sense, and recent experiences will, I believe, lead you to the conclusion that the Slate School application does not offer adequate protections for the public's water resources. You have received expert testimony to that effect.

Evaluation of the science and the expert testimony falls on your shoulders. Your process involves a great deal of (uncompensated) study and work. So, I thank you for your efforts, I urge you to deny this application, and I wish the best for North Haven.

Margaret Miner, Litchfield



July 12, 2021

Alan A. Fredrickson
Land Use Administrator, Zoning
Town of North Haven
Memorial Town Hall
18 Church Street
North Haven, CT 06473

Re: Application for Slate School 5100 Ridge Rd

Dear Mr. Fredrickson,

The mission of Rivers Alliance of Connecticut is to protect all the waters of Connecticut: surface waters, aquifers, and wetlands. We promote and support good water policies statewide; we assist environmental groups, businesses, and individuals who seek to improve the quality of local waters. In regard to the Slate School proposal, we have particular concerns about the threat to the Mill River headwaters and the aquifer protection area.

The property of 5100 Ridge Road is wholly within a Level A Aquifer Protection Area identified on both state Aquifer Protection Area and town zoning maps. The property is part of the upper watershed of the Mill River basin draining directly to its headwaters. Due to how we regulate land use here in Connecticut, it is up to the commissions in our towns to uphold their own goals in protecting headwaters and drinking water aquifers.

Two goals of North Haven's Plan of Conservation and Development are to "protect high quality wetlands and their ecosystem services by encouraging appropriate use" and "to protect habitats and natural resources." Fortunately, the town has taken the necessary steps to ensure this protection by delineating aquifer protection zones and promulgating regulations as well as identifying the area south of Mt Carmel as a sewer avoidance area.

I was very pleased to see ecosystem services referenced in North Haven's Plan of Conservation and Development. Natural lands provide cheap and readily available services to our communities such as clean drinking water, recreation and aesthetics essential to our health and quality of life. But critical elements must be maintained in order to keep these services in tip top shape.

Maintaining these critical elements are recognized in North Haven's Zoning Regulations under Article VII. Under the Use Regulations, certain uses were specifically identified because they undermine the ability of nature to provide clean water to us and back to itself to maintain a

healthy environment. This project meets three of the six uses that would require a special permit:

7.5.2.2 Underground and above ground outdoor storage and/or transfer of, fuel oil, gasoline, or other hazardous materials. (Residential fuel oil deliveries are exempted from special permits.)

DEEP has already flagged this in a letter to the commission and asked that, if you were approve this application, this activity be specifically prohibited on the property.

7.5.2.4 For use other than single-family dwellings, retention of less than 30% of lot area in its natural state with no more than minor removal of trees and ground vegetation.

According to a report submitted by Loureiro Engineering to the Commission, there will be extensive site grading and clearing on approximately 80% of the site, impervious surface area will triple from 0.40 acres to 1.21 acres (out of 2.97 acres), and 40 trees will be removed.

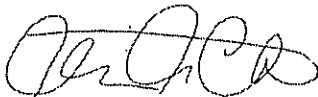
7.5.2.5 Rendering impervious more than 20% of lot area.

Again, according to the report submitted by Louriero, impervious surface area will triple from 0.40 acres to 1.21 acres (out of 2.97 acres.)

Again, these uses are identified in regulation because they could pose a potential harm to the underlying aquifer and our drinking water supplies. I encourage the Commission to pay special attention to the degree in which some of these criteria are exceeded and take the reports of well-credentialed Louriero Engineering under due consideration.

For the reasons the reasons we have brought to you this evening, we encourage you to reject this proposal. Thank you for the opportunity to provide comments on this proposal and for your service to the town.

Sincerely,



Alicea Charamut, Executive Director