Lisa Tepper Bates  
Senior Director of Housing & Transit Oriented Development  
Office of Governor Lamont  
State Capitol  
210 Capitol Avenue  
Hartford, CT 06106

Dear Ms. Tepper Bates:

Thank you for the opportunity to provide recommendations regarding the regulation of subsurface sewage disposal systems. Below, you will find several suggestions that if adopted would both promote housing affordability and maintain high standards of health and safety for Connecticut residents.

Together, these recommendations, if adopted, would allow for the more affordable construction of housing. These changes would have the added benefit of affording greater flexibility in the design and installation of septic systems, thereby, allowing developers to better preserve natural resources and open space by minimizing footprints and maximizing density. Lastly, the changes would reduce “save and repair” costs that would benefit homeowners looking to replace existing systems as well as those looking to remodel or expand upon an existing home.

All the following suggestions could be adopted by regulators without legislation.

**RECOMMENDATIONS FOR DPH TO CONSIDER:**

1. Adjust the 150 gallon per bedroom per day threshold based on evidence of current water usage and actual flows. This would put Connecticut regulation more in line with neighboring states with more vibrant construction occurring. Currently, Rhode Island uses a 115 gpd/per bedroom and Massachusetts uses 110 gpd/per bedroom. By DPH’s own estimates, Connecticut households average approximately 50 gallons per day (see supporting data). DPH has stated in the past that is it currently reviewing the possibility of using a fixed number for the first bedroom and a lesser number for subsequent bedrooms. The HBRACT would propose the DPH consider utilizing 110 gpd for the first bedroom and 90 gpd for all subsequent bedrooms. This would keep standards line with DPH’s safety factor of 1.5 (see On-Site Waste Water Treatment document). Regarding
existing buildings with consistent historical flow data, DPH should also consider utilizing a lower safety factor that reflects actual usage.

2. Eliminate or significantly reduce the septic system reserve area requirement. A reserve area is an additional area of land that must be kept undeveloped to be used as a leach field if the original system fails. However, very rarely is it needed as it is customary to make repairs or replace the existing system at the original site. The reduction or elimination of the existing reserve requirement would allow for more developable land, greater density and would reduce costs. Existing technologies have been approved for use in Connecticut for rejuvenating failed septic systems. This technology has been highly effective at converting failing leaching systems, that are up to 50% undersized, and allowing them to work as if they were new. There is much support for eliminating the reserve area with a number of current options for constructing new systems in the same footprint.

3. Allow 3rd party design, inspection and certification of subsurface sewage disposal systems by a licensed professional engineer. Final documentation to be filed with the overseeing authority prior to the issuance of a Certificate of Occupancy (similar to DEEP’s current third-party stormwater certification process). This would allow continuity and predictability in business and enhance the quality of inspectors. Lastly, many overburdened health districts would be free redirect their limited resources.

4. Reduce property line septic system setback requirement to 5 feet. Modern construction installation techniques in conjunction with current subsurface sewage disposal systems allow for greater flexibility and better use of the land.

5. The Interface factor for stone, that is utilized by the DPH in calculating the Effective Leaching Area (ELA), should be increased from 1.0 to 1.5 so that it is the same as fabric-based interfaces. No other states handicap the sizing of stone systems, relative to fabric systems, as Connecticut does. This would allow for nonproprietary and proprietary systems with stone/soil interfaces to be competitive with proprietary fabric systems. If changed, this would allow for the use of 33% less stone and greater design flexibility (including increased density).

6. To provide greater clarity the DPH bedroom definition should be updated to reflect actual modern usage. A new definition of bedroom should only include rooms with a second means of egress consistent with the state building code and should exclude reference to bathrooms “directly accessed from a stairway”. Currently, laundry rooms, walk-in closets and other rooms will be counted as bedrooms which will impact the size and cost of the septic system required to accommodate rooms that would never likely be used as bedrooms.
The Home Builders and Remodelers Association looks forward to the opportunity to meet with the Administration and the Connecticut Department of Public Health to discuss these proposals.

Sincerely,

[Signature]

Jim Perras, Esq.
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C.C.
DPH Commissioner Renee D. Coleman-Mitchell, MPH
DOH Commissioner Selia Bruno-Mosquera
DPH Supervising Sanitary Engineer Robert Scully
MEMORANDUM

On-Site Waste Water Treatment

May 14, 2018

Previously, the number of bedrooms that could be proposed on any single piece of property and stay within the Department of Public Health regulations was 33. In 1917 that was changed to allow 50 bedrooms. However, while that change was welcomed, it did not address the cost of the septic system or recognize the significantly reduced water usage due to changes in the Connecticut Building Code that requires builders to install water saving devices. Modern appliances such as washing machines and dishwashers has also contributed to reduced water usage. The rapid rise in the cost of public water has influenced users to be more conscious of water usage.

The On-Site Wastewater subcommittee of the Environmental and Infrastructure Committee of the Middlesex Chamber of Commerce has been studying this issue for a number of years and has collected data from four apartment owners around the state of Connecticut.

- Franklin Construction Co.
  - 4 apartment communities in Hamden consisting of 373 total bedrooms.
  - While they are not all built under the current code, they have been retrofitted with water saving devices.
  - Laundry facilities are located in each building, not in the dwelling unit.
  - Average Gallons Per Day (GPD) per bedroom is 79

- Santini Living
  - Deer Valley, Ellington
  - Townhome apartments consisting of 384 bedrooms
  - Laundry Facilities in each unit
  - Average GPD/Bedroom is 62

- Carrier Group
  - Castle Heights, Cheshire
  - Upscale single family condominium consisting of 176 bedrooms
  - Average GPD/Bedroom is 46

- HOPE Partnership
  - Ferry Crossing, Old Saybrook
  - 16 unit, 4 building, 31 Bedroom, Affordable Housing, rentals with laundry facilities in each unit.
  - **NOTE: Only 15 units (29 bedrooms) were used to calculate the GPD/Bedroom because Unit 38 had an unusually high water usage which is being investigated.**
  - Average GPD/Bedroom is 57

With the exception of Castle Heights, which allows for a limited amount of gardening and car washing, virtually all the water that is metered goes into the waste water system.

Based on this data, it would seem that the current requirement to design septic systems for 150 GPD/Bedroom is not consistent with current water usage.
Furthermore, the cost of this overdesign makes it increasingly difficult to build affordable housing where public sewers are not available.

(We still have to get the design standards for public sewer systems. Limited information seems to indicate that even pumping stations are designed for substantially less than 150 GPM/Bedroom and they have to handle peak flows.)