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Daniel C. Hill, Esq.
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RE: Fields of Sherborn 40B Review – Proposed Drawdown Test

Dear Dan:

I understand that the Applicant has suggested a simple drawdown test to determine if the proposed septic system poses a risk to drinking water wells on the project site, and on abutting properties. and to utilize that as a condition of a permit for the project. I believe that reliance on this test would be inconclusive and could present a false sense of security for the following reasons.

A drawdown test can be used to determine if there is an instantaneous connection between specific points within a groundwater flow system. However such a test would not confirm whether or not there is a longer-term flow path from one point to another. In that sense it can provide a “false negative”.

Groundwater moves relatively slowly in the overburden materials. After the sewage is discharged into groundwater at the proposed septic system sites it will move downgradient in the shallow soils until it encounters a bedrock fracture at the interface between the overburden (surficial materials) and the underlying bedrock. Once it encounters these fractures it can move relatively quickly (and in a direction completely different from that mapped in the overburden) to a pumping

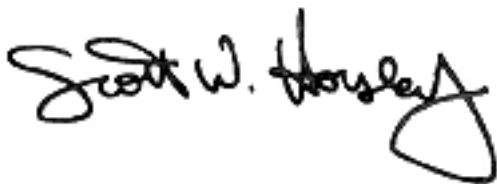
drinking water well that is drilled in the fractured bedrock (such as the abutters' wells).

As I have pointed out in my prior comment letters that have been submitted to the Town of Sherborn, additional groundwater flow data are needed to determine the potential impact of the proposed septic system on nearby adjacent drinking water wells (such as the Ham and Tai/Lawler wells). These wells are in very close proximity to the proposed wastewater infiltration areas where the applicant proposes to discharge 8360 gallons/day of untreated sewage.

The necessary data to fully evaluate these impacts should include additional water levels and groundwater analysis between the proposed septic system and the adjacent wells. Specifically:

1. Water level data from the abutters' properties should be included in the analysis. Water levels are available at both the Ham and Tai properties (septic test pits and drinking water well completion reports).
2. Groundwater mounding should be incorporated into a post-development water table (and groundwater flow direction) map that incorporates measured water levels on the abutters' properties.
3. Groundwater flow through bedrock fractures should be taken into account. In the absence of site-specific fracture trace analysis and/or dye tests, conservative assumptions about flow through fractured bedrock should be made.
4. A revised Area of Impact (AOI) analysis should be developed incorporating the preceding considerations.

Please contact me directly with any questions that you might have.

A handwritten signature in black ink that reads "Scott W. Horsley". The signature is written in a cursive, flowing style.

Scott W. Horsley