



Connecticut
Department of Energy &
Environmental Protection

portal.ct.gov/DEEP

7/29/2025

Miranda Larva
GREENSKIES CLEAN ENERGY LLC
127 Washington Ave
North Haven, CT 06473
mlarva@verdantas.com

Subject: Old Maids Lane

Filing #: 117206

NDDB - New Determination Number: 202408687

Expiration Date: 7/29/2027

Location Description: Greenskies Clean Energy, LLC New Solar Facility Old Maids Lane in Glastonbury and Portland

I have reviewed Natural Diversity Database (NDDB) maps and files regarding the maps and files provided for the proposed Greenskies Clean Energy, LLC New Solar Facility Old Maids Lane in Glastonbury and Portland, Connecticut. According to our records there are known extant populations of State Listed Species that occur within or close to the boundaries of this property. The Species include:

State Endangered

Rana kauffeldi (Atlantic coast leopard frog)

Ammodramus savannarum (Grasshopper sparrow)

State Special Concern

Clemmys gutatta (Spotted turtle)

Terrapene c. carolina (Eastern box turtle)

Rana pipiens (Northern leopard frog)

Leptodea ochracea (Tidewater mucket)

Ligumia nasuta (Eastern pondmussel)

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Protection and Planning for State Listed Species

We received a habitat assessment report for state listed species for Old Maids Lane in Portland, Connecticut developed by Eric Davison of Davison Environmental and dated March 4, 2025. The report indicated that Davison Environmental conducted a habitat-based assessment on the site on February 28, 2025, and found that suitable habitat existed on the project site for *Terrapene c. carolina* (Eastern box turtle). The NDDB Program accepts this report and concurs with its findings. No adverse impacts are anticipated to the Atlantic coast leopard frog, spotted turtle or grasshopper sparrow based on the Davison report. I have provided best management practices for freshwater mussels below.

Required Protection Measures for State Special Concern Eastern Box Turtle

The following best management practices and strategies are required in order to protect Eastern box turtles:

- **A qualified herpetologist must be on site to ensure these protection guidelines remain in effect and prevent turtles from being run over when moving heavy equipment. This is especially important in the months of May, June and July when turtles are selecting nesting sites.**
- Initial tree clearing/stumping will not be completed in suitable overwintering habitat during the dormant season (between November 1- March 31).
- Exclusionary practices are required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance.
- Exclusionary fencing must be at least 20 in 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. Do not use plastic or netted silt-fence. Additional consideration should be given to permanent exclusionary fencing if eastern box turtles are found to be nesting at the project site.
- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species and instructed to relocate turtles found inside work areas or notify the appropriate authorities to relocate individuals.
- 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.
- 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 pools.
- The Contractor and consulting herpetologist must search the work area each morning prior to any work being done.
- When felling trees adjacent to brooks and streams please cut them to fall away from the waterway and do not drag trees across the waterway or remove stumps from banks.
- Avoid and limit any equipment use within 100 feet of wetlands, streams and brooks.
- Any confirmed sightings of box, wood or spotted turtles should be reported and documented with the NDDB (nddbrequestdep@ct.gov) on the appropriate special animal form found at (http://www.ct.gov/deep/cwp/view.asp?a=2702&q=323460&depNav_GID=1641)
- Use no or low curbing in any development to allow animals to move more freely in the habitat.

Required Protection for State Listed Freshwater Mussels

According to our information there are known extant populations of State Threatened *Lampsilis cariosa* (Yellow lampmussel) and State Special Concern *Leptodea ochracea* (Tidewater mucket) and *Ligumia nasuta* (Eastern pondmussel) in this area of the Connecticut River. Freshwater mussels are aquatic animals that play an important role in our environment. These sedentary organisms live in sediments on the bottom of streams and rivers and provide a service to all by filtering water and removing bacteria and phytoplankton. It is because they are filter-feeding animals that they are very susceptible to sediments and pollutants in the water in which they live. The greatest diversity of freshwater mussels in the world is found in Eastern North America. Freshwater mussels are one of the most endangered groups of animals with almost three-quarters of the native mussels in North America imperiled. The disappearance of freshwater mussels is a reliable indicator of chronic water pollution. The following considerations will help protect and benefit these species.

- - Adhere strictly to water quality standards at your project site.
 - No vegetation should be removed from within a 100-ft buffer of waterways.
 - Turf grass and impervious surface should be minimized.
 - Use extensive and robust erosion and sediment control mechanisms during construction. Do not use netted siltation devices as these may entangle wildlife. Remove the siltation and erosion control mechanisms promptly to avoid impacting wildlife movement.
 - Employ precautions to prevent the introduction and spread of invasive plants and bivalves.
 - Take action to reduce non-point source pollution.

