SLR International Corporation
99 Realty Drive, Cheshire, Connecticut, 06410

December 5, 2024

Attention: Dr. Michael Klemens, Chairman
Planning & Zoning Commission
Town of Salisbury
27 Main Street
PO Box 548
Salisbury, CT 06068

SLR Project No.: 22100.00001

RE: Comment Response Letter – Application Review – Supplemental
REMA Ecological Services, LLC (REMA)
Third-Party Review of Wake Robin Inn Redevelopment
104 and 106 Sharon Road
Salisbury, Connecticut

Dear Dr. Klemens and Members of the Commission:

SLR International Corporation (SLR) is in receipt of correspondence addressed to you from George T. Logan, MS, PWS, CSE, Professional Wetland Scientist, Registered Soil Scientist, Certified Senior Ecologist, and Sigrun N. Gadwa, MS, PWS, Ecologist, Registered Soil Scientist, Professional Wetland Scientist, both of REMA Ecological Services, LLC (REMA) dated November 27, 2024 regarding the supplemental review for the above-referenced project. We offer the following responses regarding the following comments contained therein.

The REMA report contained two sections: Section 1 concerning stormwater management and water quality and the second an ecological assessment. Stormwater management is an engineering matter (neither Mr. Logan nor Ms. Gadwa are professional engineers) that will be addressed in a separate response letter by Todd Ritchie, PE. In addition, we note that Mr. Logan correctly stated that this project will require a General Permit for the Discharge of Stormwater from Construction Sites from the Connecticut Department of Environmental Protection (CTDEEP), since there will be site disturbance greater than 5 acres. While the site plans have been prepared to meet the CTDEEP guidelines, the approval of those plans is in the jurisdiction of CTDEEP, notwithstanding the fact that the Commission's engineer has reviewed the plans and offered favorable comments.

2.0: ECOLOGICAL ASSESSMENT

C1. 2.1 Northern long-eared bat (Myotis septentrioalis)

This species is federally endangered. During summer it roosts in cavities of both live and dead trees under loose bark, like that found on mature sugar maples, shagbark hickory, and also on dead trees, only rarely in structures. It over winters in caves, which do occur in the marble district. The tree study categorized trees by condition, to prepare for extensive culling of dead or ailing trees. Not only this rare bat, but many other wildlife

species and overwintering insects depend on the cavities that develop in dead trees or branches. This site is suitable for the rare bat.

R1. Listed Bat Species:
SLR is aware of the potential habitat on site for the federally and state endangered Northern long-eared bat (NLEB) and has submitted an effects determination using the current NLEB Determination Key ("DKey") within the US Fish and Wildlife Service (USFWS) IPaC system for the proposed project. It was determined through the DKey that the proposed project "May Effect" NLEB. As a result, further consultation/coordination for this project is required with the USFWS New England Field Office prior to submission of federal permit applications. It is important to note that according to the USFWS NLEB DKey, there are no known NLEB hibernacula within 0.5 miles of the subject parcel. While this data may be crude, SLR can confirm from several investigations across the site that no suitable hibernacula (including caves or mines) exist on the subject site. Although no summer occurrences of NLEB in the Town of Salisbury are documented in CTDEEP observation mapping from July 2023, a time of year restriction ("TOYR") for tree clearing will likely be required by USFWS, restricting tree clearing to the inactive period for NLEB, from November 1 – April 14. The Applicant may propose additional measures such as the installation of bat boxes along the southern edge of the project area, within the proposed tree clearance zone. This conservation measure would support active season bat habitat for roosting and pup rearing that could be used by NLEB.

C2. 2.5 Review of SLR's NDDB State-Listed Plants Survey Report

This report, dated November 22, 2024, and received November 26, 2024, was reviewed by REMA for its robustness and consistency with the required CT DEEP NDDB protocols. We also provide additional perspectives on potential impacts to the listed plants, one found, and three which may still be present on the subject site.

