



August 10, 2022

Melanie Bachman, Esq.
Executive Director & Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Petition No. 1515
Connecticut Green Banke Solar Project
Manson Youth Correctional Institution
42 Jarvis Street, Cheshire, CT

Dear Attorney Bachman,

On behalf of the Connecticut Green Bank and CEFIA Holdings, LLC, I have attached 15 copies of the updated NDDDB Determination issued by the DEEP in response to the NDDDB review request submitted for the above-referenced site. The updated determination identifies the Eastern Box Turtle as having the potential to exist at the project site and provides recommended mitigation measures to be implemented during construction to protect the turtles. These are the same conclusions and recommendations that were provided in the initial NDDDB Determination issued in 2020, and the recommended mitigation measures have already been incorporated into the Site Plans and proposed construction sequence. As a result, the project is not anticipated to have an adverse impact to the Eastern Box Turtle. If you have any questions concerning the submittal, please feel free to call me at (860) 623-0569 or tcoon@jrrusso.com.

Sincerely,

Timothy A. Coon, P.E.
J.R. Russo & Associates, LLC

Enclosure

cc: Connecticut Green Bank

August 9, 2022

Mr. Timothy Coon
J. R. Russo & Associates, LLC
P.O. Box 938
East Windsor, CT 06088-0938
tcoon@jrusso.com

Project: Solar PV Development, Connecticut Green Bank and Department of Corrections Solar, Manson Youth Correctional Institution, 42 Jarvis Street Cheshire, Connecticut
NDDDB Determination Number: 202207205
Expiration Date: August 9, 2024

Dear Timothy Coon,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Solar PV Development, Connecticut Green Bank and Department of Corrections Solar, Manson Youth Correctional Institution, 42 Jarvis Street Cheshire, Connecticut.

According to our information there are known extant State Special Concern Eastern box turtle (*Terrapene c. carolina*) within your project boundaries.

Eastern box turtle (*Terrapene c. carolina*)- State Special Concern

In Connecticut, these turtles are found in well-drained forest bottomlands and a matrix of open deciduous forests, early successional habitat, fields, gravel pits, and or powerlines. Turtles are dormant between November 1 and April 1 and hibernate in only a few inches from the surface in forested habitat.

The greatest threat to this species is habitat loss, fragmentation, and degradation due to development. This species is very sensitive to adult mortality because of late maturity (10 years old) and long lifespan (50-100 years). Vehicular traffic, heavy equipment used for farming, and ATV use in natural areas are implicated specifically in adult mortality through collisions. Illegal collection by the pet trade and unknowing public for home pets exacerbates mortality rates and removes important individuals from the population. Predation rates are also unnaturally high because of increased predator populations (e.g. skunks, foxes, raccoons, and crows) that surround developed areas.

Protection Measures during Construction:

- Land disturbance and excavation is most safe for turtles if conducted during the turtle dormant season, November 1st through March 15th.
- If land disturbance work must occur in non-grassland upland between March 15th and November 1st:
 - Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.
 - Exclusionary fencing be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
 - Prior to construction, all turtles occurring within fencing work area will be relocated to suitable habitat outside disturbance area. This should be performed by a qualified professional familiar with habitat requirements and behavior of the species.

- The Contractor must search the work area each morning prior to any work being done.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point. These animals are protected by law and no turtles should be relocated from the site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal vernal pools.

Protection Measures during Ongoing Site Management:

- Mowing is major source of human induced adult turtle mortality. Avoid mowing or vehicular traffic from May 15th through September 15th (turtle peak use timeframe)
- Use these additional techniques to minimize impact, especially if you cannot avoid mowing during peak use times:
 - Mower style: Avoid flail mower heads with guide bars that ride along the ground. Sickle bar mowers will have the least impact if mowing every 1-5 years. In areas with more woody vegetation >1-2" diameter Brontosaurus-style mower will likely have the least impact on turtles.
 - Mowing height: If mowing during active season, retention of mowing stubble to 7-12 inches will reduce mortality, reduce blade wear, and will leave important cover for animals.
 - Mower Speed – Mowing in low gear or at slow speeds will allow turtles to react and move out of the field.
 - Directionality - If mowing during the active season is necessary, start mowing from the center of the field and use a back-and-forth approach, or large circular pattern, to avoid concentrating fleeing animals where they may be killed or stranded. In addition, leave an un-mowed 30-foot strip around the perimeter of the field and mow this area last. Most turtles are found in these areas and this provides time for them to react to the mowing activity and move out of the area.
 - If field is near stream: start mowing the side furthest from stream and work towards stream.
 - If field is bordered by woodland: start mowing side furthest from woodland and work towards woodland.
 - If field is bordered by road, start mowing next to the road and work your way across field.
 - Un-mowed Edge - Leaving an un-mowed field edge in high turtle use areas until after September 15th.

Additional Information:

General Site Design Recommendations to Enhance Habitat

If planned properly, you can increase the value of the habitat for wildlife and state listed species with your solar development.

- Create a site management plan to promote native vegetation growth in the area under the solar panels. Restoring native vegetation will attract pollinators and avoid the need for constant mowing.
- Reduced need for mowing will reduce the risk for turtles.
- Provide habitat for wildlife and allow for connectivity for wildlife movement. Use wildlife-friendly fencing to allow movement through the solar development.

Grassland Restoration Recommendations:

Use a mix of warm season grass species to re-establish early successional areas on your property. Some warm-season grass species include:

- Little bluestem (*Schizachyrium scoparium*)- “Aldous” or “Cimarron”
- Big bluestem (*Andropogon gerardii*)- “Niagra”
- Indiangrass (*Sorghastrum nutans*)- “Rumsey”

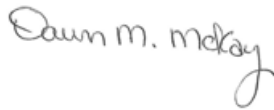
- Switchgrass (*Panicum virgatum*) -“Blackwell”, “Shelter”, or “Cave in Rock”
- Bermudagrass (*Cynodon dactylon*) -“Quickstand”

Seed mix ratios are variable, however for Connecticut a minimum of 60% little bluestem is preferred. Big bluestem is an acceptable alternative to little bluestem for the dominant species in the chosen mix. When one of the bluestems is the dominant species the other grass species listed may be mixed in any ratio desired. Of these species, Bermudagrass is the least favored and should be used in the lowest percentage.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection’s Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as enhance existing data. Such new information is incorporated in the NDDDB as it becomes available.

Please contact me if you have any questions (deep.nddbrequests@ct.gov). Thank you for consulting with the Natural Diversity Data Base and continuing to work with us to protect State-listed species.

Sincerely,

A handwritten signature in cursive script that reads "Dawn M. McKay".

Dawn M. McKay
Environmental Analyst 3/Biologist