From: Jesse A. Langer [mailto:JLanger@uks.com]
Sent: Thursday, May 16, 2019 1:59 PM
To: Perrone, Michael; CSC-DL Siting Council
Cc: Bachman, Melanie
Subject: Petition 1367 - field review follow up

Good afternoon, Mike:

As a follow up to the field review yesterday, I would like to provide the following:

1. A corrected page 3 from the Vernal Pool Report (VPR) submitted on Thursday, May 14, 2019. There were two typographical errors in the narrative. Specifically, the reference to scrub/shrub habitat acreage in the first paragraph is 4.1 acres instead of 18 acres. The second was a typo concerning the percentage of additional development within the CTH, which is 17.7 percent as opposed to 7.7 percent. These corrected typographical errors match the values in the VPR figures. I have attached the corrected page in the event you would like to add this to the record.

2. Petitioners confirmed that they would have to remove one tree located on the east side of the site as called out in the detailed site drawings.

Please do not hesitate to call with any questions or comments.

Thank you,

Jesse

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The results of the landscape analysis show that the proposed development would result in slight degradation of the existing tier rating or terrestrial habitat integrity of the vernal pool due to the small amount of disturbance associated with the Facility within the CTH. The VPE will not be impacted by the proposed development; the proposed access road would follow an existing access road that is currently located within the 100' VPE (±70' at its nearest distance). The total area of the CTH (±48.6 acres) associated with the vernal pool includes a mix of developed/maintained areas associated with commercial uses along Meriden Road (±11.5 acres), forested land (±18.0 acres), transitional scrub/shrub habitat (±4.1 acres) and maintained open field habitat (±15.0 acres). The vernal pool's CTH has ±23.7% development under existing conditions resulting in the 75% non-development criterion tipping point not having been exceeded (76.3% non-development) despite being on the precipice. Please refer to the enclosed Vernal Pool Analysis Map.

The proposed Facility and access are located within the CTH and would result in ±8.6 acres of additional development, an increase of ±17.7% of the total CTH associated with the vernal pool. However, a majority of this lost habitat within the CTH consists of open field habitat (±7.9 acres) which is considered suboptimal for vernal pool indicator species that require forested landscapes. A de minimis loss of 0.7-acre of forest habitat is proposed. This forest consists of an isolated windrow, approximately 50 feet in width, located between the two open fields. This windrow does not provide connectivity or a forested migratory corridor to other large forest patches. As the forested habitat proposed to be removed is also considered suboptimal habitat (due to its lack of connectivity to other upland forest or vernal pool breeding sites and has been subjected to a high degree of edge effect), this habitat loss within the CTH is not anticipated to result in a significant negative impact to those populations utilizing Vernal Pool 1.

The majority of the forest habitat within the CTH lies both east and west of the open fields that surround the VPE zone. Therefore, it is reasonable to assume that some portion of the population is migrating from the forest across these fields to breed. Post-construction, the ground cover below the arrays will be retained or re-vegetated with comparable cover. As such, the pre versus post construction vegetative condition will not substantially change. Because no physical barriers to amphibian migration are proposed with the chain link fence being raised 6 inches to accommodate migration (walls, stormwater structures, etc.), it is expected that migration across the field can still occur unimpeded.

Potential short-term impact to herpetofauna associated with the nearby vernal pool habitat are possible should migrating individuals enter the proposed development footprint during construction. Any short-term impacts associated with the proposed development within the vernal pool CTH would be minimized by proper installation and maintenance of erosion and sedimentation controls in accordance with *2002 Connecticut Guidelines For Soil Erosion and Sediment Control*. Combined with implementation of Best Management Practices ("BMPs") during construction, as proposed in a subsequent section of this document, potential short-term impact to herpetofauna would be avoided/minimized.

Hydraulic Alterations

Land-use changes (i.e., clearing, increases in impervious surface) can increase surface runoff in the watershed of a vernal pool. Direct inputs of stormwater flows into a pool may produce sudden water level increases in a short period of time and may lengthen the duration of flooding (hydroperiod). Conversely, diversion of stormwater flows past a pool may have the opposite effect of decreasing water levels and shortening the pool's hydroperiod. In addition, stormwater features that create temporary pools of water can result in a biological "sink" or "decoy" pool, as breeding amphibians deposit eggs into a water body without the necessary hydraulic period to allow for successful development of the eggs into juveniles.

The proposed Facility development will not alter existing surface or subsurface flow conditions or directions. The minor clearing and grading activities associated with the Project will not divert or increase water levels or alter surface water drainage patterns of the vernal pool. Impervious surfaces associated with the Project have been minimized through the maintenance of existing ground cover and the minimal use of gravel within the Project Area to support