
Exhibit J – CT DEEP NDDB Correspondence

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Connecticut Department of Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division

CPPU USE ONLY	
App #:	_____
Doc #:	_____
Check #: No fee required	
Program: Natural Diversity Database Endangered Species	
Hardcopy	_____ Electronic _____

Request for Natural Diversity Data Base (NDDDB) State Listed Species Review

Please complete this form in accordance with the [instructions](#) (DEEP-INST-007) to ensure proper handling of your request.

There are no fees associated with NDDDB Reviews.

Part I: Preliminary Screening & Request Type

Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the DEEP website . These maps are updated twice a year, usually in June and December.	
Does your site, including all affected areas, fall in an NDDDB Area according to the map instructions: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Enter the date of the map reviewed for pre-screening: <u>September 2015</u>	
This form is being submitted for a :	
<input checked="" type="checkbox"/> New NDDDB request <input type="checkbox"/> Renewal/Extension of a NDDDB Request, <i>without modifications and within one year of issued NDDDB determination</i> (no attachments required) <small>[CPPU Use Only - NDDDB-Listed Species Determination # 1736]</small>	<input type="checkbox"/> New Safe Harbor Determination (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities <input type="checkbox"/> Renewal/Extension of an existing Safe Harbor Determination <input type="checkbox"/> With modifications <input type="checkbox"/> Without modifications (no attachments required) <small>[CPPU Use Only - NDDDB-Safe Harbor Determination # 1736]</small>
Enter NDDDB Determination Number for Renewal/Extension:	Enter Safe Harbor Determination Number for Renewal/Extension:

Part II: Requester Information

If the requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the name shall be stated **exactly as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of the State's database CONCORD. (www.concord-sots.ct.gov/CONCORD/index.jsp)*

If the requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the [Request to Change company/Individual Information](#) to the address indicated on the form.

1. Requester*

Company Name: **VHB**

Contact Name: **Sara Stefon Fusco**

Address: **100 Great Meadow Road, Suite 200**

City/Town: **Wethersfield**

State: **CT**

Zip Code: **06109**

Business Phone: **860.807.4332**

ext.

E-mail: **sfusco@vhb.com

**By providing this email address you are agreeing to receive official correspondence from the department, at this electronic address, concerning this request. Please remember to check your security settings to be sure you can receive emails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes

a) Requester can best be described as:

Individual Federal Agency State agency Municipality Tribal

business entity (if a business entity complete i through iii):

i) Check type corporation limited liability company limited partnership

limited liability partnership statutory trust Other:

ii) Provide Secretary of the State Business ID #: 0236756 This information can be accessed at the

Secretary of the State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)

iii) Check here if your business is **NOT** registered with the Secretary of State's office.

b) Acting as (Affiliation), pick one:

Property owner Consultant Engineer Facility owner Applicant

Biologist Pesticide Applicator Other representative:

2. List Primary Contact to receive Natural Diversity Data Base correspondence and inquiries, if different from requester.

Company Name: **VHB**

Contact Person: **Sara Stefon Fusco**

Title: **Project Environmental Scientist**

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.

**E-mail:

Part III: Site Information

This request can only be completed for one site. A separate request must be filed for each additional site.

1. SITE NAME AND LOCATION

Site Name or Project Name: **Proposed Development**

Town(s): **Simsbury**

Street Address or Location Description:
East of Hopmeadow Street (State Hwy 10)

Size in acres, or site dimensions: **152 acres**

Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):

Latitude: **41.91265** Longitude: **-72.7997**

Method of coordinate determination (check one):

GPS Photo interpolation using [CTECO map viewer](#) Other (specify):

2a. Describe the current land use and land cover of the site.

Forest and crop fields

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.

<input type="checkbox"/> Industrial/Commercial _____	<input type="checkbox"/> Residential _____	<input checked="" type="checkbox"/> Forest <u>55%</u>
<input checked="" type="checkbox"/> Wetland <u>15%</u>	<input type="checkbox"/> Field/grassland _____	<input checked="" type="checkbox"/> Agricultural <u>45%</u>
<input type="checkbox"/> Water _____	<input checked="" type="checkbox"/> Utility Right-of-way <u>2%</u>	
<input type="checkbox"/> Transportation Right-of-way _____	<input type="checkbox"/> Other (specify): _____	

Part IV: Project Information

1. PROJECT TYPE:

Choose Project Type: Other , If other describe: Project Feasibility Study

2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? Yes No If yes, explain.

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

TBD: This request is associated with a feasibility study

4. If this is a renewal or extension of an existing Safe Harbor request *with* modifications, explain what about the project has changed.

N/A

5. Provide a contact for questions about the project details if different from Part II primary contact.

Name:

Phone:

E-mail:

Part V: Request Requirements and Associated Application Types

Check *one* box from either Group 1, Group 2 or Group 3, indicating the appropriate category for this request.

Group 1. If you check one of these boxes, complete Parts I – VII of this form and submit the required attachments A and B.

- Preliminary screening was negative but an NDDB review is still requested
- Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
- Request regards a preliminary site assessment or project feasibility study
- Request relates to land acquisition or protection
- Request is associated with a *renewal* of an existing permit, with no modifications

Group 2. If you check one of these boxes, complete Parts I – VII of this form and submit required attachments A, B, and C.

- Request is associated with a *new* state or federal permit application
- Request is associated with modification of an existing permit
- Request is associated with a permit enforcement action
- Request regards site management or planning, requiring detailed species recommendations
- Request regards a state funded project, state agency activity, or CEPA request

Group 3. If you are requesting a **Safe Harbor Determination**, complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

If you are filing this request as part of a state or federal permit application(s) enter the application information below.

Permitting Agency and Application Name(s): _____

State DEEP Application Number(s), if known: _____

State DEEP Enforcement Action Number, if known: _____

State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? Yes No

If yes, provide the previous NDDB Determination Number(s), if known: _____


Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

<input checked="" type="checkbox"/> Attachment A:	Overview Map: an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
<input checked="" type="checkbox"/> Attachment B:	Detailed Site Map: fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
<input type="checkbox"/> Attachment C:	Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C) <input type="checkbox"/> Section i: Supplemental Site Information and supporting documents <input type="checkbox"/> Section ii: Supplemental Project Information and supporting documents
<input type="checkbox"/> Attachment D:	Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)

Part VII: Requester Certification

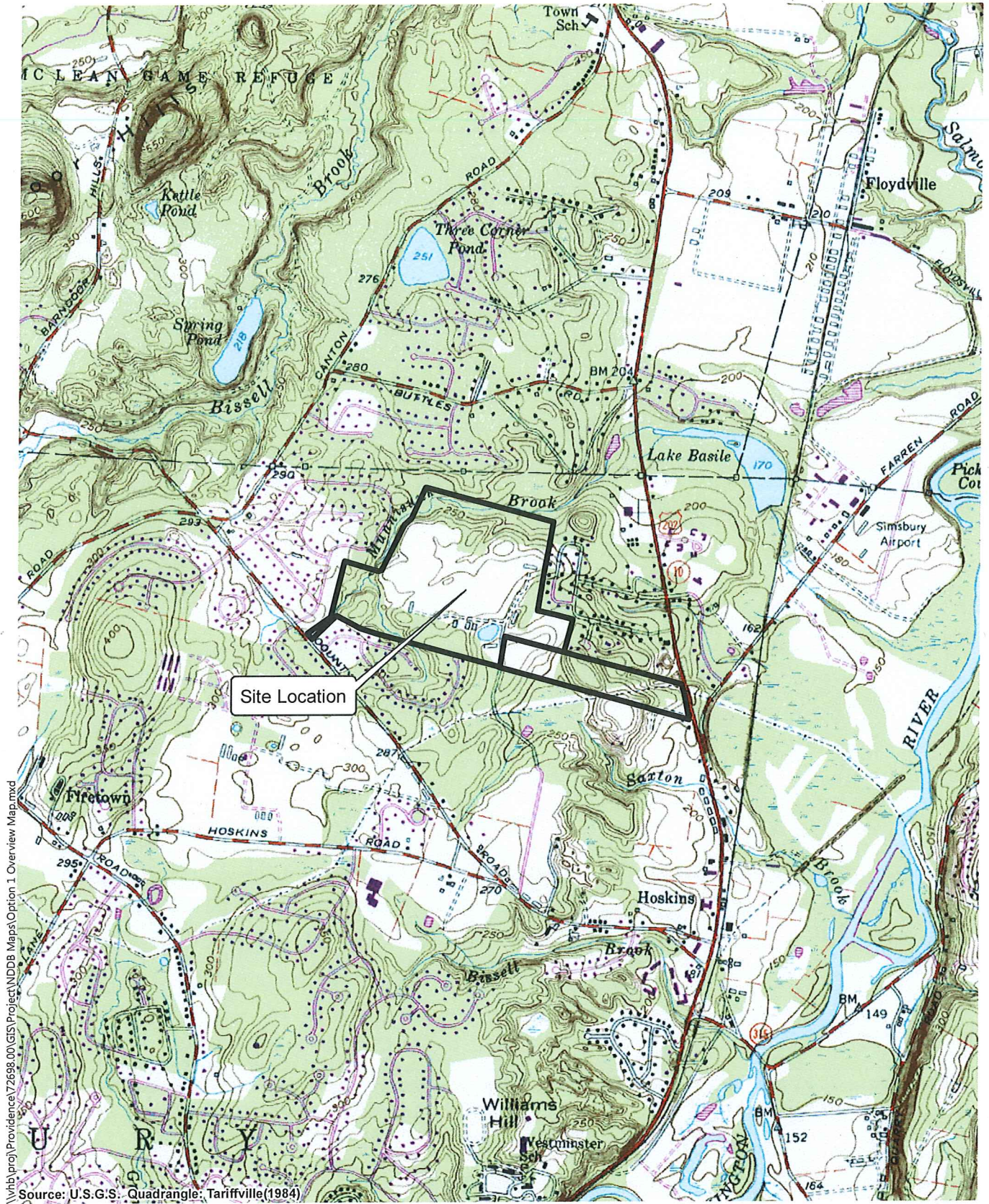
The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."</p>	
 _____ Signature of Requester (a typed name will substitute for a handwritten signature)	12/21/2015 _____ Date
Sara Stefon Fusco _____ Name of Requester (print or type)	Project Scientist _____ Title (if applicable)
_____ Signature of Preparer (if different than above)	_____ Date
_____ Name of Preparer (print or type)	_____ Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
 DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov



\\vhb\proj\Providence\72698.00\GIS\Project\NDD\B Maps\Option 1 Overview Map.mxd
Source: U.S.G.S. Quadrangle, Tariffville(1984)



Proposed Development

| Simsbury, Connecticut

Overview Map



\\vhb\proj\Providence\72698.00\GIS\Project\NDB\Maps\Option 1_Detailed Site Map.mxd

Source: U.S.G.S. Quadrangle: Tariffville (1984)

Source: Esri, DigitalGlobe, GeoEye, i-cubed, EarthStar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Proposed Development

Simsbury, Connecticut

Detailed Site Map



**Connecticut Department of
Energy & Environmental Protection**
Bureau of Natural Resources
Wildlife Division

CPPU USE ONLY	
App #:	_____
Doc #:	_____
Check #: No fee required	
Program: Natural Diversity Database Endangered Species	
Hardcopy _____	Electronic _____

Request for Natural Diversity Data Base (NDDDB) State Listed Species Review

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Part I: Preliminary Screening & Request Type

<p>Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the <u>DEEP website</u>. These maps are updated twice a year, usually in June and December.</p> <p>Does your site, including all affected areas, fall in an NDDDB Area according to the map instructions:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Enter the date of the map reviewed for pre-screening: <u>September 2015</u></p>	
<p>This form is being submitted for a :</p>	
<p><input checked="" type="checkbox"/> New NDDDB request</p> <p><input type="checkbox"/> <i>Renewal/Extension of a NDDDB Request, without modifications and within one year of issued NDDDB determination (no attachments required)</i></p> <p><small>[CPPU Use Only - NDDDB-Listed Species Determination # 1736]</small></p>	<p><input type="checkbox"/> New Safe Harbor Determination (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities</p> <p><input type="checkbox"/> <i>Renewal/Extension of an existing Safe Harbor Determination</i></p> <p><input type="checkbox"/> With modifications</p> <p><input type="checkbox"/> Without modifications (no attachments required)</p> <p><small>[CPPU Use Only - NDDDB-Safe Harbor Determination # 1736]</small></p>
<p>Enter NDDDB Determination Number for Renewal/Extension:</p>	<p>Enter Safe Harbor Determination Number for Renewal/Extension:</p>

Part II: Requester Information

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1. Requester*

Company Name: **VHB**

Contact Name: **Sara Stefon Fusco**

Address: **100 Great Meadow Road, Suite 200**

City/Town: **Wethersfield**

State: **CT**

Zip Code: **06109**

Business Phone: **860.807.4332**

ext.

E-mail: **sfusco@vhb.com

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a) Requester can best be described as:

Individual Federal Agency State agency Municipality Tribal

business entity (if a business entity complete i through iii):

i) Check type corporation limited liability company limited partnership

limited liability partnership statutory trust Other:

ii) Provide Secretary of the State Business ID #: 0236756 This information can be accessed at the

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iii) Check here if your business is **NOT** registered with the Secretary of State's office.

b) Acting as (Affiliation), pick one:

Property owner Consultant Engineer Facility owner Applicant

Biologist Pesticide Applicator Other representative:

2. List Primary Contact to receive Natural Diversity Data Base correspondence and inquiries, if different from requester.

Company Name: **VHB**

Contact Person: **Sara Stefon Fusco**

Title: **Project Environmental Scientist**

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.

**E-mail:

Part III: Site Information

This request can only be completed for one site. A separate request must be filed for each additional site.

1. SITE NAME AND LOCATION

Site Name or Project Name: **Proposed Development**

Town(s): **Simsbury**

Street Address or Location Description:
North of Hoskins Road

Size in acres, or site dimensions: **88.2 acres**

Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):

Latitude: **41.90491** Longitude: **-72.79744**

Method of coordinate determination (check one):

GPS Photo interpolation using [CTECO map viewer](#) Other (specify):

2a. Describe the current land use and land cover of the site.

Forest and crop fields

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.

<input type="checkbox"/> Industrial/Commercial _____	<input type="checkbox"/> Residential _____	<input checked="" type="checkbox"/> Forest <u>30%</u>
<input checked="" type="checkbox"/> Wetland <u>15%</u>	<input type="checkbox"/> Field/grassland _____	<input checked="" type="checkbox"/> Agricultural <u>70%</u>
<input type="checkbox"/> Water _____	<input checked="" type="checkbox"/> Utility Right-of-way <u>2%</u>	
<input type="checkbox"/> Transportation Right-of-way _____	<input type="checkbox"/> Other (specify): _____	

Part IV: Project Information

1. PROJECT TYPE:

Choose Project Type: Other , If other describe: Project Feasibility Study

2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? Yes No If yes, explain.

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

TBD: This request is associated with a feasibility study

4. If this is a renewal or extension of an existing Safe Harbor request *with* modifications, explain what about the project has changed.

N/A

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Name:

Phone:

E-mail:

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State DEEP Application Number(s), if known: _____

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State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? Yes No

If yes, provide the previous NDDB Determination Number(s), if known: _____


Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

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Part VII: Requester Certification

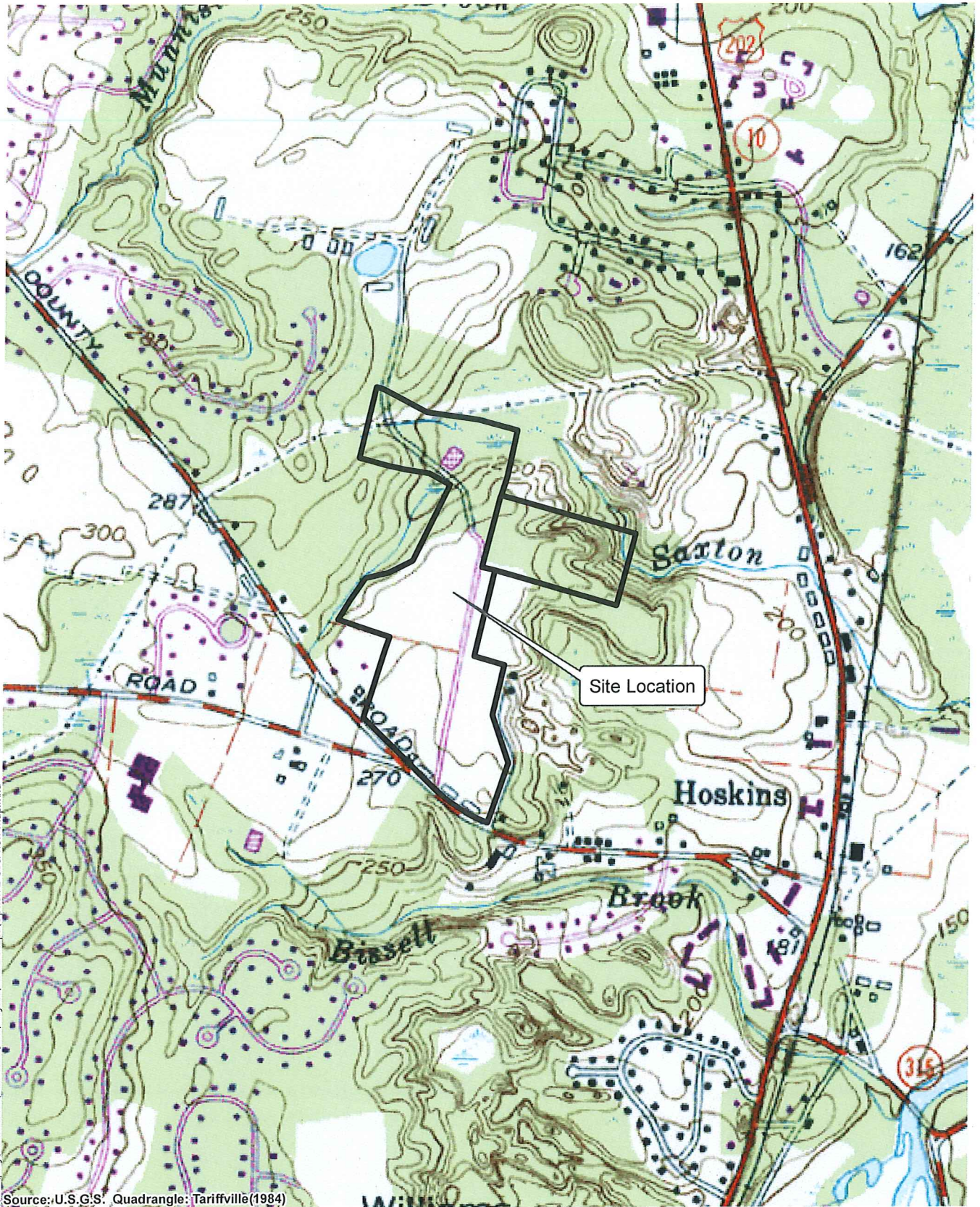
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 Signature of Requester (a typed name will substitute for a handwritten signature)	12/21/2015 Date
Sara Stefon Fusco Name of Requester (print or type)	Project Scientist Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
 DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov



v:\proj\Providence\72698.00\GIS\Project\NDD\Maps\Option_2_Overview_Map.mxd

Source: U.S.G.S. Quadrangle: Tariffville(1984)



Proposed Development

| Simsbury, Connecticut

Overview Map



v:\vbh\proj\Providence\72698.00\GIS\Project\NDDB_Maps\Option 2_Detailed Site Map.mxd



Proposed Development

| Simsbury, Connecticut

Detailed Site Map



Connecticut Department of Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division

CPPU USE ONLY	
App #:	_____
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<small>[CPPU Use Only - NDDB-Listed Species Determination # 1736]</small>	<small>[CPPU Use Only - NDDB-Safe Harbor Determination # 1736]</small>
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Company Name: **VHB**

Contact Person: **Sara Stefon Fusco**

Title: **Project Environmental Scientist**

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

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**E-mail:

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This request can only be completed for one site. A separate request must be filed for each additional site.

1. SITE NAME AND LOCATION

Site Name or Project Name: **Proposed Development**

Town(s): **Simsbury**

Street Address or Location Description:
South of Hoskins Road

Size in acres, or site dimensions: **49.4 acres**

Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):

Latitude: **41.90087** Longitude: **-72.80178**

Method of coordinate determination (check one):

GPS Photo interpolation using [CTECO map viewer](#) Other (specify):

2a. Describe the current land use and land cover of the site.

Forest and crop fields

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.

<input type="checkbox"/> Industrial/Commercial _____	<input type="checkbox"/> Residential _____	<input checked="" type="checkbox"/> Forest <u>60%</u>
<input checked="" type="checkbox"/> Wetland <u>20%</u>	<input type="checkbox"/> Field/grassland _____	<input checked="" type="checkbox"/> Agricultural <u>40%</u>
<input type="checkbox"/> Water _____	<input checked="" type="checkbox"/> Utility Right-of-way _____	
<input type="checkbox"/> Transportation Right-of-way _____	<input type="checkbox"/> Other (specify): _____	

Part IV: Project Information

1. PROJECT TYPE:

Choose Project Type: Other , If other describe: Project Feasibility Study

2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? Yes No If yes, explain.

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

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- Request regards site management or planning, requiring detailed species recommendations
- Request regards a state funded project, state agency activity, or CEPA request

Group 3. If you are requesting a **Safe Harbor Determination**, complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

If you are filing this request as part of a state or federal permit application(s) enter the application information below.