Your submission information indicates that your project requires a state permit, license, registration, or authorization, or utilizes state funding or involves state agency action. This NDDB - New determination may be utilized to fulfill the Endangered and Threatened Species requirements for state-issued permit applications, licenses, registration submissions, and authorizations.

Please be aware of the following limitations and conditions:

Natural Diversity Database information includes all information regarding listed species 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 Natural History Survey and cooperating units of DEEP, land owners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. 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 into the Database and accessed through the ezFile portal as it becomes available. New information may result in additional review, and new or modified restrictions or conditions may be necessary to remain in compliance with certain state permits.

- During your work listed species may be encountered on site. A report must be submitted by the observer to the Natural Diversity Database promptly and additional review and restrictions or conditions may be necessary to remain in compliance with certain state permits. Please fill out the [appropriate survey form](#) and follow the instructions for submittal.
- Your project involves the state permit application process or other state involvement, including state funding or state agency actions; please note that consultations with your permit analyst or the agency may result in additional requirements. In this situation, additional evaluation of the proposal by the DEEP Wildlife Division may be necessary and additional information, including but not limited to

species-specific site surveys, may be required. Any additional review may result in specific restrictions or conditions relating to listed species that may be found at or in the vicinity of the site.

- If your project involves preparing an Environmental Impact Assessment, this NDDDB consultation and determination should not be substituted for biological field surveys assessing on-site habitat and species presence.
- The NDDDB - New determination for the Old Maids Lane as described in the submitted information and summarized at the end of this document is valid until 7/29/2027. This determination applies only to the project as described in the submission and summarized at the end of this letter. Please re-submit an updated Request for Review if the project's scope of work and/or timeframe changes, including if work has not begun by 7/29/2027.

If you have further questions, please contact me at the following:

Dawn McKay
CT DEEP Bureau of Natural Resources
Wildlife Division
Natural Diversity Database
79 Elm Street
Hartford, CT 06106-5127
(860) 424-3592
Dawn.McKay@ct.gov

Please reference the Determination Number 202408687 when you e-mail or write. Thank you for consulting the Natural Diversity Data Base.

Dawn McKay
Wildlife Division- Natural Diversity Data Base
79 Elm Street
Hartford, CT 06106-5127
(860) 424-3592
Dawn.McKay@ct.gov

Application Details:

Project involves federal funds or federal permit:	No
Project involves state funds, state agency action, or relates to CEPA request:	Yes
Project requires state permit, license, registration, or authorization:	Yes
DEEP enforcement action related to project:	
Project Type:	
Project Sub-type:	Solar Energy
Project Name:	Old Maids Lane
Project Description:	

May 20, 2025

Dawn M. McKay
Environmental Analyst 3/Biologist
Dawn.mckay@ct.gov
DEEP.nddbrequest@ct.gov

**Re: Threatened and Endangered Species Habitat Assessment
Old Maids Lane Solar Project
Middlesex County, Connecticut**

To Whom It May Concern:

On September 27, 2024, Verdantas received a Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Database (NDDB) preliminary assessment (No. 202408687; Portal Filing No. 117206) for the Old Maids Lane Solar Project (Attachment A). The Project is an approximately 4.9-megawatt alternating current (MWAC) solar power generation project located on an approximately 41.92-acre parcel at 15340 Old Maids Lane in Portland, Connecticut, parcel ID 119/0014 (Project Area).

The NDDB preliminary assessment indicated that the extant ranges of the following listed species intersect or are proximal to the boundaries of the Project Area: Atlantic Coast leopard frog (*Rana kauffeldi*), grasshopper sparrow (*Ammodramus savannarum*), spotted turtle (*Clemmys gutatta*), eastern box turtle (*Terrapene c. carolina*), northern leopard frog (*Rana pipiens*), tidewater mucket (*Leptodea ochracea*), and eastern pondmussel (*Ligumia nasuta*). Because aquatic habitats were not present within the proposed Project Area, the tidewater mucket and eastern pondmussel were eliminated from further analysis.

On February 28, 2025, an on-site habitat assessment of the proposed Project Area was conducted by Eric Davison to determine if suitable habitat was present for the Atlantic Coast leopard frog, grasshopper sparrow, spotted turtle, eastern box turtle, and northern leopard frog. Mr. Davison is a wildlife biologist and recognized Qualified Herpetologist who oversees compliance with NDDB protection measures for state-listed amphibians and reptiles. His qualifications are provided as Attachment B.

The on-site habitat assessment indicated that suitable habitat for eastern box turtle was present within the Project Area. The Project will follow Connecticut Department of Energy & Environmental Protection recommendations for eastern box turtles, including:

- Initial tree clearing/stumping will not be completed in suitable overwintering habitat during the dormant season (between November 1- March 31).
- To prevent turtle access and entry into the work zone between April 1- October 31:
 - Exclusionary practices will be used to prevent any turtle access into disturbance areas. These measures will be installed at the limits of disturbance as shown on the site plan, or specifically designated by a herpetologist who can assess the conditions at the site.
 - Exclusionary fencing be at least 20 inches tall and will 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.

