

To: Members of the Town of Waterford
Conservation Commission
From: Arlene Sherman
Date: 2/9/2023



You have heard two experts including Ms. Sigrun Gadwa, discuss how the current application will have a detrimental and polluting impact on the pristine Fenger Brook and the surrounding swamp wetland area while the applicant's expert claims there will not be a detrimental impact. The Commission has the authority and charge to review the application and protect the irreplaceable wetlands for the benefit of the Community. The Commission can use its own eyes and their reasonable and prudent minds on acting on this application as is. Your reasonable minds with the filter of your own eyes must see with reasonable foreseeability that the current application, including but not limited to:

1. 47 mobile home units 'sardined' together with the need to share a storage box with abutting units and causing a huge area of impervious surface and runoff including multiple vehicles and extensive cement, tarmac, roofs, metals and sidewalks with little tree replanting.
2. The creation of a bio-retention basin/mitigation pond the size of a football field, that will not effectively filter the abundance and production of harmful chemicals, metals, pollutants and silt that is produced by runoff and overly dense packed living area.
3. The wetland buffer is minimal, barely 38 feet wide, in the northern and southern portions of the property. This buffer should increase to at least 80 feet around the entire building area.
4. The densely packed housing design, in conjunction with enormous impervious surfaces will increase the metals, hydrocarbons, phosphorus and nitrogen concentrations in Fenger Brook, adding to the yearly, presently serious algal blooms in the coves and beaches along Long Island Sound, which kill off all marine plant and animal life, damaging our economically important recreational fishery.
5. The enormous amount of water coming out of the bio retention basin will eventually kill at least an acre of trees down gradient of the basin. The basin is set below the seasonal water table of 3 feet causing the basin to be continually wet and draining. Flooding the wetland will become a larger problem during heavy rains for several days. Due to the excessive flooding

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there will be a tree die off and the dying roots of these trees will continually release nitrogen and phosphorous into the wetland and Fenger Brook. Also, the water seeping continuously into this enormous structure, will form shallow puddles and rivulets, even after draining, which will become a breeding ground for mosquitos throughout the warmer months. Mosquitos harbor serious viral illness for humans and animals, especially very young, naked songbirds. Due to the wetland down gradient the mosquitos cannot be handled with insecticide as it would pollute Fenger Brook. "Natural" controls target not only mosquitos but many beneficial aquatic insects in the fly order. The developer must address this problem.

6. The detrimental and polluting impact on the pristine headwaters portion of Fenger Brook, with its 24" pools in sections, is presently home to several fish species including the migratory American Eel. Degradation would not be corrected during anyone's present lifetime if ever. In addition adjacent swamp wetlands will be damaged; their natural balance is key to their present pristine character. Losses of many trees and sensitive wildlife species will create a chain of damage and degradation.
7. The applicant is proposing to clear-cut/deforest all trees and vegetation in over 10 acres of land to accommodate his dense buildings and impervious surface/ infrastructure plan. This is not Best Management Practices (BMP) and is a disruption of sensitive systems. This is a loss of over 250 mature trees of multiple species. The trees are home and perches to a wide variety of animal (insect, bird) species. The vegetation, *even in scrubby former farmland* is home to a variety of mammals, song birds, amphibians, and essential insects like pollinating butterflies and caterpillars, which are vital animal food.
8. In addition to the large tree die off expected in the wooded swamp, east of the level spreader, there are mature trees in the swamp wetland that will be stressed and more vulnerable to disease due to the hydrologic changes. Trees adjacent to the development, in the upland review area and at the rear of in the Clark Lane neighbors' lots will be stressed by compaction, filling and beneficial soil type removal. Large trees transpire at least 300 gallons of water per day, and filter air pollution caused by excessive Clark Lane traffic. They remove harmful gases, carbon dioxide and atmospheric particles from the air and moderate heat affects, through evaporative cooling and the shade provided. It is reported that vegetation removal, such as what the applicant is asking, will result in increased water

