

**March 14, 2024 Special Meeting of the East Lyme Zoning Commission with respect to the Application by Kristen Clarke, P.E. for the parcel identified as 91 Boston Post Road –**

**Public Hearing Statements for the Commission from Donald Danila**

My name is Donald Danila and I reside at 24 Pattagansett Drive, East Lyme. I am an East Lyme Board of Selectman-appointed member of the Niantic River Watershed Committee and the East Lyme Commission for the Conservation of Natural Resources. I have received authorization from both these bodies to provide statements tonight on their behalf with respect to the 25-unit Affordable Housing Development proposed to be built on the property identified as 91 Boston Post Road. I note that upon completion of my remarks, I will provide a complete written record of these comments to this Commission's recording secretary.

First, I would like to correct several items found in the Zoning Commission minutes of March 7. My last name is not as it appeared but is spelled D-A-N-I-L-A. I apologize to the Commission's recording secretary for not spelling out my name that evening. Secondly, there was some confusion in the minutes concerning two documents about which I spoke. The first is the Niantic River Watershed Protection Plan, which, as noted, cannot be found on the East Lyme town website, but rather is available for inspection through Mr. Gary Goeschel of East Lyme town hall staff or may be viewed electronically via: <https://portal.ct.gov/DEEP/Water/Watershed-Management/Watershed-Management-Plans-and-Documents#nianticriver>

I also mentioned a report that I completed on 10 years of water quality monitoring I performed in the Niantic River tributary streams. This report includes data from stations near the proposed development. Mr. Goeschel also has a hard copy of this report. Alternatively, I can send a pdf copy to anyone interested in it – just ask me.

Now, onto the comments that I would like to make tonight about this proposed development. I appreciate the Commission making available the materials spoken about at the March 7 Zoning Commission meeting, but were not available to the public as of that date. I would first like to bring to the Commissioner's attention some statements made by the applicant's representatives found in the March 7 minutes that I believe are not entirely correct or consistent either with their submitted written materials or the facts on hand. I am doing this because I believe the applicant and this Commission both want to have a full, complete, and honest record. Note that I do not attribute any nefarious motives for these statements, as they just could be honest mistakes or someone just trying to make the best case for their client. First, on page 2, Attorney Geraghty was recorded as stating "the area closest to Latimer Brook is to be kept as grass..." Yet, the applicant's biological consultant, Mr. Joseph Theroux, gave several statements in his submission (Exhibit W) that indicate otherwise: "the majority of the property is comprised of forested and field uplands...", "the 200-foot upland review areas adjacent to the inland wetlands and watercourses are vegetated in the overstory with mixed hardwoods...", "the Latimer Brook palustrine [as an aside, I note my Dictionary of Science states that this word refers to having to do with a marsh or marshy areas] forested wetland complex lies along the western portion of the parcel...", and finally "Latimer Brook flows to the south and is bordered on its east and west sides by a palustrine forested/scrub/scrub-shrub wetlands. A small pond, (approx. one-third of an acre), lies to the east of the Brook." Also found in the applicant's materials in Exhibit K, Design Report was the statement "There are inland wetlands on the subject property [sic] however no new activity is proposed for any inland wetland or watercourse." Why do I bring this up? There are many troubling inconsistencies here. On page 3 of the