- All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, will be reviewed to remove individuals and exclude them from re-entry.
- All construction personnel working within the turtle habitat will be trained on the species description (species identification) and the possible presence of a listed species.
- The construction contractor search the work area each morning prior to any work being done.
- Any turtles encountered within the immediate work area will be carefully moved to an adjacent area outside of the excluded area and fencing will be inspected to identify and remove access point. Eastern bog turtles are protected by law and will therefore not be relocated off-site.
- In areas where silt fence is used for exclusion, the silt fence will be removed as soon as the area is stable and disturbance is finished to allow for reptile and amphibian passage to resume.

The survey also determined that there was not suitable habitat in the Project Area for the other species identified in the NDDDB assessment. The results of the habitat assessment are provided as Attachment C. Verdantas requests that NDDDB please review the results of this assessment, and to please provide feedback regarding next steps. If any you have any questions, please reach out to me at kmevans@verdantas.com or (440) 247-7004.



Katie Evans
Project Manager

CC: Jean-Paul LaMarche, jean-paul.lamarche@greenskies.com
Emilie Cohen, emilie.cohen@greenskies.com



Attachment A: NDDB Preliminary Review Letter





September 27, 2024

Miranda Larva
Verdantas, LLC
200 Court Street, 2nd Floor
Middletown, CT 06457
mlarva@Verdantas.com

Project: Greenskies Clean Energy, LLC New Solar Facility Old Maids Lane in Glastonbury and Portland, Connecticut
Portal Filing No.: 117206
NDDDB Preliminary Assessment No.: 202408687
Expiration Date: September 27, 2025

Dear Miranda Larva,

I have reviewed Natural Diversity Database (NDDDB) maps and files regarding the maps and files provided for the proposed Greenskies Clean Energy, LLC New Solar Facility Old Maids Lane in Glastonbury and Portland, Connecticut. According to our records, there are many State-listed species (RCSA Sec. 26-306) documented on and near this property that will result in complex protection protocols. Please be advised that this is a preliminary review and not a final determination. A more detailed review will be necessary to move forward with any environmental permit applications submitted to DEEP for the proposed project. **This preliminary assessment letter cannot be used or submitted with registrations permit applications at DEEP.** This letter is valid for one year.

According to our records there are known extant populations of State Listed Species that occur within or close to the boundaries of this property. The Species include:

State Endangered

Rana kauffeldi (Atlantic coast leopard frog)

Ammodramus savannarum (Grasshopper sparrow)

State Special Concern

Clemmys gutatta (Spotted turtle)

Terrapene c. carolina (Eastern box turtle)

Rana pipiens (Northern leopard frog)

Leptodea ochracea (Tidewater mucket)

Ligumia nasuta (Eastern pondmussel)

Protection and Planning for State Listed Amphibians and Reptiles

Atlantic Coast Leopard Frog

This State Endangered species occurs within the Atlantic coastal plain. This newly discovered species of leopard frog occurs in only two locations in all of Connecticut and one of these occurrences is in Wangunk Meadows WMA in Portland, adjacent to this property.

Northern Leopard Frog

The northern leopard frog is a species of special concern frog that utilize open, grassy habitats either along the floodplain of a large stream or river, in wetlands around the margins of large lakes, or in meadows adjoining tidal wetlands. Leopard frogs are active from late March to mid-October.

Spotted Turtle

Individuals of this species are associated with wetlands and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands. They overwinter burrowed into the mud in wetlands between Nov 1- March 15. They do not begin to reproduce until 7-10 years old and adults can live at least 30 years.

Eastern Box Turtle

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-life span (50-100 years). Vehicular traffic, heavy equipment used for farming, and ATV use in natural areas are implicated specifically in adult mortality through collisions.

Required Protection Measures for State Endangered Atlantic Coast Leopard Frog, Northern Leopard Frog, Spotted Turtle and Eastern Box Turtle

You are required to work with a qualified herpetologist with extensive field experience with Atlantic coastal frog in Connecticut to do a site evaluation and create a protection plan for the amphibians and reptiles for the project site. Before a protection plan is developed the qualified herpetologist will be required to assess the habitat for these species on the site. The plan will need to include conservation measures that focus on avoiding or minimizing negative impacts to these species, with special focus on the Atlantic coast leopard frog, and propose mitigation options. Please be sure the taxonomic expert has a valid scientific collectors permit for this area for the state listed species.

