



## Light, Air, Noise Bylaw Committee

### Meeting Minutes

Date: April 9, 2019

Time: 7 - 9 PM

Location: Conference Room A, Town Hall

Meeting came to order at 7:05 PM

Present: Margaret Scarsdale, Timothy Brothers, Vince Premus, Pat Kenneally, Ron Karr, Harvey Serreze, Mark Little, Renee D'Argento, Sherrill Rosoff, Tony Beattie, Joe Radwich

Absent: Casey Campetti

The meeting opened with nomination for a new Committee Secretary to replace Max Gordon who has resigned.

A motion by Ron Karr to nominate Sherrill Rosoff as Secretary was seconded and passed.

Discussion then ensued regarding the final edits to the Noise Bylaw. Harvey Serreze offered a series of edits, as did Vince Premus, and all were accepted by the Committee. Margaret Scarsdale, who has been updating the bylaw draft with committee edits, will do a final editing prior to the next meeting. The final draft of the Noise Bylaw will be presented to the committee for final approval and, at that time, discussion will focus on distribution of the bylaw to town administration, boards and committees for comment.

Discussion then focused on the Light Bylaw draft which Tim Brothers presented to the committee. Tim reviewed salient scientific information about the effects of light pollution on people and wildlife. He noted that we are seeing an increase in light pollution across the country on the order of 2.2% annually. Locally, some towns, such as Westford and Littleton, have seen increases substantially higher than the national average due to population increases, and commercial/industrial and housing buildout. Pepperell is still a relatively dark skies town, in comparison, although it, too, has seen considerable increase in light pollution over the last ten years. The particular concern is the effects of blue light on people, wildlife, crops. Deleterious effects of blue light have been noted by the AMA and includes increased risk of cancer, diabetes, depression and anxiety. Effects on animals includes disruption of circadian rhythms

and other biological cycles (such as migration) tied to light. Finally, light pollution indicates that we are wasting valuable energy; when LEDs were introduced it was immediately recognized LEDs were more efficient and reduced the costs of lighting. However, as a result of reduced cost and greater efficiency, we have begun using more light, not less, in what scientists are calling the “rebound” effect. The physics of light particles scattering into the skies is a cause of light pollution, in general.

So, the problem is one of lumens and color temperature with LED lights; and the aim is to minimize blue light as this is the most harmful to people and the environment. It may also be useful to reduce night lighting in general; Tony Beattie offered the comment that it might be great if Pepperell were to achieve a total “dark skies” environment. Ron Karr commented that thirty years (or so) ago Pepperell instituted street light dimming as a cost saving measure.

The question arose as to what are the key sources of light pollution in our town: is it residential use, municipal, commercial or industrial? Vince Premus was of the opinion that we should be looking at the low hanging fruit regarding light pollution and that residential use - exterior spotlights, patio walkways, etc. were not the issue. He noted the light pollution emanating from Nashua as the most significant inflicter of light pollution in the area; he was uncertain as to whether efforts made by Pepperell would have significant effect on a larger regional issue.

In answer to a question about local light pollution sources, Tim Brothers said he would investigate this and get back to the committee. He did note that in Westford, the increase in light pollution (now being unable to see the Milky Way) was due to uncontrolled commercial development. (He also noted the disappearance of fireflies in the Westford area.) He did say that a reduction in residential lumens and use of non-blue lights can make a difference, overall, to light pollution in the area.

Mark Little noted that a Light bylaw serves the same purpose as the Noise bylaw; that we are being proactive in identifying a serious environmental issue that, while not yet reaching the degree of pollution as Westford, certainly will continue increasing as the town grows over the next decade.

Tim Brothers also noted the existence of “dark skies” tourism - a relatively new phenomenon where people will travel to areas where light pollution is minimal in order to view the night skies. Astro-tourism is taking hold across the country; please google the term at your leisure.

The meeting adjourned at 9:03 PM.