



**TOWN OF SHERBORN**  
19 Washington Street  
Sherborn, MA 01770

**Select Board**  
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**Town Administrator**  
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August 24, 2023

Ms. Kat Miller  
Planning & Program Specialist  
MassHousing  
One Beacon Street  
Boston, MA 02108

**RE: Proposed Chapter 40B Comprehensive Permit for Coolidge Street Homes (108 Coolidge Street in Sherborn, MA) {MH ID No. 1193}**

Dear Ms. Miller:

This letter is in response to your letter of June 28, 2023, soliciting comments from the Sherborn community regarding the proposed 40B project "Coolidge Street Homes" (MH ID 1193). This letter summarizes background information about Sherborn relevant to the project, the Select Board's summary analysis, and specific issues and concerns raised by municipal boards & committees.

The Appendix includes the board and committee reports submitted to the Select Board. The Developer's site plan is provided at the end of this letter for visual reference.

**I. Background**

As you review these comments, we trust that you will bear in mind the specific local conditions in Sherborn that define our approach to increasing housing diversity, including affordable housing:

Unlike almost all other towns in the Boston area, Sherborn has no municipal water or wastewater infrastructure.

- Almost all the Town's residents are served by private wells for water and private septic systems with leaching fields for waste collection and wastewater dissipation.
- Most of Sherborn sits on shallow bedrock covered by a thin overburden of soil, so siting of leaching fields is challenging and critical to maintaining clean water resources and public health for all.
- Large, localized septic fields that discharge large volumes of effluent in a confined area may threaten well water safety and health of project residents and existing abutters.
- Ledge blasting and disruption for new development elsewhere in Town appear to have contaminated at least one abutting private well with toxic manganese.

Despite these challenges, Sherborn fully supports increasing the availability of affordable and diverse housing options:

- Sherborn has a Housing Production Plan (HPP) originally approved by the State in 2016; a recent update (May 2022) has been approved.
- Sherborn's 2019 Master Plan places great emphasis on the need for diverse and affordable housing options, and recommends strategies and actions in line with the HPP.
- In 2018, Sherborn Town Meeting approved a zoning bylaw change that facilitates and encourages accessory apartments as small rental units in single-family homes or farms.
- In 2020, Sherborn Town Meeting approved an "inclusionary zoning" bylaw that requires all new developments of 2 or more units to include 15% affordable units, or contribute to a new Affordable Housing Trust devoted to investment in affordable housing in Sherborn.
- Also in 2020, Sherborn established an "Affordable Housing Trust" to manage funds generated by the inclusionary bylaw and from other sources, to support affordable housing investments by the town.

Sherborn has taken concrete steps toward fulfilling its affordable housing goals:

- There are currently 48 housing units listed on the SHI: 24 rentals and 24 ownership.
- Eight (8) additional SHI units will be added as current approved 40B projects are completed.
- Two other 40B project applications by a single developer, a 60 unit rental apartment complex and a 27 unit ownership project, were denied Comprehensive Permits by the Sherborn ZBA in 2021, based largely on public health concerns including unproven well water resources and potential impacts of excessive groundwater extraction and wastewater discharge on abutters. They are currently in the appeal process.
- In hopes of fulfilling our affordable housing goal of 156 total SHI units without compromising groundwater safety, in 2021 the Sherborn ZBA approved a Comprehensive Permit for a 120-unit LIP 40B rental project very near the proposed Coolidge Street Homes project that would access MWRA water & sewer from Framingham. The project is currently on hold pending establishment of a North Sherborn Water and Sewer District and other approvals (MWRA, inter-municipal agreement with Framingham, MA legislative approval, etc.) as well as developer commitments.
- Sherborn is currently not in "Safe Harbor". Sherborn's Safe Harbor status expired in June of 2022 due to delay in the 120-unit rental project cited above.

## **II. Select Board Summary and Analysis**

Regarding eligibility of the project, the Town does not have enough information to make a determination as to whether the Applicant's organizational and financial structure meets the general eligibility standards of the housing program contained in 760 CMR 56.04. The Applicant has site control, as he purchased the parcel at #108 Coolidge Street in 2021.