To prevent impacts to all the amphibian and reptile state-listed species, field surveys of the site should be performed by a qualified biologist (herpetologist with direct experience in this taxon in Connecticut) when these amphibians and reptiles are active. A report summarizing the results of such surveys should include:

1. Survey date(s) and duration
2. Site descriptions and photographs
3. List of component species within the survey area (including scientific binomials)
4. Data regarding population numbers and/or area occupied by State-listed species
5. Detailed maps of the area surveyed including the survey route and locations of State-listed species
6. Conservation strategies or protection plans that indicate how impacts may be avoided for all state-listed species present on the site. The conservation or protection plan must be designed to minimize adverse effects on the state listed species known from this location, or an explanation why no plan is needed for this site. This document should be developed by a qualified biologist (herpetologist) with extensive experience with Atlantic coast leopard frog in Connecticut. A DEEP scientific collection permit will be required by the biologist to conduct surveys and/or conduct mitigation work; you should ask if your biologist has one.

The conservation/protection plan should include the following elements (at minimum):

- a. Anticipated impacts to these state-listed species from this project.
 - b. Any planned mitigation or management practices that will be employed to protect or avoid impacts to state listed species.
 - c. Habitat descriptions of the area surveyed.
 - d. A Statement, CV or Resume of the qualified biologist's qualifications to work with these species.
- Please note that insufficient surveys and mitigation plans may not be accepted.

7. Statement/résumé indicating the biologist's (herpetologist's) qualifications. Please be sure when you hire a consulting qualified biologist to help conduct this site survey that they have the proper experience with target taxon and have a CT scientific collectors permit to work with state listed species for this specific project.

The site surveys reports and management plans to protect these species should be sent to our CT DEEP-NDDB Program (deep.nddbrequest@ct.gov) for further review by our program biologists.

Required Protection for State Endangered Grasshopper Sparrow (*Ammodramus savannarum*)

In Connecticut, grasslands are among the most threatened and rare habitats. There are seven species of breeding grassland birds and that require grasslands as their primary habitat that are state listed in

Connecticut. Most of Connecticut's grasslands would revert to forest without active management. Increasing development pressures on Connecticut's most important grassland habitats, exacerbates this loss of habitat through natural succession

Additional Reporting requirements:

• **You will need to consult with an ornithologist to evaluate the habitat for grassland birds, specifically the grasshopper sparrow and create a grassland management plan to avoid impacts to state listed grassland bird species.** (The Wildlife Division does not maintain a list of biologists in the state.)

A grassland management plan must include:

- a. Anticipated impacts to grassland birds
- b. **Planned mitigation for habitat loss and all management practices that will be employed.**
- c. Habitat descriptions
- d. Statement/resume giving the biologist's qualifications.

Please note that insufficient reports may not be accepted.

Recommendations to keep in mind as part of your grassland bird management plan:

- **Landscape site planning:** Many grassland species require expansive tracts of grassland mosaics that may include mowed areas, meadows of tall grasses, and wildflowers that function best if kept in 30-acre parcels. Many of these birds have minimum habitat size requirements for nesting and have plant species or structure preferences. Some will nest only in grasses of a particular height; others prefer a mix of tall and short vegetation, or a particular grass species or a mix of grass and forbs. The Eastern meadowlark will benefit from protection and management of large patches of grassland of 15 acres or more. The Grasshopper sparrow will benefit from protection and management of large patches of grassland of 30 acres or more. The Savannah sparrow will benefit from protection and management of large patches of grassland of 10 acres or more.
- **Construction activities:** Land disturbance activities including digging, ground clearing, heavy machinery driving staging, or trampling that will occur more than 100 feet into or cut across in a way that fragments large parcels of grassland habitat should be done when grassland birds are not breeding. Breeding primarily takes place between **April 15th - August 15th**. Conducting land disturbance activities outside of the breeding season will avoid impact to the individuals.
- **Site Management:** Please also be aware that mowing as a management technique in and around solar panels will need to consider the life history requirements for grassland birds. Mowing is major source of human induced nest failure.
- **Avoid mowing or vehicular traffic in grassland habitat during peak use by these species (April 15th - August 15th).**

Required Protection for State Listed Freshwater Mussels

According to our information there are known extant populations of State Threatened *Lampsilis cariosa* (Yellow lampmussel) and State Special Concern *Leptodea ochracea* (Tidewater mucket) and *Ligumia nasuta* (Eastern pondmussel) in this area of the Connecticut River. Freshwater mussels are aquatic animals that play an important role in our environment. These sedentary organisms live in sediments on the bottom of streams and rivers and provide a service to all by filtering water and removing bacteria and phytoplankton. It is because they are filter-feeding animals that they are very susceptible to sediments and pollutants in the water in which they live. The greatest diversity of freshwater mussels in the world is found in Eastern North America. Freshwater mussels are one of the most endangered groups of animals with almost three-quarters of the native mussels in North America imperiled. The disappearance of freshwater mussels is a reliable indicator of chronic water pollution. The following considerations will help protect and benefit these species.

