

Soil & Wetland Studies
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 Application Reviews
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 Expert Testimony 

 Permitting

December 9, 2024

VIA E-MAIL

Town of Salisbury Planning & Zoning Commission Attn.: Dr. Michael Klemens, Chairman 27 Main Street Salisbury, CT 06068

## **RE:** <u>RESPONSES TO CHAIRMAN KLEMENS' QUESTIONS</u>

#2024-0257 / Wake Robin LLC & Ms. Serena Granberry (ARADEV LLC) / 104 & 106 Sharon Road & 53 Wells Hill Road / Special Permit (Section 213.5) / Map 47 / Lot 2 & 2-1 / DOR: 08/05/2024

REMA Job No.: 24-2744-SLS4

Dear Dr. Klemens:

At your request, REMA ECOLOGICAL SERVICES, LLC (REMA), is submitting responses to questions communicated to us on December 3<sup>rd</sup>, 2024, and specifically those addressed to the Intervener, that pertain to REMA's areas of expertise. These questions are listed below followed by our responses (italics):

7. As part of the cell tower application (Docket 501) of the Connecticut Siting Council, a significant portion of the site was environmentally assessed by the CT-DEEP, USFWS, and the CT-CEQ. As this occurred recently in 2021, why is ARADEV to be held to a higher standard than the State of Connecticut held New Cingular Wireless?

<u>Response</u>: Based on review of Docket 501 on the Connecticut Siting Council website, the footprint of the approved cell tower facility upon the subject of site's mature forest is not much more than 10,000 square feet (0.23 acres), while the <u>additional</u> footprint of the proposed development is approximately 2.2 acres, nearly an order of magnitude more impact.



Therefore, the standard will be different due to the intensity of forest clearing. Nevertheless, ARADEV should be held to whatever applicable standards exist in reviewing this application under the PZC Special Permit regulations, such as seen in Section 803. The cumulative effect of removing an additional 2.2, or more, acres mature forest constitutes an unreasonable destruction of a valuable natural resource.

8. Under interrogatory/response 13 of Docket 501 the question of core forest was discussed. It was asked/responded to that this site was not core forest as defined by the CT-DEEP. Do you agree with that finding?

<u>Response</u>: We do agree with this finding, since CT DEEP defines "core forest" as any contiguous forest block that is at least 300 feet removed from the forest edge. We should note, however, that we never referred to the on-site forest as "core forest."

9. In the Intervener's testimony it was represented that the site was part of a 300-acre habitat block. What are the constituent components of this block (forests, fields, development) and how does that differ (i.e., how is it markedly unique) from most of the contiguous habitat blocks in RR1 and RR3 zoned parcels in Salisbury? As far as habitat blocks go within Salisbury, wouldn't you agree that this parcel is at the lower end of the acreage within habitat blocks in the RR1 and RR3 zones?

<u>Response</u>: In attached Figure H, we graphically show the habitat block that we were referring to in our testimony. The edge of this forest block was determined as follows: (1) Included only contiguous forested uplands and forested and scrub shrub wetlands (with some internal emergent wetland cover type associated with Sucker Brook), (2) backed off of major streets by +/-100 feet, (3) backed off of residential uses, including lawn by +/-25-30 feet. The resulting contiguous habitat block is +/-290 acres.

While it is likely true that other large habitat block occur in RR1 and RR3 zoned parcels in Salisbury, REMA looked at this particular block from the perspective of watershed ecology<sup>1</sup>. Figure I (attached) shows the aforementioned habitat block within the Wononskopomuc Lake watershed. It is quite clear (and striking) that this habitat block is by far the largest wooded/scrub shrub habitat with the watershed. It contributes in a major way to the overall ecology of the near lake environment, and uniquely influences diversity and abundance of wildlife.

<sup>&</sup>lt;sup>1</sup> The USEPA defines watershed ecology as: the study of watersheds as ecosystems, primarily the analysis of interacting biotic and abiotic components within a watershed's boundaries.



The +/- 290-acre habitat block is also important from the perspective of protecting the water quality of the adjacent lake, which does have some development on the south, west and north sides. The commissioners should keep in mind that although large unfragmented blocks of core forest habitat are important for migratory songbirds, and for vernal pool amphibians, other plant and wildlife taxa do well in the interior of smaller forest blocks. However, colonization by invasive plant species can be expected along well-lit new forest edges. The plans mention use of mulch around proposed tree and shrub plantings. Rather than a natural forest floor with leaf litter, Penn sedges, and forest wildflowers, unpaved areas will consist of landscaped plantings.

10. Would you characterize "old growth type forest" more accurately as mature second growth forest?

<u>Response</u>: Yes, that would be a more accurate characterization. Based on the review of the 1934 archival aerial photograph, however, we would not be surprised if there are several trees within the forested habitat block that are more than 120 years old.

Based on SLR's description of existing conditions in the NDDB report, the northern part of the site, has relatively immature forest, with an understory dominated by shrubs, whereas the south-central portion is mature. Many large diameter trees were tallied in the tree inventory. Fifteen had diameters of 30 inches or greater, and 146 trees on the site were 20-inch dbh or more, and the list of herb species has a suite of native perennials typical of undisturbed forest and the characteristic Penn sedge rhizomatous, perennial ground cover. The length of time that a forest has been left undisturbed affects habitat components: rotting logs and standing snags provide debris food (beetle grubs and isopods) for forest amphibians, woodpeckers and diverse other bark-gleaning birds, and substrate for diverse fungi and mosses. Loose bark is used for insect populations, as well as, potentially, for summer roosting of the target listed bat. The diverse forest herb community documented by Ms. Antill is presumed to support a diverse community of specialist feeding insects, especially since nighttime artificial illumination is not currently reaching the south-central portion of the subject site, where the event barn and storage area are located.

