

LLSC Meeting with Board of Health
In attendance: Tom Orcutt, Susan Horwitz, Jack Petropoulos

August 5, 2013

Q: What are the opportunities for alternative septic systems?

A: The State has a list of approved innovative systems. Ira will forward to the LLSC. There are essentially 3 types of systems:

1. Traditional Title V
2. Tight Tanks
3. Innovative / Alternative
 - a. Passive use non-mechanical means for treating waste
 - b. Active use mechanical means for treating waste

There are approximately 10 Tight tanks installed in town at present with approximately another 5 permitted but not yet installed.

Innovative systems generally approved on lots that have space challenges.

Most lots at Lost Lake could support an innovative system, though there is a question of setback for wells which may mean that variances (or public drinking water) would be required. This was supported by a local Septic design and installation resource.

The cost of innovative systems ranges from less than a traditional Title V to more than a traditional Title V. All dependent on conditions and design.

Groton has not had much experience with innovative systems other than Presby Systems which account for (estimated) 90% of all innovative systems installed in town.

The state of Massachusetts will require an innovative system to be installed before giving permission for a Tight Tank.

Ira was not familiar with pending approval of new innovative systems. He will forward contact information for the state agency and individual that would know about what is being considered.

Important resources:

Link to all the Innovative and Alternative (I/A) systems:

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/summary-of-innovative-alternative-technologies-approved.html>

Link to the permitting for any new I/A :

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/massdeps-technology-approval-process-for-ia-systems.html>

The approval of Innovative and Alternative Systems is generated by:

David Ferris, Director
Wastewater Management Program
Bureau of Resource Protection

Q: What are the opportunities for shared systems?

A: Shared systems are allowed. They may provide relief but they are complicated. Shared systems must create a legal entity owned by all owners. Requires approval by Board of Health and by the State. Shared Systems can offer a legitimate option for a number of homes that want to work together.

Community systems are different and require an existing entity such as a condo association that is currently organized around common / shared space

Q: Do deep (bedrock) wells remove risk to the owners risk of drinking water contaminated by local private waste disposal?

A: Statistically they lower the risk of contamination by septic systems though they are not completely immune from contamination.

Testing at time of drilling is not reliable as a predictor of future contamination.

Q: What is the number of private well failures and what is the cause over the last n years?

A: There are no known drinking water well failures in Groton due to ecoli or nitrogen.

The concern on the part of the BOH is that we want to keep this record.

There is no way to know about failed wells that do not come to our attention. Logic suggests that there are likely failed wells but that they have not been identified. People may have contaminated wells without knowing it and may well resist taking steps that would cause unknown remedies at unknown cost.

Q: What constitutes a failure.

A: Amonia, Nitrates and Nitrites in the water at elevated levels

Q: What are the setback limitations for private wells (State and Local) and what is the science of the difference (if any)?

A: Ira believes that there are no local setbacks that are more restrictive than the state setback. He will confirm this as the general impression is that we have more stringent setbacks than the state imposes.

Follow up information from Ira:

A suction line or supply line shall be located a minimum of 25 feet from a building sewer constructed of durable corrosion-resistant material with watertight joints, or 50 feet from a building sewer constructed of any other type of pipe; 50 feet from a septic tank; 100 feet from a leaching field; and 100 feet from a privy

Whereas, Title 5 is the 10 feet from the water line to the septic tank and leaching area, a suction line is 50 feet to the tank and 100 to the leaching area and the building sewer is 10 feet from the suction line or well.

Groton's regulations are more restrictive to protect the well and water lines from being influenced from breaks in the sewerlines or septic components

The offsets for the well and the leaching area and tanks is the same as Title 5.

| Minimum Lateral/ Circumferential Distance (feet) | |
|---|-----|
| Leaching facility (310 CMR 15.00) | 100 |
| Cesspool | 100 |
| Septic tank | 50 |
| Septic expansion area | 100 |

Q: What are the opportunities for nitrogen reducing systems?

A: Nitrogen reducing systems fall under the Innovative System category. They require mechanical components and cost considerably more than non-nitrogen systems (estimate of \$8k additional cost). They require additional cost for maintenance as they must be monitored periodically and also have operating costs to operate the mechanical components. They do not increase the size of the system.

Given the additional cost and work, Nitrogen reducing systems cause concern that homeowners will not comply with the upkeep and that the nitrogen reducing benefits will be lost.