



**TOWN OF TRURO
HEALTH & CONSERVATION DEPARTMENT
24 Town Hall Road, Truro 02666**

To: Truro Zoning Board of Appeals
From: Emily Beebe, Health & Conservation Agent
Date: October 7, 2020
Re: Comprehensive Permit application for the Cloverleaf project at 22 Highland Road

This memo is sent to provide clarity about some issues recently raised in correspondence to the ZBA regarding the Board of Health, and the wastewater treatment system proposed for the Cloverleaf project.

The letter from members of the Pond Village community to your Board and dated October 5, 2020 has been sent as a cover letter with 2 appendices.

- The letter provides 5 requests. The first involves the Board of Health, as it refers the ZBA to review appendix B- a report titled “private wells and Truro safe water”. This paper argues for consideration and possible reduction of the standard for nitrate nitrogen concentrations in drinking water from 10 mg/L to 5 Mg/L. The Federal and State drinking water standard is expressed as an MCL - Maximum Contaminant Level. All members of the Board of Health have received a copy of this paper and the Board will review and discuss it at their meeting of December 1.
- Appendix A is a summary of new results. This document expresses concerns about the existing nitrate levels in private wells in the Pond Village area and claims that the Board of Health has ignored the resident’s concerns; it also reiterates the cultural/historical significance of Standish/Pilgrim Pond and its apparent poor health.

It is clear that current water quality conditions in the Pond Village area reflect the existing level and type of development already in place. This area was identified as an area of concern in the 2014 Weston and Sampson study, however the historic water quality data is insufficient for regulatory or planning actions; additionally the Board of Health has long held concerns about the eutrophication of Pilgrim/Standish pond, and share concern about nutrient inputs to this area, and private wells in general.

The Truro Board of Health is committed to the protection of groundwater, drinking water supplies, and surface water bodies, now and in the future. Our regulations support responsible growth and the protection of the environment. We look at any proposed development within the framework of protecting the natural resources and water supply of the Town of Truro.

In September 2020, the Town contracted with the Cape Cod Commission to conduct the Pilgrim Pond “stormwater and watershed study”. The study deliverables will include a watershed report evaluating land-use impacts(including wastewater), fertilizer sources, and stormwater impacts. This study will give us the data needed to plan and implement any needed remediation.

- As a part of this study, a private well water monitoring plan will be developed to sample wells within the watershed for a variety of parameters. The well water data collection will not only play

a role in developing an understanding about the nutrient inputs to the pond, but the sampling plan will be transferable to other areas of Town;

- This watershed study will also address the ongoing community concerns about stormwater runoff from Route 6. An assessment of the impacts from this runoff is the critical first step toward developing a plan of correction;
- Part of this plan will include public outreach and education about the watershed, private wells and nutrient loading from septic systems, septic system maintenance, and will help clarify possible misconceptions;
- It is our hope that the findings from this study will attract funding sources for implementing potential mitigation strategies.

The Board of Health looks forward to working with the Pond Village neighborhood to explore and address their water quality issues. It was concerning to learn from this letter about the recent private data collection effort. To date, no one has shared any of the newly collected data, nor any of the locations where the well water quality tests may indicate that the nitrate level has exceeded the federal MCL (Maximum Contaminant Level.) If the water samples were tested at a certified lab and do show exceedances to the MCL's the homeowners with unsuitable drinking water should be advised by our office accordingly, and this information should be included in our database.

- Should it be determined that reduced nutrient loading from septic systems in this watershed is required to protect the pond and our drinking water resources the Board of Health will pursue development of the planning required. These plans may include mandatory septic inspection and maintenance, water and wastewater testing. If nutrient targets are recommended and developed, mitigation could include reduction of fertilized areas, stormwater mitigation on public and private ways, and the requirement for private or clustered advanced wastewater treatment systems.
- The Board of Health is ready to effect changes as needed to address issues that affect Public Health and the Environment and this study will help us do that.

It is important to distinguish between the concerns noted in the Pond Village letter and the proposed Cloverleaf proposal before the ZBA.

- The Cloverleaf proposal includes utilizing a wastewater treatment system designed to reduce Nitrate Nitrogen to less than 10 mg/L. To be clear, this value is not related to the MCL of the drinking water standard. This treatment level would meet the wastewater nitrogen loading standards of the Truro Board of Health regulations. I/A treatment of the wastewater goes far beyond removal of Nitrate Nitrogen, but also removes pathogens and significantly reduces the overall nutrient load of the treated wastewater. These advanced treatment systems far exceed the simple filtration offered by a standard title V septic system.
- There is a regulatory process in place to ensure that I/A systems are properly inspected and monitored to ensure compliance, and to ensure that they do indeed function as intended. The systems require regular monitoring and testing.

- The proposal before the Zoning Board includes treatment of the wastewater with an innovative/alternative on-site system. The treatment type proposed has piloting approval from the DEP. Systems in piloting are closely monitored by the manufacturer; the design itself must be approved by the manufacturer and the system operator must be specifically trained in order to conduct the regular inspections of this system. The installer must also be specifically trained prior to the installation. The piloting approval provides a detailed requirement for the company to complete a performance evaluation of the system after minimum of 18 months of operation.
- The report of this evaluation will be submitted to the Board of Health and will describe and summarize the operations of the system, any changes in design made during the performance evaluation period and the results of the piloting program for that system. The report shall include whether the system was in compliance with the effluent limits and the performance goals and conditions of the approval for at least the previous 12 months of operation. Upon completion of the performance evaluation of the system, if the system is not in compliance for a least 12 months the company shall either continue the piloting program for the system or replace the system with a fully complying title 5 I/A system. The Board of Health will follow this process and ensure the result is compliant with the regulations and conditions.

I hope this has been helpful in clarifying the many issues presented. If you have any additional questions or concerns, I would be happy to address them.