

20. Nitrogen Loading and Advanced treatment septic systems Protection

For applications proposing systems serving new construction or for upgrade of existing systems, but not including emergency repairs, if a site is served by a subsurface sewage disposal system, that is within 100 feet of an abutter's well or that has a design flow of greater than 440 gallons per day per acre, an advanced I/A treatment system (approved for denitrification by the DEP) is required. The Board may grant a variance from this requirement in accordance with the criteria set forth in 310 CMR 15.410. Any application for variance from this provision must contain the following information which would allow the board to make an informed decision and risk assessment:

- 20.0 All wells have to be accurately located (RLS) and evaluated and labeled appropriately per type (i.e. deep vs. shallow, bedrock vs gravel packed) on plan.*
- 20.1 Topography clearly shown between wells and proposed septic system to allow evaluation of the system components shown to be up gradient or down gradient.*
- 20.2 Lot size as well as abutting lot sizes with said wells.*
- 20.3 Groundwater flow should be shown (especially if arguing against advanced treatment).*
- 20.4 Soils should be identified with sufficient soil logs throughout area for a hydrogeological assessment (especially if arguing against advanced treatment)*
- 20.5 Nitrogen loading (structures flow vs. acreage) of locus lot and abutting lots should also be discernible from the proposed plan and will be taken into consideration.*
- 20.6 Number of animals and locations of pens (i.e. paddocks, kennels, etc.) and manure piles should also be provided for consideration, if applicable.*
- 20.7 recent (less than one year old) water analyses (including nitrates) should be provided on all wells before treatment system if available for consideration.*

Any proposed plan without sufficient information (as requested above or by the board or its agent) for assessment will most likely not be granted a variance for an advanced I/A treatment system approved for de-nitrification although each situation is under the discretion of the Board of Health.