The siting of the development is directly adjacent to two large multifamily developments that have been approved by the town: the LIP 40B rental project cited above, and a 67-unit, age-restricted (over 55) condo complex. Coolidge Street is a curving 2 way street with heavy traffic, as it is a major route from Sherborn's Main Street and other towns to the South, to the Mass Pike and the nearest MBTA commuter rail station in Framingham. Coolidge St. has no sidewalks, off-road walkways or bicycle lanes, so the lack of non-vehicular access and pedestrian/bicycle safety of residents is a concern.

The design and layout of the plan have positive features: The development is consistent with the goals and recommendations of Sherborn's Master Plan and Housing Production Plan, in that it responds to the need for more affordable and diverse housing options in Sherborn by providing modestly sized homes. The houses are arranged in a cluster, and a significant portion of the property will remain undisturbed.

The layout and preliminary housing design is the work of an architectural firm (Union Studio) known for well-designed village-style housing.

The Applicant is applauded for the carbon-neutral features including energy conservation measures. There is opportunity for installation of solar panels on rooftops, but tree removal should be minimized.

Environmental and public health concerns dominate the comments of Sherborn regulatory boards, committees and abutters. Surface water flow in this area after periods of extreme precipitation will have to be kept in mind when the placement of wells, septic, stormwater management features, buildings and roads are finalized during the ZBA review process. It should also be noted that current regulations don't take into account the projected increases in precipitation due to climate change, and planning of stormwater features along those lines is recommended.

Safety of well water for public health is a continual, existential concern in Sherborn, and is intensified when relatively dense development projects such as Coolidge Street Homes are proposed. Filtration of wastewater through soils is important, and discharge of high wastewater volumes into a small area poses a risk to residents of contaminants in groundwater beyond the standard setback area. This is a regulatory challenge that will be addressed in the Comprehensive Permit review processes.

### **III. Summaries of Comments from Town Boards, Committees and Departments.**

The key comments and concerns are summarized below. (*Please also refer to the Appendix, Part I that contains their detailed comments*). The Select Board unanimously supports the inclusion of all comments, but specific opinions expressed should be attributed to the originating Board/Committee.

#### **Board of Health (BoH)**

- Their overarching concern is ensuring the BoH's ability to exercise local regulations for this project due to Sherborn's widespread use of private wells and septic systems, shallow soils, and extensive wetlands.
- The BoH believes that it would not be equitable to reduce public health protections for an affordable housing project.
- If MassHousing determines that the Coolidge Street Homes application is approvable, the BoH requests that the approval be conditioned on the following provisions”
  - Require that an EHIR be performed for the project's septic system
  - Require that the project's water supply be managed as a MassDEP-regulated public water supply (PWS)
  - Require compliance with local wetland resource area requirements
  - Require compliance with Sherborn's BoH bedrock disruption regulations
  - Require evaluation of stormwater dynamics and management
  - Require compliance with additional Sherborn-specific regulations that protect drinking water quality security of adjacent residences
  - Require establishment of formal financing mechanisms for shared water and/or wastewater systems

#### **Conservation Commission (ConComm)**

- ConComm's review of the site noted that it contains a vegetated wetland featuring a mix of wooded and buffer zone that serves a crucial protective role for water quality, pollution prevention, protection of public and private water supplies, groundwater protection, stormwater/flooding management, and wildlife habitat.
- Specific concerns include: water quality impact, site grading, wetland hydrology, and proximity of wells to the septic system, stormwater effects, chemical usage, and wildlife habitat.

