

# *Peter J. Loughlin*

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January 11, 2017

**VIA EMAIL:**

Michael Behrendt  
Durham Town Planner  
8 Newmarket Road  
Durham, NH 03824

**Re: 3 Williams Way - Friends Forever - Septic Review**

Dear Michael:

**Septic Review**

In early December, I contacted Mary Power, Executive Assistant at the NH DES Offices in Portsmouth concerning the expectations of DES concerning the conversion of a single family home to a bed and breakfast. Mary put me in touch with Jay Baas, the person at NH DES responsible for septic systems in this area. Mr. Baas suggested that we have a qualified engineering firm review the plans and the septic system and issue an opinion on its condition. As a result, I contacted Michael J. Sievert, PE, of MJS Engineering in Newmarket. Mr. Sievert provided the attached letter.

If there is any additional information that would be helpful, please do not hesitate to contact me.

Respectfully submitted,



Peter J. Loughlin

PJL/dea



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January 9, 2017

Mr. Steve Martineau  
Friends Forever  
Via email

**Re: Review of existing septic system capacity at property located at 3 Williams Way**

Dear Mr. Martineau;

Pursuant to your request, I have reviewed the existing septic system information provided by Peter Loughlin on behalf of Friends Forever. It is my understanding, based on the information received, that Friends Forever would like to use the existing house and property at 3 Williams Way as a "Bed and Breakfast" use whereby students and/or guests stay for a limited time at the property. The property has a total of five bedrooms, four bedrooms will be used by guests and the fifth bedroom is used by the manager.

The existing septic system, per the recent inspection, is in good working order with no signs of failure. The most recent information from NHDES shows that the existing system was replaced in 1993 and is designed as a four-bedroom system. Based on NHDES standards, the capacity of the system was designed for 600 gpd (gallons per day). The leach field is a plastic chamber system that appears to have been installed in accordance with the design plans. The capacity of the septic tank is 1500 gpd, which meets the NHDES requirements. In accordance with the NHDES requirements, a bed and breakfast use requires a design capacity of 60gpd/guest with a minimum of 2 guests per room, or the actual guests per room if more than two plus 10gpd per employee. The proposed use is slightly different from the standard requirements in that there will be a live-in manager occupying one bedroom. Therefore, using the 60 gpd times 2 guests/room times 4 rooms equals 480gpd plus the full-time manager at 150gpd per bedroom for a total design flow of 630gpd.

In conclusion, I believe that the existing septic system is adequate for the intended use. A typical four-bedroom house is occupied full time by a family and the flow is fairly constant on a daily basis. This intended occupancy will be more intermittent, and may exceed the design capacity on a short-term basis, but then may be under used while occupied by the manager only. On average, the design capacity of the existing system will be adequate and provide proper treatment. In the event the system is overused and fails, it will be required to be redesigned and replaced for the proper use.

If you need additional, information please do not hesitate to contact me.

Sincerely,

Michael J. Sievert PE  
President