Permitting Agency and Application Name(s): _____

State DEEP Application Number(s), if known: _____

State DEEP Enforcement Action Number, if known: _____

State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? Yes No

If yes, provide the previous NDDB Determination Number(s), if known: _____

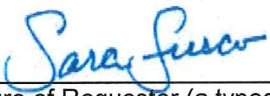
Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

<input checked="" type="checkbox"/> Attachment A:	Overview Map: an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
<input checked="" type="checkbox"/> Attachment B:	Detailed Site Map: fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
<input type="checkbox"/> Attachment C:	Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C) <input type="checkbox"/> Section i: Supplemental Site Information and supporting documents <input type="checkbox"/> Section ii: Supplemental Project Information and supporting documents
<input type="checkbox"/> Attachment D:	Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)

Part VII: Requester Certification

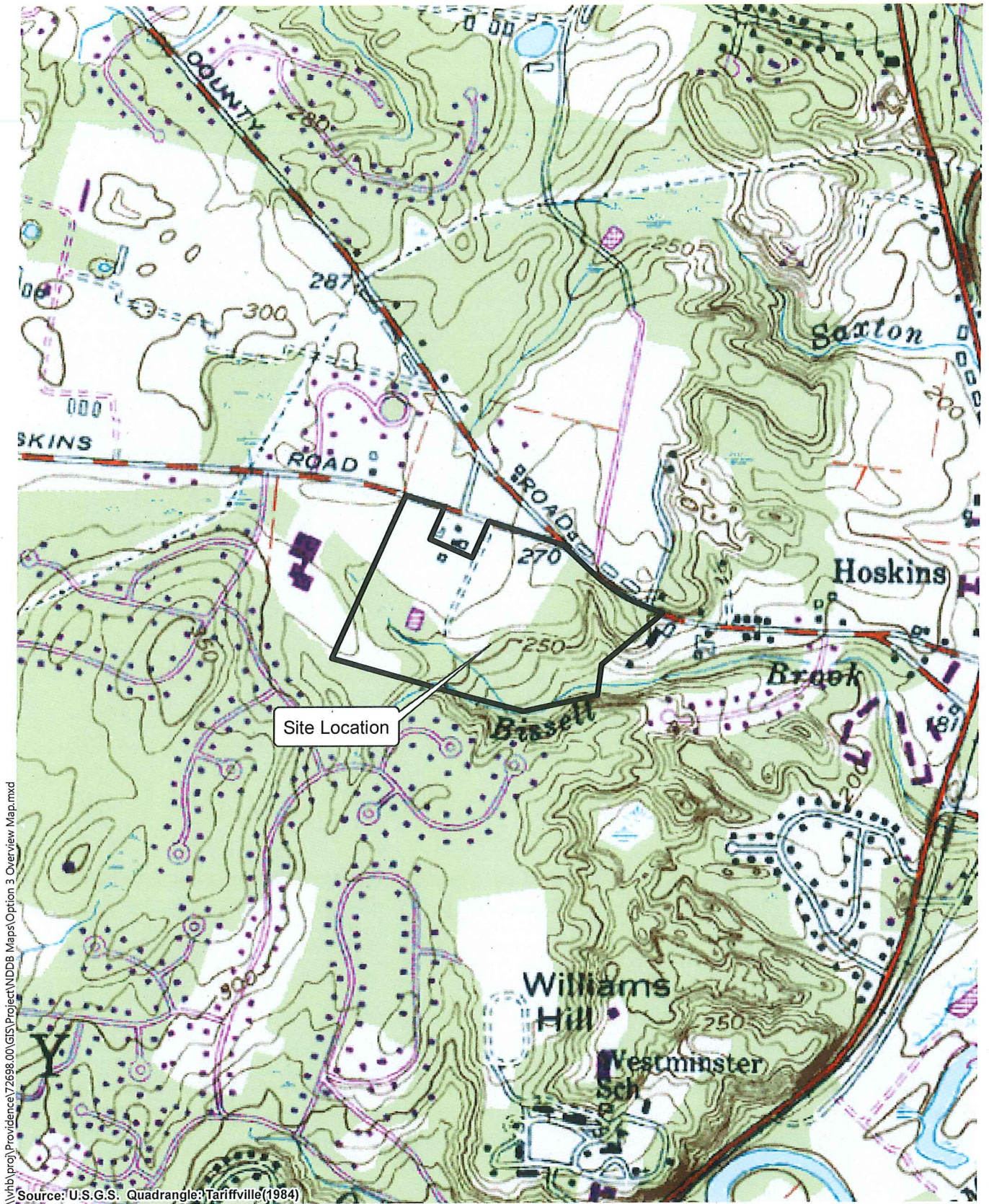
The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."</p>	
 _____ Signature of Requester (a typed name will substitute for a handwritten signature)	12/30/2015 _____ Date
Sara Stefon Fusco _____ Name of Requester (print or type)	Project Scientist _____ Title (if applicable)
_____ Signature of Preparer (if different than above)	_____ Date
_____ Name of Preparer (print or type)	_____ Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
 DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov



vhb:\proj\Providence\72698.00\GIS\Project\NDD\B_Maps\Option 3_Overview_Map.mxd

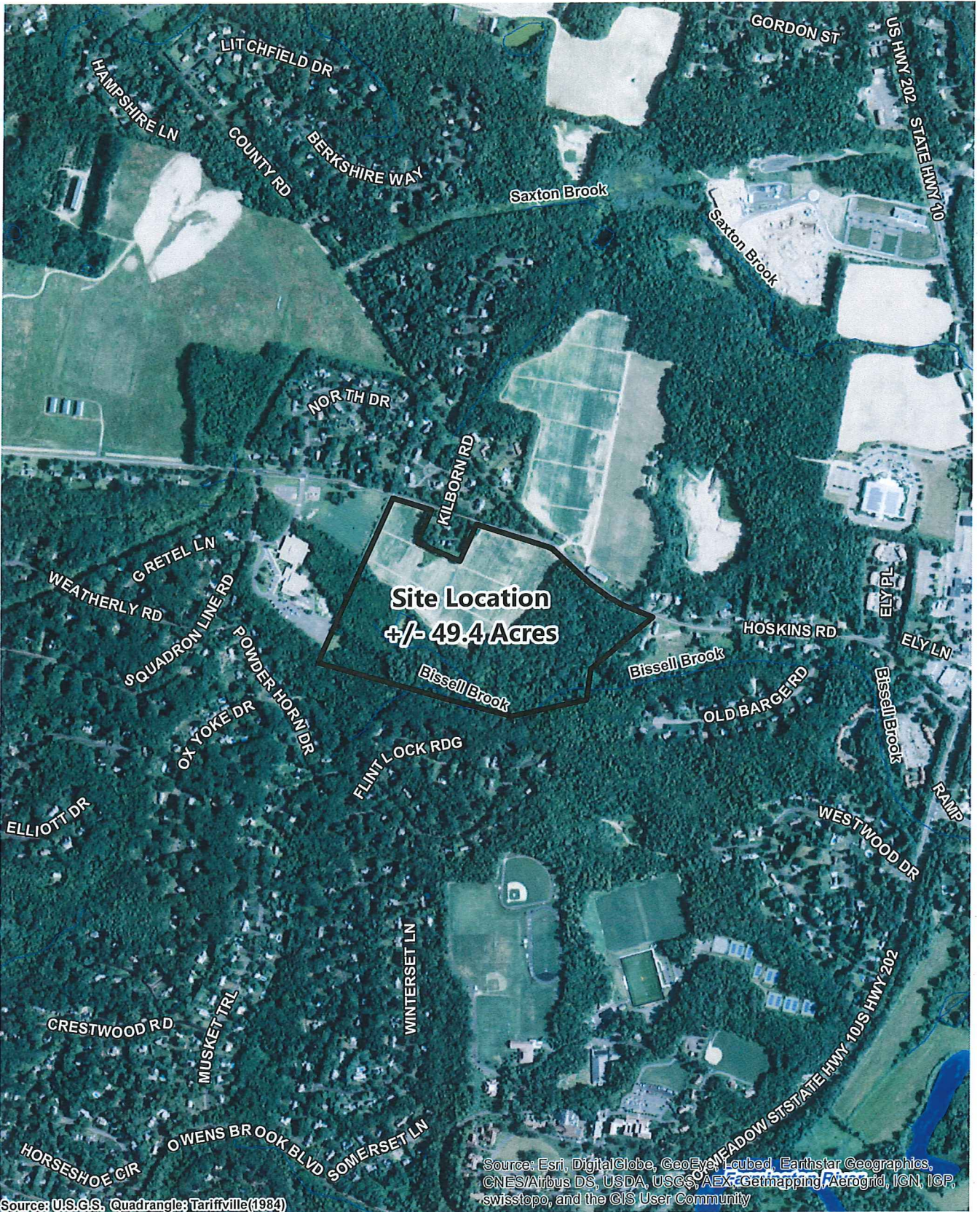
Source: U.S.G.S. Quadrangle: Tariffville (1984)



Proposed Development

| Simsbury, Connecticut

Overview Map



\\vhb\proj\Providence\72698.00\GIS\Project\NDD\B_Maps\Option_3_Detailed_Site_Map.mxd

Source: U.S.G.S. Quadrangle: Tariffville(1984)

Source: Esri, DigitalGlobe, GeoEye, Icube, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Proposed Development

| Simsbury, Connecticut

Detailed Site Map



Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

January 10, 2016

Ms. Sara Stefon Fusco
VHB, Inc.
100 Great Meadow Road, Suite 200
Wethersfield, CT 06109
sfusco@vhb.com

Project: Preliminary Assessment for Proposed Development in Forest and
Crop Fields North of Hoskins Road in Simsbury, Connecticut NDDDB
Preliminary Assessment No.: 201509960

Dear Sara,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the Preliminary Assessment for Proposed Development Located in Forest and Crop Fields North of Hoskins Road in Simsbury, Connecticut.

According to our records there are known extant populations of State Listed Species known that occur within or close to the boundaries of this property. I have attached a list of these species to this letter. 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 subsequent environmental permit applications submitted to DEEP for the proposed project. This preliminary assessment letter cannot be used or submitted with your permit applications at DEEP. This letter is good for one year.

To prevent impacts to State-listed species, field surveys of the site should be performed by a qualified biologist when this target species is identifiable. 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 vascular plant and animal species within the survey area (including scientific binomials)
4. Data regarding population numbers and/or area occupied by State-listed species

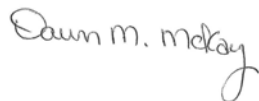
5. Detailed maps of the area surveyed including the survey route and locations of State-listed species
6. Statement/résumé indicating the biologist's qualifications

The site surveys report should be sent to our CT DEEP-NDDDB Program (deep.nddbrequest@ct.gov) for further review by our program biologists along with an updated request for another NDDDB review. If you do not intend to do site surveys to determine the presence or absence of state-listed species, please let us know how you will protect the state-listed species from being impacted by this project. This preliminary assessment is good for one year.

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. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Dawn M. McKay
Environmental Analyst 3

Species List for NDDB Request

Scientific Name	Common Name	State Status
Freshwater Community - Other Classification		
Alluvial marsh		
Invertebrate Animal		
<i>Cicindela formosa generosa</i>	Big sand tiger beetle	SC
<i>Gomphus quadricolor</i>	Rapids clubtail	T
<i>Margaritifera margaritifera</i>	Eastern pearlshell	SC
<i>Schinia spinosae</i>	Spinose flower moth	SC
<i>Sympistis perscripta</i>	Scribbled sallow moth	SC
Terrestrial Community - Other Classification		
Alluvial grassland/outcrop		
Floodplain forest		
Sand barren		
Vascular Plant		
<i>Carex davisii</i>	Davis' sedge	T
<i>Dichantherium scabriusculum</i>	Tall swamp rosette-panicgrass	E
Vertebrate Animal		
<i>Ammodramus savannarum</i>	Grasshopper sparrow	E
<i>Eremophila alpestris</i>	Horned lark	E
<i>Glyptemys insculpta</i>	Wood turtle	SC
<i>Heterodon platirhinos</i>	Eastern hognose snake	SC
<i>Lasionycteris noctivagans</i>	Silver-haired bat	SC
<i>Lasiurus borealis</i>	Red bat	SC
<i>Passerculus sandwichensis</i>	Savannah sparrow	SC
<i>Poocetes gramineus</i>	Vesper sparrow	E
<i>Rana pipiens</i>	Northern leopard frog	SC

E = Endangered, T = Threatened, SC = Special Concern, * Extirpated

Scientific Name	Common Name	State Status
<i>Sturnella magna</i>	Eastern meadowlark	T
<i>Terrapene carolina carolina</i>	Eastern box turtle	SC
<i>Toxostoma rufum</i>	Brown thrasher	SC



Connecticut Department of

ENERGY &
ENVIRONMENTAL
PROTECTION

January 10, 2016

Ms. Sara Stefon Fusco
VHB, Inc.
100 Great Meadow Road, Suite 200
Wethersfield, CT 06109
sfusco@vhb.com

Project: Preliminary Assessment for Proposed Development in Forest and
Crop Fields North of Hoskins Road in Simsbury, Connecticut NDDDB
Preliminary Assessment No.: 201509960

Dear Sara,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the Preliminary Assessment for Proposed Development Located in Forest and Crop Fields North of Hoskins Road in Simsbury, Connecticut.

According to our records there are known extant populations of State Listed Species known that occur within or close to the boundaries of this property. I have attached a list of these species to this letter. 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 subsequent environmental permit applications submitted to DEEP for the proposed project. This preliminary assessment letter cannot be used or submitted with your permit applications at DEEP. This letter is good for one year.

To prevent impacts to State-listed species, field surveys of the site should be performed by a qualified biologist when this target species is identifiable. 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 vascular plant and animal species within the survey area (including scientific binomials)
4. Data regarding population numbers and/or area occupied by State-listed species

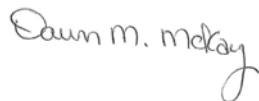
5. Detailed maps of the area surveyed including the survey route and locations of State-listed species
6. Statement/résumé indicating the biologist's qualifications

The site surveys report should be sent to our CT DEEP-NDDDB Program (deep.nddbrequest@ct.gov) for further review by our program biologists along with an updated request for another NDDDB review. If you do not intend to do site surveys to determine the presence or absence of state-listed species, please let us know how you will protect the state-listed species from being impacted by this project. This preliminary assessment is good for one year.

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. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Dawn M. McKay
Environmental Analyst 3

Species List for NDDB Request

Scientific Name	Common Name	State Status
Freshwater Community - Other Classification		
Alluvial marsh		
Invertebrate Animal		
<i>Cicindela formosa generosa</i>	Big sand tiger beetle	SC
<i>Gomphus quadricolor</i>	Rapids clubtail	T
<i>Margaritifera margaritifera</i>	Eastern pearlshell	SC
<i>Schinia spinosae</i>	Spinose flower moth	SC
<i>Sympistis perscripta</i>	Scribbled sallow moth	SC
Terrestrial Community - Other Classification		
Alluvial grassland/outcrop		
Floodplain forest		
Sand barren		
Vascular Plant		
<i>Carex davisii</i>	Davis' sedge	T
<i>Dichantherium scabriusculum</i>	Tall swamp rosette-panicgrass	E
Vertebrate Animal		
<i>Ammodramus savannarum</i>	Grasshopper sparrow	E
<i>Eremophila alpestris</i>	Horned lark	E
<i>Glyptemys insculpta</i>	Wood turtle	SC
<i>Heterodon platirhinos</i>	Eastern hognose snake	SC
<i>Lasionycteris noctivagans</i>	Silver-haired bat	SC
<i>Lasiurus borealis</i>	Red bat	SC
<i>Passerculus sandwichensis</i>	Savannah sparrow	SC
<i>Poocetes gramineus</i>	Vesper sparrow	E
<i>Rana pipiens</i>	Northern leopard frog	SC

E = Endangered, T = Threatened, SC = Special Concern, * Extirpated

Scientific Name	Common Name	State Status
<i>Sturnella magna</i>	Eastern meadowlark	T
<i>Terrapene carolina carolina</i>	Eastern box turtle	SC
<i>Toxostoma rufum</i>	Brown thrasher	SC



Connecticut Department of
**ENERGY &
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January 9, 2016

Ms. Sara Stefon Fusco
VHB
100 Great Meadow Road, Suite 200
Wethersfield, CT 06109
sfusco@vhb.com

Project: Preliminary Assessment for Proposed Development Located South of Hoskins Road in Simsbury, Connecticut
NDDDB Preliminary Assessment No.: 201600041

Dear Sara,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for the Preliminary Assessment for Proposed Development Located South of Hoskins Road in Simsbury, Connecticut

According to our records there are known extant populations of State Listed Species known that occur within or close to the boundaries of this property. I have attached a list of these species to this letter. This list includes a Federal Endangered Species *Alasmidonta heterodon* (dwarf wedge mussel) and you may need to consult with the USFWS to avoid impacting this species if this subdivision discharges stormwater to the Farmington River. 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 subsequent environmental permit applications submitted to DEEP for the proposed project. This preliminary assessment letter cannot be used or submitted with your permit applications at DEEP. This letter is good for one year.

To prevent impacts to State-listed species, field surveys of the site should be performed by a qualified biologist when this target species is identifiable. A report summarizing the results of such surveys should include:

1. Survey date(s) and duration
2. Site descriptions and photographs

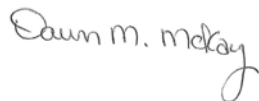
3. List of component vascular plant and animal species within the survey area (including scientific binomials)
4. Data regarding population numbers and/or area occupied by State-listed species
5. Detailed maps of the area surveyed including the survey route and locations of State-listed species
6. Statement/résumé indicating the biologist's qualifications

The site surveys report should be sent to our CT DEEP-NDDDB Program (deep.nddbrequest@ct.gov) for further review by our program biologists along with an updated request for another NDDDB review. If you do not intend to do site surveys to determine the presence or absence of state-listed species, please let us know how you will protect the state-listed species from being impacted by this project. Please include any consultation letters for the Federal Endangered Species with any future NDDDB reviews if applicable. This preliminary assessment is good for one year.

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. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Dawn M. McKay
Environmental Analyst 3

Species List for NDDB Request

Scientific Name	Common Name	State Status
Invertebrate Animal		
Alasmidonta heterodon	Dwarf wedgemussel	**Federal and State Endangered
Ligumia nasuta	Eastern pondmussel	SC
Sympistis perscripta	Scribbled sallow moth	SC
Vascular Plant		
Desmodium glabellum	Dillenius' tick-trefoil	SC
Silene stellata	Starry campion	T
Vertebrate Animal		
Caprimulgus vociferus	Whip-poor-will	SC
Eremophila alpestris	Horned lark	E
Glyptemys insculpta	Wood turtle	SC
Heterodon platirhinos	Eastern hognose snake	SC
Lasiurus cinereus	Hoary bat	SC
Poocetes gramineus	Vesper sparrow	E
Rana pipiens	Northern leopard frog	SC
Terrapene carolina carolina	Eastern box turtle	SC

Moberg, Sue

From: Kelsey, Coreen
Sent: Monday, February 27, 2017 3:26 PM
To: 'deep.nddbrequest@ct.gov'
Subject: Request for NDDDB State-listed Species Review - Simsbury, CT
Attachments: final submission - nddb_app022717.pdf

Good Afternoon,

Please find attached our request for NDDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com

Engineers | Scientists | Planners | Designers
www.vhb.com



Connecticut Department of
 Energy & Environmental Protection
 Bureau of Natural Resources
 Wildlife Division

CPPU USE ONLY	
App #:	_____
Doc #:	_____
Check #:	No fee required
Program:	Natural Diversity Database Endangered Species
Hardcopy	_____ Electronic _____

Request for Natural Diversity Data Base (NDDB) State Listed Species Review

Please complete this form in accordance with the [instructions](#) (DEEP-INST-007) to ensure proper handling of your request.

There are no fees associated with NDDB Reviews.

Part I: Preliminary Screening & Request Type

<p>Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the DEEP website. These maps are updated twice a year, usually in June and December.</p> <p>Does your site, including all affected areas, fall in an NDDB Area according to the map instructions: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Enter the date of the map reviewed for pre-screening: <u>December 2016</u></p>	
This form is being submitted for a :	
<input type="checkbox"/> <i>New NDDB request</i> <input checked="" type="checkbox"/> <i>Renewal/Extension of a NDDB Request, without modifications and within two years of issued NDDB determination (no attachments required)</i> <small>[CPPU Use Only - NDDB-Listed Species Determination # 1736]</small>	<input type="checkbox"/> <i>New Safe Harbor Determination (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities</i> <input type="checkbox"/> <i>Renewal/Extension of an existing Safe Harbor Determination</i> <input type="checkbox"/> With modifications <input type="checkbox"/> Without modifications (no attachments required) <small>[CPPU Use Only - NDDB-Safe Harbor Determination # 1736]</small>
Enter NDDB Determination Number for Renewal/Extension: 201509947; 201509960; & 201600041	Enter Safe Harbor Determination Number for Renewal/Extension:

Part II: Requester Information

If the requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the name shall be stated **exactly as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of the State's database CONCORD. (www.concord-sots.ct.gov/CONCORD/index.jsp)*

If the requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the [Request to Change company/Individual Information](#) to the address indicated on the form.

1. Requester*

Company Name: **VHB**

Contact Name: **Sue Moberg, PWS, CFM**

Address: **100 Great Meadow Road, Suite 200**

City/Town: **Wethersfield**

State: **CT**

Zip Code: **06109**

Business Phone: **401-457-2055**

ext.

E-mail: **smoberg@vhb.com

**By providing this email address you are agreeing to receive official correspondence from the department, at this electronic address, concerning this request. Please remember to check your security settings to be sure you can receive emails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes

a) Requester can best be described as:

Individual Federal Agency State agency Municipality Tribal

business entity (if a business entity complete i through iii):

i) Check type corporation limited liability company limited partnership

limited liability partnership statutory trust Other:

ii) Provide Secretary of the State Business ID #: 0236756 This information can be accessed at the

Secretary of the State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)

iii) Check here if your business is **NOT** registered with the Secretary of State's office.

b) Acting as (Affiliation), pick one:

Property owner Consultant Engineer Facility owner Applicant

Biologist Pesticide Applicator Other representative:

2. List Primary Contact to receive Natural Diversity Data Base correspondence and inquiries, if different from requester.

Company Name:

Contact Person:

Title:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.

**E-mail:

Part III: Site Information

This request can only be completed for one site. A separate request must be filed for each additional site.

<p>1. SITE NAME AND LOCATION</p> <p>Site Name or Project Name: Simsbury Solar Project Design Development</p> <p>Town(s): Simsbury</p> <p>Street Address or Location Description: North of Hoskins Road, South of Hoskins Road and East of Hopmeadow Street</p> <p>Size in acres, or site dimensions: approximately 175 acres</p> <p>Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):</p> <p>Latitude: 41.907103 Longitude: 72.797225</p> <p>Method of coordinate determination (check one):</p> <p><input type="checkbox"/> GPS <input type="checkbox"/> Photo interpolation using CTECO map viewer <input checked="" type="checkbox"/> Other (specify): Google Earth</p> <p>2a. Describe the current land use and land cover of the site. Forest and crop fields</p> <p>b. Check all that apply and enter the size in acres or % of area in the space after each checked category.</p> <table><tr><td><input type="checkbox"/> Industrial/Commercial _____</td><td><input type="checkbox"/> Residential _____</td><td><input checked="" type="checkbox"/> Forest <u>29%</u></td></tr><tr><td><input checked="" type="checkbox"/> Wetland <u>2%</u></td><td><input type="checkbox"/> Field/grassland _____</td><td><input checked="" type="checkbox"/> Agricultural <u>67%</u></td></tr><tr><td><input type="checkbox"/> Water _____</td><td><input checked="" type="checkbox"/> Utility Right-of-way <u>2%</u></td><td></td></tr><tr><td><input type="checkbox"/> Transportation Right-of-way _____</td><td><input type="checkbox"/> Other (specify): _____</td><td></td></tr></table>	<input type="checkbox"/> Industrial/Commercial _____	<input type="checkbox"/> Residential _____	<input checked="" type="checkbox"/> Forest <u>29%</u>	<input checked="" type="checkbox"/> Wetland <u>2%</u>	<input type="checkbox"/> Field/grassland _____	<input checked="" type="checkbox"/> Agricultural <u>67%</u>	<input type="checkbox"/> Water _____	<input checked="" type="checkbox"/> Utility Right-of-way <u>2%</u>		<input type="checkbox"/> Transportation Right-of-way _____	<input type="checkbox"/> Other (specify): _____	
<input type="checkbox"/> Industrial/Commercial _____	<input type="checkbox"/> Residential _____	<input checked="" type="checkbox"/> Forest <u>29%</u>										
<input checked="" type="checkbox"/> Wetland <u>2%</u>	<input type="checkbox"/> Field/grassland _____	<input checked="" type="checkbox"/> Agricultural <u>67%</u>										
<input type="checkbox"/> Water _____	<input checked="" type="checkbox"/> Utility Right-of-way <u>2%</u>											
<input type="checkbox"/> Transportation Right-of-way _____	<input type="checkbox"/> Other (specify): _____											

Part IV: Project Information

<p>1. PROJECT TYPE:</p> <p>Choose Project Type: Choose Type From Dropdown List , If other describe: <u>Project Design Development</u></p>
<p>2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, explain.</p>

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

Solar arrays are proposed on portions of the subject properties listed in this application. A previous review request for this project with CTDEEP NDDB sought information for the entire areas of the subject properties. We now seek not only to renew the original review request, but have refined the limits of the proposed development which may alleviate concerns for certain taxa.