## Groundwater Protection Committee

- Well and septic placement and a robust storm water management plan will be critical. Specifically identified concerns of this Committee include:
  - Distance from septic system to wells given large volume of septic effluent and the cumulative draw of three adjacent wells
  - Wells are located downhill / down gradient from the septic system
  - Wells are all located within wetlands No-Alteration zone
  - Significant potential for mounding of septic system within wetland buffer zone
  - Potential migration of contaminated ground waters from the General Chemical site in Framingham via known pathways in ground water, the MWRA Aqueduct, and Course Brook
  - Storm water management plan will need to consider projected future increases in precipitation due to climate change

## Planning Board

- The project addresses Sherborn's need for more diverse (smaller) housing options, in line with the goals of the town's Housing Production Plan and Master Plan.
- However, the primary Planning Board concern is that this proposed project is situated right next to two large projects that were previously approved by the Town, and they would not want this new project to undermine those other much larger projects.

## Water Commissioners

- The Water commissioners recommend two specific requirements of the applicant:
  - Develop the water supply wells as a public water supply rather than private, due to the protection of residents' health provided by State requirements for routine water testing
  - Install a wastewater treatment system that requires annual professional maintenance and testing to ensure over time that there is no negative impact on adjacent private water supplies and the groundwater.

## Other Committees and Town Departments

Additional evaluations await the submission of more detailed plans and will be submitted to the Zoning Board during the Comprehensive Permit process.

In conclusion, we are grateful for the extension of the deadline for this letter to 8/28/2023, and we thank you in advance for your consideration and review of the Town of Sherborn's comments and concerns regarding this 40B application.

Sincerely,



Jeffrey Waldron, Chair



To: Sherborn Select Board, SB

Date: August 17, 2023

From: Sherborn Groundwater Protection Committee, GPC (T Trainor, Chair)

Subject: GPC Comments for SB (for MassHousing letter) on the proposed 40B Coolidge Street Homes.

The GPC held a public meeting on Wed Aug 9th at which time we held a discussion regarding any groundwater protection concerns for the new proposed 12 unit (30-bedroom) "Coolidge Street Homes" 40B project. Also, two members of the GPC attended the site visit on July 14th.

This set of brief comments is provided now to the SB as requested, for the SB meeting scheduled for the evening of August 24<sup>th</sup>.

The following initial concerns were identified and approved by the GPC at the Aug 9<sup>th</sup> meeting for your consideration in preparing your letter to MassHousing on this project.

1. Distance from septic to wells, given large volume of septic system and the cumulative draw of three adjacent wells.
2. Wells are located downhill/down gradient from septic.
3. Wells are all located within wetlands No-Alteration zone.
4. Significant potential for mounding of septic within wetland buffer zone.
5. Migration of contaminated groundwaters from General Chemical site in Framingham via known pathways in groundwater, MWRA Aqueduct, and Course Brook.
6. The need for stormwater management to account for climate change.

# SHERBORN CONSERVATION COMMISSION



## MEMO

**TO:** Sherborn Select Board

Jeremy Marsette, Town Administrator

**FROM:** Michael Lesser, co-chair, on behalf of the Conservation Commission

**DATE:** August 21, 2023

**RE:** **Comments on Coolidge Street Homes affordable housing project**

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The Conservation Commission is providing the following comments on the proposed Coolidge Street Homes affordable housing project. These comments pertain to the entire process from initial town review to the subsequent permitting stages.

The project site contains a vegetated wetland featuring a mix of wooded and meadow buffer zone that serves a crucial protective role. This buffer zone is critical to maintain based on the value of such resources for water quality, pollution prevention, protection of private and public water supplies, groundwater protection, stormwater/flooding management, and wildlife habitat.

The project involves development of the property upgradient of the buffer zone. The associated septic treatment area, significant site grading and wells are located within the inner and outer buffer zones and there is a well proposed within the wetland area. It is recognized that the buildings, roads and paths are not located in wetlands and their buffer zone.

