



**LAKE • GEORGE
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October 30, 2008

Mr. Chris Hunsinger, Chairman
Town of Queensbury Planning Board
742 Bay Road
Queensbury, NY 12845

Re: Garner Holdings, LLC
Pine Tree Lane (226.19-1-30) – Freshwater Wetlands 9-2008
Forest Lane (226.19-1-37) – Freshwater Wetlands 11-2008

Dear Mr. Hunsinger:

The Lake George Waterkeeper would like to clarify some of the discussion points about on-site wastewater treatment systems (OWTS) from the October 28, 2008 public hearing regarding the above referenced Freshwater Wetlands applications. In addition, I would like to submit some information regarding the applicable regulations for OWTS.

The various applicable standards should be detailed. The New York State Department of Health (NYSDOH) "Appendix 75-A Wastewater Treatment Standards – Individual Household Systems" is the applicable rules and regulations which dictate the design standards serving residential properties. The NYSDOH *Individual Residential Wastewater Treatment Systems Design Handbook (Handbook)* provides guidance to uniformly implement Appendix 75-A rules and regulations and address effective design for professionals. Section 136 of the Town of Queensbury Code "Sewers and Sewage Disposal" is the Local Department of Health regulation which is based on NYSDOH Appendix 75-A but contains requirements which are more stringent than 75-A for enhanced wastewater treatment, such as an increased separation to seasonal high groundwater.

The discussion regarding the proposed OWTS focuses on two items – vertical separation and where it is taken from for shallow absorption trench systems and horizontal separation and where it is applied from.

Vertical Separation

At the October 28 public hearing, the proposed OWTS is classified as a "Shallow Absorption Trench System" where the bottom of the proposed absorption trench (Eljen In-drain system) is to be installed into existing soil. According to the NYSDOH *Handbook*, the bottom of the absorption trench is not to be less than 6 inches below the surface of the existing in situ soil. Please see attached sheet.

The proposed treatment system is an Eljen In-drain system which provides additional contact area for primary treatment of the septic tank effluent. The design specifications require the Eljen In-drain component to be installed on a 6" bed of sand where secondary treatment is performed on the effluent. Based on this, the 6" sand layer is part of the treatment component and vertical separation should be taken from the bottom of the sand layer. This is the policy of the NYSDOH, as stated in the attached email from James Meacham, Bureau of Water Supply Protection. Please see attached sheet.



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The deep test pit information submitted in the application states the depth to mottling (indicator of seasonal high groundwater) on the two sites was 38" on Pine Tree Lane and 37" on Forest Lane. §136-9.A of the Town of Queensbury Code requires "the natural ground intended for the leaching facility must have a minimum depth of three feet of usable soil above maximum high seasonal groundwater within 1,000 feet of the shoreline of Lake George". To meet this requirement, the base of the Eljen In-drain system would be 2" below existing soil surface at the Pine Tree Lane property and 1" below surface at the Forest Lane property.

The applicant's agent stated the proposed system would be installed into the existing soil and the 3' of vertical separation would be provided to the top of the sand layer. It was stated the sand layer would be considered as part of the soil component and not the treatment component. But this is contrary to the NYSDOH policy.

Horizontal Separation

Based on the previous discussion, the base of the Eljen In-drain system will be 1-2" below the existing soil surface. This would not comply with the requirement of the bottom of the absorption trench being 6 inches below the existing soil surface. According to the NYSDOH *Handbook*, if the bottom of the absorption trench is installed less than 6" below existing soil surface, then horizontal separation distances are measured from the toe of slope of the fill.

Since both systems are considered as fill systems, a 20' separation is required from the toe of fill slope for the absorption field to the house. On the Pine Tree property, a 7' separation is proposed and a 5' separation is proposed on the Forest Lane property. A 10' separation is required from the toe of fill slope for the absorption field to the property line and 4' is provided on the Pine Tree property and 5' on the Forest Lane property.

It should also be noted the Hydraulic Profile provided for the Forest Lane project clearly shows the 6" sand bed installed above the existing grade. This would support the determination that horizontal separation distances for the proposed design should be taken from the toe of the fill slope.

In summary, the site constraints are such that an Eljen In-drain system cannot be installed to meet the required 6" installation depth into existing soils to be considered as a shallow absorption trench system while meeting the 3' vertical separation of the Town of Queensbury Code. Additionally, horizontal separation distances need to be taken from toe of the fill slope. Based on this, it would appear the proposed design will require relief from the Local Board of Health from one or more regulations regarding on-site wastewater treatment.

Thank you for your consideration of these items regarding this application.

Sincerely,



Christopher Navitsky, PE
Lake George Waterkeeper

cc: Town of Queensbury Planning Board Members
David Hatin Town of Queensbury Building Department
Michael White – Lake George Park Commission
Brian Grisi – Adirondack Park Agency