Based on the December 2016 NDDB map, the proposed solar array layout design now largely avoids buffered areas. However, forest clearing for the corner of one of the arrays and portions of two proposed interconnection routes are located within NDDB buffered areas. Please refer to attached map for details (Attachment B). We propose to use the data provided in response to this revised inquiry, to identify field surveys requirements and develop protocols to minimize effects to species determined to be present. Indirect effects will be minimized through the use of appropriate erosion and sedimentation controls during construction and long term best management practices during project operation.

4. If this is a renewal or extension of an existing Safe Harbor request *with* modifications, explain what about the project has changed.

N/A

5. Provide a contact for questions about the project details if different from Part II primary contact.

Name: **Jeffrey Peterson**

Phone: **401-457-2066**

E-mail: **jpeterson@vhb.com**

Part V: Request Requirements and Associated Application Types

Check *one* box from either Group 1, Group 2 *or* Group 3, indicating the appropriate category for this request.

Group 1. If you check one of these boxes, complete Parts I – VII of this form and submit the required attachments A and B.

- Preliminary screening was negative but an NDDB review is still requested
- Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
- Request regards a preliminary site assessment or project feasibility study
- Request relates to land acquisition or protection
- Request is associated with a *renewal* of an existing permit, with no modifications

Group 2. If you check one of these boxes, complete Parts I – VII of this form and submit required attachments A, B, *and* C.

- Request is associated with a *new* state or federal permit application
- Request is associated with modification of an existing permit
- Request is associated with a permit enforcement action
- Request regards site management or planning, requiring detailed species recommendations
- Request regards a state funded project, state agency activity, or CEPA request

Group 3. If you are requesting a **Safe Harbor Determination**, complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

If you are filing this request as part of a state or federal permit application(s) enter the application information below.

Permitting Agency and Application Name(s):

Connecticut Siting Council

State DEEP Application Number(s), if known: _____

State DEEP Enforcement Action Number, if known: _____

State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? Yes No

If yes, provide the previous NDDB Determination Number(s), if known: **201509947; 201509960; & 201600041**

Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

<input checked="" type="checkbox"/> Attachment A:	Overview Map: an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
<input checked="" type="checkbox"/> Attachment B:	Detailed Site Map: fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
<input checked="" type="checkbox"/> Attachment C:	Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C) <input checked="" type="checkbox"/> Section i: Supplemental Site Information and supporting documents <input checked="" type="checkbox"/> Section ii: Supplemental Project Information and supporting documents
<input type="checkbox"/> Attachment D:	Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)

Part VII: Requester Certification

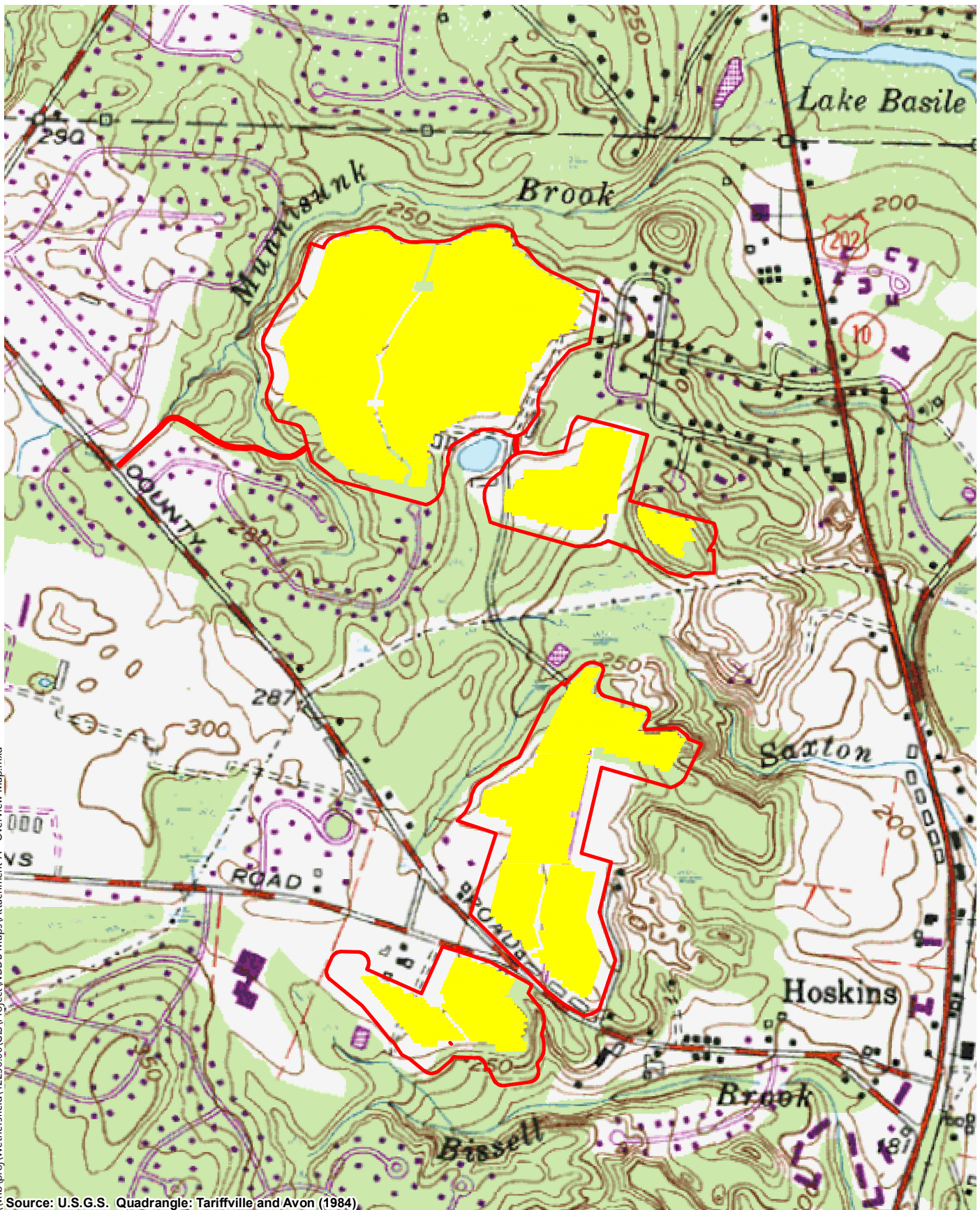
The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."</p>	
<p><u>Sue Moberg</u> Signature of Requester (a typed name will substitute for a handwritten signature)</p>	<p><u>02/23/2017</u> Date</p>
<p><u>Sue Moberg</u> Name of Requester (print or type)</p>	<p><u>Principal</u> Title (if applicable)</p>
<p>_____ Signature of Preparer (if different than above)</p>	<p>_____ Date</p>
<p>_____ Name of Preparer (print or type)</p>	<p>_____ Title (if applicable)</p>

Note: Please submit the completed Request Form and all Supporting Documents to:

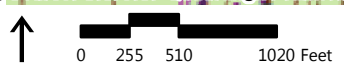
CENTRAL PERMIT PROCESSING UNIT
 DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

Or email request to: deep.nddbrequest@ct.gov



\\vhb\proj\Wethersfield\42256.00\GIS\Project\NDD\B Maps\Attachment A - Overview Map.mxd

Source: U.S.G.S. Quadrangle: Tariffville and Avon (1984)



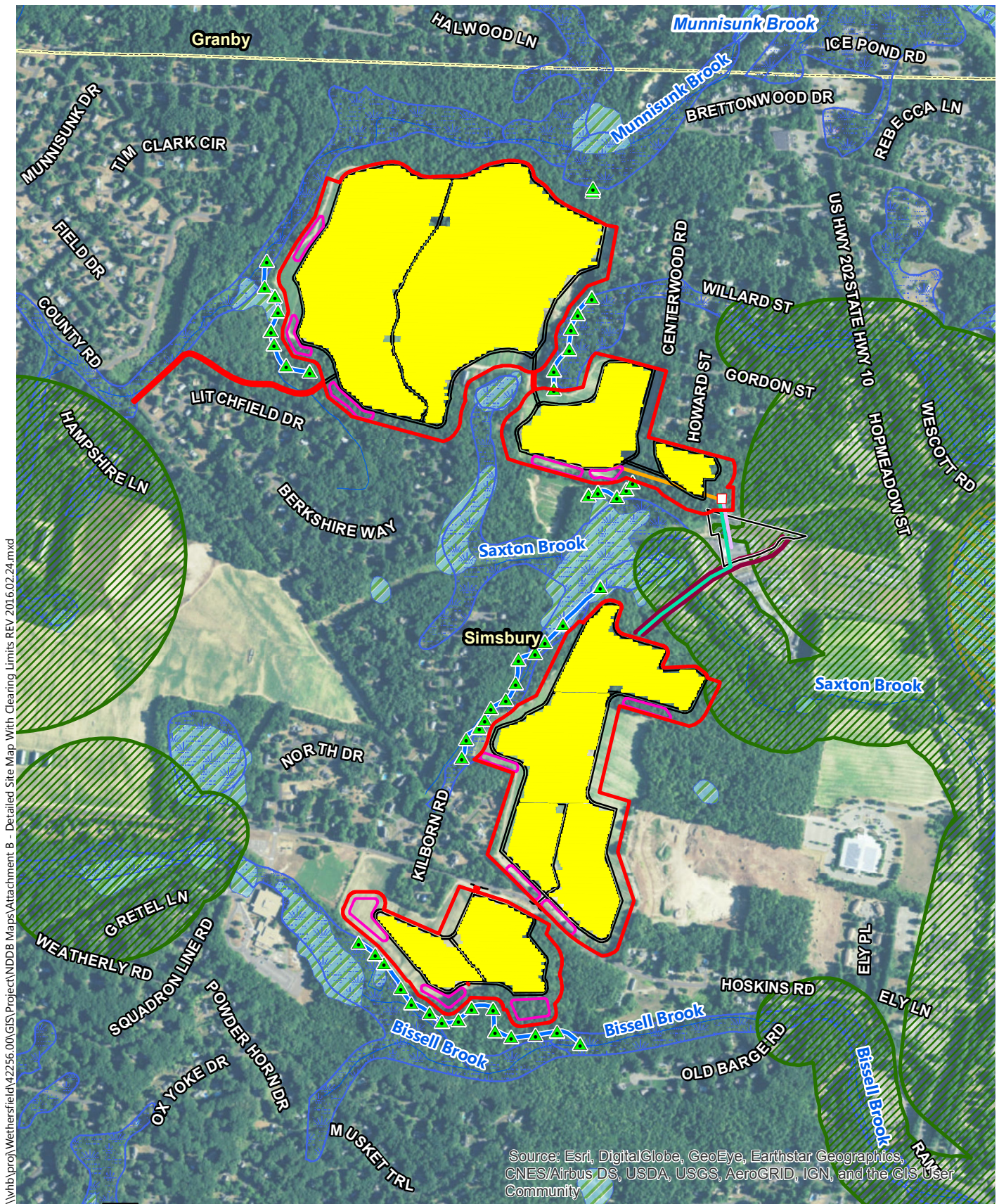
Proposed Development

Simsbury, Connecticut

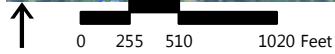
Legend

- Clearing Limits
- Solar Array Layout

**Attachment A
Overview Map**



\\vhb\proj\Wethersfield\42256.00\GIS\Project\NDDB Maps\Attachment B - Detailed Site Map With Clearing Limits REV 2016.02.24.mxd



Proposed Development

Simsbury, Connecticut

Attachment B - Detailed Site Map

Legend

- | | | | |
|---------------------------------------|------------------------------------|------------------------------------|-------------------------------------|
| Clearing Limits | Wetland Edge (Taken 04/21/2016) | Southern Cable Route | Wetlands (CTDEEP, 2005) |
| Solar Array Layout | Wetland Outline (Taken 04/21/2016) | Substation | National Wetland Inventory Wetlands |
| Potential Stormwater Mitigation Areas | Switchgear | Town Road ROW | Hydrology |
| Proposed Roadways | Northern Cable Route | NDDB Areas (CTDEEP, 12/2016) | Town Line |
| | Interconnection Route | Critical Habitat (CTDEEP, 12/2014) | |

Attachment C: Supplemental Information, Group 2 requirement

Section i: Supplemental Site Information

1. Existing Conditions

Describe all natural and man-made features including wetlands, watercourses, fish and wildlife habitat, floodplains and any existing structures potentially affected by the subject activity. Such features should be depicted and labeled on the site plan that must be submitted. Photographs of current site conditions may be helpful to reviewers.

The wetland delineation is currently underway, though until recently delayed by snowfall. The solar array will be designed to avoid any field delineated wetland areas. A vernal pool survey will be completed in spring of 2017.

- Site Photographs (optional) attached
- Site Plan/sketch of existing conditions attached

2. Biological Surveys

Has a biologist visited the site and conducted a biological survey to determine the presence of any endangered, threatened or special concern species Yes No

If yes, complete the following questions and submit any reports of biological surveys, documentation of the biologist's qualifications, and any NDDB survey forms.

Biologist(s) name: _____

Habitat and/or species targeted by survey: _____

Dates when surveys were conducted: _____

- Reports of biological surveys attached
- Documentation of biologist's qualifications attached
- [NDDB Survey forms](#) for any listed species observations attached

Section ii: Supplemental Project Information

1. Provide a schedule for all phases of the project including the year, the month and/or season that the proposed activity will be initiated and the duration of the activity.

The construction schedule has not been finalized at this time.

2. Describe and quantify the proposed changes to existing conditions and describe any on-site or off-site impacts. In addition, provide an annotated site plan detailing the areas of impact and proposed changes to existing conditions.

An access road will be constructed over an existing farm road from County Road to the northern arrays. The total area within the project limits will be approximately 175 acres. Tree clearing is proposed for approximately 55 acres of existing forest area. However, only 0.3 acres of this total falls within a buffered area. An additional approximate 0.8 acres is proposed to be cleared for the two electric interconnection cables. One cable will cross Saxton Brook using the existing culvert at Casterbridge Crossing.

- Annotated Site Plan attached

Attachment D: Safe Harbor Report Requirements

Submit a report, as Attachment D, that synthesizes and analyzes the information listed below. Those providing synthesis and analysis need appropriate qualifications and experience. A request for a safe harbor determination shall include:

- 1. Habitat Description and Map(s), including GIS mapping overlays, of a scale appropriate for the site, identifying:**
 - wetlands, including wetland cover types;
 - plant community types;
 - topography;
 - soils;
 - bedrock geology;
 - floodplains, if any;
 - land use history; and
 - water quality classifications/criteria.
- 2. Photographs** - The report should include photographs of the site taken from the ground and also all reasonably available aerial or satellite photographs and an analysis of such photographs.
- 3. Inspection** - A visual inspection(s) of the site should be conducted, preferably when the ground is visible, and described in the report. This inspection can be helpful in confirming or further evaluating the items noted above.
- 4. Biological Surveys** - The report should include all biological surveys of the site where construction activity will take place that are reasonably available to a registrant. A registrant shall notify the Department's Wildlife Division of biological studies of the site where construction activity will take place that a registrant is aware of but are not reasonably available to the registrant.
- 5. Based on items #1 through 4 above, the report shall include a Natural Resources Inventory of the site of the construction activity.** This inventory should also include a review of reasonably available scientific literature and any recommendations for minimizing adverse impacts from the proposed construction activity on listed species or their associated habitat.
- 6. In addition, to the extent the following is available at the time a safe harbor determination is requested, a request for a safe harbor determination shall include and assess:**
 - Information on Site Disturbance Estimates/Site Alteration information
 - Vehicular Use
 - Construction Activity Phasing Schedules, if any; and
 - Alteration of Drainage Patterns

Moberg, Sue

From: Zyko, Karen <Karen.Zyko@ct.gov> on behalf of DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue
Cc: Peterson, Jeff; McKay, Dawn
Subject: RE: Request for NDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

Tree clearing and ground disturbing equipment have the potential impact the turtles, snakes and tree roosting bats. Please provide protection measures or timing of work to address these species. If you locate vernal pools during your surveys please state how you will protect them.

I can see that you have adjusted your project out of the floodplain areas so the *Rana pipiens* and the plants have been addressed.

Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection
Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [mailto:CKelsey@VHB.com]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Subject: Request for NDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com

Engineers | Scientists | Planners | Designers
www.vhb.com

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Moberg, Sue

From: Moberg, Sue
Sent: Tuesday, March 14, 2017 5:26 PM
To: 'DEEP Nddbrequest'
Cc: Peterson, Jeff; McKay, Dawn
Subject: RE: Request for NDDB State-listed Species Review - Simsbury, CT

Hi Karen, thank you for your response. we're anticipating performing whatever surveys are needed during the upcoming season. The recent consultation request was refiled with the hopes of identifying any additional species that may have been listed since the first request was filed a year ago and refreshing the dialogue in anticipation of requesting a meeting with appropriate parties at NDDB to solicit further guidance on what surveys are needed. Since we filed this request, it occurred to me that the figure submitted with the request might need some explaining.

So, would you and whomever else needs to weigh in be available to meet with our team in the next few weeks? We are anticipating filing with the CSC for this project in the next few months, and want to be able to represent a good faith effort to consult and have a plan for the RTE surveys that will need to be conducted.

Thanks in advance for your cooperation!

Respectfully yours,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] **On Behalf Of** DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

Tree clearing and ground disturbing equipment have the potential impact the turtles, snakes and tree roosting bats. Please provide protection measures or timing of work to address these species. If you locate vernal pools during your surveys please state how you will protect them.

I can see that you have adjusted your project out of the floodplain areas so the Rana pipiens and the plants have been addressed.

Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection
Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [<mailto:CKelsey@VHB.com>]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Subject: Request for NDDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com

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Moberg, Sue

From: Moberg, Sue
Sent: Tuesday, April 25, 2017 5:30 PM
To: 'DEEP Nddbrequest'
Cc: Peterson, Jeff; McKay, Dawn; 'karen.zyko@ct.gov'
Subject: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT
Attachments: 04.25.2017_T&E_Spp_Conservation_Measures_Memo.pdf

Good afternoon, please find attached VHB's draft conservation measures plan for the proposed solar project in Simsbury. CT DEEP issued preliminary assessments #s 201509947, 201509960 and 201600041 in response to VHBs NDDDB review request in December 2015.

As you requested in your email below, VHB prepared this memo to outline a proposed strategy for surveying for the listed species, an evaluation of potential effects should the species be present and a proposed conservation strategy for protecting the species if it is present or if suitable host habitat is present.

VHB is planning to initiate surveys for the listed avian species (horned lark, vesper sparrow, grasshopper sparrow and whip-poor-will) as described in the attached memo beginning as early as next week. We would appreciate your feedback on the proposed surveys and any suggestions you may have regarding timing of the surveys.

If appropriate at this time, we would appreciate the opportunity to meet and discuss the proposed conservation measures outlined in the memo and receive your feedback. Failing that, additional guidance on the consultation process would be appreciated as we anticipate filing a petition with the Siting Council in May or June 2017.

Thank you,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] **On Behalf Of** DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

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Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection
Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [<mailto:CKelsey@VHB.com>]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Subject: Request for NDDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator



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To: Ms. Dawn M. McKay
CTDEEP
Natural Diversity Database Program
79 Elm Street
Hartford, CT 06106-5127

Date: April 25, 2017

Memorandum

Project #: 42256.00

From: Jeffrey C. Peterson

Re: Proposed Conservation Measures
DWW Solar Project
Hoskins Road, County Road and Hopmeadow Street
Simsbury, CT

Introduction

This memorandum discusses the project conservation/protection strategy for a total of 23 plant or animal species that are subject to state and/or federal protection and have been documented or have the potential to occur in the Simsbury Solar Site at the location referenced above. The proposed actions include proposed field studies to be conducted to determine if specific taxa are present within the Project Area.

The objective of this memorandum is to identify and detail protection strategies for federally and state-listed animal and plant species that might be affected by project activities, and to obtain approval for these strategies by Connecticut Department of Energy and Environmental Protection (CTDEEP). Wherever possible, conservation/protection strategies and techniques have been incorporated from similar previously approved projects.

Within the general project area there are records for:

- One federal- and state-listed endangered animal species;
- Three state-listed endangered animal species and one state-listed endangered plant species;
- Two state-listed threatened plant species; and
- Fourteen state-listed animal species of special concern and one state-listed plant species of special concern.

A brief description of the pertinent natural history characteristics of each species is provided along with a summary of completed or proposed survey efforts. A preliminary description of the potential effects of the project is provided and proposed impact avoidance/minimization measures are described. A summary table of the species summarizing the proposed conservation/protection strategies is provided as Attachment A.

Background

In December 2015, VHB submitted three requests for information to the CTDEEP Natural Diversity Data Base (NDDB) to obtain preliminary assessments for what were three study areas in northern Simsbury under consideration for development as a solar farm. The CTDEEP provided three response letters with Preliminary Assessment Nos. 201509947, 201509960, and 201600041; the first two letters were dated January 10, 2016 and the final one January 9, 2016. The first two responses provided identical rare species lists and noted the presence of the same four significant natural communities. The January 9, 2016 response provided a different species list and did not include any significant natural communities.

The following sections of the memo briefly address the natural history, survey results, potential project effects and provides a preliminary conservation strategy for each listed-taxa.

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109-2377
P 860.807.4300

Invertebrates

Phylum: Arthropoda Insecta

Order: Lepidoptera

Records of two state-listed species of Noctuid moths were found for areas either within or near the Site.