The Commission concerns at this time are:

- Water Quality Impact:** There's a potential for water quality to be affected by the concentrated septage outflow from the project, given its close proximity and upstream position in relation to the on-site wetlands. The Conceptual Site Plan does not illustrate the significant grading necessary for the installation of the leaching field, which might extend up to the wetland boundary.
- Site Grading:** The Conceptual Site Plan does not include the significant site grading that will be required for the homes, driveways and walkways. This grading could extend well within the wetland buffer zone.
- Wetland hydrology:** Concerns arise regarding wetland hydrology, particularly with respect to potential connections to the substantial water usage for drinking water. The three proposed wells are located directly adjacent to and within the wetland and their use could overburden the groundwater that feeds the wetland.
- Proximity of Wells to Septic System:** It is concerning that the drinking water wells are in such close proximity to and downgradient to the septic system leaching field. Furthermore, the placement of drinking water wells in a depression increases the risk of drinking water contamination during storms should the well heads become submerged.

- **Stormwater Effects:** There is a need to consider the impact of stormwater on wetlands both on water quality as the site's grading slopes towards the wetland and on water quantity due to the increased impervious area.

- **Chemical Usage:** On-site chemical use for landscaping and de-icing should be minimized and selected for minimum environmental impact.

- **Wildlife Habitat:** Preserving wildlife habitat is a primary objective of wetland protection. The loss of the natural buffer zone will lead to adverse effects on wildlife. Moreover, the excessive use of outdoor lighting can disrupt wildlife; therefore, it is recommended to moderate lighting in terms of color, operating times, coverage, and intensity.

August 21, 2023

To: Sherborn Select Board

Subject: Water Commission Comments Regarding 108 Coolidge Street Homes Proposed 40B Development

Sherborn Water Commissioner's held a public meeting on July 31, 2023. During the meeting we discussed comments regarding the 108 Coolidge Street Homes proposed development. The following is a summary of our discussion:

- The available information including the plan titled Conceptual Site Plan (40B), designed by Creative Land & Water Engineering, LLC dated 01/12/23 (Plan), and Project Description – Project Eligibility Application Coolidge Street Homes (Description), both posted to the Town of Sherborn website on July 5, 2023 do not include final water or wastewater designs at this time. The applicant is seeking water and sewer from the proposed North Sherborn Water & Sewer District (District) but is also proposing three wells and a shared Title V septic system if applicant is not able to join the District.
- The comments we provide below are based on the Plan and Description since the District does not have Town approval at this time.
  - Water: We recommend that the applicant consider developing the water supply wells as a public water supply rather than private. The testing requirements for public water supply wells need to meet State requirements and the wells would be routinely tested, whereas testing for private wells is only required during well development. This would ensure that the future property owners are made aware if any water quality parameters exceed the maximum contaminants levels.
  - Wastewater: We recommend that the property owner consider a wastewater treatment system that requires professional annual maintenance and testing. The testing would include water quality testing of the leachate/wastewater effluent to ensure the quality is within acceptable design parameters. Annual testing will provide a higher level of confidence that the proposed septic system will not negatively impact local private water supply wells and the groundwater.

From: Sherborn Water Commissioners: Roger Demler, Frank Hess, Tara Hourihan

# PLANNING BOARD



19 WASHINGTON STREET  
SHERBORN, MASSACHUSETTS 01770

August 14, 2023

Jeff Waldron, Chair  
Select Board  
19 Washington Street  
Sherborn, MA 01770

Dear Mr. Waldron,

As you are aware, in 2017, the Sherborn Planning Board voted to recommend approval to rezone an area west of Coolidge Street. The plan was to bring much needed housing and the comply with the State's 40B directive.

With nearly universal support, we added an EA zone for age-restricted housing (including 7 affordable units) with the intent of having a 40B rental project on an abutting property that would share infrastructure and the costs associated with it.

As we are a town almost totally dependent on wells and septic systems, this issue has been a hurdle to more affordable housing. To help move these projects forward, for the past two years the Town of Sherborn has been working with and negotiating with the City of Framingham to provide water and sewer for these projects. As you know, this has taken hours of time of volunteer boards and will require an act of the Legislature to create a North Sherborn Water and Sewer District.

The project known as Coolidge Street Homes currently being proposed is generally supported by the Sherborn Planning Board. However, our primary concern is that it is between the two previously approved projects that have Town support and we would not want this new project to undermine those other, much larger, projects.