Based on the SLR report it is likely that *Carex formosa* (handsome sedge) is just off-site to the south and downslope, in what remains of the mesic, Penn sedge community, in an area where according to the report, more *Carex oligocarpa* (Eastern few-fruited sedge) was also expected to occur. The proposed upslope grading will change this area's hydrologic regime, interrupting and reducing the supply of mineral rich seepage to the downgradient, offsite calcareous glade critical habitat. Forest removal will encourage spread of invasives into that area as well as into the regraded onsite areas near the proposed southern storage building. There is a reasonable likelihood of these two adverse impacts on *Carex oligocarpa,* and potentially on *Carex formosa* and other rare species that may inhabit the glade critical habitat.

The small, rare ferns could be on the east or north side is (sheltered) on the eastern cliffs and rocky steep slopes, which may be difficult to search. One cannot say with confidence that they are not present. If present, they are very much at risk from the proposed earthwork, both from direct impacts as well as from changes in patterns of seepage down the rock formation.

We question the SLR botanist's qualifications to find the rare sedges, as too few sedges are included on the species list. At least 6-8 should have been recorded based on the experience of consulting REMA botanist Sigrun Gadwa in similar mesic, sub-acidic

habitats (e.g., in Berlin, near Ragged Mountain). There may also be stunted, non-fertile residual individuals in successional mesic forest on the north side, that are difficult for botanists not familiar with this genus to find and recognize due to the dense, invasives-infested understory.

By contrast the botanist's herb list is very good, for the wildflower species of calcareous glade and forest habitats that are best identified in late spring and early summer, though it lacks spring ephemerals and fall species, that a more experienced botanist would have recognized from the foliage. *Dryopteri*s ferns and goldenrods are on the list as *Dryopteris spp.* and *Solidago spp.*, and not keyed out to species.

However, in combination with the good photo-record and impressive Bartlett tree inventory, the late-spring-early summer forb list shows that at least the southern portion of the site does indeed include non-impaired examples of "old growth" mixed hardwood forest and sub-acidic glade worthy of protection. The Salisbury Planning & Zoning Commission should recommend that impacts to these valuable natural resource be reduced by modifying the site design.

The SLR report provides insufficient information on the plant community and habitat characteristics in the northern and western portions of the site. The extent and distribution of tree cover is unclear for the long western unit of rocky habitat. How much of the area is open habitat? The suite of herb species found in dry rocky habitat in open areas along the western ridge is entirely absent from the species list. An example is low native rosette panic grasses (*Dicanthelium* spp.), a genus which includes very common species as well as several rare species. Is this because there is minimal unshaded habitat? If the western ridge is a woodland, defined by ecologists as a tree community with <65 % canopy cover, it is highly suitable for both *Carex oligocarpa* and the two *target ferns*, which need shelter and relatively moist rocky habitat, but also sunlight. The ferns can grow on boulders as well as cliffs. If the western ridge is a largely open, and mostly relatively xeric, the target ferns could on the north or east side of boulders in partial shade. The target sedges could grow in local partly shaded, concave areas with shallow, mesic calcareous soil.

Note that the NDDB protocols call for identifying all the species throughout the search area. One of the reasons is that this increases the likelihood that other rare species in critical habitats will be detected. Plant population distributions are always shifting, with ongoing colonization and extinction. Similarly, the wetlands should have been searched and inventoried because they would have inclusions of mesic habitat. Wetland characterization in the prior report was not sufficient in regard to floristic composition. Finally, the report does not include the survey path which is required by the NDDB protocols.

R2. Natural Diversity Data Base (NDDB) Listed Flora

Site evaluations for NDDB listed flora are performed for inland wetlands applications, which was done for this project that was approved by the Salisbury Inland Wetlands Commission, and for the Stormwater General Permit noted above. While such information may be of interest to the Planning & Zoning Commission, it is not a requirement of the Zoning Regulations.

While REMA has accurately noted that SLR's floristic inventory submitted as part of the NDDB Listed Plant Survey report dated November 26, 2024, is missing

potential species on site such as spring ephemerals, late-blooming fall species, and plants typically associated with wetlands, this is not unusual for a botanical assessment focused upon the identification of rare upland plant species with mid-summer blooming periods. SLR's botanical investigation was scheduled specifically within the optimal time of year to enable identification of the four listed plant species provided by NDDB, which is especially critical for plants with somewhat cryptic morphological traits such as members of the genus *Carex*. Moreover, our survey efforts focused on the preferred habitat conditions of the listed plants, which for this project include upland habitat areas. None of the listed plants would typically be found inhabiting poorly to very poorly drained soil conditions or within the scrub shrub, emergent, and/or forested wetlands on this site.