- Adhere strictly to water quality standards at your project site.
- No vegetation should be removed from within a 100-ft buffer of waterways.
- Turf grass and impervious surface should be minimized.
- Use extensive and robust erosion and sediment control mechanisms during construction. Do not use netted siltation devices as these may entangle wildlife. Remove the siltation and erosion control mechanisms promptly to avoid impacting wildlife movement.

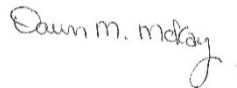
- Employ precautions to prevent the introduction and spread of invasive plants and bivalves.
- Take action to reduce non-point source pollution.

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 Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes 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 into the Data Base as it becomes available.

Please note that if the information requested in this letter is not received by September 27, 2025, we will be unable to provide a determination. Materials already submitted will not be retained or returned. You will need to initiate a new review request by submitting a new and complete *Request for Natural Diversity Database (NDDDB) State Listed Species Review* via DEEP's ezFile Portal. For more information and guidance on submitting a request for a Natural Diversity Data Base review visit our website. Please contact me if you have further questions at william.moorhead@ct.gov. Please be sure to also cc DEEP.nddbrequest@ct.gov with all email queries. **Please reference the filing number 117206 on all correspondence regarding this request.**

Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Dawn M. McKay
Environmental Analyst 3/Biologist

Attachment B: Surveyor Qualifications



Eric Davison, CSS, CPWS

10 Maple Street, Chester, CT 06412

Phone: 860-803-0938

Email: eric@davisonenvironmental.com

Web: www.davisonenvironmental.com

EDUCATION

- New England Regional Soil Science Certificate Program
University of Massachusetts, Amherst, MA, 2000
 - Bachelor of Science, Wildlife Conservation & Management
University of Massachusetts, Amherst, MA, 1998
-

WORK EXPERIENCE

Davison Environmental, LLC, Chester, CT (owner/operator)

Wildlife Biologist, Wetland Scientist and Soil Scientist

(2002-present)

Provided the following consulting services to clients:

- Herpetological surveys
- Vernal pool inventory and impact assessment
- Breeding bird surveys
- Wetland delineation and soil mapping
- Local, state and federal wetland permitting assistance
- Wetland impact assessments
- Wetland restoration and mitigation plans
- Land management planning
- Wetland functions and values assessments
- GIS based environmental assessments

Metropolitan Conservation Alliance, Cary Institute of Ecosystem Studies, Millbrook, NY

Biodiversity Specialist

2009-2011 (three-year grant funded position)

- Conducted biodiversity studies throughout Connecticut and eastern New York under the direct supervision of program founder Dr. Michael W. Klemens
- Conduct herpetological surveys using a variety of techniques to identify amphibians and reptiles in aquatic and terrestrial environments including auditory and visual surveys, dip-net surveys and cover-searching as well as various live-trap techniques such as minnow, hoop-net and pit-fall traps
- Characterize and map upland and wetland habitats, soils, geology and other natural resources
- Catalogue breeding bird species via visual identification and song
- Collect field data using GPS equipment and compile data collected using GIS software (ArcMap); create GIS maps and files of all field data collected

Northwest Park and Nature Center, Windsor, CT

Naturalist -Land Manager

(2000-2002)

- Responsible for habitat management and wildlife monitoring at 473-acre municipal park, with a focus on early-successional habitat management and monitoring of rare and state-listed grassland and shrubland wildlife
- Conducted conservation-related public outreach
- Staff liaison for the Town of Windsor Conservation Commission

Certifications

- Certified Soil Scientist (Society of Soil Scientists of Southern New England)
 - Certified Professional Wetland Scientist (Society of Wetland Scientists)
-

Relevant Publications & Projects

Publications

- Audubon Connecticut Important Bird Area Conservation Plan, Greenwich Point Park, Greenwich, CT 2016
- Town of Ridgefield Natural Resource Inventory, 2012 (co-author)
- Audubon Connecticut Important Bird Area Conservation Plan, Bent of the River Sanctuary, Southbury, CT, 2011
- Haines Pond Management Plan, Brewster, NY, 2010 (field biologist and co-author)
- Eastern Westchester Biotic Corridor: Northern Terminus Addendum, North Salem and Southeast, NY, 2010 (field biologist and co-author)
- Haines Pond Biodiversity Study, Brewster, NY, 2009
- Eastern Westchester Biotic Corridor: Titicus Reservoir, North Salem, NY, 2009 (field biologist and co-author)
- Audubon Connecticut Important Bird Area Conservation Plan, Northwest Park, Windsor, CT, 2007
- Town of Windsor Natural Resource Inventory, 2005 (field biologist and co-author)

