

Response of the Health Director in Red- 6-9-2017 PJChampagne
--additional responses added 6-23-17 in Blue pjchampagne per
request of the ZBA Chair

To Chairman Ryer and members of the Zoning Board of Appeals
RE. Habitat for Humanity project at 97-93 rt. 28 Main St. West Harwich

Greetings,

As you know Town meeting this year spent a great deal of time pondering huge sums of money to remediate the impact of nitrogen with sewerage. This has been deemed so necessary as to be enforced through legal legislation. At town meeting I listened to the experts through CDM Smith who indicated title 5 septic systems remove only 15 to 20 % of the nitrogen. This is the reason for remediation, in this case sewerage.

- 15-20% removal rate of nitrogen is the accepted figure in the scientific community for traditional septic systems. Septic systems are classified as primary treatment, meaning there is only removal of physical solids via settling and minimal breakdown/altering of chemicals and bacteria. They are rudimentary systems, little changed in scope since their invention in the 1400's. The greatest contribution to science was the halt of discharge of waste to the ground surface and streets which made a profound impact on Public Health.

The issue that this raises is that Habitat's title 5 engineering consultant in speaking before your board told us that their title 5 reduces approximately 80-90 % of the nitrogen and that the sand itself, through percolation, contributes to that remediation.

- I do not know the source of that 80-90% removal rate and would request support documentation for that statement

This was in response to the local neighborhood concerns that a different and more effective title 5 or advanced system would be needed on a lot with increased density (8 houses,) in a flood plain and so close to the critically impaired Herring River Watershed.

The health and safety concerns remain.

1. 8 traditional septic systems on less land than previously required for the systems to work efficiently
 - There is not a limit on the amount of effluent disposal per acre in this part of town. Given that the front portion of the property is commercially zoned, high water use activities such as restaurants, salons, medical offices could quickly surpass the water allotments of residential use. This proposal is potentially a less intense water & sewage use of the parcel than the maximum allowable use under commercial zoning. Example- 8 -4 BR homes =3520gpd flow. A mixed use complex with a 125 seat restaurant, medical offices, and apartments above could easily pass 5,000gpd
2. No oversight to ensure that the septic systems are maintained and pumped regularly

- The town does not have a regulation /by-law for the mandatory pumping of septic systems
3. Potential to impact drinking water in an area of documented toxic plume and on property with a previous home heating spill
 - This area is not in any Zone II – Drinking Water Protection District for any of the municipal supply wells
 4. Increased nitrogen loading to the critically impaired Herring River, which is vital to the health of species tied to the fishing industry.
 See item #1. The Health Dept is not aware that there is any plan to decrease density by zoning in the area .The CWMP utilizes projected use tables in analyzing nitrogen and removal needs.
 5. The 8 proposed septic systems on the 93- 97 rt. 28 properties lie in extremely close proximity to neighbors. These title 5's are immediately adjacent to an area predicted to flood and concern for the overflow of septic systems onto neighbor's property with resultant contamination of ground water is a possibility
 - Septic systems are only prohibited in a velocity zone to protect against buoyancy and exposure. Sytems in areas prone to flooding would need to be evaluated after a major prolonged inundation to evaluate functionality. In the event of major flooding, the Town's Emergency Management Team would be involved to evaluate buildings, surge waters, etc for exposure and contamination potential and remediation

So now you see our concerns in this dilemma. Where is the truth of what we are being told? Is Habitat's engineering consultant correct? In that case the town is pursuing unnecessary sewerage with astronomical expenses, or do we take the word of CDM Smith the town's engineering firm? We ask that the Zoning board consider requiring a study to determine the validity of statements regarding title 5 made by Habitat and their engineering consultant so that the health concerns listed above can be addressed.

We appreciate your efforts in reviewing the details of this project that will impact our neighborhood for many years to come.

Lou Urbano