In SLR's vast and long-standing experience with filing requests for Final Determination with NDDB, it is not atypical to hone in on species of interest in order to determine their presence or absence within the proposed limits of a project's disturbance, while also providing adequate information about associated species and abiotic growing conditions. Having worked with William (aka Bill) Moorhead both prior to (when he was a sole practitioner) and throughout his current tenure as the CTDEEP NDDB state botanist (in addition to conferring with him during the summer 2024 surveys on the identification of the single listed species found on the site – *Carex oligocarpa*), SLR feels confident in his ability to assess and approve the thoroughness and quality of our methods for this botanical survey, as well as the suitability of the proposed listed plant relocation mitigation plan.

For the record, Marlee Antill, the SLR qualified botanist who performed these surveys, has over 10 years of experience completing both full site botanical surveys and specialized listed plant surveys, with over 5 years of experience performing this work within New England. She has a BA from the University of Vermont (specializing in environmental science and ecology) and an MS in Plant Science from California State Polytechnic University. She currently serves on the board of directors for the Connecticut Botanical Society (CBS) and has been an active participant on numerous botanical fieldtrips each year with other CBS board members and experienced botanical experts over the past 4 years. Ms. Antill has prior experience identifying sub-acidic dwelling species of *Carex* in Connecticut over the past 4 years, including along the traprock ridge complex located on the Berlin/Meriden municipal line (a similar trap rock ridge system as that mentioned in REMA's experts' report) and within the marble district in New Milford. Additionally, all outcrop ridges on the site were extensively surveyed for the presence of the two listed ferns (*Pellaea glabella* and *Asplenium ruta-muraria*), both of which feature fairly distinct morphology and would have been observed if present. The botanist's survey tracks, noted by REMA as missing from the report which they received, have been provided to NDDB along with the full SLR botanical survey report.

Please feel free to contact us directly at (203) 271-1773 should you have any questions with the information above.

Regards,

SLR International Corporation

Marlee L. Antill, MS, WPIT
Associate Environmental Scientist
mantill@slrconsulting.com

Matthew J. Sanford, MS, PWS, RRS
US Manager of Ecology
msanford@slrconsulting.com

Attachments Resumes of Marlee L. Antill and Matthew J. Sanford

141.22100.00001.d524.ltr.docx

Marlee L. Antill, MS, WPIT

Associate Environmental Scientist | New Haven, CT

Marlee Antill is an Associate Environmental Scientist with a focus in botany and strong background in natural resource management and ecological restoration. She has specific skillsets in vegetation monitoring including performing listed species surveys and conducting site floristic inventories and ecological habitat and invasive species mapping. Marlee also has extensive training and experience in GIS data management and using ArcGIS software to collect, analyze, and communicate spatial data. Marlee has utilized her background in plant taxonomy and ecology to perform wetland delineations, vegetation mapping, rare plant surveys, environmental impact assessments, and peer reviews; formalizing and communicating her results in reports and federal and state permit applications and environmental reviews including NEPA and CEPA. She is a Wetland Professional in Training (WPIT), and currently completing the requirements to become a Professional Wetland Scientist (PWS). She has expertise in United States Army Corps of Engineer (USACE) wetland delineations and has conducted USACE delineations in Connecticut, Massachusetts, Rhode Island, New York, and California.

Years of Experience

3.5 years with the firm | 7 with other firms

Professional Registrations

- Wetland Professional in Training (WPIT)

Education

- MS, Plant Science, California State Polytechnic University, Pomona
- BA, Environmental Studies, University of Vermont

Project Experience

Listed Species Flora & Fauna and Critical Habitat Surveys

Quinnipiac River Linear Trail Extension Phase IIIB, Wallingford, CT
Assisted with CT DEEP NDDB Final Determination request for site work with potential to impact the state endangered flora species false mermaid-weed (*Floerkea proserpinacoides*). Prepared biological survey report including figures demonstrating the survey limits and location of listed species identified, indicating no anticipated impact to the listed plant species by the proposed project.