March 7 minutes the applicant's representative stated that "the intention is to either donate the open space to the EL Land Trust or to put a Conservation Easement on it in favor of the EL Land Trust, so there is no further development once the development goes in." It was stated at the March 7 hearing and in the materials that 9 of the 11 acres of this parcel were to be open space. And now, here it comes - several times during the March 7 public hearing the minutes show that the applicant's representatives stated that "the lower area toward Latimer Brook [sic] intended to be used as a sod farm." This fact was also found in writing in their Exhibit K under "Open Space", where it is stated "The proposed development benefits by being adjacent to 200± acres of publicly accessible Open Space owned by the New England Forestry Foundation, Inc. This will provide direct access to the existing trail system for passive recreational purposes. In addition the portion of the property being utilized as a sod farm and nursery on the western portion of the property will be available for certain open space activities including the areas around the existing pond and Latimer Brook. Cross use of the farming roads as trails and a picnic area near the existing irrigation pond are envisioned." I note that this is the only use of the word "nursery" that I either heard about or saw in print, so I believe this might have a different connotation than "sod farm", perhaps indicating another use for a portion of this land. Although I do not know for sure, I assume "farming roads" and "irrigation pond" might refer to past or existing uses on this property. Nevertheless, I object completely to this proposed sod farm and/or nursery. I believe that commercial use is inconsistent with an Affordable Housing Project. I believe it is inconsistent with the concept of Open Space and the proper uses thereof. I believe it is inconsistent with our town's Plan of Conservation and Development. I believe it is inconsistent with our Inland Wetlands regulations, which I know is not something your Commission has under its purview but would occur down the line. Finally, and most importantly, I believe a sod farm would result in undue pollution of Latimer Brook and ultimately the Niantic River by using herbicides, pesticides, and fertilizers. Speaking with a professional landscaper, I was told that sod farms necessarily require heavy doses of herbicides and fertilizers to form pure, dense growths of grass. I also believe this chemical pollution would be exacerbated by the inevitable use of any sod farm or grassy field located near Latimer Brook by non-migratory Canada geese. These birds are the source of considerable *E. coli* and other bacteria entering our waterways through their droppings. I've personally witnessed this occurring at White Gate Farm, located on Pattagansett Lake, as well as many other local waterways. I observed Canada geese present in the nearby Latimer Brook dam impoundment when I sampled water quality there, so I believe these waterfowl would likely quickly find any local preferable food source.

My second point of clarification involves the CT DEEP Natural Diversity Database Determination (NDDB). It was stated in both the March 7 applicant's presentation and in their Exhibit K Design Report that "no endangered State or Federal Listed Species or Critical Habitat exists on the Town of East Lyme GIS Natural Diversity Data Base Area Map." This is not so. The NDDB letter provided in their Exhibit W could not be clearer in stating that among the species that might be affected by activities within the proposed project area was the northern long-eared bat, which is both federally and state-listed as an Endangered Species. I do not know if the developer is using any federal funding for this project, but if they do, they are required to make a consultation with the U.S. Fish and Wildlife Service to comply with the Federal Endangered Species Act in reference to this bat species. This might result in a required bat survey on this property. Furthermore, the NDDB Determination states that two state-listed Species of Special Concern are also likely to be found on this property, the wood turtle, for which I've seen photographic evidence of it on a neighboring property, and the smooth green snake. Also, based on my experience as a biologist, I would not be surprised if the ribbonsnake, another Species of Special Concern, is found on

this property as well. This is based on its preference for waterside habitats. Regarding the Connecticut-listed species, the NDDDB Determination prescribes strict limitations on the proposed construction of this project, including not removing trees between April 15 and October 31 to protect the tree-nesting northern long-eared bat; land disturbance and excavation in the upland area is confined to the dormant season for wood turtles, which is November 1 through March 31; and to prevent amphibians and reptiles from access to the development area between April 1 and October 31 there are a number of requirements. Further prescriptions were listed in the determination, including contractor searches for the wood turtle and education of onsite personnel. These conditions must be adhered to if this development goes forward. I would like to see these requirements followed as it is important that we protect these and other species using this site for their habitat.