Projects

- Breeding bird point-count surveys for CT Audubon, multiple sites in Connecticut and Rhode Island in 2010 and 2011
 - Wetland delineation and biological surveys (of wildlife, vernal pool herpetofauna and breeding birds), including GPS and GIS mapping, on the following linear utility projects in 2015:
 - Frost Bridge to Campville 115-kV Project, Watertown to Harwinton
 - 3424 Line Reclamation Project, Portland and Glastonbury
 - 1779 Line Rebuild Project, East Hartford and South Windsor
 - 1770-1622 Line Maintenance Project, Southbury
 - 364 Line Maintenance Project, Haddam and East Haddam
 - 352 Line Reclamation Project, Woodbury to New Milford
 - 1682-1470 Lines (SW CT), Norwalk to Ridgefield
 - Distribution Line Removal, Branford to Guilford
 - 1900-1732 Line Maintenance Project, Torrington and Harwinton
-

Professional Affiliations

- Commissioner - Inland Wetlands and Watercourses Commission, Town of Chester, CT
- Board Member - Connecticut River Coastal Conservation District
- Member - Society of Soil Scientists of Southern New England
- Member - Society of Wetland Scientists

Attachment C: Habitat Assessment for Old Maids Lane Solar Project





March 4, 2025

Caitlin Cyrus
Verdantas
200 Court Street, 2nd Floor
Middletown, CT 06457

**RE: *State-listed Species Habitat Assessment*
 *Old Maids Lane, Portland***

Ms. Cyrus,

To address the Connecticut Department of Energy and Environmental Protection NDDB Preliminary Assessment #202408687 (dated September 27, 2024), I conducted a habitat-based assessment of the site on February 28, 2025. for the following four reptile species, and one bird species:

1. Atlantic coast leopard frog (*Rana kauffeldi*)
2. northern leopard frog (*Rana pipiens*)
3. eastern box turtle (*Terrapene c .carolina*)
4. spotted turtle (*Clemmys gutatta*)
5. grasshopper sparrow (*Ammodramus savannarum*)

The following summarizes the habitat suitability for each species. The details are provided in each species section:

- There is suitable habitat for the eastern box turtle.
- There is no suitable habitat for either species of leopard frog.
- There is very low suitability for the spotted turtle and grasshopper sparrow. For both species, the habitat types generically represent suitable habitat, but the landscape context, size and character of those habitats is incompatible.

The Site is located in Portland, with the northern Site boundary lying on the Glastonbury town line (see attached Existing Conditions Plan, provided by client). The Site is accessed via a farm road off of Old Maids Lane in Glastonbury. The following habitat types occur on the Site:

Upland (non-wetland) habitats:

- Fruit tree orchard
- Mixed hardwood forest
- Agricultural field

Wetland Habitats:

- Pond
- Wet meadow

The following sections detail the suitability of the Site for each species.

Atlantic Coast and Northern Leopard Frog

Leopard frog are found in open, grassy, low-elevation wetlands and floodplain forests adjacent to riparian systems, within the Connecticut and Housatonic river drainage basins. They typically breed in seasonally flooded early successional wetlands, including marshes and shrub swamps. During the summer months they are frequently observed in fields, lawns, and other grassland habitats, as well as floodplain forests adjacent to breeding wetlands.

No suitable habitat is present. The Site lies on an elevated till ridge, outside of the floodplain valley habitat utilized by these two species. The Site does lie north of known populations within the Connecticut River floodplain and Wangunk Meadows. These habitats lie approximately 1,000 feet away at their closest point. Lying between the Site and suitable habitat is upland (non-wetland) mature second growth mixed hardwood forest with no connecting wetland system to facilitate movement. Given this separation distance, the rise in elevation, and the presence of non-suitable habitat separating them, I do not anticipate Site use by leopard frog.

Spotted Turtle

Spotted turtles use a wide range of wetlands, including vernal pools, shrub swamps, forested wetlands, marshes, wet meadows, and the vegetated margins of ponds and lakes. They have complex habitat requirements, seasonally using a mosaic of wetland habitats, moving overland between these habitats. Two small wetlands are present on the Site. Neither wetland represents suitable habitat. The wet meadow wetland located within/adjacent to the western field is a sloping groundwater discharge wetland that does not have seasonal flooding capable of providing feeding or hibernation habitat. The pond also lacks suitable habitat, as it is a man-made former detention/retention pond that lacks littoral shallows, emergent vegetation or shoreline vegetation to support either feeding or hibernation. Finally, there were no suitable wetlands noted nearby

(offsite) that would increase the likelihood of either wetland being used as a result of overland movement.

Eastern Box Turtle

The eastern box turtle uses a mosaic of habitats seasonally, within a small home range. During the spring and early summer months, they favor early and late successional habitats and are often found along the edges of wetlands and small streams, with a shift to forested habitats during the late summer and fall seasons. Nesting occurs in sparsely vegetated early successional habitat, and hibernation occurs almost exclusively in forested uplands. However, there is evidence that certain populations of box turtles migrate annually to the edges of wetlands to hibernate.