Stone Bridge Crossing, Cheshire, CT
Botanical surveys completed for endangered, threatened, and special concern flora species of upland and wetland communities including Nuttal's milkwort (*Polygala nuttallii*) and Tuckerman's sedge (*Carex tuckermanii*) and rare natural community sand barren habitat.

Trulieve Growing Facility, Meriden, CT
Coordinated with CT DEEP NDDB program and local officials to develop an approved listed flora survey and relocation plan prior to proposed project on site. Performed surveys resulting in a full floristic inventory on site as well as ecological habitat mapping to identify potential habitat for listed flora, including several species of sedge (genus *Carex*). Supervised the relocation of state-listed sedge to suitable habitat outside of the proposed limits of disturbance.

Barber Cove, Simsbury, CT
Botanical surveys completed for endangered, threatened, and special concern flora species of upland and wetland communities. Prepared vegetative community mapping and summary of findings.

Bozzuto's Inc., 691 West Johnson Avenue, Cheshire, CT
Botanical surveys completed for endangered, threatened, and special concern flora species of upland and wetland communities including Nuttal's milkwort (*Polygala nuttallii*) and Tuckerman's sedge (*Carex tuckermanii*). Prepared vegetative community mapping for 60+-acre site, and summary report of findings.

New Milford Trail Phase I, New Milford, CT
Conducted botanical surveys and habitat mapping along proposed 1.4-mile trail route and surrounding landscape, with specific emphasis on nine (9) listed NDDB species with potential occurrence. One (1) state threatened species, Davis' sedge (*Carex davisii*), was positively identified and mapped adjacent to the project area. Prepared summary of findings and GIS mapping depicting the colony limits of Davis' sedge.

Experience with Other Firms

SWCA Environmental Consultants, Pasadena, CA
As a Project Botanist, responsibilities included performing plant surveys of rare, threatened, and endangered species across the western U.S.; performed wetland delineations and hydrography surveys, determining jurisdictional boundaries and impacts; collected spatial data and created vegetation community maps; and performed habitat assessments determining biological impact to sensitive plant and wildlife taxa.

California Botanic Garden, Claremont, CA
As a Lead Restoration Technician, performed vegetation surveys across the State of California including for state and federal endangered flora species. Collected seed and cuttings and performed nursery propagation for restoration and research.

California State Polytechnic University, Pomona, CA
As Field Crew leader, led teams of up to seven (7) members in systematic botanical surveys across remote and rugged terrain in order to collect detailed and accurate vegetation inventories which provided ground-truthing data for a remote sensing study led by researchers at the NASA Jet Propulsion Laboratory.

US Forest Service, Pacific Southwest Research Station
As a Biological Science Technician (Plants), conducted rare, common, and invasive plant surveys for long-term forest restoration study, performed forest inventory and monitoring, and collected and managed GIS data using a base station, Trimble GPS unit, and ArcGIS software.

Memberships and Associations

- Connecticut Botanical Society, Board of Directors (2023 – Ongoing)
- Society of Wetland Scientists
- Connecticut Association of Wetland Scientists
- New England Native Plant Trust

Additional Training

- Basic Wetland Delineation
- Wilderness First Aid

Publications

- Litle, J., Quon, L. H., **Antill, M.** L., Questad, E. J., & Meyer, W. M. (2019). Vertebrate herbivory on shrub seedlings in California sage scrub: important but understudied interactions. Plant Ecology.
- Questad, Erin & **Antill, Marlee** & Liu, Nanfeng & Stavros, E. & Townsend, Philip & Bonfield, Susan & Schimel, David. (2022). A Camera-Based Method for Collecting Rapid Vegetation Data to Support Remote-Sensing Studies of Shrubland Biodiversity. Remote Sensing. 14. 1933. 10.3390/rs14081933.

