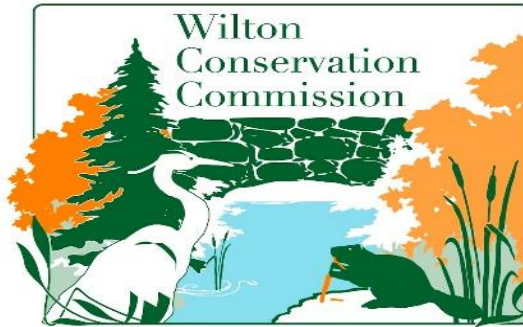




**Wilton Conservation Commission
Site Walk Report
Barrett Hill Road
Saturday, October 29, 2022**

The commissioners in attendance: H. Alan Preston, Chair, Nikki Andrews, Jennifer Beck

The walk was led by Chris Guida, CWS, with Fieldstone, who minimized the impact of the proposed driveway and wetland crossing, due to existing conditions. He provided no engineering data to back up the claim that the proposed culvert would be sufficient to carry the water. This area is a wildlife corridor according to Fish and Game's Highly Ranked Wildlife Habitats set amidst wetlands that flow into Mill Brook and Stony Brook, a protected river. Proposed Lot 7 borders the watershed protection district.

The Commission recommends the area in question be surveyed by an independent wetland scientist and additional core samples taken. According to the Aries Engineering report, there are areas of wetland not identified on the current development plan, according to the town's NRI. So we recommend another independent hydrology study be done and presented to both the zoning and planning board with updated maps and plans.

All the calculations for drainage and sizing the culvert have been based on existing conditions. The downslope part of the driveway is planned to be placed on what looks like 2-3' of fill with ditches on both sides, making it a very effective dam and channel. The uphill side of the driveway ditch appears to empty into the incised wetland drainage we saw today. We have questions about whether the flow models were run on as-built conditions, and if any additional culvert locations are planned along the driveway.

We're in the sixth year of a drought. The banks of the stream in question are more than 4 feet high, suggesting a considerable amount of water has run through that area creating that channel in the past. And we are witnessing this all in late fall when the area will be at its driest. The upstream moss-covered rock formations and natural bowl suggest a saturated area which might likely be filled with water during heavy rainfall or winter snow melt.

An improperly designed, sized, or installed culvert can block animals and natural materials from moving downstream. Culverts can lead to streambed and bank erosion on the downstream side of the culvert due to the increased water velocities exiting the pipe. The result is a perched culvert

with its downstream end above the water. The resulting waterfall can prevent animal passage and further unnaturally erode the land downstream.

Continuing the natural substrate of the stream through the culvert ensures animal passage. To Fieldstone's credit, they are recommending the addition of natural materials in the culvert bottom to assist with this. However, given the upstream conditions of a forest floor, experience suggests this culvert will most likely fail during storms and heavy rainfall which will wash additional material into the culvert, preventing flow. The developer stated the maintenance of the culvert would be the home owner's responsibility.

An additional concern is the development of this 13 acre upland land area isolated by wetlands. The developer stated these lots would likely be installed with lawns and gardens at the buyers discretion. With no restrictions in place, fertilizers and insecticides will be applied and run directly into the aquifers that feed Mill Brook and Stony Brook.

The Commission strongly recommends denying this application for a wetland crossing to grant access to this Lot 7 on the San-Ken development plan due to the sensitivity of this area based on concerns stated above. In addition, we ask that the ZBA consider the impact to this highly ranked wildlife corridor, the impact of any soils brought in during construction and the likelihood of increased stormwater impacts on the watershed area surrounding this property.