11. Interrogatory/response 41 of Docket 501 concluded upon consultation with the USFWS that there were no long eared bat hibernacula within 0.25 mi. of the site and no maternity roosts within 150 feet of the project area (including access road). Do you agree with this statement?



<u>Response</u>: The result of the Determination Key for Northern Long Eared Bat was that "IT MAY" affect the species. Therefore, further consultation with US Fish & Wildlife Service is required for this larger encroachment upon suitable habitat for roosting and foraging.

- Though we are told that no hibernacula exist within half a mile, no information is provided on the range of distances travelled by NLEB between summer habitat and winter hibernacula. In regions with caves, they are widely spaced in the landscape.
- No information is provided on methods used to rule out presence in the project area and within 150 feet. Information on methods is required for all NDDB surveys. In the past, REMA has been involved in projects before the CSC where acoustic monitoring was employed to rule out or not NLEB or other "listed" bat species. While such monitoring may not have been necessary for a small 0.23-acre footprint of the approved wireless telecommunications facility, it would have been more so for a 2.2+ acre clearcut of a mature, high quality forest.
- Moths are the main food of the Northern Long Eared Bat, and other bat species as well. Nighttime artificial lighting is expected to deplete the moth population in the few remaining wooded pockets and on isolated trees (Travis & Longcore 2000 and many other more recent studies).
- This species does not roost in the same location, but rather moves from one tree to another. The proposed bat houses along the southern edge will not adequately compensate for the many lost roost trees. Dead and dying trees, to be culled due to risk of falling on roads and buildings or unsightliness, are the most valuable for NLEB.

12. Can the protection of maternity roosts of long-eared bats be managed by seasonal clearing restrictions?

<u>Response</u>: Seasonal clearing limits can prevent mortality of mothers and pups in the short term, but they cannot prevent the species, if present, from vacating the area, due to insufficient remaining suitable roost trees and insufficient food, after moth populations are depleted.

13. Can the protection of maternity roosts of long-eared bats be augmented by retaining certain tree species that provide optimal maternity habitat? Please describe those trees by species and identify where these trees occur on the site. How many of these trees are being preserved in the current development plan and how many are being lost?



<u>Response</u>: This is a forest bat, with echolocation geared to navigation within a forest. Sugar maples and shagbark hickories are most suited to roosting, but only large mature sugar maples have shaggy bark. Dead trees of any species, with loose peeling bark are most used. Preservation of a section of the site with a substantial number of suitable roost trees, and dense edge plantings on the south and west sides would increase the likelihood that the long-eared bat would remain, if present, and would also benefit other plant and wildlife taxa.

We accessed the CSC Docket 501 online, in order to review that plans that were submitted and other information that could further assist in answering some of the above questions. In the course of our review, we discovered that a previously delineated wetland by a Registered Professional Soil Scientist and Professional Wetland Scientist, has been excluded from the current plans. Attached we have three excerpts regarding this missing wetland, which is a natural resource, including a narrative describing this wetland. We attempted to go online to the Salisbury Inland Wetlands Commission page, to listen/view any information presented by ARADEV's consultants during the Commission meetings, but only the most recent one was available. We are surprised that a third-party reviewer was not engaged to shed light on this apparent serious discrepancy.

Please feel free to contact us if you have any questions.

Respectfully submitted,

REMA ECOLOGICAL SERVICES, LLC

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Attachments: Figures H and I; Three Excerpts from CSC Docket 501 of additional wetland









## Wetland B

Wetland B is a small forested wetland system located west of an existing gravel and paved parking lot. The wetland is delineated with pink survey tape numbered sequentially with flag series WFB1-1 to WFB-16. Two small culverts discharge to the upgradient portion of the wetland, apparently from the existing parking lot and developed areas of the site. A culvert conveys overflow from this wetland to a series of wetland pockets downslope that appear to connect to larger wetland systems off-site. LE did not delineate or examine these areas as they are all well over 100 feet from proposed work areas.

Wetland B consists of an overstory with eastern cottonwood (*Populus deltoides*) and willow (*Salix* sp.), with ironwood present. The understory is sparse and consists of Tatarian honeysuckle, nannyberry, garlic mustard (*Alliaria petiolata*), and woodfern (*Dryopteris* sp.). The vegetation surrounding this wetland pocket consists of sugar maple (*Acer saccharum*), white pine (*Pinus strobus*), oaks (*Quercus spp.*), Japanese barberry (*Berberis thunbergii*), and garlic mustard.

Soils vary by location but generally consist of a histic epipedon approximately 14-15 inches deep overlying subsoil with greater than 25 percent redoximorphic features to depths of at least 20 inches and 30 to 35 percent redoximorphic features greater than 20 inches. Indicators of wetland hydrology include shallow soil saturation, inundation, and drainage patterns. The wetland/upland boundary is located along a topographic break and where the break is lacking, based upon evidence of hydrophytic vegetation, presence of hydric soils, and wetland hydrology. State and federal boundaries are coincident.

Wetland Site Investigation	
<b>Telecommunications Facility</b>	

106 Sharon Road Salisbury, Connecticut

2