Suitable box turtle habitat occurs on the Site, and box turtle are ubiquitous in this part of the State. All habitats present on the Site represent suitable habitat in some fashion. The mixed hardwood forest represents suitable habitat during the heat of the summer, and for hibernation. Field edges, disturbed soils and spoil piles represent suitable nesting habitat, and early-successional edges and field habitat represent spring and early summer basking habitat.

Grasshopper Sparrow

The Grasshopper Sparrow is a grassland specialist, inhabiting moderately open grasslands and prairies with patchy bare ground. Well-drained, sparsely vegetated native and cultivated grasslands are often inhabited in the eastern U.S. The density of woody vegetation is an important factor in habitat selection. Grasshopper Sparrows are not found breeding in fields with greater than 35% woody vegetation. Vegetation structure typically consists of short bunch grasses (4-12" in height) with minimal litter and grass cover, patches of bare ground, scattered tall forbs (8-25" in height) and short shrubs (1-8' in height) for song perches. Well-drained, xeric sites are typically favored. The presence of bare ground is a critical habitat feature. The Grasshopper Sparrow is an area sensitive species, with a minimum area requirement of 30 acres and a territory size typically of 2-4 acres. Site fidelity in Grasshopper Sparrow varies throughout its range, with a greater incidence of site fidelity occurring in the east.

A single open field totaling ± 5.6 occurs on the Site. It is located on the western side and is moderately sloped with a southern aspect. Wetlands occupy a portion of the field. Based on photographs provided by your office taken in August, the field was dominated by a dense growth of mugwort (*Artemisia vulgaris*). The size, shape and vegetation type are not consistent with grasshopper sparrow habitat. The overall field size is too small, the field is narrow thus limiting interior habitat (ca. greater than 300ft from the treeline) and it lacks warm season bunch grasses.

If you have any questions regarding these findings, please feel free to contact me.

Respectfully submitted,



Eric Davison
Wildlife Biologist

Attachments:

- (1) Site Map
- (2) Site Photographs

References

Conservation of Amphibians and Reptiles in Connecticut. 2021. Klemens, M.W., Gruner, H.J., Quinn, D.P. and Davison, E.R. Revision to State Geological and Natural History Survey of Connecticut Bulletin 112. The Department of Energy and Environmental Protection.

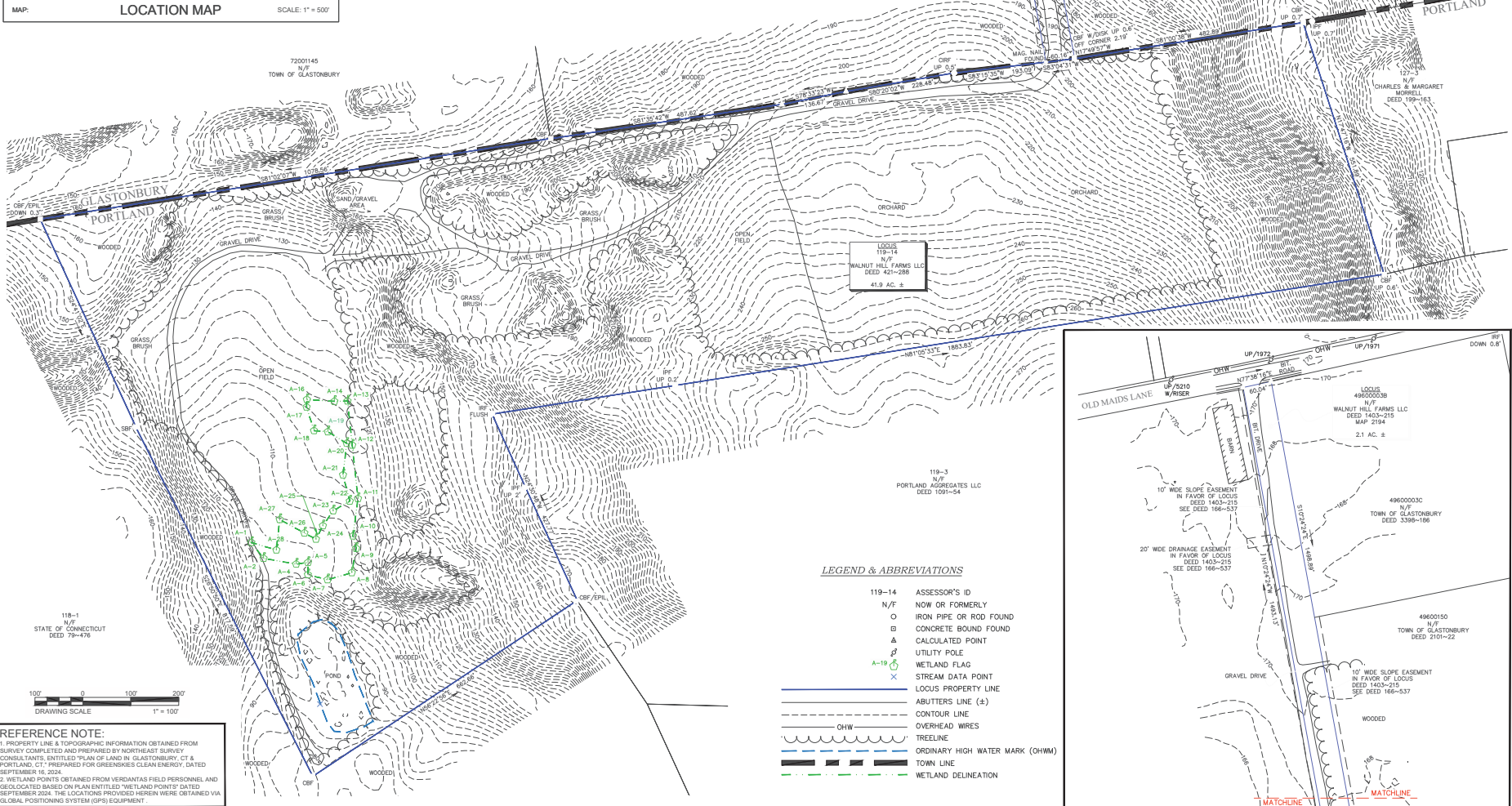
Vickery, P.D. 1996 Grasshopper Sparrow (Ammodramus savannarum). In the Birds of North America, No. 239 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.