- yield of over 40 mm per 10 %, for scrub, deciduous hardwood and pine, resulting in soggy soil (soil will be more compact due to construction).
9. Increased catchment erosion and increased nutrient loading will result from clear-cutting/deforestation, and both will contribute to wetland degradation. Areas of special concern are downgradient of the southern forested wetland, subject to high levels of stormwater discharge. After clear-cutting, during construction, suspended fine sediment in construction site runoff will pass through silt fence mesh hay bales into the buffer forest. During large storm events when the ground is saturated, nutrient-rich fine sediment has the potential to degrade water quality and settle in Fenger Brook or its feeder streams, changing its present pristine condition and present aquatic life.
 10. The homes behind the proposed development have always had basement flooding, especially in severe rain events. The removal of all the trees behind their properties would increase the water table/wet areas and in turn increase flooding in present homes. In addition the mature trees on the present property owners land will be impacted by the clear-cutting on the proposed development area because the root systems of the trees are broad and will be damaged leading to additional tree die off.
 11. The DEEP 'Southeast Shoreline Summary 2015' describes Fenger Brook as impaired due to several factors and insists this area must be protected as a valuable resource. It recommends cutting back impervious cover (from roofs, driveways, parking lots, roads) that is impacting and impairing aquatic life, additionally creating an increase in temperature impacting receiving waterbodies. The report goes on in favor of protecting Fenger Brook through encouraging public education, outreach, participation, monitoring discharge, and buffering. It also recommends monitoring/buffers for all construction and post construction runoff controls; and recommends practices to minimize soil removal, soil compaction, deforestation, erosion and sedimentation, and polluted runoff from snow removal and storage.

The CTDEEP report urges reduction of impervious cover to prevent future degradation of Fenger Brook and its tributaries, and especially protection of existing buffers along riparian corridors and conserved lands throughout watershed as those buffers will protect the swamp wetlands. The north

side of the project proposed will reduce the width of the naturally vegetated buffer by 75% where the buffer is fifty to sixty feet wide. Most important, the CTDEEP report also calls for implementation of Low Impact Development (LID) practices and Best Management Practices for trees and vegetation. This document was written to encourage everyone to protect the Fenger Brook watershed as this practice is in all citizens' best interest. The motto for the Fenger Brook watershed is, "**Do no harm**". The Commission must strictly enforce this behavior.

12. The monitoring and accountability of all activity along this protected watershed is not described in the developer's application. This is a complicated/multifaceted/interrelated wetland area and stormwater management system with multiple aspects that will need ongoing attention to detail and conscientious care into the future to achieve long-term environmental protection by the developer. Construction activity must be monitored frequently and penalties be presented if harmful activities are not stopped. A busy construction contractor and his helpers may be unaware of the wetland boundaries and cause irreparable harm with large equipment. The haphazard ripping out of trees and vegetation, oil and lubricants dripping out of construction equipment, ongoing soil compaction, and fine sediment passing through perimeter barriers during construction are some of the potential issues. The detention basin will be enormous at roughly 32,500 square feet. It will be critical to frequently inspect the condition of the discharge flow path and the condition of the basin. Conditions such as erosion, mosquito activity, and vegetation mortality must be monitored and issues addressed promptly by a professional. Has the developer provided information about how he will do this? Due to the enormous size of the project and the limited land available to tenants, with no garage storage available to tenants, all areas must be cleaned of litter and buffers freed of garbage, debris and dumping. Who will continually monitor these conditions?

13. This is an overly dense mobile home design that is not appropriate for the land size; there are 5.29 acres of impervious surface and protective buffers are not wide enough along much of the project perimeter. There is too much roof run off (all roofs should have ground infiltrators). The developer has not addressed pets defecating and hunting unwatched, adequate snow

pile storage and play areas for children (they should not be in the wetlands). Regular monitoring is needed to protect the essential wetland areas and to avoid a very unfortunate outcome to the citizens of Waterford and New London. Protecting the headwaters of Fenger Brook is imperative for the present and future citizens. Will there be a third-party inspector during construction, accountable to the town, not the developer, who inspects on a frequent, regular schedule, and after every rain/weather event? Will there be a property manager onsite responsible to manage this activity and protect the wetland, pre and post construction, and who will report any wetlands violations to the town? What is the penalty for not protecting the watershed areas

14. A portion of the north end of the project (mobile homes and infrastructure) is proposed to be built over the Veolia/City of New London 25" main fresh water pipe serving 75% of New London County. In consideration of future water pipe repairs/accidents (the pipe has broken 4 times in the past), Veolia has asked the developer to design the layout so that no units are directly over the pipe, as a precaution. The developer refused to change his design. This must be addressed as the entire town depends on that water pipe and it must not be compromised.

Now the Commission Members, after consideration of these factors and many others, must reasonably foresee there will be substantial detrimental and pollution impacts on the regulated resources (Fenger Brook and its associated wetlands) with the current grandiose application (too much impervious surface due to too much density creates severe adverse impacts on this wetland). The Commission should hold the current application in abeyance and tell the applicant to modify their current grandiose application and come back to us with a reasonable wetland sensitive and a less dense plan. The commission, we pray, will regulate the use and protect our fragile natural resources.