Spiny flower moth (*Schinia spinosae*)

Natural History – This species was reported to potentially occur onsite in the CTDEEP letter dated January 10, 2016. The spiny flower moth is associated with xeric, open sand plains where its host plant, coastal jointed knotweed (*Polygonum articulatum*), is found (Wagner et al. 2008). One source indicates the host plant might be sickle-leaved golden aster (*Pityopsis falcata*). Flight times for adults occur in September (New York Natural Heritage Program, 2015).

Survey Results – The host plant was observed in the open sands on the slopes north of the North Simsbury Substation. Open areas outside of agricultural fields will also be inspected this year.

Potential Project Effects – Equipment operation may disturb host plants and kill larvae.

Conservation Strategy – Station of any coastal joint weed will be GPS located. Should any work be proposed in the area, the coastal jointed knotweed population will be fenced off and preserved.

Scribbled sallow moth (*Sympistis perscripta*)

Natural History – This species was reported as potentially occurring onsite in the CTDEEP letter dated January 9, 2016. This uncommon moth is associated with infertile, droughty, open habitats such as those found within power line rights-of-way and open road sides where its larval host plant, Canada toadflax (*Nuttallanthus canadensis*), is found (New York Natural Heritage Program, 2017). Scribbled sallow moth completes one generation per year in Connecticut. Flight times for adults are late May into early June. Wagner reports that the infrequently observed caterpillars have been seen mostly in late June while feeding on the host plant (Wagner, et al., 2008).

Survey Results – Canada toadflax is known to occur in the transmission line ROW crossing into the Site from Hopmeadow Street. The disturbed edges of agricultural fields and cart paths will be inspected for the host plant.

Potential Project Effects – Equipment operation may disturb host plants and kill larvae.

Conservation Strategy – If the stations of Canada toadflax are observed this spring they will be GPS located. Should any work be proposed in the area, any Canada toadflax populations will be fenced off and preserved.

Order: Coleoptera

Big sand tiger beetle (*Cicindela formosa generosa*)

Natural History – This tiger beetle inhabits exposed sandy substrates where its larvae are subterranean and trap insects in shallow pits they construct (Tiger Beetles of Nebraska). This species has a strong affinity to areas mapped as Windsor sands (Wagner, 2015). The parent material for these soils were originally deposited as paraglacial dunes along glacial Lake Hitchcock. There are very limited areas of this soil type mapped in the Project Area that are not forested or otherwise exposed. Adults emerge briefly in late summer, mostly appearing in late August and early September. Nearly all of Connecticut's colonies are extremely small in extent and vulnerable to both development and

succession (Wagner, 2015). Adults remain active until middle and late September before overwintering. Adults resume activity in late spring, appearing in May, and peak numbers in June in Nebraska. Numbers decline steadily in July.

Survey Results – Open areas consisting of unconsolidated sand were observed at the eastern end of the large field south of Munnisunk Brook near the abandoned tobacco barns. These deposits are blow-outs where the fine fraction of eroded soil deposits were lost by wind erosion leaving lag deposits of sand. A second suitable area may occur in the Eversource transmission line ROW above the North Simsbury Substation. These areas will be surveyed in June to look for adults.

Potential Project Effects – Potential effects include loss of habitat and destruction of larvae if a population of this species is present in the Project Area.

Proposed Conservation Strategy – If one or more populations are encountered, the areas will be mapped and avoided. CTDEEP has allowed relocation of this species from development areas in the past, but consideration of this type of effort should only be initiated if the species is found and avoidance is impractical.

Order: Odonata

Rapids clubtail (*Gomphus quadricolor*)

Natural History – This clubtail inhabits high and moderate gradient coldwater habitats associated with brooks and streams with strong currents over clean gravel, cobbles or bedrock. Eggs are laid outside plant tissues. Flight season is May to July (Massachusetts Natural Heritage and Endangered Species Program, 2015).

Survey Results – No surveys are proposed as no development is proposed near the three streams that cross the properties.

Potential Project Effects – Although no work is proposed within Munnisunk Brook, Saxton Brook or Bissell Brook, construction activities will occur in uplands above these streams. Erosion and the discharge of turbid waters to these tributary streams could indirectly impact downstream larval habitat.

Proposed Conservation Strategy – Enhanced erosion and sediment controls will be implemented along slopes that drain to any of these three perennial watercourses.

Phylum: Mollusca

Class: Bivalvia

Records for three mussels were identified in the CTDEEP response to the rare species inquiry. Dwarf wedgemussel and eastern pondmussel were reported in the CTDEEP response dated January 9, 2016 and eastern pearlshell was reported in the letter dated January 10, 2016.

Natural Histories

Dwarf Wedge mussel (*Alasmidonta heterodon*)

This species is listed as endangered under the Federal Endangered Species Act (ESA) and is also assigned a state endangered classification under the Connecticut Endangered Species Act. According to the United States Fish and Wildlife Service (2016) dwarf wedge mussel requires a silt-free, stable substrate in areas of slow or moderate currents

and well-oxygenated water free of pollutants. The USFWS states that destruction and degradation of habitat and water pollution are major threats to the survival of this species.

Eastern Pearlshell Mussel (*Margaritifera margaritifera*)

The eastern pearlshell mussel is a state species of special concern that was identified in the January 10, 2016 response letter from CTDEEP. According to the CTDEEP, the eastern pearlshell does not have specific substrate requirements but is most often found in streams and small rivers that support trout or salmon populations (cold water fishery). This species is not found in lakes or ponds (CTDEEP, 2017).

Eastern Pondmussel (*Alasmidonta heterodon*)

The eastern pondmussel is a state species of special concern that was identified in the January 9, 2016 response letter from CTDEEP. According to the CTDEEP, the eastern pondmussel inhabits a variety of habitats such as coastal ponds, streams, and rivers. This species is reported to inhabit a wide variety of substrates and does not appear to have preferences for specific depth or flow regimes. In the Connecticut River watershed, this species is most common in stream and rivers (Nedeau, 2008).

Survey Results – No surveys are proposed to locate mussel populations.

Potential Project Effects – Although no work is proposed directly within the Farmington River or any of its three tributary streams in the project area, construction activities will occur in uplands above Munnisunk Brook, Saxton Brook and Bissell Brook. Erosion and siltation resulting in a discharge to these tributary streams could impact downstream mussel populations.

Proposed Conservation Strategy – Enhanced erosion and sediment controls will be installed along slopes that drain to one of these three perennial watercourses.

Vertebrates

Class: *Amphibia*

Northern Leopard Frog (*Rana pipiens*)

Natural History – The January 9, 2016 response from CTDEEP reported records for the potential presence of a single amphibian, northern leopard frog. This species is known to occur along the floodplain of the Farmington River where it prefers grassy habitats and meadows with forbs (Klemens, 1993).

Survey Result – Since the project does not propose to work within suitable habitat for this species no surveys have been conducted and none are proposed.

Potential Project Effects – It is not anticipated that this project would have any effects on this species.

Conservation Strategy – No work is proposed close to the three perennial tributaries that run through the project site and potentially suitable meadow habitat is only present along Bissell Brook as it leaves the subject property. Erosion and sediment controls described to control indirect effects of the project on mussels will also protect downstream leopard frog habitat.

Class: *Reptilia*

Records for three reptiles were reported in the CTDEEP responses to the rare species inquiries filed for the project.

Eastern Box Turtle (*Terrapene carolina*)

Natural History – This species was identified in the January 10, 2016 response letter from CTDEEP as a species of special concern. Box turtles require both old field and forested habitat, which can include power lines and logged woodlands, and are often found near small ponds and streams. They hibernate on land by digging down in the soil from October through April. Box turtles often have an extremely small home range and can usually be found in the same area year after year. (Klemens, 1993)

Survey Results – VHB does not propose to carry out surveys for box turtles. Suitable habitat for this species is present within the Site and tilled agricultural lands may be suitable for nesting.

Potential Project Effects – Because of their small home ranges, slow reproductive rate, and inability to quickly flee when disturbance occurs, the effects of construction on local box turtle populations can be substantial. Tree removal and soil grading activities represent a threat to box turtles in the construction area. In the past, CTDEEP has recommended that work be done in the turtle's dormant season.

Proposed Conservation Strategy – The following conservation measures are proposed for protection of box turtles within the Project Area:

- Construction-phase environmental monitoring by qualified personnel will be provided during construction in potential box turtle habitats to try to avoid any impacts to these organisms.
- Entrenched silt fence will be used to isolate the work area from undisturbed area that may provide box turtle habitat.
- A contractor awareness program will be developed and implemented to ensure that contractors working in box turtle habitat areas can identify box turtles and have been instructed on proper care and handling of individuals should one need to be removed from the work area.
- The work area will be examined by construction personnel in a walk-over or sweep prior to work each day.
- To the extent possible, construction vehicles and equipment will be parked along access routes and in active work areas and not in potential box turtle habitat.

Wood Turtle (*Clemmys insculpta*)

Natural History – The CTDEEP response letter dated January 10, 2016 identified this state species of special concern as potentially occurring within the Project Area. Wood turtles require riparian habitats bordered by floodplain, woodland, or meadow. They hibernate in the banks of the river in submerged tree roots and in summer move to adjacent old fields, woodlands and power line corridors (Klemens, 1993). Unlike box turtles, wood turtles have home ranges of several acres, throughout which they freely roam. Because of their extensive overland movements, roads traversing wood turtle habitat contribute significantly to mortality due to vehicle conflicts (Klemens, 1993).

Survey Results – No surveys have been conducted for this species, but it is thought that suitable habitat may be present along segments of the three perennial tributaries to the Farmington River that cross the site. In addition,

there are four farm ponds in the project areas that may provide suitable habitat. There is no work proposed within this stream and a minimum 100-foot buffer zone is proposed from the edge of the riparian wetlands.

Potential Project Effects – Wood turtles have been negatively impacted by the loss of suitable habitat and can be displaced by soil disturbance during their hibernation period. Construction activities near riverbanks and wetlands containing hibernating wood turtle could potentially harm this species. Construction activities during the turtle's active period can result in mortality from interactions with clearing equipment, earth-moving equipment, and other vehicles. In the past, CTDEEP has recommended work during the wood turtle active season (April to November) to avoid impacts during hibernation.

Proposed Conservation Strategy – No work is proposed near the Farmington River or within 100 feet of any of its three on-site perennial tributaries. It is not anticipated that hibernating turtles would be disturbed by work activities during the dormant season. Thus, restricting work to the turtles' active season is not proposed. However, the following wood turtle protection measures for work during the active season are proposed:

- Entrenched silt fence will be installed at the edge of work areas between the streams to prevent a wood turtle from entering the construction area.
- Construction-phase environmental monitoring by qualified personnel will be provided during construction activities in portion of the Project Area near the streams to try to avoid any impacts to these animals.
- A contractor awareness program will be developed and implemented to ensure that contractors working in the areas have been instructed on proper care and handling of individuals should one need to be removed from the work area.
- The work area will be examined by construction personnel in a walk-over or sweep prior to work each day.

Eastern Hognose Snake (*Heterodon platirhinos*)

Natural History – The CTDEEP response letter dated January 10, 2016 identified this state species of special concern as potentially occurring on-site. Hognose snakes prefer sandy soil in fields and forest edges. The four farm ponds in the project area likely provide breeding habitat for a preferred prey species, eastern American toad and/or Fowler toad. Eastern Hognose snake lay their eggs in June or July. Eggs take six to eight weeks to hatch. (Klemens 1993)

Survey Results – Preliminary reconnaissance of the greater project area indicates that suitable habitat for eastern hognose snake is present. This species will be sought during bird, insect, and plant surveys especially around edges of fields and in the powerline ROW which provide basking areas.

Potential Project Effects – Vegetation removal and grading activities could destroy burrows used by the snake during winter hibernation and drive the snake from the area. These same project activities could destroy nests if conducted during the breeding period of June through August.

Proposed Conservation Strategy – The following measures are proposed for the protection of this species during construction activities:

- If construction activities are carried out during the snake's active period, environmental monitoring by qualified personnel will be provided. Any individuals of this species encountered during construction will be removed from the active work area.

- A contractor awareness program will be developed and implemented to ensure that contractors working in the area have been instructed on the proper response if one of these snakes is observed in the work area.

Class: Aves

Horned Lark (*Eremophila alpestris*)

Natural History – This state-endangered species was identified in the CTDEEP response letter dated January 9, 2016. Horned lark is an open country species that favors large, open areas that are barren, sandy, stony, or have sparse grass cover, but will also inhabit the edges of agricultural areas (CTDEEP, 2009).

Survey Results – VHB biologists investigated the project area to evaluate potential horned lark habitat. In the past, large grasslands areas were present near the North Simsbury Substation along Hopmeadow Street and once fallow tobacco fields north and east of County Road may once have provided suitable habitat for this and other grassland bird species. These habitats no longer appear suitable because the former open land near the substation has been developed as Eastpoint at Dorset Crossing and the former abandoned tobacco fields have been placed back into active row cropping. The mixed forest habitat between the fields is unsuitable for this species. VHB will conduct a survey of the agricultural fields during the horned lark nesting season in late April through May to confirm this species is not present. Two surveys are proposed during this period.

Potential Project Effects – Prior to conducting the surveys, it is VHB's opinion that horned lark is not likely to be present in the project area and the project would have no effect as suitable habitat is no longer present. This opinion would change if the species is encountered during surveys.

Proposed Conservation Strategy – Due to the improbability of horned lark occurring in these agricultural areas, no conservation strategy or restricted construction schedule is proposed unless there are detections this year.

Vesper Sparrow (*Poocetes gramineus*)

Natural History – The CTDEEP response letter dated January 9, 2016 also indicated this state-endangered species may occur in the same areas of Simsbury as the horned lark. Vesper sparrow is an open country species that prefers old fields, upland meadows, and sandplain grasslands including the weedy edges of cultivated crop fields that are usually more than 30 acres in size (CTDEEP, 1999). Such habitat may have been present in the area now occupied by Eastpoint at Dorset Crossing and the former tobacco fields when they were fallow.

Survey Results – As with horned lark, vesper sparrow may inhabit the edges of crop fields, so VHB biologists will survey for vesper sparrow along with horned lark around the agricultural fields in late April.

Potential Project Effects – VHB believes the potential for encountering vesper sparrow on-site is very low.

Proposed Conservation Strategy – VHB does not believe the habitat available on-site is particularly suitable for vesper sparrow. No specific conservation strategy will be proposed unless the species is encountered. No restricted construction schedule or conservation strategy is proposed for the agricultural areas unless their presence is detected during the survey.

Savannah Sparrow (*Passerculus sandwichensis*)

Natural History – The CTDEEP response letter dated January 10, 2016 also indicates this state species of special concern may occur on-site. According to Veit and Peterson (1993), its preferred breeding habitats are dunes along the

coast, agricultural fields in the Connecticut River valley and grassy fields next to airports. The edges of crop fields throughout the site may provide marginally suitable habitat for this species.

Survey Results – VHB biologists will conduct surveys for savannah sparrow around the periphery of agricultural fields in late April through May. Call back surveys are effective at drawing in this strongly territorial species and will be attempted.

Potential Project Effects – If present, conversion of agricultural fields and forested edges could displace this species from the site.

Proposed Conservation Strategy – No specific conservation strategy will be proposed unless the species is observed. No restricted construction schedule or conservation strategy is proposed for the agricultural areas at this time. If detected, VHB will consult with the NDDDB program.

Grasshopper Sparrow (*Ammodramus savannarum*)

Natural History – The CTDEEP response letter dated January 10, 2016 also indicates this state-endangered species may occur within the Project Area. According to Veit and Peterson (1993), its preferred breeding habitats are short grasslands with scattered shrubs such as would be found in active pastures. There does not appear to be any suitable habitat for this species within the project area.

Survey Results – VHB biologists will include grasshopper sparrow within the aforementioned surveys planned for savannah sparrow, vesper sparrow, and horned lark around the agricultural fields in late April to through May. Grasshopper sparrows respond aggressively to call back surveys.

Potential Project Effects – Due to the existing habitat characteristics, VHB believes there is little chance that grasshopper sparrow may be present on site.

Proposed Conservation Strategy – No specific conservation strategy will be proposed unless the species is encountered. No restricted construction schedule or conservation strategy is proposed for the agricultural areas at this time.

Whip-poor-will (*Caprimulgus vociferus*)

Natural History – The CTDEEP response letter dated January 9, 2016 identified this species of special concern as potentially occurring on-site. Whip-poor-will nest in forested habitat with an open understory, often adjacent to shrubby herbaceous areas such as those found along the edge of agricultural lands, trails, and the powerline ROW through the property. This bird is nocturnal and forages in these open areas at dusk and dawn especially during moonlit nights (Veit and Petersen, 1993).

Survey Plan – VHB will follow CTDEEP protocol for whip-poor-will surveys, conducting three-minute point counts when the moon is at least 50 percent illuminated, above the horizon, and not obscured by cloud cover. Because of detection probabilities, at least two separate surveys will be conducted across the properties. VHB will conduct these surveys on dates provided by the CTDEEP, weather permitting. All survey points will be located with a hand-held GPS unit.

Potential Project Effects – According to CTDEEP, cutting or clearing of open woodlands can reduce habitat for this species. Additionally, vegetation clearing activities that occur during the breeding season have the potential to destroy nests, eggs, or young.

Proposed Conservation Strategy – A strategy will be developed based on the findings of the field survey. If the species is present, cutting and clearing woodlands will not occur during the whip poor will breeding season May through July.

Class: Mammalia

Bats

The three state-listed bats are reported as likely occurring on or near the Property in the January 9 and January 10, 2016 response letters from CTDEEP. The three species are: red bat, silver bat, and hoary bat.

Natural History – These three species are listed as special concern and the forested areas of the Site offer suitable, active-season roosting habitat for each of these species. All three species are reported to be migratory (Kunz 1982; Shump 1982 and 1982a) and therefore are not expected to overwinter on the Site. (Cryan 2003). There are no critical habitats assigned to these three mobile and migratory species. However reproductive success relies on the use of maternity roost trees.

Red bat (*Lasiurus borealis*)

Literature indicates that Red bats use solitary or communal maternal roosts which may be on branches of deciduous or coniferous trees or in woodpecker cavities in snags. The two to three young a mother bat raises roost among foliage in deciduous or coniferous trees or in tree cavities for three to five weeks in the summer before their first flight.

Silver-haired bat (*Lasionycteris noctivagans*)

Silver haired bats are associated with coniferous and deciduous forests and forage near bodies of water. Roost are often under the loose bark of tree species such as willows, maples, or ash. Cavities in snags may also be used by maternity colonies. Young are typically weaned in five weeks.

Hoary bat (*Lasiurus cinereus*)

Maternal roosts are thought to be solitary with young roosting in foliage along forest edges or in fencerows.

Surveys – There are no bat surveys proposed.

Potential Project Effects – The only significant potential impact this project could present is by the felling of trees serving as maternal roosts before pups are weaned and independent.

Conservation Strategy – No clearing will occur during the months of May through July to avoid harm to the pups of these three species. This strategy may also be protective of northern long-eared bat (*Myotis septentrionalis*) which has been listed as federally threatened by the USFWS.

Vascular Plants

Davis' Sedge (*Carex davisii*)

Natural History – This state-threatened species was identified in the January 10, 2016 response letter from CTDEEP. Davis' sedge is known to grow in the floodplain of the Farmington River in Simsbury. According to the New England Wild Flower Society (NEWFS) Conservation and Research Plan (2003) for this species, populations in New England are associated with floodplains and appear to require some habitat disturbance from flooding or anthropogenic origin. This species prefers mesic floodplain soils that may be inundated for short periods in the spring.

Survey Results – No surveys have been conducted. No work is proposed in active floodplains of any of the three perennial tributaries to the Farmington River which cross through the site. Work is limited to farm fields that have been in active cultivation and well shaded upland forests situated in outwash and glacial till. Though unlikely to be present, a late June to mid-July field survey may be undertaken when the plant has mature perigynia and can be positively identified. If the CTDEEP has element occurrences (EOs) for this species occurring in the project area, these data will be requested to refine the search area.

Potential Effects – It is not thought that this species is likely to be present.

Proposed Conservation Strategy – None proposed. If the species is encountered in a work area then a conservation strategy will be developed.

Dillenius' tick-trefoil (*Desmodium glabellum*)

Natural History – This state species of special concern was identified in the January 9, 2016 response letter from CTDEEP. Fernald, M.L. (1970) indicates this species inhabits dry sandy woods, and Haines, A. (2011) adds roadsides and open powerline ROWs. Bloom time is from mid-summer to early fall and lasts about a month. This species prefers sun or partial sun.

Survey Results – A winter survey of the site determined that suitable habitat for this species is present along the edges of woodlands around the agricultural fields, along roadsides through the sites, and in parts of the Eversource transmission line ROW. This survey will be repeated mid-summer when this species can be identified. If the CTDEEP has EOs for this species occurring in the project area, these data will be requested to refine the search area.

Potential Effects – Based on the outcome of the field survey, the project may have the potential of impacting existing plants. Consultations with the CTDEEP will be requested if any direct effects are anticipated.

Conservation Strategy – To be developed as necessary. The USDA has released native germplasm for this species for use in habitat enhancement.

Tall swamp rosette-panic grass (*Dichanthelium scabriusculum*)

Natural History – This state-endangered species was identified in the January 10, 2016 response letter from CTDEEP. Haines(2011) indicates this species is found along dry sandy roadsides, grasslands, and open ROWs also mesic to hydric, rocky or boggy soils next to streams. Vernal panicles are present May through July. Suitable habitat for this species is present within the project area.

Survey Results – Potentially suitable habitats are present for this robust grass species. Data will be requested from the CTDEEP to determine if there are any EOs for this species within the project site. A late May-June survey is proposed.

Potential Effects – Based on the outcome of the field survey, the project may have the potential of impacting existing plants. Consultations with the CTDEEP will be requested if any direct effects are anticipated.

Conservation Strategy – To be developed as necessary.

Starry campion (*Silene stellata*)

Natural History – This state-threatened species was identified in the January 9, 2016 response letter from CTDEEP. Haines, (2011) indicates this species is found in deciduous woodlands, rocky forests, riverbanks, and roadsides. The flowering period for this tall forb reported to be July through September (Fernald,1970). Suitable habitat for this species is present within the project area.

Survey Results – Potentially suitable habitats are present for this showy flower. Data will be requested from the CTDEEP to determine if there are any EOs for this species within the project site. A late July-August survey is proposed

Potential Effects – Based on the outcome of the field survey the project has the potential of impacting existing plants. Consultations with the CTDEEP will be requested if any direct effects are anticipated.

Conservation Strategy – To be developed as necessary.

Significant Natural Communities

The January 9, 2016 response received from CTDEEP indicated that four Significant Natural Communities may be present in or near the greater project area. These include one Freshwater Community, Alluvial Marsh, and three Terrestrial Communities: Alluvial grassland/outcrop; Floodplain forest; and Sand barren.