Matthew J. Sanford, MS, PWS, RSS

US Manager of Ecology | Cheshire, CT

Matthew Sanford is the firm's Manager of Ecology with experience in the areas of natural resources and specific expertise in vegetation management, invasive species control, GPS resource mapping, GIS modeling, biological inventories, water quality monitoring, watershed planning, vernal pool surveys; wetland delineation, assessment, and functions; inland wetland and tidal wetland impact mitigation; and peer review services. Matt's project experience includes computer modeling and design in ArcGIS and TR-20. He is a Professional Wetland Scientist (PWS) and is a registered soil scientist. He has expertise in United States Army Corps of Engineer (USACE) wetland delineations and has conducted USACE delineations in New York, Connecticut, Vermont, and Massachusetts. He served as Vice President and President of the Connecticut Association of Wetland Scientists (CAWS).

Years of Experience

21 years with the firm | 1 year with other firms

Professional Registrations

- Certified ACOE Wetland Delineator
- Registered Soil Scientist
- Professional Wetland Scientist

Education

- MS, Wetland Biology, Southern Connecticut State University
- BS, Natural Resource Management, University of Connecticut

Relevant Project Experience

Wyckoff Golf Course Property and Waterworks Property, Holyoke, MA
Completed a development feasibility assessment for the existing properties. The feasibility assessment area consisted of approximately 150-acres between the two properties. Environmental tasks included completion of graphical watercourse and bordering vegetated wetland delineations, state listed flora and fauna species survey, and evaluations of existing upland and wetland vegetative communities. The Natural Heritage and Endangered Species Program (NHESP) had reports of the state threatened green rock-cress (*Boechera missouriensis*) located on parts of the Waterworks Property. Surveyed the property using the opportunistic encounter search method and found patches of the green rock-cress in areas not formally identified and/or known by the NHESP. Mapping of the green rock cress colonies was completed and provided to the NHESP database.

Highland Estates and St. Anne's Golf Course, Winsted, CT
Was one of several botanists requested to preform listed plant survey on an approximately 600-acre undeveloped parcel. The team was tasked with finding/identifying critical habitats and/or listed fauna species. Two State-listed special concern species were found on site including American ginseng (*Panax quinquefolis*) and New England sedge (*Carex novea angliae*). The locations of these species were submitted to the Connecticut Department of Energy and Environmental Protection (CTDEEP) Natural Diversity Database Program.

Tariffville Trail, Simsbury, CT
Completed flora survey along proposed pedestrian/bicycle trail along Route 315 and the Farmington River. Listed flora species including Davis sedge (*Carex davisii*) is known to occur within the floodplain areas along the river. A visual encounter survey was completed during the growing season to determine presence of Davis sedge within the project area. Davis sedge was not documented within the project activity area.

One Old Bridge Road, Simsbury, CT
Completed listed plant survey for the following species located along the Farmington River and Hop Brook. Listed flora species including Davis sedge (*Carex davisii*), Virginia waterleaf (*Hydrophyllum virginianum*), and Starry campion (*Silene stellata*). A visual encounter survey was completed during the growing season to determine presence of the listed flora species within the project area. None of the listed flora species were observed within the project activity area.

River Road Drainage and Flooding Improvements, Simsbury, CT
Completed listed plant survey for the following species located along the Farmington River floodplain. Listed flora species including Virginia waterleaf (*Hydrophyllum virginianum*), and Starry campion (*Silene stellata*). A visual encounter survey was completed during the growing season to determine presence of the listed flora species within the project area. None of the listed flora species were observed within the project activity area.

Farmington Heritage Trail, Farmington, CT
Completed flora survey along proposed 2-mile trail route, with specific emphasis on finding CT State-listed special concern tall yellow cinquefoil and sandplain geradia. None of the mapped listed species were found; however, the low frostweed, another state-listed species of concern, was found within the project corridor. Assisted with coordination and correspondence between town and CTDEEP NDDB biologists. SLR botanist was assisted by Lauren Brown – Botanist.

Quinnipiac River Trail, Wallingford, CT
Completed flora survey along proposed trail route, looking specifically for CT endangered species False Mermaid Weed. Prepared summary of findings and GIS mapping depicting the colony limits of False Mermaid Weed. Worked with CTDEEP to find alternative methods for minimizing impacts to the colonies.