

Sherborn Conservation Commission



19 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770

MEMO

TO: Sherborn Zoning Board of Appeals (ZBA)

FROM: Sherborn Conservation Commission

DATE: April 23, 2021

RE: Pine Residences (41 N. Main St) and Apple Hill Estates (31 Hunting Lane) Comments and Request for Comprehensive Permit Conditions Related to Wetlands Protection

The Sherborn Conservation Commission's ("Commission") role in the comprehensive permit process is to provide the ZBA with guidance for wetland-related conditions written into the comprehensive permit. As noted below, the project proposes significant temporary and permanent work in already delineated wetland resource areas and related buffer zones as well as in areas where the presence of wetlands has not been reviewed by the Town.

In this memo we articulate the areas of comment/concern for the ZBA to consider and obtain information on that might lead to comprehensive permit conditions related to wetlands protection under the Sherborn local bylaw and regulations.

We also recommend the ZBA use either their peer reviewer or another outside consultant to help draft such conditions that will lessen, mitigate and/or provide other enhancements to help offset adverse impacts to wetland resource areas and related buffer zones that could result.

The Commission is prepared to work with the peer reviewer on these issues, and to help develop permit conditions with the aim of protecting wetlands functions and values on site. The following list does not reflect a complete review of the project, which will occur during the permitting under a Notice of Intent filing with the Commission.

1. Horizontal Drilling in Jurisdictional Areas

Work is proposed where horizontal drilling/boring will occur underground in jurisdictional areas for both water and septic connections for both projects. We propose the following with regard

to this work:

- a. Assess possible adverse impacts from this horizontal drilling during construction on wetland functions and values in (i) resource areas, including a stream and (ii) inner and outer buffer zones, including any adverse hydrologic impacts from possibly creating preferential flow related to the underground pipes;
- b. Assess the possible post-construction adverse effects from (i) operations, (ii) possible operational problems, and (iii) any needed maintenance, including assessing design for long-term durability to avoid future wetland disturbances and impacts;
- c. Propose conditioning for preventing and mitigating adverse impacts during the drilling/construction process in order to protect wetland functions and values based on a. and b. above;
- d. Propose any ongoing post-construction hydrological or other monitoring (possibly in perpetuity) conditions to protect the wetland resource functioning in the long term.

2. Public Water Supply Impacts on Wetland Hydrology and Groundwater

The projects' public water supply, drinking water wells drilled in the buffer zone of a wetland, will be sourcing bedrock water. Such bedrock water is recharged to varying degrees from fractures that connect with overburden groundwater above. This can affect wetland resource hydrology and therefore resource functioning, including but not limited to providing wildlife habitat, preventing pollution, and both short and long term supplying of public and private drinking water in the area.

This issue is part of what the Commission also views as the critical broader work needed on the overall sustainability of the drinking water supply for the projects' future residents as well as for current Town residents and businesses. This work should include the design of sufficient testing as well as ample definition of the area of potential impacts given the magnitude of the long-term water use. As part of this effort, the Commission recommends the following work:

- a. Design protocols (sites, methodology, frequency, impact analysis) for monitoring water levels in nearby wetlands during the pump tests for assessing the sustainability of the water quantities from the proposed wells.
- b. Ensure that the pump testing protocols are of sufficient duration to assess the potential impacts of the long-term, continued use of these wells for projects' term on both wetlands hydrology and the sustainability of this draw.
- c. Review and recommend conditions for protecting adjacent wetlands during the pump/drawdown tests as the wells are in a wetlands buffer zone.

3. Waste Water/Septage Treatment

Due to the location of the soil absorption system ("SAS") possibly in and/or near wetland resources, the Commission recommends the following:

- a. Delineate any wetlands, including vernal pools, streams and isolated wetlands protected under the Sherborn wetlands bylaw, within 100-feet of the proposed SAS area (overlapping with item 4 below).
- b. Review the potential adverse impacts from the SAS on wetland resources (which might include filling) and propose measures for avoiding, minimizing or mitigating such impacts. This work should take into account the magnitude and types of residual contaminants given the large number of contributing housing units and to the extent possible include "contaminants of emerging concern" (e.g., household chemicals, pharmaceuticals, PFAS, etc.) as for instance, research on PFAS has shown impacts on amphibians. We recognize that some of this work could be in parallel with broader work for other non-wetland sensitive receptors, such as nearby drinking water wells.

4. Wetlands Delineation and Potential Adverse Impacts

- a. Delineate the wetlands and related buffer zones for areas of the project not already covered by previous work (such as for the test wells for the public water supply conditioned through a previous NOI submitted to the Commission).
- b. Assess the potential for adverse impacts on these wetlands from the activities proposed in the most current project design for both 31 Hunting Lane and 41 N. Main Street. In addition to the SAS above, another specific area to address is assessing adverse impacts from the buildings on the 41 N. Main St. parcel, as they appear to possibly be located in the buffer zone of wetlands as well as a riverfront area.

5. Stormwater Management

- a. The proposed stormwater management plan should be evaluated for any options/approaches that will lessen the impact on wetlands, with issues including:
 - i. outfalls in jurisdictional areas
 - ii. structures and/or basins in jurisdictional areas.
- b. Review Long Term Pollution Prevention Plans (LTPPP) and Operation and Maintenance Plans for additional components pertinent to wetlands protection, such as snow storage locations and de-icing chemicals.

6. Overall Assessment of Potential Adverse Impacts to Wetland Resources

Based on the above work, assess the potential cumulative adverse impacts from all of the activities on wetlands functions and interests, such as wildlife habitat and private and public water supplies.