A review using the Connecticut Environmental Conditions Online (CT ECO) Advanced viewer did not depict any of these communities within the project limits.¹ Floodplain forest, Alluvial grassland/outcrop Alluvial Marsh and Sand barren are mapped west of Hopmeadow Street (CT Route 10) associated with the Farmington River and its floodplain and outwash terraces. The project area is well separated from these mapped Significant Natural Communities..

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Attachment A: DWW Simsbury Solar Project T&E Species - Conservation Measures/Impact Avoidance & Minimization Summary

Status	Species Name	Common Name	Conservation Measures/Impact Avoidance & Minimization Measure
Invertebrates			
F & SE	<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	No survey proposed. Rigorous E & S control measures for work on slopes to tributaries to the Farmington River.
SC	<i>Cicindela formosa generosa</i>	Big sand tiger beetle	Survey sandy blow-outs in large northern field and powerline ROW north of N. Simsbury Substation for adults (Flight periods May-June and August-September).
T	<i>Gomphus quadricolor</i>	Rapids clubtail	No survey proposed. No work proposed in streams. Rigorous E&S control measures for work on slopes above tributaries to the Farmington River.
SC	<i>Ligumia nasuta</i>	Eastern pondmussel	No survey proposed. No work proposed in streams. Rigorous E&S control measures for work on slopes above tributaries to the Farmington River.
SC	<i>Margaritifera margaritifera</i>	Eastern Pearlshell	No survey proposed. No work proposed in streams. Rigorous E&S control measures for work on slopes above tributaries to the Farmington River.
SC	<i>Sympistis perscripta</i>	Scribble swallow moth	Survey edges of fields and roads and Transmission line ROW. Flag off and avoid impacts to Canada toadflax (<i>Nuttallanthus canadensis</i>), construction monitoring.
SC	<i>Schinia spinosae</i>	Spiny flower moth	Survey Eversource ROW and vicinity of Simsbury Sub for host plant (<i>Polygonum articulatum</i> and potentially <i>Pityopsis falcata</i>). Avoid impact to plant populations, construction monitoring.
Vascular Plants			
ST	<i>Carex davisii</i>	Davis' sedge	Request Element Occurrence Form(s) to determine if known stations are present on-site. If present, survey June-July. No restriction anticipated as there is no work in floodplain.
SC	<i>Desmodium glabellum</i>	Dillenius' tick-trefoil	Request EO Form(s). Conduct survey of suitable habitat (dry sandy woods). Go Botany does not indicate any confirmed collection records in Hartford County.
SE	<i>Dichanthelium scabriusculum</i>	Tall swamp rosette-panic grass	Request EO Form(s). Conduct survey of suitable Wet and dry grasslands, sandy powerline ROWs, June-July.
ST	<i>Silene stellata</i>	Starry campion	Request EO Forms. Conduct search Deciduous woodlands, clearings, rocky forests, stream side, road side. July-August.
Vertebrates			
SE	<i>Ammodramus savannarum</i>	Grasshopper sparrow	Suitable grassland habitat is not present as open areas in active agriculture. Conduct surveys in late April through May.
SC	<i>Caprimulgus vociferus</i>	Whip-poor-will	Late May-June night survey (30 min after sunset) and when the moon is above the horizon. Seasonal restriction on tree cutting (i.e., Aug through May 15 only) if detected.
SE	<i>Eremophila alpestris</i>	Horned Lark	Suitable grassland habitat is not present as open areas in active agriculture. Conduct surveys in late April through May.
SC	<i>Glyptemys insculpta</i>	Wood turtle	Develop and implement contractor awareness program, construction monitoring in habitat areas, minimize shrub removal, leave stumps. Isolate work areas with embedded silt fence.
SC	<i>Heterodon platirhinos</i>	Eastern hognose snake	Develop & implement contractor awareness, construction monitoring during construction throughout this area. Isolate work areas with embedded silt fence.
SC	<i>Lasionycteris noctivagans</i>	Silver-haired bat	Migratory bat. Avoid tree and snag clearing during pupping season, May through July.
SC	<i>Lasiurus borealis</i>	Red bat	Migratory bat. Avoid tree and snag clearing during pupping season, May through July.
SC	<i>Lasiurus cinereus</i>	Hoary Bat	Migratory bat. Avoid tree clearing during pupping season, May through July.
SC	<i>Passerculus sandwichensis</i>	Savannah sparrow	Suitable grassland habitat is not present as open areas in active agriculture. Conduct surveys in late April through May.
SE	<i>Poocetes gramineus</i>	Vesper Sparrow	Suitable grassland habitat is not present as open areas in active agriculture. Conduct surveys in late April through May.
SC	<i>Rana pipiens</i>	Northern leopard frog	No survey. No restrictions on construction activity as no work proposed in floodplains associated with the streams within the Site.
SC	<i>Terrapene c. caroliniana</i>	Box turtle	No survey. Develop and implement contractor awareness program, construction monitoring in habitat, minimize shrub removal, leave stumps. Isolate work areas with embedded silt fence.

100 Great Meadow Road
 Suite 200
 Wethersfield, CT 06109-2377
 P 860.807.4300

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Attachment B: Resumes of Preparers

Jeffrey C. Peterson, CPSS, PWS, CPESC, ENV SP

Senior Soil and Wetland Scientist



Education

Graduate Coursework, Soil Science, University of Massachusetts, 2003

Graduate Coursework, Soil Science, The University of Connecticut, 1996

BS, Biology, Plant Ecology, The University of Connecticut, 1977

Registrations/Certifications

Certified Professional in Erosion and Sediment Control (Erosion and Sediment Control Planning), 2003

Professional Wetland Scientist (Wetland Science), 2015

Certified Soil Scientist (Soil Science), 2001

Licensed Soil Evaluator (Soil Evaluation) RI, 2001

Certified Wetland Delineator (Wetland Delineation) MD, 1993

Envision™ Sustainability Professional, 2013

Affiliations/Memberships

Soil Science Society of America

Society of Soil Scientists of Southern New England

Soil and Water Conservation Society

Society of Wetland Scientists

Jeffrey Peterson is a Senior Soil and Wetland Scientist at VHB with 36 years' experience. He has worked for VHB the last 24 years. His academic and professional background in soil science and ecology includes skills in wetland delineation, soil description, soil classification, erosion and sediment control planning, plant identification, environmental permitting and project impact evaluation. He holds SSSA certification as a Certified Professional Soil Scientist, PWS as a Professional Wetland Scientist, CPESC certification as a professional in erosion and sediment control, and is certified by the Baltimore District of the Army Corps of Engineers as a Wetland Delineator. He has served on the New England Hydric Soils Technical Committee, responsible for establishing criteria for identifying wetland soils, since 1999.

As VHB's principal soil scientist, he is consulted on projects which involve soils related issues such as wetland delineation, soil stabilization, storm water management site selection and design, soil/chemical interactions, wetland mitigation site selection and design, wetland functional assessments, and monitoring studies. Jeffrey also is skilled in field ecology and botany and has conducted pool breeding amphibian, breeding bird, and rare plant surveys for projects in Connecticut, Rhode Island, and Massachusetts. He has coauthored studies of breeding birds along recreational trails and power line corridors and used in successful state and federal permit applications. Representative projects include:

40 years of professional experience

Connecticut Airport Authority, 2016 Groton New London Airport Rare Species Surveys, Wetland Mitigation Monitoring Report, and Invasive Species Report, Groton, CT

Under an on-call environmental services contract with the CAA, Jeff led a small team conducting field surveys for two state-listed rare plants present on the airfield and reported on the populations trends by reviewing previous reports. He also completed an annual wetland mitigation monitoring report required by the U.S. Army Corps of Engineers and the Connecticut Department of Energy (CTDEEP) for a tidal wetland creation and enhancement project along the Poquonnock River on airport property. Additionally, he completed an invasive species field investigation and management report for the Connecticut Airport Authority (CAA). Jeff led these efforts and coordinated with CAA and airfield staff to maximize the efficiency of field efforts.

Northeast Utilities Mill Stone Transmission Line Separation Project, Waterford CT

Jeff conducted a vernal pool survey, avian and rare species surveys in the nearly four-mile long project corridor. He reported previously undocumented populations of low frostweed (*Crocyanthemum propinquum*) and brown thrasher (*Toxostoma rufum*) and confirmed other listed plant records. Jeff prepared reports in support of state and federal permit applications under Sections 401 and 404 of the Clean Water Act.

Massachusetts Association of
Wetland Scientists
Connecticut Association of
Wetland Scientists
International Erosion Control
Association

Northeast Utilities Transmission Line Environmental Assessment, Watertown to Bloomfield, CT

As part of the regional New England East-West Solution project, VHB was retained to perform environmental and constructability assessments on an existing 35-mile transmission corridor in Connecticut. Jeffrey led an effort to identify and evaluate vernal pool habitat along the right-of-way and produced a report classifying the sixty vernal pools encountered. He also coordinated with CTDEEP staff to obtain information and conduct field surveys for rare plant (*Carex davisii*, *Crocianthemum propinquum*, & *Potentilla arguta*), and wildlife species. Element occurrence forms were completed to document the rare taxa encountered in the field. These forms were forwarded to the client and subsequently the Connecticut Natural Diversity Data Base to update records.

Jeff conducted avian surveys along the ROW that located bobolink (*Dolichonyx oryzivorus*) breeding in a transmission line ROW. He also conducted night times surveys for eastern whip-poor-will (*Antrostomus vociferous*) along roadsides and in state forests in Litchfield County.

National Grid 21 Transmission Line Reconstruction, Fall River to Dartmouth, MA

Jeff completed the wetland delineation and survey of rare plants along the back country 21 electric transmission line ROW. He documented several populations of the state-threatened long-leaved panic grass (*Panicum rigidulum* ssp *pubescens*) in the ROW and along access routes to the project. Jeff prepared the conservation plan for this species that was accepted by the Massachusetts Natural Heritage Endangered Species Program. He also coauthored state and federal wetland permits for the project and conducted post-construction monitoring.

National Grid Rhode Island Reliability Project, North Smithfield to Warwick, RI

Jeffrey completed vernal pool and rare, threatened and endangered species surveys along the 24-mile long project corridor that passes through six Rhode Island municipalities. Data collected were used to complete the successful RIDEM Application to Alter a Freshwater Wetland and USACE Category II Programmatic General Permit application. Jeffrey responded to requests by the RIDEM for field locations of rare taxa (*Schoenoplectiella smithii*) in the northern portion of the project and produced figures included in the approval documents issued by the RIDEM.

Calais LNG Wildlife Habitat Assessment, Calais, ME

Calais LNG retained VHB to document wildlife and vegetation necessary for a proposal to the Federal Energy Regulatory Committee to construct a liquefied natural gas receiving terminal and gas transmission pipeline. Jeffrey conducted habitat assessments along portions of the 21-mile alignment, focusing on the vegetation in umbrotrophic bogs. He also assisted in the collection of bird survey data use in the preparation of state and federal applications.

Public Water Supply Monitoring Study, Dartmouth, MA

The Town of Dartmouth hired VHB to establish a monitoring system that could detect changes in wetlands associated with groundwater withdrawals from adjacent public water supply wells to meet a Massachusetts Department of Environmental Protection (MADEP) Water Management Permit. The permit required the wetlands to be monitored for a period of five years. The objective of monitoring was to detect potential adverse impacts the withdrawals may have had on the wetlands. Jeffrey

worked with MADEP to develop an acceptable monitoring protocol that related soil morphology, plant association structure and floristic composition and hydrogeomorphic setting along with published data to develop ecological models for each wetland. These models were used to predict a range of hydrologic regimes for each wetland which were later compared with monitoring data collected in the field. Changes in plant associations were also evaluated to detect trends. Hydrologic data was found consistent with the wetland models at five well locations and wetlands associated with two wells were recommended for further monitoring. The MADEP accepted the study findings and renewed the municipality's Water Management Permit.

Narragansett Electric Company Transmission Line Extension Project, Southern, RI

VHB was retained by the Narragansett Electric Company (TNEC) to delineate and inventory wetlands and prepare an Application to Alter Freshwater Wetlands for the RI Department of Environmental Management Office of Water Resources and an Individual Permit Application from the Army Corps of Engineers for a 12-mile long 115 kV transmission construction project. Jeffrey directed an effort to inventory breeding bird and wildlife habitat associated with the corridor and coordinate with the RI Natural Heritage Program. Jeffrey worked with TNEC staff to develop access plans and methods for clearing the corridor that would minimize habitat impacts. He authored portions of the permit applications dealing with wetland functions and values, existing wildlife habitat, and assessments of project impacts to existing resources.

Blackstone River Bikeway, Central RI

Jeffrey directed efforts to delineate wetlands along the 20-mile long historic corridor paralleling the Blackstone River from Providence to the Massachusetts border. He has successfully prepared four RIDEM Applications to Alter Freshwater Wetlands Permit Applications for segments of the bikeway that traverse wetland areas along the Blackstone River. Utilizing the Highway Methodology, he authored the approved Army Corps of Engineers 404 application. Jeffrey also conducted rare plant and breeding bird surveys along constructed and proposed segments of the Bikeway and coauthored a paper that evaluated the impacts of non-consumptive recreation on this wildlife resource.

Chelsea Glinka, ENV SP

Environmental Scientist



Chelsea Glinka is an Environmental Scientist in VHB's Providence, Rhode Island office. Her experience includes environmental permitting assessments and applications, natural resource documentation and wetland delineation, and flora and fauna surveys

7 years of professional experience

Education

MS, Natural Resource Science
with a concentration in
Aquatic Toxicology,
University of Connecticut,
2013

BS, Environmental Science
and Management, University
of Rhode Island, 2010

Registrations/Certifications

Envision™ Sustainability
Professional, 2017

Acoustic Bat Surveys and Habitat Assessments, Massachusetts

Environmental Scientist

Chelsea has conducted northern long-eared bat acoustic surveys for the Massachusetts Department of Transportation (MassDOT) and the Norwood Municipal Light Department. Surveys included multiple locations and multiple detector nights. Her project responsibilities included technical guidance on field survey plans and equipment operation, completion of automated and qualitative acoustic data analysis, report writing and review, and coordination with the U.S. Fish and Wildlife Service.

Groton – New London Airport, Wetland Mitigation Assessment, New London, CT

Environmental Scientist

Under an on-call environmental services contract with the Connecticut Airport Authority, Chelsea was part of a team that conducted field surveys for two state-listed rare plants present on the airfield and reported on the populations trends by reviewing previous reports. She also completed an annual wetland mitigation monitoring report required by the U.S. Army Corps of Engineers (USACE) and the Connecticut Department of Energy (CTDEEP) for a tidal wetland creation and enhancement project along the Poquonnock River on airport property. Additionally, Chelsea completed an invasive species field investigation and management report for the CAA.

MassDOT/MBTA, South Coast Rail Commuter Rail Extension, New Bedford to Fall River, MA

Environmental Scientist

For the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA) Chelsea has helped to document the natural resources present along the route of the planned commuter rail extension by performing wetland delineation and vernal pool surveys. The information gathered in these natural resource assessments has been used in both state and federal environmental permits for the project.

Narragansett Indian Tribe Natural Resource Resiliency Assessment and Action Plan, Charlestown, RI

Environmental Scientist

Chelsea was part of a team that performed a natural resource resiliency assessment of the Narragansett Indian Tribe's (NIT) coastal forest to determine the effects of wind damage from previous storms such as Superstorm Sandy. She collected field data to illustrate the baseline conditions of the forest and conducted an extensive literature review of similar studies to understand the forest's long-term vulnerability to significant

storm events. The forest provides fish and wildlife habitat and is also an important cultural resource to the NIT. Chelsea helped to identify options for the protection and recovery of the NIT's natural resources and helped to make recommendations to improve the resiliency of the forest against future storms and climate change

National Grid, Aquidneck Island Reliability Project, Middletown and Newport, RI

Environmental Scientist

Chelsea was part of a team responsible for the complex permitting needs of the Aquidneck Island Reliability Project (AIRP). This project has required the careful documentation of the environmental resources within the project area, which included an inventory of the environmental, social, and economic assets of the project area. Chelsea also described the anticipated effects from the project on habitat structure, water resources, and wildlife, and the measures that will be taken to minimize impact to the surrounding environment while ensuring successful completion of the project.

National Grid, Z1Y2 Transmission Line Refurbishment, Somerset & Fall River, MA

Environmental Scientist

Chelsea is working to secure the applicable local, state, and federal environmental permits for the completion of the Z1Y2 Transmission Line Project. The Z1Y2 lines pass through several freshwater wetland areas and they span the tidal Taunton River which presents unique permitting and project design challenges. Chelsea has assisted in documenting natural resources within the transmission right-of-way (ROW) and wetland delineation as well as developing the different environmental permit applications necessary for the project to be completed.

Lawton Farm Recreation Area, Scituate, RI

Environmental Scientist

Chelsea worked with the Scituate Land Trust to performed breeding bird point count surveys at the Lawton Farm Recreation Area and documented the findings in annual reports in 2014 and 2015. The land trust was specifically interested in the use of the property by grassland species such as bobolink and meadowlark.

University of Connecticut, Department of Natural Resources and the Environment, Storrs, CT

Graduate Research Assistant

Prior to joining VHB, Chelsea was a Graduate Research Assistant at the University of Connecticut (UConn). For her thesis project she conducted an in-vivo laboratory experiment to evaluate the effects of an androgenic endocrine disruptor on mummichog (a small-bodied fish) under estuarine and freshwater conditions. She also trained and managed undergraduate students in laboratory and field work; developed standard operating procedures for laboratory and biostatistical analyses; and presented research findings at scientific meetings. She has also published a paper conveying her research findings in the Journal of Aquatic Toxicology.

Moberg, Sue

From: Zyko, Karen <Karen.Zyko@ct.gov> on behalf of DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Sent: Wednesday, April 26, 2017 2:56 PM
To: Moberg, Sue
Cc: McKay, Dawn
Subject: RE: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Susan, Thank you for the additional information, I will attach it to the request.

Karen

From: Moberg, Sue [mailto:smoberg@VHB.com]
Sent: Tuesday, April 25, 2017 5:31 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>; Zyko, Karen <Karen.Zyko@ct.gov>
Subject: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

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VHB is planning to initiate surveys for the listed avian species (horned lark, vesper sparrow, grasshopper sparrow and whip-poor-will) as described in the attached memo beginning as early as next week. We would appreciate your feedback on the proposed surveys and any suggestions you may have regarding timing of the surveys.

If appropriate at this time, we would appreciate the opportunity to meet and discuss the proposed conservation measures outlined in the memo and receive your feedback. Failing that, additional guidance on the consultation process would be appreciated as we anticipate filing a petition with the Siting Council in May or June 2017.

Thank you,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] **On Behalf Of** DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to

occur outside NDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

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I can see that you have adjusted your project out of the floodplain areas so the Rana pipiens and the plants have been addressed.

Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection
Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [<mailto:CKelsey@VHB.com>]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Subject: Request for NDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator



100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com

Engineers | Scientists | Planners | Designers
www.vhb.com

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Moberg, Sue

From: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Sent: Thursday, April 27, 2017 5:42 PM
To: Moberg, Sue
Cc: Peterson, Jeff; DEEP Nddbrequest; Zyko, Karen; DeBarros, Nelson; Kearney, Shannon
Subject: Re: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT
Attachments: image001.gif

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Take care,

Dawn
Dawn M. McKay
Wildlife Division
Bureau of Natural Resources
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3592 | E: dawn.mckay@ct.gov<mailto:dawn.mckay@ct.gov>

From: Moberg, Sue <smoberg@VHB.com>
Sent: Tuesday, April 25, 2017 5:30 PM
To: DEEP Nddbrequest
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Thank you,

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Principal

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Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
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860-424-3378

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Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator

[cid:image001.gif@01D2BDE7.AE4B2120]

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Vanasse Hangen Brustlin, Inc. | info@vhb.com<<mailto:info@vhb.com>>

Moberg, Sue

From: Moberg, Sue
Sent: Monday, May 1, 2017 11:43 AM
To: 'DEEP Nddbrequest'
Cc: Peterson, Jeff; Zyko, Karen; DeBarros, Nelson; Kearney, Shannon
Subject: RE: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good morning, we submitted a Detailed map with our last consultation request in February (attachment B). The red line shown on that figure was the proposed limit of clearing. There are updates to the clearing limits in one area.

I will send a revised Attachment B map as soon as it is ready. Should be only a day or two.

Thank you!

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: DEEP Nddbrequest [mailto:DEEP.Nddbrequest@ct.gov]
Sent: Thursday, April 27, 2017 5:42 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>; Kearney, Shannon <Shannon.Kearney@ct.gov>
Subject: Re: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

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Take care,

Dawn
Dawn M. McKay
Wildlife Division
Bureau of Natural Resources
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3592 | E: dawn.mckay@ct.gov<mailto:dawn.mckay@ct.gov>

From: Moberg, Sue <smoberg@VHB.com>

Sent: Tuesday, April 25, 2017 5:30 PM

To: DEEP Nddbrequest

Cc: Peterson, Jeff; McKay, Dawn; Zyko, Karen

Subject: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

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Principal

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Sent: Wednesday, March 8, 2017 12:13 PM

To: Moberg, Sue <smoberg@VHB.com>

Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>

Subject: RE: Request for NDDB State-listed Species Review - Simsbury, CT

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[cid:image001.gif@01D2BDE7.AE4B2120]

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Vanasse Hangen Brustlin, Inc. | info@vhb.com<<mailto:info@vhb.com>>

Moberg, Sue

From: Moberg, Sue
Sent: Friday, May 5, 2017 5:09 PM
To: 'DEEP Nddbrequest'
Cc: Peterson, Jeff; Zyko, Karen; DeBarros, Nelson; Kearney, Shannon
Subject: RE: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT
Attachments: Attachment B - Detailed Site Map With Limit of Work.pdf; Site Layout Map.pdf

Good afternoon Dawn, attached is the revised Attachment B - Detailed Site Map with work limits. This map depicts the site boundaries, the boundaries of the field delineated inland wetlands, and the limit of work. I opted not to include the proposed solar array on this figure since it obscures the aerial information. So also attached is a separate figure that depicts the proposed project layout. Please let me know if you have any questions.

I hope this information is helpful in completing your review. Let me know if you need anything else.

Regards,
Sue

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: DEEP Nddbrequest [mailto:DEEP.Nddbrequest@ct.gov]
Sent: Thursday, April 27, 2017 5:42 PM
To: Moberg, Sue <smoberg@VHB.com>
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Take care,

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If appropriate at this time, we would appreciate the opportunity to meet and discuss the proposed conservation measures outlined in the memo and receive your feedback. Failing that, additional guidance on the consultation process would be appreciated as we anticipate filing a petition with the Siting Council in May or June 2017.

Thank you,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com<http://www.vhb.com/>

From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] On Behalf Of DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

Tree clearing and ground disturbing equipment have the potential impact the turtles, snakes and tree roosting bats. Please provide protection measures or timing of work to address these species. If you locate vernal pools during your surveys please state how you will protect them.

I can see that you have adjusted your project out of the floodplain areas so the Rana pipiens and the plants have been addressed.

Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [mailto:CKelsey@VHB.com]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov<mailto:DEEP.Nddbrequest@ct.gov>>
Subject: Request for NDDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator

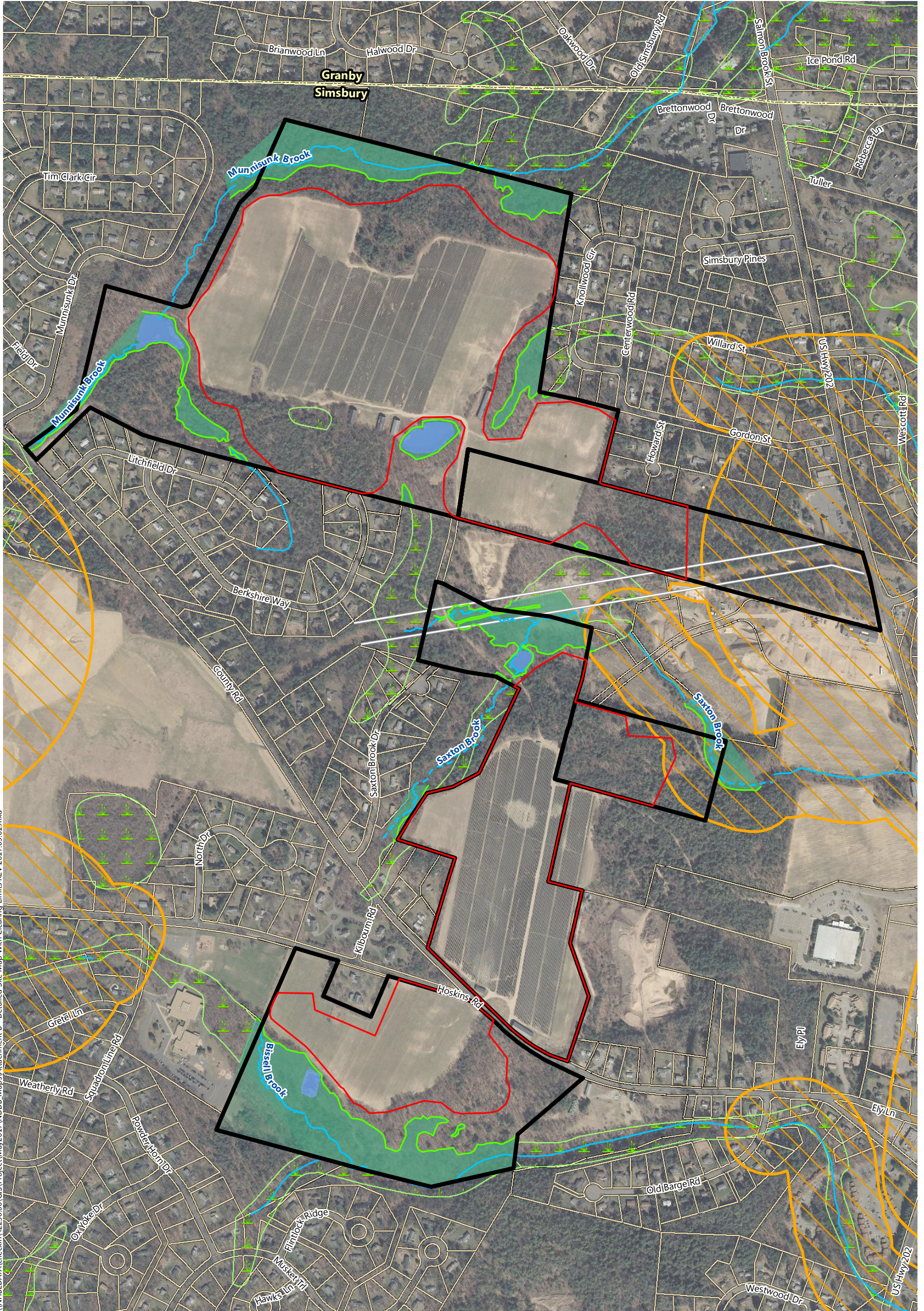
[cid:image001.gif@01D2BDE7.AE4B2120]

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com<mailto:CKelsey@VHB.com>

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\\NHBEDATA\checkin\42256.00\GIS\Project\May2017\NDDB_Maps\Attachment B - Detailed Site Map With Clearing Limits REV 2017.05.01.mxd

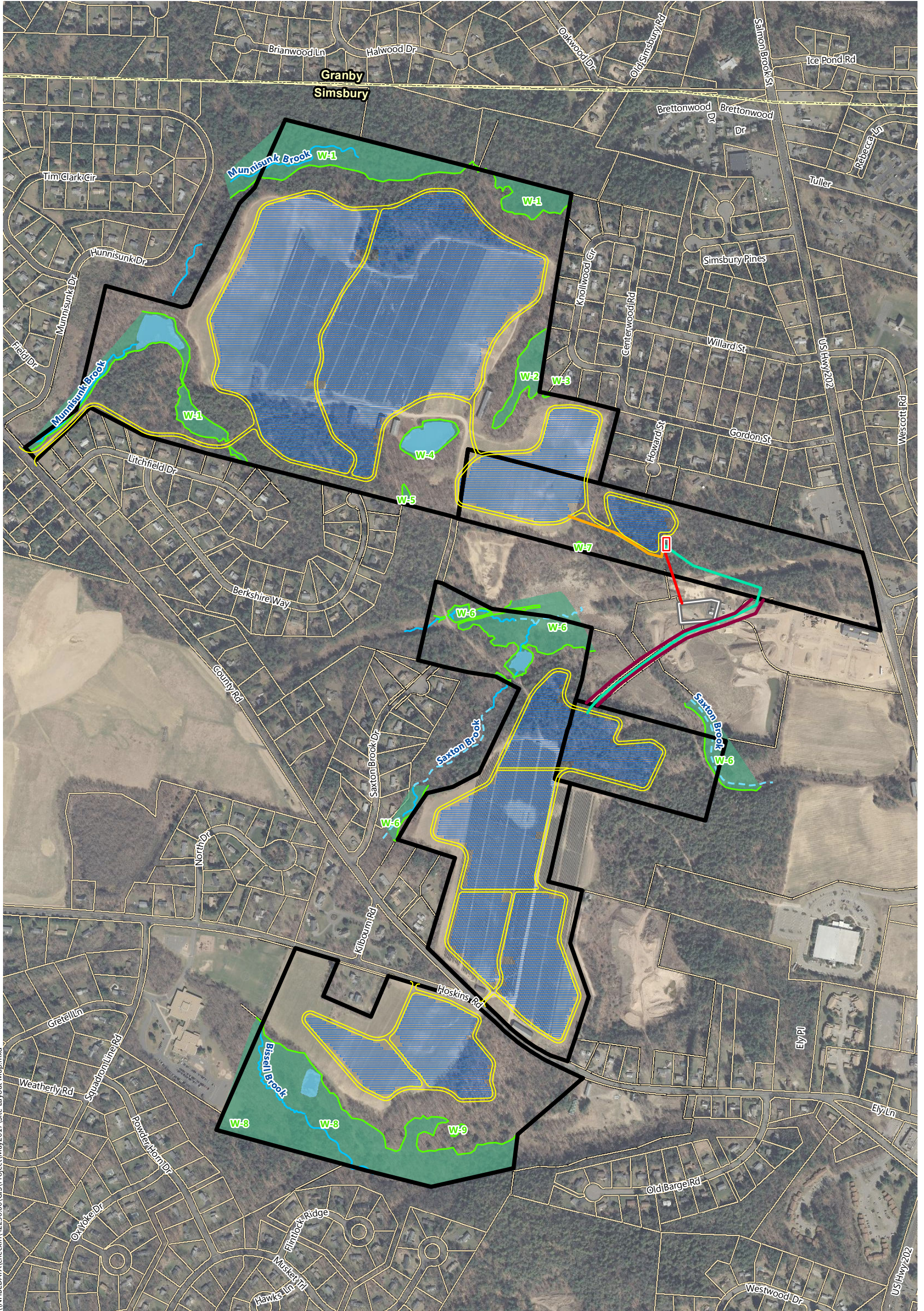


DWW Solar

Simsbury, Connecticut

- | | | |
|-------------------------|-------------------------|---------------------------------|
| Project Site | Delineated Wetland Edge | NDDB Areas (CTDEEP, 2016) |
| Limit of Work | Stream | Critical Habitat (CTDEEP, 2014) |
| Wetland Resource Area | Approximate Stream | Town Boundary |
| Farm Pond | Existing Gravel Road | Adjacent Parcels |
| Wetlands (CTDEEP, 2005) | Existing Electric ROW | |

Attachment B - Detailed Site Map



\\NHBEDATA\checkin\42256.00\GIS\Project\May2017\Site Layout Map.mxd



DWW Solar

Simsbury, Connecticut

Site Layout Map

- | | | |
|-------------------------|-----------------------|------------------|
| Project Site | Solar Array | Town Road ROW |
| Delineated Wetland Edge | Substation | Town Boundary |
| Stream | Switchgear | Adjacent Parcels |
| Approximate Stream | Northern Cable Route | |
| Wetland Resource Area | Southern Cable Route | |
| Farm Pond | Interconnection Route | |

Moberg, Sue

From: Moberg, Sue
Sent: Tuesday, May 23, 2017 2:27 PM
To: 'DEEP Nddbrequest'
Cc: Peterson, Jeff; 'Zyko, Karen'; 'DeBarros, Nelson'; 'Kearney, Shannon'
Subject: RE: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT
Attachments: Vernal Pool_Memo_Final-5-23-2017.pdf; 05112017Whip-poor-will survey.pdf

Good afternoon, attached is some additional information for your consideration. VHB completed a vernal pool survey of the potentially suitable ponds within the project site. Based on the observations and sampling results, VHB concluded that the ponds do not meet the criteria to be considered vernal pools. Additionally, VHB conducted one night-time survey for Whip-poor-will on May 11, 2017. Documentation of the survey is attached. Additional Whip-poor-will surveys are proposed for early June.

Regards,
Sue

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: Moberg, Sue
Sent: Friday, May 5, 2017 5:09 PM
To: 'DEEP Nddbrequest' <DEEP.Nddbrequest@ct.gov>
Cc: Peterson, Jeff <jpeterson@VHB.com>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>; Kearney, Shannon <Shannon.Kearney@ct.gov>
Subject: RE: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good afternoon Dawn, attached is the revised Attachment B - Detailed Site Map with work limits. This map depicts the site boundaries, the boundaries of the field delineated inland wetlands, and the limit of work. I opted not to include the proposed solar array on this figure since it obscures the aerial information. So also attached is a separate figure that depicts the proposed project layout. Please let me know if you have any questions.

I hope this information is helpful in completing your review. Let me know if you need anything else.

Regards,
Sue

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: DEEP Nddbrequest [mailto:DEEP.Nddbrequest@ct.gov]

Sent: Thursday, April 27, 2017 5:42 PM

To: Moberg, Sue <smoberg@VHB.com>

Cc: Peterson, Jeff <jpeterson@VHB.com>; DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>; Kearney, Shannon <Shannon.Kearney@ct.gov>
Subject: Re: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Sue,

Thank you for submitting the draft conservation measures for a proposed solar project in Simsbury. Will the project encompass all three properties we reviewed or has it been narrowed down a bit? I am reviewing your conservation strategies and have shared the report with other biologists in our program Mr. Nelson DeBarros for plants and Ms. Shannon Kearney for birds and invertebrates so that we may review your strategies in a comprehensive way. When we have finished our review I will write back to you and let you know if we have any questions or suggestions. If one of our program biologists wishes to have a site visit(s) would that be available as well? Thank you for contacting our program and for sending forward your draft conservation measures.

Take care,

Dawn

Dawn M. McKay

Wildlife Division

Bureau of Natural Resources

Connecticut Department of Energy and Environmental Protection

79 Elm Street, Hartford, CT 06106-5127

P: 860.424.3592 | E: dawn.mckay@ct.gov<mailto:dawn.mckay@ct.gov>

From: Moberg, Sue <smoberg@VHB.com>

Sent: Tuesday, April 25, 2017 5:30 PM

To: DEEP Nddbrequest

Cc: Peterson, Jeff; McKay, Dawn; Zyko, Karen

Subject: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good afternoon, please find attached VHB's draft conservation measures plan for the proposed solar project in Simsbury. CT DEEP issued preliminary assessments #s 201509947, 201509960 and 201600041 in response to VHBs NDDB review request in December 2015.

As you requested in your email below, VHB prepared this memo to outline a proposed strategy for surveying for the listed species, an evaluation of potential effects should the species be present and a proposed conservation strategy for protecting the species if it is present or if suitable host habitat is present.

VHB is planning to initiate surveys for the listed avian species (horned lark, vesper sparrow, grasshopper sparrow and whip-poor-will) as described in the attached memo beginning as early as next week. We would appreciate your feedback on the proposed surveys and any suggestions you may have regarding timing of the surveys.

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Thank you,

Susan Moberg
Principal

P 401.457.2055

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From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] On Behalf Of DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM
To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) – if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields – this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

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I can see that you have adjusted your project out of the floodplain areas so the Rana pipiens and the plants have been addressed.

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Karen Zyko
Department of Energy & Environmental Protection Bureau of Natural Resources, Wildlife Division
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Subject: Request for NDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator

[cid:image001.gif@01D2BDE7.AE4B2120]

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com<mailto:CKelsey@VHB.com>

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To: Susan Moberg PWS

Date: May 23, 2017

Memorandum

Project #: 42256.00

From: Jeff Peterson, PWS
Chelsea Glinka ENV SP

Re: Vernal Pool Survey for the Tobacco Valley Solar Project
Simsbury, Connecticut

Proposed Project and Site Description

Deepwater Wind (DWW) proposed the Tobacco Valley Solar Farm (the Project) in response to the New England Clean Energy request for proposals solicited by the Connecticut Department of Energy and Environmental Protection (CT DEEP), Eversource Energy, National Grid, and Unitil. In October of 2016, Deepwater's Simsbury project was selected as one of the bidders to enter final contract negotiations with Eversource Energy. The proposed Solar Project includes a new 26.4 MW-AC solar power generating facility located on ± 150 acres of land previously developed for agriculture in Simsbury, Connecticut, and it is adjacent to Connecticut Light & Power's existing 115 kV Northeast Simsbury substation.

Wetlands and Vernal Pool Resources

A delineation of inland wetlands and watercourses was completed in the Project Area between December 2016 and April 2017. This delineation determined that there are nine wetland systems with three perennial streams and four farm ponds within the Project Area limits. All the wetlands were investigated for vernal pool indicators by VHB staff between April 3, April 19, 2017, and May 11, 2017. The result of the surveys was that no vernal pools were identified within the parcels of land making up the Project Area. The findings are presented in more detail below.

Vernal Pool Identification Criteria

The CT DEEP no longer provides a definition of vernal pool on its website.¹ Calhoun and Klemens (2002) noted that there was no official definition for a vernal pool in Connecticut and cited the following guidance provided by Donahue 1995:

- a) physical features and the presence of one or more obligate species,
- b) water for approximately 2 months during the growing season,
- c) a confined depression that lacks a permanent outlet stream,
- d) no fish, and
- e) dries out in most years.

The Connecticut Association of Wetland Scientist's website notes that a DEP Task Force developed the following vernal pool draft definition:

Vernal pool means a seasonal watercourse in a defined depression or basin, that lacks a fish population and supports or is capable of supporting breeding and development of amphibian or invertebrate species

1 http://www.ct.gov/deep/cwp/view.asp?a=2720&q=325676&depNav_GID=1654 (accessed 5/1/2017)

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109-2377
P 860.807.4300

recognized as obligate to such watercourses. These species include spotted salamander, Jefferson salamander complex, marbled salamander, wood frog, and fairy shrimp.

Table 1 Vernal Pool Obligate Species

Jefferson salamander (<i>Ambystoma jeffersonianum</i>)	Wood frog (<i>Lithobates sylvaticus</i>)
Spotted salamander (<i>Ambystoma maculatum</i>)	Eastern spadefoot toad (<i>Scaphiopus holbrookii</i>)
Marbled salamander (<i>Ambystoma opacum</i>)	Fairy shrimp (<i>Eubbranchipus</i> spp.)

These criteria are similar, although the second does not require the pool to dry in most years.

Methodology to Identify Vernal Pools

Vernal pools were surveyed in April of 2017 by traversing the wetlands to find pools that could hold amphibians. Once potential vernal pools were identified, VHB logged auditory cues (e.g. wood frog breeding calls). Wearing waders VHB dip netted within the pools looking primarily for wood frog and spotted salamander adults, egg masses or spotted salamander spermatophores along the pools edge. VHB focused the surveys most intensely in areas where substrate, such as submerged branches, beds of reed-canary grass or other emergent species were present. Dip netting, minnow traps, baited fishing lines and visual surveys using polarized glasses were used to determine the presence/absence of fish. Photographs were taken of the pools investigated and of specimens captured during sampling.

Findings

The only potential vernal pools observed within the Project Area consisted of four farm ponds constructed as part of the irrigation system that supported the crop production on the parts of the Site managed as tilled field. Two types of farm ponds are present: impoundments constructed in perennial streams and ponds excavated into groundwater. All four ponds were found to support fish populations and therefore are not vernal pools. Wood frog were encountered in puddles which had formed during snow melt in the access drive from County Road just northwest of Litchfield Drive. These puddles had dried entirely by April 19th such that successful breeding could not occur in them.

VHB found wood frog egg masses and a small number of chorusing adults at the edge of the southernmost Farm Pond 4. This pond held a large population of an unidentified juvenile Centrarchid (*Lepomis* sp. bluegill or sunfish) and larger fish up to an estimated five inches in length were observed from the shore. A description of each resource area investigated is provided below.

Farm Pond 1

This irrigation pond is in the northwestern portion of the Project Area approximately 550 feet south east of the intersection of Munnisunk Drive and Tim Clark Circle. This pond is impounded by an earthen dam constructed across Munnisunk Brook. The surface area of the pond is 1.2 acres. A large corrugated metal riser pipe serves as the outlet

control for the level of the pond. The pond is several feet deep and cannot be crossed while wearing waders. Still backwater areas appear to provide suitable vernal pool habitat.

VHB observed adult green frog (*Lithobates clamitans*) and northern spring peeper (*Pseudacris crucifer*) along the shores of this pond. No adults or egg masses of any vernal pool obligate species were found during the perimeter search. Depredated mussel shells were common along the shoreline of the pond. VHB observed fish in the pond and captured juvenile Centrarchids (*Lepomis* sp.) in a minnow trap and adult golden pond shiners (*Notemigonus crysoleucas*). Photographs are appended. The presence of fish in the pond means that this resource area is not a vernal pool.

Farm Pond 2

This excavated farm pond also is part of the irrigation system for the farm. Farm Pond 2 is located approximately 500 feet northeast of the cul-de-sac at the end of Berkshire Way. The water surface area of the pond is about one acre. The pond is too deep to wade more than 15 to 20 feet in from the shoreline. This pond has no natural inlet or outlet. An irrigation line from Pond 1 is used to supply water to this pond and water in this pond is used to irrigate crops.

Perimeter visual and dip-net surveys did not reveal any evidence of obligate species in this resource area. The northern shoreline of the pond includes an area of floating reed canary-grass that appeared particularly suitable for wood frog or spotted salamander breeding. During the final inspection on April 19th, this area was covered with strings of American toad (*Anaxyrus americanus*) eggs. However, no evidence of wood frog or spotted salamanders breeding was observed.

Fish presence was suspected as the pond was visited by a pair of hooded mergansers and a belted kingfisher during the investigation. Dip netting produced second year green frog larva with leg buds and juvenile brown bullhead (*Ameiurus nebulosus*). Fleeting observations of larger fish and schools of juvenile centrarchids were also made as they broke the water surface while feeding or escaping predation.

The absence of evidence of use by vernal pool obligate species and presence of fish led to the conclusion that this resource area is not a vernal pool.

Farm Pond 3

This impoundment constructed on Saxton Brook is about one third of an acre in area. Farm Pond 3 is located approximately 700 feet west of the temporary cul-de-sac at the end of Casterbridge Crossing. It was constructed by a combination of excavation and construction of an earth dam across the stream. The earth dam has partially breached in the northern corner of the pond and water flows through the pond at a lower elevation. An intake structure for diverting stream flow for use in irrigation remains in this pond.

Our visual and dipnet surveys around the entire pond perimeter did not produce any evidence of use by an obligate species. We were unable to capture fish with a baited minnow trap placed at several locations in the pond. VHB observed a belted kingfisher (*Megaceryle alcyon*) catch and consume a small fish. During our multiple observations, VHB found the pond is frequented by a pair of hooded mergansers (*Lophodytes cucullatus*) which include small fish in their diet. Finally, on May 11, 2017 large schools of juvenile centrarchids were observed close to shore in the northwest corner of the pond.

VHB concluded that this small pond constructed in a perennial watercourse is not a vernal pool.

Farm Pond 4

This excavated farm pond is the southernmost of the four potential vernal pools investigated in the Project Area. It is approximately 800 feet south of the intersection of Kilbourn Road with Hoskins Road. This pond has no inlet but an ephemeral outlet was flowing at the time of the inspection. The pond has a surface area of about 0.4 acres.

This pond held a small raft of wood frog eggs (estimated 6–8) along its western shoreline where a red maple sapling dipped into the water. A small group of adults would chorus when sunlight broke from behind clouds. No evidence of spotted salamander breeding was observed.

Painted turtle (*Chrysemys picta*) was also observed sunning in the pond on May 11, 2017. Inspection of the pond found that it held a large population of Centrarchids (*Lepomis* sp.) in multiple age classes. Despite the presence of wood frog, the presence of these fish led VHB to conclude that Farm Pond 4 is not a vernal pool.

Conclusions

No vernal pools were found within the limits of the property being considered for the Project. Wetland systems do extend beyond the property limits and vernal pools may occur off-site near the Project. A summary of findings is presented in Table 1 below.

Table 2 Summary of Findings

Pond ID	Area (ac)	Inlet/Outlet Flowing	Obligate Species	Fish Present	Vernal Pool Criteria Met
Farm Pond 1	1.2	Yes	None detected	Yes	No
Farm Pond 2	1.0	No	None detected	Yes	No
Farm Pond 3	0.3	Yes	None detected	Yes	No
Farm Pond 4	0.4	No inlet; Outlet-Yes	Wood frog ¹	Yes	No

1: An estimated six to eight egg masses and small group of chorusing wood frog observed near northwest corner of Farm Pond 4

Ref: 42256.000

May 23, 2017

Page 5

References:

Calhoun, A. J. K. and M. W. Klemens. 2002. Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States. MCA Technical Paper No. 5, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

Connecticut Association of Wetland Scientists vernal pool web page fact sheet:



http://www.ctwetlands.org/forms/CAWS_VernalPoolMonitoring_FactSheet.pdf

Donahue, D. F. 1996. A guide to the identification and protection of vernal pool wetlands in Connecticut. University of Connecticut Cooperative Extension Program.