SITE MAP



NOTES:

1. FIELD SURVEY BY RTK GPS IN AUGUST 2024.
2. THE HORIZONTAL DATUM IS NAD83 AND VERTICAL DATUM IS NAVD88. BOTH WERE DERIVED FROM GPS OBSERVATIONS TAKEN ON SITE.
3. BOUNDARY LINES SHOWN HEREON ARE TAKEN FROM PLANS & DEEDS OF RECORD AND MONUMENTS FOUND.
4. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO MATTERS A TITLE REPORT WOULD DISCLOSE.
5. ALL CONTOURS SHOWN HEREON WERE GENERATED IN QGIS FROM DIGITAL ELEVATION MODELS OF THE 2016 CRCOG LIDAR DATA, COLLECTED BY USGS AND DISTRIBUTED NOAA.
6. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE LOCUS PARCEL IS LOCATED IN AREAS IDENTIFIED AS ZONE X (AREAS OF MINIMAL FLOODING), COMMUNITY PANEL NO. 09007C 0038 G, EFFECTIVE DATE: 8/28/2008 AND 09003C 0538 F, EFFECTIVE DATE 9/26/2008.
7. THE PORTION OF THE LOCUS PARCEL IN PORTLAND AND ALL ABUTTING PARCELS IN PORTLAND ARE LOCATED WITHIN THE R-25 ZONING DISTRICT.



LEGEND & ABBREVIATIONS

- | | |
|--------|---------------------------------|
| 119-14 | ASSESSOR'S ID |
| N/F | NOW OR FORMERLY |
| O | IRON PIPE OR ROD FOUND |
| B | CONCRETE BOUND FOUND |
| A | CALCULATED POINT |
| g | UTILITY POLE |
| A-19 | WETLAND FLAG |
| X | STREAM DATA POINT |
| --- | LOCUS PROPERTY LINE |
| --- | ABUTTERS LINE (±) |
| --- | CONTOUR LINE |
| --- | OVERHEAD WIRES |
| --- | TREELINE |
| --- | ORDINARY HIGH WATER MARK (OHWM) |
| --- | TOWN LINE |
| --- | WETLAND DELINEATION |

REFERENCE NOTE:

1. PROPERTY LINE & TOPOGRAPHIC INFORMATION OBTAINED FROM SURVEY COMPLETED AND PREPARED BY NORTHEAST SURVEY CONSULTANTS, ENTITLED "PLAN OF LAND IN GLASTONBURY, CT & PORTLAND, CT, PREPARED FOR GREENSKIES CLEAN ENERGY, DATED SEPTEMBER 16, 2024.
2. WETLAND POINTS OBTAINED FROM VERDANTAS FIELD PERSONNEL AND GEOLOCATED BASED ON PLAN ENTITLED "WETLAND POINTS DATED SEPTEMBER 2024. THE LOCATIONS PROVIDED HEREIN WERE OBTAINED VIA GLOBAL POSITIONING SYSTEM (GPS) EQUIPMENT.

SITE PHOTOGRAPHS



Photo 1: View of fruit orchard habitat.



Photo 2: View of stockpile area including early-successional edge habitat.



Photo 3: View of open field looking north across wetland inclusion.



Photo 4: View of field in August provided by Verdantas).



Photo 5: View of sloping wetland east of field.



Photo 6: View across pond looking east.



Photo 7: View of bordering mixed hardwood forest south of Site.



Photo 8: View of access into the Site from Old Maids Lane.