As for other environmental concerns, I refer the Commission and the applicant to the latter's biological consultant's report (Exhibit W), which concisely presents the valuable attributes now found on this property with respect to the functions of the existing wetlands, forest, and watercourses. Mr. Theroux cautions that certain measures should be followed to prevent potential short-term impacts during initial land clearing and construction. On pages 6 and 7 of his report, he presents four recommendations to reduce potential impacts from the planned septic systems and the location of stormwater structures and urges the developer to follow proper construction practices and a strict adherence to the listed NDDDB requirements. Sediments entering Latimer Brook are a particular worry here, based on previous experience we in East Lyme have had with the construction of larger projects, including the Antares Solar Energy farm in the northern section of town, the nearby Noble Gas Station, and the ongoing Interstate 95/CT Route 161 re-construction project, all of which had instances of erosion and heavy sediment discharges into Latimer Brook or its main tributary or the upper Niantic River. Mr. Theroux also notes that "Potential nutrient loads from lawn fertilizers will be insignificant due to overall distance of the lawns from the wetlands, the dense upland shrub and herbaceous vegetation will aid in nutrient uptake ..." and "The existing 100 foot and greater zones in and adjacent to the wetlands will serve as an adequate wildlife corridor and riparian zone." As for these statements, I must again note an inconsistency as during the applicant's presentation on March 7 it was said that "the area closest to Latimer Brook is to be kept as grass...", which will neither result in sufficient removal of nutrients (made worse by a sod farm) nor provide sufficient adequate habitat for the wood turtle, which requires a large home range centered around larger-ordered streams and adjacent riparian zones offering a mosaic of habitats.

My final comments are to endorse some of the points made by Gary Goeschel, East Lyme's Director of Planning and Inland Wetlands Agent in Exhibit Q. These are to refer this application to the East Lyme Planning Commission as it is a de-facto zoning change; strengthen the stormwater management system, including preparing a comprehensive Drainage or Stormwater Management Report containing an Operation and Maintenance Plan; prepare an Erosion and Sedimentation Control Plan consistent with the 2002 Connecticut Guidelines for the same; and perform a pollutant loading analysis for non-point loading of site wetlands and watercourses, particularly Latimer Brook. I also concur with Mr. Goeschel's concerns about traffic issues that would likely result if this project went forward.

Thank you for the opportunity to speak at this public hearing. For your consideration, I've included in my written statement an appendix that presents some useful information taken from the recently revised Niantic River Watershed Protection Plan.

## Appendix

### Goals for the Niantic River:

#### Support Designated Uses for Shellfishing and Primary Contact Recreation

- Reduce bacterial loads from stormwater outfalls, runoff and direct discharges

#### Support Designated Uses for Aquatic Life

- Reduce nutrient loading from stormwater outfalls and runoff

#### Protect and Restore Natural Stream Channels

- Minimize flooding impacts by improving peak and volume controls from impervious surfaces
- Preserve and restore critical wetland and watercourse vegetative buffers

**Impervious Cover:** Studies by CT DEEP have found a negative relationship between upstream impervious land cover and aquatic habitat in downstream, adjacent waters, with predictable, detrimental impacts to aquatic life when impervious cover exceeds 12%. However, impacts to streams can also occur before impervious cover reaches that level, particularly where sources other than piped stormwater discharges contribute to water quality impairments.

**Riparian areas:** Riparian area refers to the interface between land and water. Healthy riparian areas are characterized by a vegetated area along a river or stream that provides habitat to a diverse array of plants and animals. Such areas, also referred to as vegetated or stream “buffers,” can also slow stormwater runoff, trap sediment and other pollutants, provide shade to the stream, and provide a food source for wildlife. On the other hand, riparian areas that are developed or that lack a natural stand of vegetation (e.g., paved or landscaped lawn areas or pasture and cropland right up to the water’s edge) can be limited in their ability to filter stormwater and pollutants, leaving rivers and streams vulnerable to water quality issues. Slopes, soils, vegetation type and vegetation width all influence the effectiveness of buffers to protect water quality.

**Forest Areas:** Forests provides numerous benefits including habitat for terrestrial and aquatic wildlife, improved soil and water quality, improved regional air quality, reductions in stormwater runoff and flooding, and the prevention of stream bank erosion. Large, unfragmented forested areas play a critical role in preserving the natural systems and processes that protect and improve water resources. Urbanization and fragmentation of forestland resulting from land development have been shown to adversely affect stream water quality and ecological health.

