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CONSULTING ENGINEER

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LAND USE DEPARTMENT

Mr. Tony Capon, Chairman  
Planning and Zoning Commission  
741 Colonel Ledyard Highway  
Ledyard, CT 06339-1511

Dear Chairman Capon and Commissioners,

I am a consulting engineer for Groton Utilities. Among the services I provide are watershed management and drinking water source protection. I have reviewed the current proposal for an 18-lot re-subdivision with my client, and, on behalf of Groton Utilities, I would like to express my full professional support for, and agreement with, the analysis prepared by Michael Giggey of Wright Pierce. I believe it to be concise and accurate in its evaluation of the site conditions for the proposed development and its likely negative impact on the adjacent drinking water reservoir. As expressed previously, based on the concentration of subsurface sewage disposal systems in such a small area in close proximity to our reservoir and to individual drinking water wells on each of the proposed lots, this density of housing will likely have a negative impact both on our watershed as well as on individual homeowners within the proposed development.

Restrictions have been introduced to regulate onsite landscaping for these lots. For example, there is a proposed total prohibition on the use of all herbicides, pesticides and winter de-icing agents; and lawns, shrubs and flower beds may only be fertilized once a year using a slow-release, organic fertilizer in the fall. Enforcement will be up to the Town and will – at best – be difficult to verify and control once the subdivision is completed and sold. And, with the proximity of the housing to the waters of the reservoir, security of the water supply will be difficult to enforce.

The modern portion of the Groton Utilities reservoir system started approximately 70 years ago, in the mid-1950's with the construction of Ledyard Reservoir and then Morgan and Billings Avery Reservoirs. Since that time, we have seen the quality of water in the lower reservoir system change significantly in terms of increased sodium levels, increased turbidity, lower dissolved oxygen levels, increased nutrient loading and other parameters. This has placed a stress not only on the water treatment process, but on the aquatic environment as well. In addition to the slow degradation of water quality, there are the continued and changing requirements of the Safe Drinking Water Act and other new regulations coming into effect on a frequent basis. With

the stricter maximum contaminant levels (MCLs) that these regulations impose, drinking water source protection takes on additional importance. During that time period, we have gone from standards of parts per million, to parts per billion and now, with the introduction of MCLs for PFAS contaminants, to parts per trillion. For the treatment process, this has meant an increased use of coagulant chemicals mixed into the raw water supply, with a subsequent and resultant increase in filtration, sedimentation and the production of disinfection by-products that must be dealt with. It has also necessitated the installation of a new and advanced water treatment plant by Groton Utilities, completed two years ago, to deal with current and upcoming regulatory standards. While the new treatment plant is capable of dealing with current contaminants, the importance of maintaining a clean watershed cannot be overstated.

When standards were first set up to regulate our water supply, and then through ensuing years, much – if not most – major development was situated outside watershed areas. Land was available on a normal growth basis and, because water resource protection areas were more restrictive, it was typically easier to develop outside those areas or in accordance with those restrictive limits. An increase in population and normal growth have now led to increased development in watershed areas. The State of Connecticut considers drinking water source protection and pollution prevention to be fundamental to the long-term protection of its drinking water resources. Each and every adverse impact to the quality of drinking water sources, both short-term and long-term, is detrimental, particularly when viewed in the cumulative context of a regional water distribution supply system. High density over-development on lots averaging 1/3 acres without sanitary sewers in close proximity to Groton Utility's reservoir as proposed by Avery Brook Homes LLC will likely degrade water quality and increase the risk to the water supply system.

As pointed out in Mr. Giggey's analysis, public water distribution systems in the Town of Ledyard have already been expanded as a result of contamination of individual drinking water well systems in close proximity to subsurface leach fields. Groton Utility's maintenance department continues to provide service connections on a routine basis to homeowners whose water quality has been degraded. For these reasons, we are, and will continue to be, concerned with the growing collective effect of development on our source waters.

Respectfully,

A handwritten signature in black ink that reads "Karl F. Acimovic". The signature is written in a cursive, flowing style.

Karl F. Acimovic, P.E. & L.S.