

Zoning Board of Appeals
Carlisle Town Hall
66 Westford Street
Carlisle, MA 01741

10 January 2017

Re: Application for Comprehensive Permit, 100 Long Ridge Road

Dear Members of the Board:

The Applicant Jeffrey Brem and his attorney have not only requested waivers from local Board of Health (BOH) regulations, they have disparaged them as being unrealistic and impossible to meet. This is made explicit in Atty Bobrowski's markup of the initial ZBA decision wherein he has crossed out Condition #101: "Consistent with the Board of Health's regulations, the Applicant shall demonstrate to the satisfaction of the Board of Health that the standards of 5 mg/L total nitrogen and zero (0) colonies of coliform bacteria will be met at the downgradient and cross-gradient property boundaries." This proposed deletion is followed by the Bobrowski note: "Jim Vernon has admitted impossible."

This is yet another in a long line of unfortunate mischaracterizations by the Brem team of comments by the Town's consultant (including several selective misquotings by the applicant's hydrogeologist Joel Frisch which Dr. Vernon corrected in his memo of January 4). What makes it impossible for the Applicant to meet the local public health standard has nothing to do with a problem with the standard; the failure is inherent in the size of the proposed septic fields, the underlying soils and fractured bedrock, and proximity to the property boundary.

I believe it is telling that as Chair (starting in late May 2007) of the Board of Health, Mr. Brem supervised a detailed review and revision of Carlisle's local Supplemental Septic Regulations. This review included detailed edits and commentary by Mr. Brem on as many as eight drafts of the regulations over the course of the subsequent 9 months, with the final version unanimously approved by the BOH after the close of the public hearing on them on April 4, 2008.

As the regulations were being finalized at the Board of Health meeting of March 11, 2008, the minutes reflect that Chairman Brem was the one who closed the discussion on what the standards should be *vis à vis* protection of abutters: "Brem suggested that the proposed model shall predict no rise in groundwater elevation and no greater than 5 mg/l of nitrogen at all property lines." The minutes add simply: "The Board agreed."

In early 2007, even prior to the revision that codified these standards in our local regulations, Mr. Brem, before becoming Chair, took the lead in drafting the Board of Health's memoranda relating to the proposed 40B project known as Coventry Woods with a septic field sited similarly close to the property boundary and abutter's drinking water wells. He made the motion that the Board require that the applicant for that project be required to demonstrate that they would meet the 5 mg/L nitrogen and 0 fecal coliform and virus at the property line public health and safety limits *prior to* the granting of a conditional comprehensive permit for the project.

It was moved (Brem), seconded (Cahill) and unanimously voted (5:0) that due to the perceived impacts to public health and in accordance with local needs the Board of Health requires the applicant to provide a groundwater mounding analysis performed in accordance with Title 5 and provide a solute transport model proving that nitrogen levels will meet drinking water standards at the property line and that total fecal coliform and virus transport at the property line be limited to "0" colonies and "0" units respectively in advance of the Board

of Health offering recommendations to the Board of Appeals and prior to the issuance of a conditional approval. [Board of Health meeting minutes, January 16, 2007]

The Applicant and his representatives have asserted during the hearing on Long Ridge Road that they be treated no differently than other applicants. One would hope that Mr. Brem would agree that the abutters to his proposed 40B deserve the same protections provided in the local septic regulations he shepherded through to unanimous approval and in the nearly identical standards that he himself affirmed should be required for a previous 40B applicant in Carlisle, while he recommended the denial of *their* request for waivers from local regulations.

When the dust has settled and the hearing is closed, the Zoning Board of Appeals (ZBA), in its deliberations on requested waivers and conditions of approval if granted, should pay particular attention to our local Board of Health regulations, still virtually in the form Mr. Brem championed as Chair, including the following:

The Carlisle Board of Health feels the long term health interests in our town can only be served by adopting certain regulations which are stricter than Title 5, which was written as a minimum protection standard...

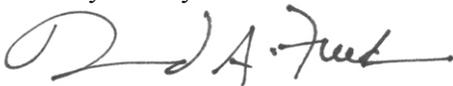
Current estimates indicate that the distance viruses and bacteria travel is much greater than previously estimated. In Carlisle, where groundwater travels some distance through bedrock crevices, pollution may not be adequately filtered in gravel or sand with Title 5 percolation rates used for design. ...

Systems having a design wastewater flow of 2000 gallons per day or greater, a hydrogeological evaluation utilizing a three dimensional model such as ModFlow shall be performed by a qualified engineer or geologist, at the expense of the applicant, to be reviewed and approved by the Board of Health prior to the issuance of a DSCP. Models shall predict no rise in groundwater elevation and no greater than 5 mg/L of total nitrogen at the perimeter boundary. ...

Systems defined "a" and "b" above and systems with design flows of 2000 gpd or greater shall meet a minimum design flow requirement of 165gpd per bedroom.

The ZBA should also understand that the late gambit by Mr. Brem, presented by Mr. Bobrowski at the opening of the hearing session on January 4, to make provision for tie-ins to the proposed Public Water Supply (PWS) for abutters whose drinking water is poisoned by his development, is an empty promise. Notwithstanding the fact that the abutters should not be required, just to have safe drinking water, to effectively partner with a homeowners association for a project they oppose, evidence has been presented that the PWS may also be compromised by onsite septic flow. In addition, if abutters' wells are compromised by nitrates, coliform, virus or other pathogens transmitted through bedrock fissures (which seems as likely as not given the location of the septic field closest to abutters on a bed of permeable sand directly over fractured bedrock), then the PWS would be equally at risk of the same contamination. Expert hydrogeologists have also predicted hydraulic connectivity of the wells comprising the proposed PWS, indicating that relying on excess flow to satisfy drinking water demand onsite, much less to supply adequate quantities of safe water for multiple abutters, cannot be guaranteed. Absent such a guarantee that only a municipal water supply could provide, the proposed project fails the Reynolds/Stow test and cannot be permitted as proposed.

Thank you for your consideration of these concerns.



David A. Freedman, 301 Hutchins Rd., Carlisle