**Septic Systems:** Even when properly installed, conventional septic systems do not adequately treat nitrogen, which can be a problem in fast draining coastal soils. A higher degree of treatment can be achieved in coastal communities with advanced septic systems. At this time, related agencies in the state of Connecticut do not have a methodology in place to approve the installation of nitrogen-treating systems or require their installation in sensitive areas.

**Green infrastructure (GI) and Low Impact Development (LID):** These refer to systems and practices that reduce runoff through the use of vegetation, soils, and natural processes to manage and cleanse water and create healthier urban and suburban environments (EPA, 2014). GI/LID includes stormwater management practices such as rain gardens, permeable pavement, green and blue roofs, green streets,

infiltration planters, trees wells and tree box filters, and rainwater harvesting. These practices capture, filter, manage, and/or reuse rainfall close to where it falls, to remove pollutants, reduce stormwater runoff volume, recharge ground water supplies, and control flows to receiving surface waters. GI/LID practices can remove bacteria in stormwater through filtration, sedimentation, and inactivation by exposure to sunlight. GI/LID practices can also remove nitrogen in stormwater runoff through treatment mechanisms involving vegetation and soil. In addition to reducing runoff and improving water quality, GI/LID has been shown to provide other social and economic benefits such as reduced energy consumption, decreased urban heat island effects, better air quality, increased carbon reduction and sequestration, higher property values, new recreational opportunities, improved economic vitality, greater adaptation to climate change, and enhanced human health and well-being.

Bioretention systems and other filtration/infiltration-based stormwater control measures with underdrains should be designed with an internal water storage layer by raising the underdrain outlet to enhance removal of nitrogen and other pollutants. The internal water storage layer improves exfiltration, thereby reducing pollutant loads to the receiving waterbody, and creates an anaerobic environment that enhances the process of denitrification, a biological reaction that converts nitrate into atmospheric nitrogen gas.

**Watercourse Buffers:** Vegetated buffers are naturally vegetated areas adjacent to streams, ponds, lakes, and wetlands that are not routinely or extensively landscaped. Also referred to as riparian or stream buffers, vegetated buffers help encourage infiltration of rainfall and runoff and reduce flooding. The buffer area provides a living “cushion” between upland land use and surface water resources, protecting water quality, the hydrologic regime of the waterway and stream structure. Vegetated buffers filter out pollutants, capture sediment, protect streambanks from erosion, regulate stream water temperature, and process many contaminants through vegetative uptake. Vegetated buffers can also provide habitat and travel corridors for animals, many of which are dependent on riparian features for survival. A reduction to buffer width or degradations to vegetative cover can reduce the water quality and other benefits of vegetated buffers and contribute to water quality impairments. In general, vegetated buffers are more effective along small streams than large streams since most water delivered to stream channels from uplands enters along small streams.

**Bacterial Contamination:** Wildlife and domesticated animals within the Niantic River watershed are a source of nutrients and fecal indicator bacteria that can impact stream water quality. Fecal material can be deposited directly into waterbodies, as well as from stormwater and dry-weather washing of feces deposited on the ground into storm sewers and receiving waters. Domesticated animals (dogs and cats) and wildlife such as birds, raccoons, and rodents can be significant contributors. Flocks of waterfowl are observed in coastal areas as well as public parks and playing fields close to watercourses. A more effective nuisance waterfowl control strategy is needed, focusing on education and outreach and other proven control methods. Creation of vegetated buffers consisting of tall grasses, shrubs, or trees, along ponds or streams is a recommended form of habitat modification. Geese prefer to feed on short grass in areas that are open and within sight of a body of water. Tall grasses, shrubs, and trees can serve as a deterrent and cause them to relocate. Vegetated buffers can also reduce nonpoint source pollution.

