# Potential Effects of the Development Envisioned by Application 21-36P on Clustered Sedges (*Carex cumulata*) – a CT DEEP Threatened Species, and Effects on other Sedges that may be Present

Submitted to the South Windsor Planning and Zoning Commission for their consideration under the Intervener Petition for the Subject Application, 11/4/2021

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Commissioners,

We wish to point out the potential harm that this application, if allowed to proceed, may cause harm to a nominal 200 square yard stand of Clustered Sedges (*Carex cumulata*) located in the southwest corner of the Applicants property. This area, marked on Page 2 of the Applicant's Revised Site Plan dated Oct. 21, 2021, is on the lower left (southwest portion) of this map. In addition, Connecticut Department of Energy and Environmental Protection (CT DEEP) has identified Barrett's Sedges [REF 1] as being present on or near the property and the Applicant is silent on whether these are present. In addition, these sedges do not tolerate large fluctuations in water levels especially in their first year of their life cycle [REF 2].

The discharge of stormwater from the Applicant's newly created 9 foot deep stormwater pond (easterly side of the property) and associated stormwater trench along the southerly edge of the property will discharge directly into this area of Clustered Sedges. It is difficult to contemplate how the piping for this discharge can be created without completely disrupting this stand of Clustered Sedges, as can be seen from the Revised Site Plan page 8 of 30 (layout C-GD3 Grading Plan). The parking lot is to be paved to within several feet of the northerly edge of this sedge conservation area, and piping for the stormwater discharge from the detention pond basin is piped within just a few feet of this alleged conservation area.

Once the habitat is removed and changed to fit the needs for the buildings, invasive species of plants and insects will be the first to occupy this new space. Japanese knotweed, Asian bittersweet, Phragmites, Autumn olive, Ailanthus, Multiflora rose, Ampelopsis, and Garlic mustard among others. All seen around property and in the nearby woodlots where this building would be built. They are much more adaptable than the native species of plants, which need more time to establish themselves after being disrupted.

The most sensitive and should be species of concern for this application are the sedges, small grasses that require wetland habitats to survive and grow. Sedges such as *Carex cumulata* and *Carex barrattii,* would both be affected by this project's construction and water courses. These plants, although they are grasses, need specific habitat and ecosystem requirements to thrive, and entire populations can plummet to very few numbers if disturbed. The wetland ecosystem is what sedges need to grow healthy and spread during the growing season, being species of special concern in the state of Connecticut, this application should recognize the impact the 25 Talbot Lane construction will have on these sensitive plant populations. There are few ecosystems remaining in this part of the state where these sedge species can survive and continue to exist.

Sedges, like many other wetland plants, serve as an important component to every freshwater ecosystem they are a part of. They help with erosion management in any wetland habitat by using their deep tangled rhizomes to hold the substrate together and help remove harmful chemicals and detritus by filtering the water. They are key indicators of a healthy body of water whether it be a swamp, pond, or even retention pond. This application highlights its use of tractor trailer vehicles, which brings the concern of road salt and other chemicals washing off trucks in the loading area. These chemicals from the vehicles will leach into the watercourses and ponds, which will eventually inadvertently affect the sedges and other wetland plants in these areas around the property.

Pictures of the existing area that is contiguous with the Carla's Pasta property to the immediate west are appended below.

1. Overall pond that serves as a vernal pool, mostly on Carla's Pasta property

2.) Close up view of easterly shore of existing pond/pool

3.) Close up of eastern shore of existing pond/pool

References:


1.) Robin Blum, CT DEEP E-mail dated Friday, September 17, 2021 to Janet Holowczak

2.) Rachel A. Budelsky, Susan M. Galatowitsch “Effects of water regime and competition on the establishment of a native sedge in restored wetlands” First published: 25 December 2001 https://besjournals.onlinelibrary.wiley.com/doi/10.1046/j.1365-2664.2000.00540.x

3.) Hartford County Rare and Endangered Species https://portal.ct.gov/-/media/DEEP/endangered_species/species_listings/hartfordctyspeciespdf.pdf