Sincerely,

Chris Owen, Chair



# Board of Health

TOWN HALL • 19 WASHINGTON ST. • SHERBORN, MASSACHUSETTS 01770  
508-651-7852 • FAX 508-651-7868

August 23, 2023

Kat Miller, Planning and Programs Specialist  
Massachusetts Housing Finance Agency  
One Beacon Street  
Boston, Massachusetts 02108

RE: Chapter 40B Comprehensive Permit for Coolidge Street Homes (at 108 Coolidge Street),  
Sherborn

Hello Ms. Miller:

The Sherborn Board of Health takes seriously its responsibility to provide input to MassHousing's decision-making process regarding the suitability and viability of the proposed Coolidge Street Homes project in Sherborn. It is not the role of the Board of Health (BoH) to promote or oppose development but rather to guide each project to be supportive of healthful conditions for future residents of the project and for surrounding residents.

An overarching concern of the Board of Health is that it be permitted to exercise local regulations for this project due to Sherborn's atypical combination of water supply issues, widespread septic system use, shallow soils, and extensive wetlands. ***It would not be equitable to reduce public health protections for an affordable housing project.***

Title 1 of the State Environmental Code, 310 CMR 11.02, makes the following declaration about the appropriateness and right of local public health rules and regulations:

*"Unless otherwise expressly provided in any other title, the legally designated health authority of any city, town, county or other legally constituted governmental unit within the Commonwealth having the usual powers and duties of the board of health may, as it considers necessary to promote and protect the health and wellbeing of the particular locality under its jurisdiction, adopt under its own legal power as exists in the General Laws any rules or regulations containing requirements stricter than those contained in this code. Nor should the existence of this code limit or otherwise affect the power of any health authority with respect to any matter for which this code makes no provision."*

Key BoH interests in the project, followed by background information, are presented in the remainder of this letter. Challenges and concerns identified below are based on information provided by the project proponent thus far plus site visit observations, historic information about

the site, and knowledge of the surrounding area. As complete information about the site and project design elements is received, it will be reviewed and evaluated accordingly by the BoH.

### **Public Health Focus for Site Eligibility**

Unlike BoHs in more urban areas, a major function of Sherborn's BoH is the protection of the shared drinking water resource. This is primarily achieved through evaluation of hydrogeologic conditions present at each development site and additional protective measures for wastewater discharges into the ground.

Water supply and wastewater management takes place on each property in Sherborn. Wells draw groundwater for use and wastewaters are discharged back into the ground for some treatment/filtering and eventual replenishment of groundwater for drinking, cooking, cleaning, and other uses. In contrast, urban and most suburban areas typically have municipal water supplies and sewage facilities that are separated by significant distances.

As the demand for water rises and contaminants continue to impact more water resources, Sherborn offers a complementary, sustainable, local approach to the water cycle in the Boston metropolitan area. It does require careful management though, as addressed by extra requirements in Sherborn's septic regulations that build upon the State's minimum requirements of Title 5.

The BoH wants equity for the future residents of this property. Water quality for affordable housing is expected to be commensurate with that for residents elsewhere in this community. To that end, adherence with local septic regulations, in particular, should be required.

### **How MassHousing Can Assist with Health Equity for this Affordable Housing Project**

If MassHousing determines that the Coolidge Street Homes application is approvable, the BoH requests support by having the approval conditioned with the following provisions.

- Require that an EHIR be performed for the project's septic system***

Preparation of an Environmental Health Impact Report (EHIR) is a requirement (per BoH regulation III.3.1) that would apply to this project if not for its 40B status and which has been applied to other multi-unit projects in Sherborn. Requirements include the performance of hydrology evaluations of septic effluent influences on groundwater and surface water quality over time.

Given that the concentrated plume of effluent from the project's proposed septic systems is most likely to affect the wells of Coolidge Street Homes by virtue of proximity, it is in the interest of safe affordable housing that the EHIR is required. Prior modeling of effluent impacts from another project's large septic system revealed that a steady state of contaminants in groundwater could reach 3 times the drinking water standard. Although results are situation-specific, it nonetheless highlights the value of such evaluations.