Klemens, M. W. 1993. Amphibians and reptiles of Connecticut and adjacent regions. State Geological and Natural History Survey of Connecticut, Bulletin No. 112, Connecticut Department of Environmental Protection, Hartford, CT.

Whitworth, W. R. 1996. Freshwater Fishes of Connecticut. 2nd ed. State Geological and Natural History Survey of Connecticut Bulletin 114, Connecticut Department of Environmental Protection, Hartford, CT.

Farm Pond 1 Photos

Farm Pond 1 - Photo 1	Description:
	<p>An intermittent stream enters Farm Pond 1 from the southeast. This area looked likely to provide vernal pool habitat, however no evidence of obligate species was found in this pond. Munnisunk Brook, a perennial tributary to the Farmington River, enters the pond from its northwestern corner that is not visible in this photograph.</p>
Farm Pond 1 - Photo 2	Description:
	<p>View of the corrugated metal riser pipe that serves as the outlet at Farm Pond 1. The pond is an impoundment of Munnisunk Brook and another intermittent tributary. This photo was taken from the earth dam at the northeast side of the pond looking southwest across the pond.</p>

Farm Pond 1 - Photo 3



Description:

Adult golden pond shiners are present in Pond 1. The presence of these fish confirms the pond is not a vernal pool.

Farm Pond 1 - Photo 4







Description:

Spring peeper observed along the pond's shoreline. Spring peeper is not an obligate vernal pool species.

Farm Pond 1 - Photo 5	Description:
 A close-up photograph showing a person's open palm holding a very small, juvenile fish. The fish is iridescent, with a shimmering blue and purple sheen on its body and a yellowish-orange patch on its side. The person's hand is the background, and a portion of a mesh trap is visible in the upper left corner.	A juvenile Centrarchid was captured in a minnow trap placed in Farm Pond 1.

Farm Pond 2 Photos

Farm Pond 2 - Photo 1 	Description: Farm Pond 2 was excavated below the water table next to tobacco barns. This irrigation pond held fish and second year green frog larvae indicating it does not dry.
Farm Pond 2 - Photo 2 	Description: Dip netting did not result in any vernal pool obligate species captures, but three brown bullhead juveniles were captured, all similar in size to the specimen in this photo.

Farm Pond 2 - Photo 3	Description:
	<p>Second year green frog larvae were also common. This robust individual was beginning to develop hind legs.</p>
Farm Pond 2 - Photo 4	Description:
	<p>American toad use this pond to spawn, but are not obligate vernal pool species. American toad preferred the submerged reed canary grass found along the north side of the pond as a substrate for egg deposition. Large schools of American toad larvae such as seen in this photographed were present on May 11, 2017.</p>



Farm Pond 2 - Photo 5



Description:

This photo shows the existing condition along the north side of Pond 2 where a shelf of partially submerged reed canary grass attracted spawning American toad.

Farm Pond 3 Photos

<p>Farm Pond 3 - Photo 1</p> 	<p>Description:</p> <p>Farm Pond 3 is an impoundment along Saxton Brook (foreground). It was constructed through a combination of excavation and construction of an earth impoundment.</p>
<p>Farm Pond 3 - Photo 2</p> 	<p>Description:</p> <p>No evidence of use by obligate vernal pool species was found. While we were unable to capture and identify fish in the pond, we did witness a belted kingfisher capture and consume a fish from this pond. Painted turtles were photographed sunning in this pond on May 11, 2017. This instream impoundment is not a vernal pool.</p>

Farm Pond 4 Photos

<p>Farm Pond 4 - Photo 1</p> 	<p>Description:</p> <p>View of Farm Pond 4 looking southwest towards outlet. The pond was constructed by cutting into the northern hillside and constructing a berm along the southern half of the pond.</p>
<p>Farm Pond 4 - Photo 2</p> 	<p>Description:</p> <p>View of Farm Pond 4 looking north along the western bank. A small raft of wood frog eggs was found attached to the downed red maple sapling visible near the far corner of the pond.</p>

Farm Pond 4 - Photo 3



Description:



A small raft of wood frog eggs was attached to the branches of a red maple sapling that had recently bent into the pond.

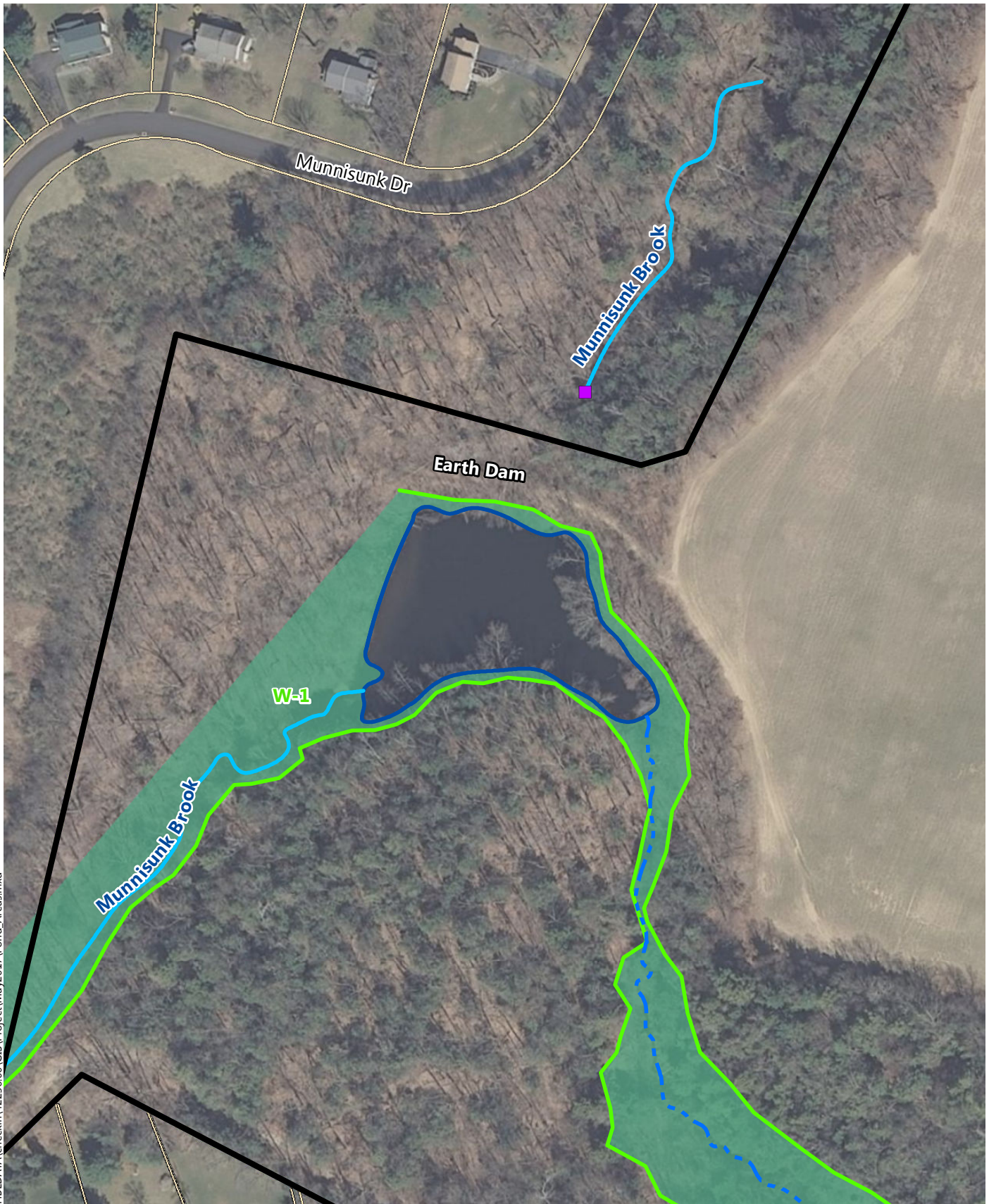
Farm Pond 4 - Photo 4



Description:

Farm Pond 4 supported a large population of an unidentified Centrarchid (*Lepomis* sp.). These juveniles were caught in a baited minnow trap placed in the pond. Larger fish were also observed within the pond.

Farm Pond 4 - Photo 5	Description:
 <p>A photograph of a painted turtle resting on a mossy log in a pond. The water is covered with green algal mats. The date 05/11/2017 is visible in the bottom right corner of the photo.</p>	<p>Pond 4 was found to contain fish and is inhabited by painted turtle.</p>
Farm Pond 4 - Photo 6	Description:
 <p>A photograph of Farm Pond 4 viewed from the pond outlet looking north. The water is covered with floating algal mats. The date 05/11/2017 is visible in the bottom right corner of the photo.</p>	<p>Farm Pond 4 viewed from the pond outlet looking north. The floating algal mats indicate that the pond is eutrophic.</p>



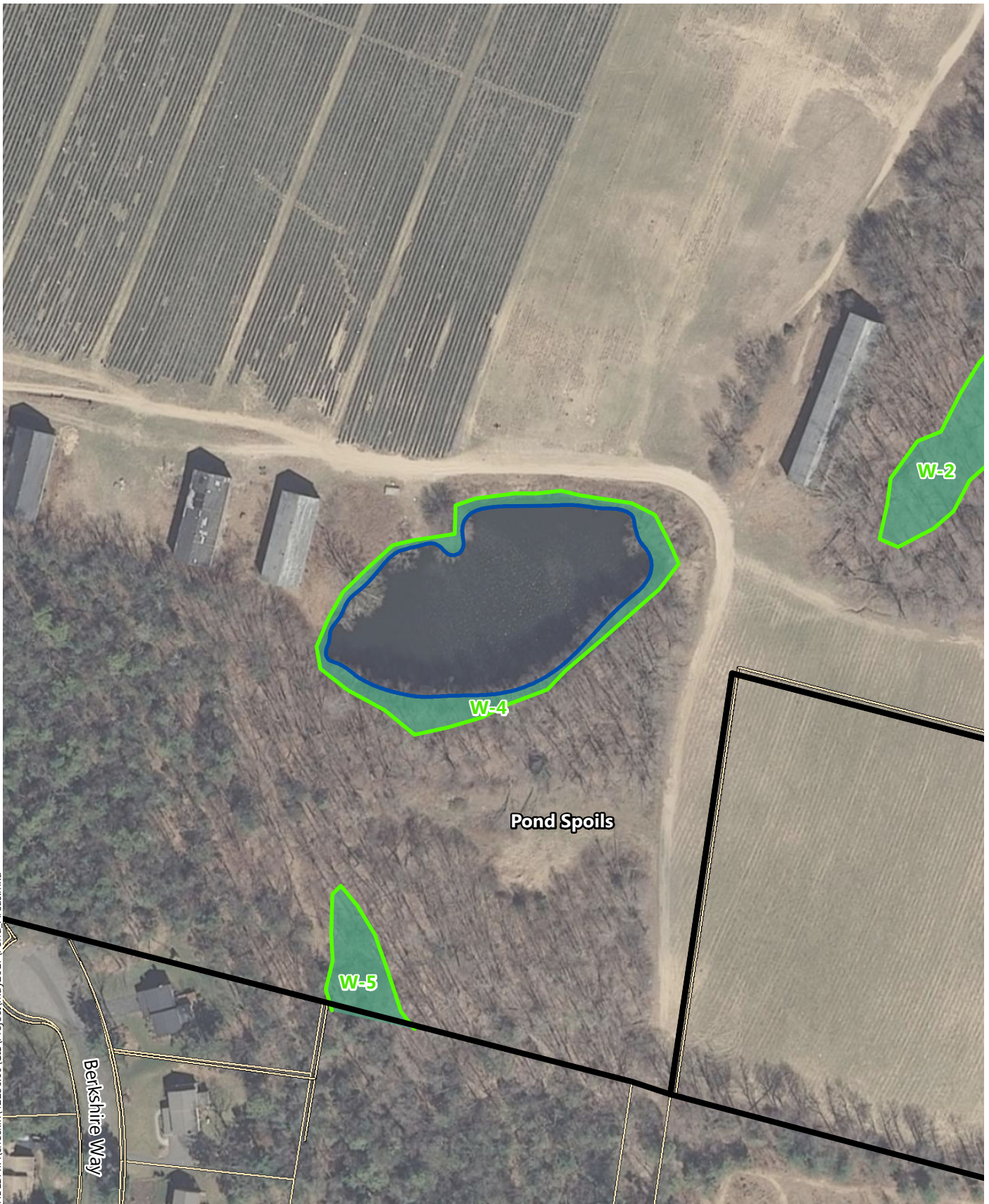
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0 75 150 300 Feet

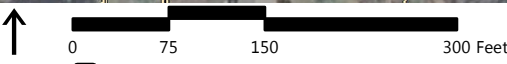
DWW Solar | Simsbury, Connecticut

	Project Site		Delineated Wetland Edge		Culvert
	Adjacent Parcels		Stream		
	Farm Pond		Approximate Stream		
	Wetland Resource Area		Intermittent Watercourse		

Farm Pond 1










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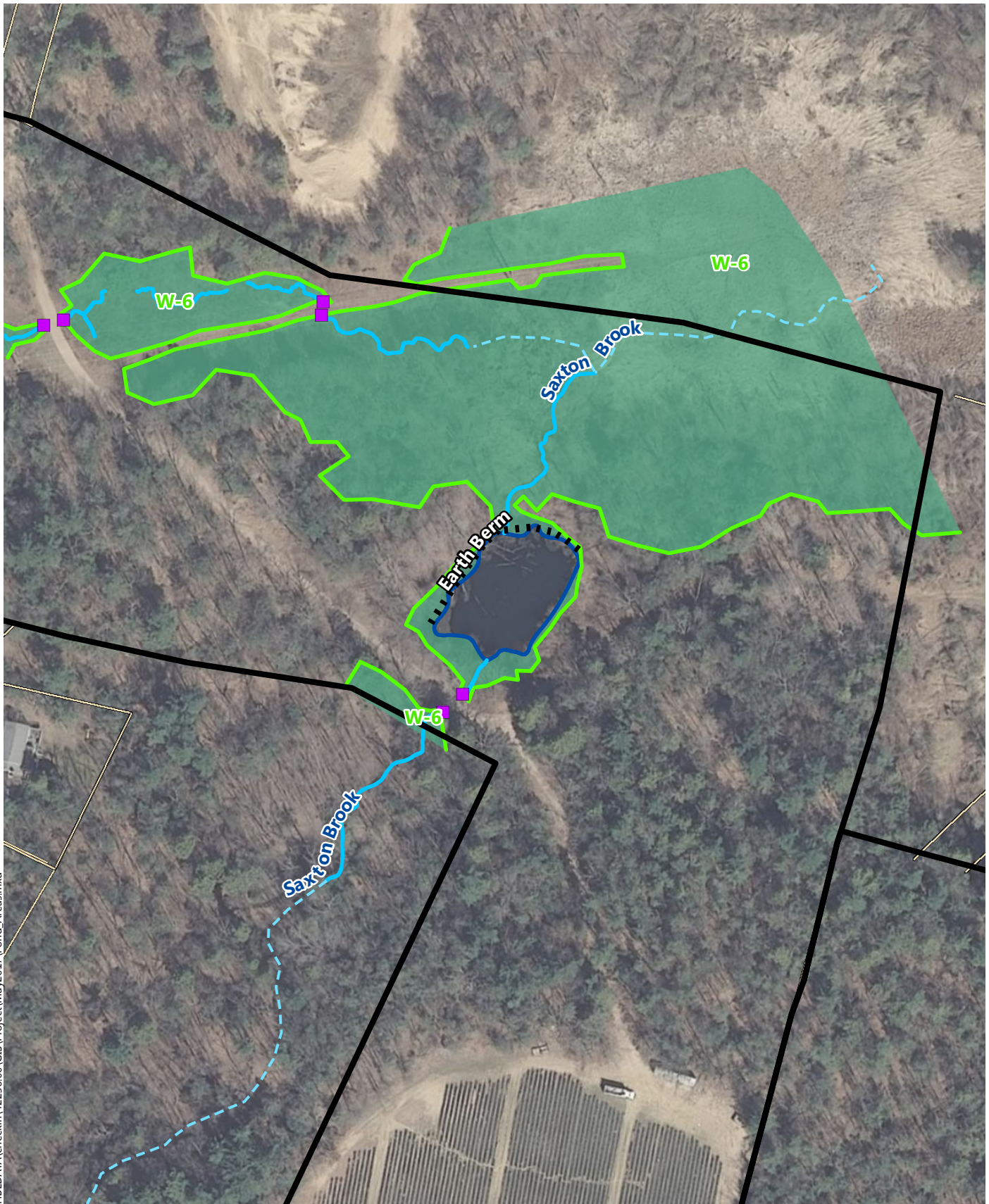


DWW Solar

Simsbury, Connecticut

-  Project Site
-  Delineated Wetland Edge
-  Culvert
-  Adjacent Parcels
-  Stream
-  Approximate Stream
-  Farm Pond
-  Intermittent Watercourse
-  Wetland Resource Area

Farm Pond 2










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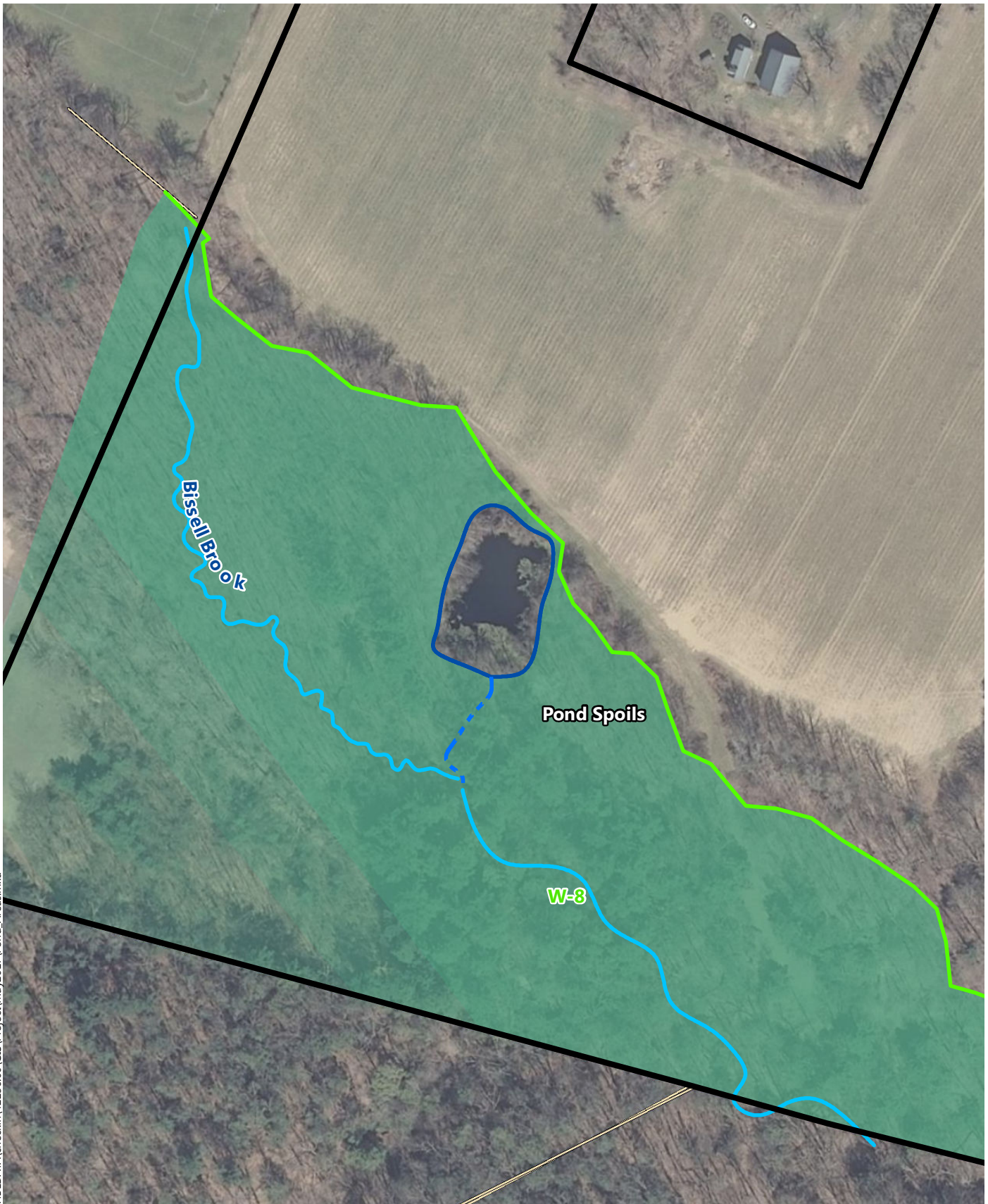
0 75 150 300 Feet

DWW Solar

Simsbury, Connecticut

-  Project Site
-  Delineated Wetland Edge
-  Culvert
-  Adjacent Parcels
-  Stream
-  Farm Pond
-  Approximate Stream
-  Wetland Resource Area
-  Intermittent Watercourse

Farm Pond 3



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↑

0 75 150 300 Feet

DWW Solar | Simsbury, Connecticut

	Project Site		Delineated Wetland Edge		Culvert
	Adjacent Parcels		Stream		
	Farm Pond		Approximate Stream		
	Wetland Resource Area		Intermittent Watercourse		

Farm Pond 4

pond #1

VERNAL POOL DATA SHEET

Survey Date: 4/5/17 Investigator(s): C. Glinski & J. Peterson Town: Simsbury CAWS Pool #: CAWS Project #:

Town Staff Contacted? Yes No Project/property name: Simsbury Solos Pool Type: Development: Reference:

Address/location (or include annotated map): at the end of Beckwith Rd Investigator's Contact information: peterson@vhs.com

SEARCH CONDITIONS AND METHODS (required)

WEATHER: Precipitation: Within last 24 hours Cloud Cover: clear partly cloudy mostly cloudy full cloud cover

Current: Trace Methods used: Visual Dipnetting

Start time: 9:30 Polarized sunglasses used? Yes No

End time: 11:00 Post construction Post construction

Type of Inspection: baseline during construction post construction

Comments: No egg masses observed Temporary flagging used to mark egg masses? Yes No

AMPHIBIAN EGG MASS COUNTS (required)

Wood frogs: 1-25 26-49 50-75 75-100 100-150 150-200 200-250 >1250

Abundance categories: 250-300 300-400 400-500 500-750 750-1000 1000-1250 >1250

If condition mixed, note "some", "many" or "most": None observed

intact: None observed

breaking up: None observed

hatching: None observed

Describe estimation method used for a large raft: None observed

Spotted Salamanders: None observed

Condition: None observed

intact: None observed Total Number: 0

breaking up: None observed

hatching: None observed

CONDITIONS/OBSERVATIONS WITHIN POOL (required data)

Inlet observed? No Yes Flowing Not flowing

Outlet observed? No Yes

fish observed? No Yes

Estimated water depth range? 1-3'

Optional Data (see also back of sheet): Other Vernal Pool Species: Red maple, oak, Alder, willow

fairly shrimp present? Yes No

marbled salamander larvae present? Yes No

Vegetation (within or overhanging pool): Red maple, oak, Alder, willow

Trees/Saplings: Red maple, oak

Shrubs/Vines: Alder, willow

Herbs: None

Percent tree canopy closure? 20% High Med. Low

Woody debris content? Low High Med. Low

Pool Substrate: (top three) Peat

Mud/muck Sand/Silt Bedrock

Leaf Litter Silt/clay Gravel/cobbles

Water Quality: pH conductivity (µS/cm) temperature (°C)

Nitrate-N (mg/l) Total P (µg/l) DO (mg/l)

turbidity (NTUs) Sulphidic odor? No Yes

Approximate % cover by algal mat or duckweed? 0

GPS coordinates: 41.911852, -72.799453

CONDITIONS IN ENVELOPE WITHIN 100 FT OF POOL (required data)

Landuses/conditions: 40% forest 5% meadow 10% shrubland 15% lawn 45% building 0% ag. field

road 10% busy (>1 car/10 min.) yes no

parking lot

Comments: None

Leaf Litter: If variable, note location (e.g. "N. shore")

none/low: 0

moderate: Along south perimeter

high: None

Cover Objects: None Logs None Rocks None

none: None

low: None

moderate: None

high: None

Dominant vegetation (optional): Red maple, oak

Trees/saplings: Red maple, oak

Shrubs/Vines: None

Herbs: None

CONDITIONS IN ENVELOPE AROUND POOL (required data)

Landuses: 40% forest 40% shrubland 60% exposed soil 60% pavement 60% building 60% lawn 60% field (agriculture) 60% busy road (<1 car/10 min.)? yes no

Leaf Litter within 100' (in wooded cover type)

none/low: None

moderate: None

high: None

Cover Objects: None Logs None Rocks None

none: None

low: None

moderate: None

high: None

Dominant vegetation within 100' (optional): None

Trees/saplings: None

Shrubs/Vines: None

Herbs: None

ADDITIONAL NOTES: (optional)

Near wetland Fly Series 4-100

VERNAL POOL DATA SHEET, p. 2

Survey Date: 4/5/17 Investigator(s): G. Liama + J. Peterson Town: Simsbury CAWS Pool #:
 Project/property name: Simsbury Salas Pool Type: Development: Reference:

WILDLIFE OBSERVATIONS: (optional)

Checklist of Facultative Herptile Fauna (Pool & Fringe):

Green Frog	<input type="checkbox"/>	Spring Peeper	<input checked="" type="checkbox"/>
Pickrel Frog	<input type="checkbox"/>	Gray Tree Frog	<input type="checkbox"/>
Bull Frog	<input type="checkbox"/>	Pickrel Frog	<input type="checkbox"/>
Eastern Toad	<input type="checkbox"/>	Painted Turtle	<input type="checkbox"/>
Spotted Turtle	<input type="checkbox"/>	Snapping Turtle	<input type="checkbox"/>
N. Water Snake	<input type="checkbox"/>	Blue-spot. salam.	<input type="checkbox"/>

Other Observed Fauna (Pool & Fringe):
 several bird species observed, including an active King Fisher

SKETCH OF POOL (required)

ADDITIONAL NOTES: (optional)

Used a fishing pole and minnow trap to try to detect presence of fish, No fish were observed.

