

MEMORANDUM

To: Robert Kosin, Village of Barrington Hills
Board of Health Members

From: Daniel J. Strahan, P.E., CFM
Gewalt Hamilton Associates

Date: August 18, 2010

Re: Board of Health Update
IDPH Private Sewage Disposal Code- Proposed Amendments

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Recently the Illinois Department of Public Health (IDPH) made available the amendments they are proposing to the Private Sewage Disposal Code, which provides the framework for septic system design and construction in Illinois. All local health departments (including the Village of Barrington Hills) must maintain a septic ordinance at least as stringent as the IDPH Private Sewage Disposal Code. As a result, any modifications to the IDPH Code that would be more stringent than Section 4-2-7 of the Village Code would require the Village to update the applicable sections. IDPH posted two separate documents for review:

- Notice of Proposed Amendments (Full text of Private Sewage Disposal Code with proposed amendments; hereinafter referred to as "Proposed Amendments")
- Comments from Interested Parties on Preliminary Draft Code Amendments (Comments as well as staff responses after draft of Proposed Amendments was released to select local health departments last fall; hereinafter referred to as "Comments")

The IDPH expects to post the Proposed Amendments on their website in the near future, which will initiate a period of public comment. Based on our review of the Proposed Amendments and Comments, there are two significant areas that, if enacted, would impact the Village and its residents.

Section 905.20(q) Maintenance of Private Sewage Disposal Systems

It has long been acknowledged in the onsite wastewater disposal world that there is a sizeable gap between recommended maintenance practices and what is actually done to maintain existing septic systems. The existing IDPH code does not contain any requirements regarding maintenance of standard systems, though some requirements are listed for mechanical elements such as aerobic treatment plants. The Proposed Amendments would prescribe certain maintenance responsibilities on all owners of septic systems throughout the state.

- For residential systems, after installation an initial inspection of the septic tank would be required within the first three years, with additional inspections required every five years. If during any of the inspections the scum or settled solids are found to exceed 33% of the capacity of the tank, the tank or compartment must be pumped out and maintenance performed.
- Aerobic treatment units would require evaluation and maintenance every six months (these are rare in the Village, though Section 4-2-7(J) allows them in repair situations).
- Sand filters would require an evaluation a minimum of once per year (these are also rare in the Village as they are only permitted for repair situations).

- Homeowners would be required to keep maintenance records and make them available to state and local health department officials upon request.

IDPH has already modified this section significantly in response to comments received during the preliminary review period. In particular, the draft document prescribed that septic tanks be pumped out at a set interval regardless of the level of accumulated solids; this has been modified to require inspection at a set interval, with maintenance as needed. Also, the initial draft indicated that maintenance records would reside with IDPH, which was modified to place the responsibility on individual homeowners. The addition of these maintenance requirements to the IDPH code, if enacted, will need to be communicated to Village residents.

Section 905.55 Subsurface Seepage System Design Requirements

Currently, the IDPH code allows either soil classification or percolation tests when designing septic systems. As you know section 4-2-7 of the Village Code requires a percolation test be used for design of septic systems in the Village of Barrington Hills, though recent amendments allow for consideration of soil classification. The following revision proposed for Section 905.55 would require revision to this section of the Code:

When designing a subsurface seepage system, the absorption capacity of the soil shall be determined by subsection (a) or (b) of this Section as follows: After January 1, 2011, when designing a subsurface seepage system, the absorption capacity of the soil shall be determined by subsection (a) of this Section. After January 1, 2011, subsection (b) of this Section may be used to judge if the soils may be suitable for a subsurface system.

Subsection (a) referenced above refers to soil investigation/classification, while subsection (b) refers to percolation tests. In effect, the change would mandate that only soil classification be utilized for septic system designs; after January 1, 2011, percolation tests would only be permitted to demonstrate whether or not a site may be suitable (for instance, during the subdivision process).

During the preliminary review period objections were raised by many county health departments, noting both the long track record of percolation tests in determining absorptive capacity as well as the limited availability of qualified soil classifiers in downstate areas. The IDPH responses to these comments reflect their opinion that percolation tests are inherently flawed; a typical comment and response are provided below:

Comment – Steve Shireman, Calhoun, Greene and Scott County Health Department

Section 905.55 – Please do not eliminate the option to use percolation tests to determine the design of a subsurface seepage system. This method has been in place for decades and has proven to be an effective method to determine soil absorption capabilities. My experience has shown soil classifiers have determined soil absorption systems would work when history had shown them to be limited and subject to failure. As a result systems failed and homeowners were required to spend thousands more unnecessary dollars.

Department's Response:

The Department does not concur with your opinion. The percolation test is not adequate or accurate enough to identify all possible conditions that can be identified with a soil investigation. The percolation test only provides a time specific percolation result for that day and it does not identify seasonal water

fluctuations or limiting layers. A percolation test must be conducted utilizing a strict procedure to ensure accurate results. It has been found that the procedure is not always followed completely or is manipulated to achieve a desired goal. This is an injustice to the system owner and if done by the system owner, more often it is found that the system fails due to under sizing. This creates a bigger financial burden because now it has to be corrected or replaced costing more than it would have been if it was done right the first time.

Summary & Next Steps

Other revisions to the IDPH Septic Code are included in the Proposed Amendments and may require additional text revisions to the Village's septic code, though more commonly would apply to areas in which the Village ordinance is already more stringent than the existing state code. As currently constructed the Proposed Amendments would require significant modifications to Section 4-2-7 of the Village Code with regard to percolation test and, as a result, design criteria for the subsurface seepage field.

At the next Board of Health meeting our office will provide a more complete summary of the Proposed Amendments. It is anticipated that the Village would desire to provide feedback to the IDPH during the upcoming comment period. As an added measure it may be desirable to schedule a meeting with IDPH personnel to review the current Village septic code relative to the Proposed Amendments.

cc: Beth Mallen, Liason to Board of Health