- ***Require that the project's water supply be managed as a MassDEP-regulated public water supply (PWS)***

The current proposal indicates that 3 private wells are planned. With 30 bedrooms proposed, resulting in up to 60 residents, the total project passes the 25-person threshold for a PWS. The BoH strongly favors a PWS for this project because, based on other studies of large volume wastewater discharges to Title 5 septic systems, the levels of contaminants resulting from the proposed system are expected to have a significant influence on groundwater quality.

Establishing the project's water supply as a PWS offers future residents the benefit of having a routine water quality testing program, the results of which are overseen by MassDEP. This is particularly advantageous given the atypically large septic system to be closely located on the same site with the wells. Routine monitoring helps to identify pollution issues before the residents have consumed the water long-term. PWS water quality data is made available to the public through MassDEP's website and thus would provide important information for other nearby well-users.

- ***Require compliance with local wetland resource area requirements***

The extensive wetland areas and shallow depths to bedrock in Sherborn point to an important connection between wetlands and drinking water resources. Sherborn's additional precautions with respect to wetland resource management and impact minimization are warranted.

- ***Require compliance with BoH bedrock disruption regulations***

If bedrock is encountered during site development work and its disruption/removal is necessary, it is appropriate for drinking water quality protection to require that the proponent complies with BoH regulation III.10.0. This regulation specifies that: a permit be obtained from the BoH; blasting agents that have caused groundwater contamination and been banned elsewhere in Massachusetts not be used; and nearby properties be given advance notice of the bedrock disruption activities.

- ***Require evaluation of stormwater dynamics and management***

A stormwater study is important to perform for this project due to its scale of impervious surfaces, necessary changes to the terrain (with resulting changes to flow dynamics), etc. Impervious surface impacts of relevance to the BoH include (i) reduced opportunity for rainfall to infiltrate the ground and recharge the drinking water supply in a distributed manner and (ii) increased likelihood that rainfall will merely run-off to surface waters and/or create new areas of temporary flooding. Additionally, if stormwater flows are channeled over the septic leaching field, that would be a BoH concern.

- ***Require compliance with these additional Sherborn-specific regulations that impact drinking water quality security***

Local septic system design standards that are important to maintain for equal drinking water quality protection across the Town include, but are not limited to, the following BoH regulation sections: percolation rates of I.5.2, soil conditions of I.5.3, and vertical grades and clearances of I.8.0.1 and I.8.0.2.

This project should not default to compliance only with State-level septic regulations. Local septic regulations appropriately build upon the State's Title 5 regulation to address local circumstances and needs. Title 5 is designed as the minimum requirements to apply to municipalities that, for example, have a tiny percentage of residences served by septic systems and have a municipal water supply serving the entire town. Under those circumstances, the risk to drinking water is greatly reduced. However, Sherborn's circumstances demand greater precautionary measures. The small number of more stringent regulations are appropriate and important because the septic systems likely have the greatest impact on Sherborn's drinking water quality.

- ***Require establishment of formal financing mechanisms for shared water and/or wastewater systems***

Requiring that a financing mechanism for on-going operation and maintenance of shared water and wastewater systems be established prior to occupancy would be a practical measure for the project. For reference, MassDEP has formal procedures for establishing financial mechanisms for residential PWSs and wastewater treatment plants that fall under its jurisdiction. The purpose of such mechanisms is to avoid delays in or inattention to remedying operation and maintenance needs of these systems in the future. If, for example, a system failure is encountered and interim emergency measures (e.g., trucked-in water, trucked-out wastewaters) plus a pump replacement will cost \$50,000, the funds for such need to be established in advance so as to be able to respond immediately. To let system problems linger can lead to negative health impacts at the project and beyond.

Please do not hesitate to let us know if you would like to discuss or get further information about any of the issues raised herein.

On behalf of the Sherborn Board of Health,



Daryl Beardsley, Chair

## SUPPLEMENTAL BACKGROUND INFORMATION

***Guidelines prepared by the Executive Office of Housing and Livable Communities for the design review process of Chapter 40B projects specify criteria to be used in project evaluation.***

Using those criteria, the regulations require findings “that the conceptual project design is generally appropriate for the site on which it is located”. Issues of primary importance to public health, which are briefly discussed below, are organized according to a selected subset of design review evaluation criteria. It is likely that we have introduced aspects of these issues that are not confronted by many of the projects that MassHousing reviews since most projects are proposed for areas serviced by municipal water and/or sewer. Unlike much of Massachusetts –and especially in eastern Massachusetts— Sherborn faces an uncommon situation for water resources management.<sup>1</sup> Our septic discharges eventually become our drinking water, unlike municipalities served by isolated, remote, or otherwise protected water supplies and/or with sewer systems. While this is a model for local sustainability, it requires careful management. Furthermore, Sherborn does not have any substantial aquifer within its borders and thus the vast majority of water is supplied from more limited water in bedrock fractures.

According to a fact sheet about groundwater, developed by the Massachusetts Department of Environmental Protection’s (MassDEP) Northeast Regional Office:

*Groundwater originates with rain or melted snow that soaks into the ground and seeps downward due to gravity. If contaminants have been disposed on the ground or buried, the water may soak through them and carry contamination down into the groundwater.*

Wastewater discharged underground via septic system leaching fields constitutes “buried” contaminants. Even if that wastewater has been pretreated, contaminants still remain and there is reliance on soil filtering action, biodegradation, and other dynamics (including dilution) taking place to render that water drinkable before it reaches a well. The fact sheet goes on to indicate:

*The more developed and urbanized an area is, the greater the chance that the groundwater is contaminated ...*

This refers to limits on the capacity of the environment to handle our wastewaters. Hence, the protection of drinking water is an essential factor for each residential, commercial, and municipal establishment in Sherborn<sup>2</sup>; all have been required to participate in this responsibility.

When assessing this project’s “integration with adjoining properties”, it is fair to hold it to an equivalent level of responsibility, commensurate with its greater degree of potential impact, as was applied to those adjoining properties. This will benefit those future residents.

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<sup>1</sup> Other eastern Massachusetts towns without complete municipal water and sewer may include: Berkley, Berlin, Boxborough, Boxford, Carlisle, Dover, Lakeville, and Plympton.

<sup>2</sup> Refer to Sherborn’s Master Plan for information regarding the overarching importance of water within the Town due to its limited availability, its vulnerability, and our reliance on it.

### ***Sherborn's Characteristics Relevant to Public Health Management***

There are physical reasons why Sherborn (and Dover, Carlisle, etc.) remains less densely developed despite its proximity to Boston and in comparison to surrounding communities. The development patterns reflect the water supply and wastewater management limits of its infrastructure and environmental characteristics. These include:

- reliance on private wells and septic systems that are co-located<sup>3</sup>;
- a prevalence of ledge outcroppings and related shallow depth to bedrock;
- shallow depth to groundwater, which is also reflected in the presence of significant wetlands throughout; and
- an absence of substantial overburden aquifers, with nearly all drinking water wells drawing from bedrock fractures (for comparison, most municipal wells draw from overburden aquifers or surface waters due to their yield capacity and predictability; in contrast, yield dynamics of bedrock fractures are extremely difficult to assess beforehand).

Such environmental characteristics have technical bearing on how drinking water and septic wastewaters are managed within the Town. We can see from decades of data that even the modest density of development that currently exists in Sherborn's small and sparse downtown has resulted in concentrations of septic-related contaminants that are higher than elsewhere in Town. The impact of denser development on groundwater explains the rarity of this pairing in denser human environments.

Greater dependence on natural processes to decontaminate the wastewater and thereby mitigate risk of groundwater contamination makes prudent management of factors influencing this shared resource critical to safe and sustainable development. Once groundwater is found to be contaminated through well sampling and analyses, it is usually too late to remedy the cause and costly treatment systems become the only option, which would be an additional burden to residents of affordable housing.

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<sup>3</sup> Co-located in the sense that they are on the same project site and serving the same structure(s).