Walked perimeter of pond with a dip net and did not observe any egg masses.

No wood frog chovasing

Wetland flag series 4-100

Hockey net observed on perimeter - suggests pond holds water year-round.

SKETCH OF TERRESTRIAL ENVELOPE AROUND POOL (required)

Circle any of the following factors that impaired your ability to observe egg masses, and indicate severity of impairment.

Factor Severity (Low/Mod./High)

1. Surface algae
2. Surface pollen
3. Dark, tannin-colored water
4. Deep water
5. Turbidity
6. Dense shrubs
7. Other (specify)
 Garbage debris - moderate amount littered around the perimeter of the pond
 Overcast / cloudy weather

Draw a rough, quick sketch of the pool's terrestrial envelope, extending at least 200' from pool in all directions. Provide detail on conditions & landuses within 100 feet of edge of pool. Include north arrow and approximate scale.

Pond # 2

VERNAL POOL DATA SHEET

Survey Date: 4/5/17	Investigator(s): Glinke, Tolson	Town: Simsbury	CAWS Pool #	CAWS Project #	
Town Staff Contacted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Project/property name: Simsbury Solar	Pool Type: <input type="checkbox"/> Development: <input checked="" type="checkbox"/> Reference: <input type="checkbox"/>			
Address/location (or include annotated map): 1300' ENE Intert Munnisunk Drd Field Dr					
Investigator's Contact information:					

SEARCH CONDITIONS AND METHODS (required) WEATHER: Precipitation: Within last 24 hours Current: Trace 1"± Start time: 11:00 End time: 12:30 Cloud Cover: clear <input type="checkbox"/> partly cloudy <input type="checkbox"/> mostly cloudy <input checked="" type="checkbox"/> full cloud cover <input type="checkbox"/> Methods used: Visual <input checked="" type="checkbox"/> Dipnetting <input type="checkbox"/> Type of Inspection: baseline <input checked="" type="checkbox"/> during construction <input type="checkbox"/> post construction <input type="checkbox"/> Comments: No egg masses found Temporary flagging used to mark egg masses? Yes <input type="checkbox"/> No <input type="checkbox"/>	AMPHIBIAN EGG MASS COUNTS (required) Wood frogs: <input type="checkbox"/> 1-25 <input type="checkbox"/> 26-49 <input type="checkbox"/> 50-75 <input type="checkbox"/> 75-100 <input type="checkbox"/> 100-150 <input type="checkbox"/> 150-200 <input type="checkbox"/> 200-250 <input type="checkbox"/> >1250 Abundance categories <input type="checkbox"/> 250-300 <input type="checkbox"/> 300-400 <input type="checkbox"/> 400-500 <input type="checkbox"/> 500-750 <input type="checkbox"/> 750-1000 <input type="checkbox"/> 1000-1250 <input type="checkbox"/> >1250 If condition mixed, note "some", "many" or "most" intact: <input type="checkbox"/> breaking up: <input type="checkbox"/> hatching: <input type="checkbox"/> Describe estimation method used for a large raft: No egg masses found Spotted Salamanders: Condition: intact: <input type="checkbox"/> breaking up: <input type="checkbox"/> hatching: <input type="checkbox"/> Total Number: 0
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CONDITIONS/OBSERVATIONS WITHIN POOL (required data) Inlet observed? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Outlet observed? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Fish observed? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Estimated water depth range? 2-6" Other Vernal Pool Species: fairy shrimp present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> marbled salamander larvae present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Vegetation (within or overhanging pool): Trees/Saplings: Hemlock, Red Maple, Yellow Birch Shrubs/Vines: Alder Willow Herbs: Cinnamon fern woodruff Percent tree canopy closure? High <input checked="" type="checkbox"/> Med. <input type="checkbox"/> Low <input type="checkbox"/> Woody debris content? Peat <input type="checkbox"/> Pool Substrate: (top three): Mud/muck <input checked="" type="checkbox"/> Sand/Silt <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/> Leaf Litter <input checked="" type="checkbox"/> Silt/clay <input type="checkbox"/> Gravel/cobbles <input type="checkbox"/> Water Quality: ph <input type="checkbox"/> conductivity (µS/cm) <input type="checkbox"/> temperature (°C) <input type="checkbox"/> Nitrate-N (mg/l) <input type="checkbox"/> Total P (ug/l) <input type="checkbox"/> DO (mg/l) <input type="checkbox"/> turbidity (NTU's) <input type="checkbox"/> Sulphidic odor? No <input type="checkbox"/> Yes <input type="checkbox"/> Approximate % cover by algal mat or duckweed? 0 GPS coordinates: 41.91397 -74.80644	CONDITIONS IN ENVELOPE WITHIN 100 FT OF POOL (required data) Landuses/conditions: Give approximate percentage or show on sketch on back forest 90% shrubland 10% meadow <input type="checkbox"/> pasture <input type="checkbox"/> lawn <input type="checkbox"/> building <input type="checkbox"/> exposed soil <input type="checkbox"/> grading <input type="checkbox"/> ag. field <input type="checkbox"/> road <input type="checkbox"/> busy (>1 car/10 min.) yes <input type="checkbox"/> no <input type="checkbox"/> parking lot <input type="checkbox"/> Comments: Leaf Litter: if variable, note location (e.g. "N. shore") none/low: <input checked="" type="checkbox"/> moderate: <input type="checkbox"/> high: <input type="checkbox"/> Cover Objects: Logs <input type="checkbox"/> Rocks <input checked="" type="checkbox"/> none: <input type="checkbox"/> low: <input checked="" type="checkbox"/> moderate: <input type="checkbox"/> high: <input type="checkbox"/> Dominant vegetation (optional): Red Oak, Hemlock, White Pine Trees/saplings: Red Oak, Hemlock, White Pine Shrubs/Vines: Bittersweet Herbs:
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CONDITIONS IN ENVELOPE AROUND POOL (required data) Landuses: Estimate %cover (Hi, Med, Low, None) forest 90% Within 100 feet 100'-300' (optional) shrubland 9% exposed soil 1% pavement <input type="checkbox"/> building <input type="checkbox"/> lawn <input type="checkbox"/> field <input type="checkbox"/> busy road (<1 car/10 min.)? yes <input type="checkbox"/> no <input checked="" type="checkbox"/> Leaf Litter within 100' (in wooded cover type) none/low: <input checked="" type="checkbox"/> moderate: <input type="checkbox"/> high: <input type="checkbox"/> Cover Objects: Logs <input type="checkbox"/> Rocks <input type="checkbox"/> none: <input type="checkbox"/> low: <input checked="" type="checkbox"/> moderate: <input type="checkbox"/> high: <input type="checkbox"/> Dominant vegetation within 100' (optional): Trees/saplings: Red Oak, Hemlock, White Pine Shrubs/Vines: Herbs:	ADDITIONAL NOTES: (optional) Near wetland flag series 1-100
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VERNAL POOL DATA SHEET, p. 2

Survey Date: _____ CAWS Project #: _____
 Project/property name: _____ Town: _____ CAWS Pool #: _____
 Pool Type: _____ Development: Reference

SKETCH OF POOL (required)

Draw a rough, quick sketch of the pool showing approximate locations of egg mass rafts & clusters in relation to pool features, like logs, algal mats, and islands. Show inlet/outlet if present. Include north arrow and approximate scale.

WILDLIFE OBSERVATIONS: (optional)

Checklist of Facultative Herptile Fauna (Pool & Fringe):

<input type="checkbox"/> Green Frog	<input type="checkbox"/> Spring Peeper
<input type="checkbox"/> Pickerel Frog	<input type="checkbox"/> Gray Tree Frog
<input type="checkbox"/> Bull Frog	<input type="checkbox"/> Pickerel Frog
<input type="checkbox"/> Eastern Toad	<input type="checkbox"/> Painted Turtle
<input type="checkbox"/> Spotted Turtle	<input type="checkbox"/> Snapping Turtle
<input type="checkbox"/> N. Water Snake	<input type="checkbox"/> Blue-spot. salam.

Other Observed Fauna (Pool & Fringe):

Golden Pond Shiner
 Juvenile Centrachids
 Freshwater mussel shells

SKETCH OF TERRESTRIAL ENVELOPE AROUND POOL (required)

Circle any of the following factors that impaired your ability to observe egg masses, and indicate severity of impairment.

Factor

1. Surface algae
2. Surface pollen
3. Dark, tannin-colored water
4. Deep water
5. Turbidity
6. Dense shrubs
7. Other (specify)

Severity (Low/Mod./High)

Draw a rough, quick sketch of the pool's terrestrial envelope, extending at least 200' from pool in all directions. Provide detail on conditions & landuses within 100 feet of edge of pool. Include north arrow and approximate scale.

ADDITIONAL NOTES: (optional)

Flow through pond created by impounding Munisville Brook

Two adult golden pond shiners were caught via fishing pole

Pond #3

VERNAL POOL DATA SHEET

Survey Date: 4/5/17 Investigator(s): C. Glinka + T. Peterson Town: Simsbury CAWS Pool #: CAWS Project #: Development: Reference:

Address/location (or include annotated map): ~900 Ft West of Casterbridge Ct, Simsbury, CT Investigator's Contact Information: peterson@vhb.com

Pool Type: Development: Reference:

SEARCH CONDITIONS AND METHODS (required)

Weather: Precipitation: Current: Within last 24 hours: Trace 1" ±

Cloud Cover: clear partly cloudy mostly cloudy full cloud cover

Methods used: Visual Dipnetting

Start time: 12:00 End time: 14:00

Type of Inspection: baseline during construction post construction

Polarized sunglasses used? Yes No

Temporary flagging used to mark egg masses? Yes No

Comments: No egg masses found

AMPHIBIAN EGG MASS COUNTS (required)

Wood frogs: 1-25 26-49 50-75 75-100 100-150 150-200 200-250 250-300 300-400 400-500 500-750 750-1000 1000-1250 >1250

Abundance categories: 1-25 26-49 50-75 75-100 100-150 150-200 200-250 250-300 300-400 400-500 500-750 750-1000 1000-1250 >1250

If condition mixed, note "some", "many" or "most":

Intact: breaking up: hatching:

Describe estimation method used for a large raft: No egg masses found

Spotted Salamanders: Condition: intact: breaking up: hatching:

Total Number: 0

CONDITIONS/OBSERVATIONS WITHIN POOL (required data)

Inlet observed? No Yes Flowing Not flowing

Outlet observed? No Yes

Finfish observed? No Yes

Estimated water depth range? 1-6'

Optional Data (see also back of sheet): Other Vernal Pool Species: fairy shrimp present? Yes No marbled salamander larvae present? Yes No

Vegetation (within or overhanging pool): Trees/Saplings: Eastern hemlock, oak Shrubs/Vines:

Herbs:

Percent tree canopy closure? High Med. Low

Woody debris content? High Med. Low

Pool Substrate: (top three): Sand/Silt Bedrock Peat

Leaf Litter: Silt/clay Gravel/cobbles

Water Quality: pH conductivity (µS/cm) temperature (°C)

Nitrate-N (mg/l) Total P (µg/l) DO (mg/l)

turbidity (NTU's) Sulphidic odor? No Yes

Approximate % cover by algal mat or duckweed?

GPS coordinates: 41.907701, -72.797064

ADDITIONAL NOTES: (optional)

Near wetland flag series 6-100 This is an excavated farm pond that collects flow from Saxton Brook. Water flows in from an overhanging concrete culvert (~12" diameter) from the SW and flows NE through a collapsed portion of the pond bank.

CONDITIONS IN ENVELOPE AROUND POOL (required data)

Landuses: forest 100% shrubland 100% exposed soil 100% pavement 100% building 100% lawn 100% field 100% busy road (<1 car/10 min.)? yes no

Estimate % cover (Hi, Med, Low, None): 100% (optional)

Leaf Litter within 100' (in wooded cover type): none/low: moderate: high:

Cover Objects: Logs Rocks

Dominant vegetation within 100' (optional): Eastern hemlock, oak

Trees/Saplings: Eastern hemlock, oak

Shrubs/Vines:

Herbs:

Pond #3

VERNAL POOL DATA SHEET, p. 2

Survey Date: 4/5/17 Investigator(s): C. G. Linka & J. Peterson Town: Simsburg CAWS Pool #: CAWS Project #:
 Project/property name: Simsburg Sole Pool Type: Development: Reference

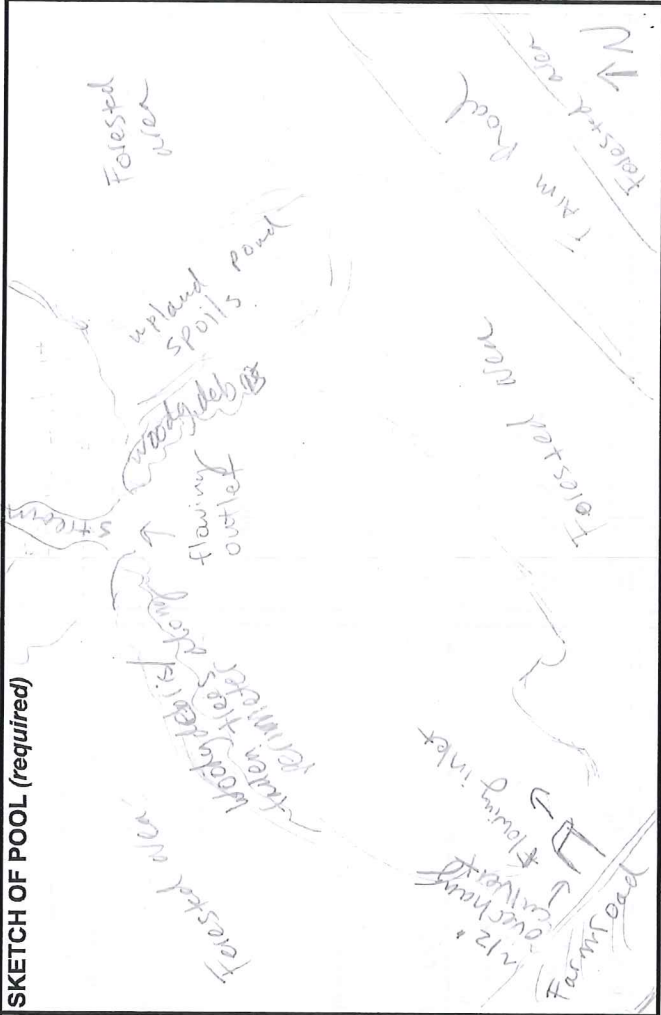
WILDLIFE OBSERVATIONS: (optional)

Checklist of Facultative Herpetile Fauna (Pool & Fringe):

Green Frog	<input type="checkbox"/>	Spring Peeper	<input type="checkbox"/>
Pickrel Frog	<input type="checkbox"/>	Gray Tree Frog	<input type="checkbox"/>
Bull Frog	<input type="checkbox"/>	Pickrel Frog	<input type="checkbox"/>
Eastern Toad	<input type="checkbox"/>	Painted Turtle	<input type="checkbox"/>
Spotted Turtle	<input type="checkbox"/>	Snapping Turtle	<input type="checkbox"/>
N. Water Snake	<input type="checkbox"/>	Blue-spot salam.	<input type="checkbox"/>

Other Observed Fauna (Pool & Fringe):

Fresh water mussel shells
 observed in the pond
 Kingfisher observed catching a fish



Draw a rough, quick sketch of the pool showing approximate locations of egg mass rafts & clusters in relation to pool features, like logs, algal mats, and islands. Show inlet/outlet if present. Include north arrow and approximate scale.

ADDITIONAL NOTES: (optional)

Used a fishing pole and minnow trap to detect presence of fish. No fish were caught via these methods but we observed a Kingfisher catch a fish in the NE area of the pond near woody debris.

SKETCH OF TERRESTRIAL ENVELOPE AROUND POOL (required)

Circle any of the following factors that impaired your ability to observe egg masses, and indicate severity of impairment.

Severity (Low/Mod./High)

Factor

1. Surface algae
2. Surface pollen
3. Dark, tannin-colored water
4. Deep water
5. Turbidity
6. Dense shrubs
7. Other (specify)

Overcast/cloudy weather

Draw a rough, quick sketch of the pool's terrestrial envelope, extending at least 200' from pool in all directions. Provide detail on conditions & landuses within 100 feet of edge of pool. Include north arrow and approximate scale.

Pond # 4

VERNAL POOL DATA SHEET

Survey Date: 4/5/17 Investigator(s): C. Glinka, J. Peterson Town: Simsbury CAWS Pool #: CAWS Project #:

Town Staff Contacted? Yes No Project/property name: Simsbury - School Investigator's Contact information: Pool Type: Development: Reference:

Address/location (or include annotated map): ~500 NE of Sauron Lane School

SEARCH CONDITIONS AND METHODS (required)

Weather: Cloud cover: clear partly cloudy mostly cloudy full cloud cover

Precipitation: Current: Time: 1:15

Methods used: Visual Dipnetting

Start time: 2:00 End time: 4:30

Type of Inspection: baseline during construction post construction

Polarized sunglasses used? Yes No

Temporary flagging used to mark egg masses? Yes No

Comments:

AMPHIBIAN EGG MASS COUNTS (required)

Wood frogs: 1-25 26-49 50-75 75-100 100-150 150-200 200-250 >1250

Abundance categories: 250-300 300-400 400-500 500-750 750-1000 1000-1250

If condition mixed, note "some", "many" or "most": All

intact: All breaking up: hatching up:

Describe estimation method used for a large raft: 4 fresh new egg masses, possibly deposited that day at the day, boat

Spotted Salamanders: Condition: Total Number: 0

CONDITIONS/OBSERVATIONS WITHIN POOL (required data)

Inlet observed? No Yes Outlet observed? No Yes finfish observed? No Yes

Estimated water depth range? Not flowing Flowing

Optional Data (see also back of sheet): Other Vernal Pool Species: fairy shrimp present? Yes No marbled salamander larvae present? Yes No

Vegetation (within overhanging pool): Trees/Saplings: Oak, white pine Shrubs/Vines: Sweet pepper bush

Herbs: Percent tree canopy closure? 90% Med. Low

Woody debris content? High Med. Low

Pool Substrate: (top three) Peat Sand/Silt Bedrock Mud/muck Silt/clay Grave/cobbles

Leaf Litter: Peat Sand/Silt Bedrock Leaf Litter Silt/clay Grave/cobbles

Water Quality: ph conductivity (µS/cm) temperature (°C) Nitrate-N (mg/l) Total P (ug/l) DO (mg/l) turbidity (NTU's) Sulphidic odor? No Yes

Approximate % cover by algal mat or duckweed? 20%

GPS coordinates: 41.899846, -72.802344

CONDITIONS IN ENVELOPE WITHIN 100 FT OF POOL (required data)

Landuses/conditions: forest 80% shrubland lawn building ag. field 20% pasture exposed soil road busy (>1 car/10 min.) yes no parking lot

Comments: located on forested perimeter of agricultural field

Leaf Litter: If variable, note location (e.g. "N. shore") none/low: moderate: high: X

Cover Objects: Logs Rocks

Dominant vegetation (optional): Oak, white pine

Trees/saplings: Sweet pepper bush

Shrubs/Vines: Herbs:

CONDITIONS IN ENVELOPE AROUND POOL (required data)

Landuses: forest 80% shrubland exposed soil pavement building lawn field 20% busy road (<1 car/10 min.)? yes no

Leaf Litter within 100' (in wooded cover type) none/low: moderate: high: X

Cover Objects: Logs Rocks

Dominant vegetation within 100' (optional):

Trees/saplings: Oak, white pine

Shrubs/Vines: Herbs:

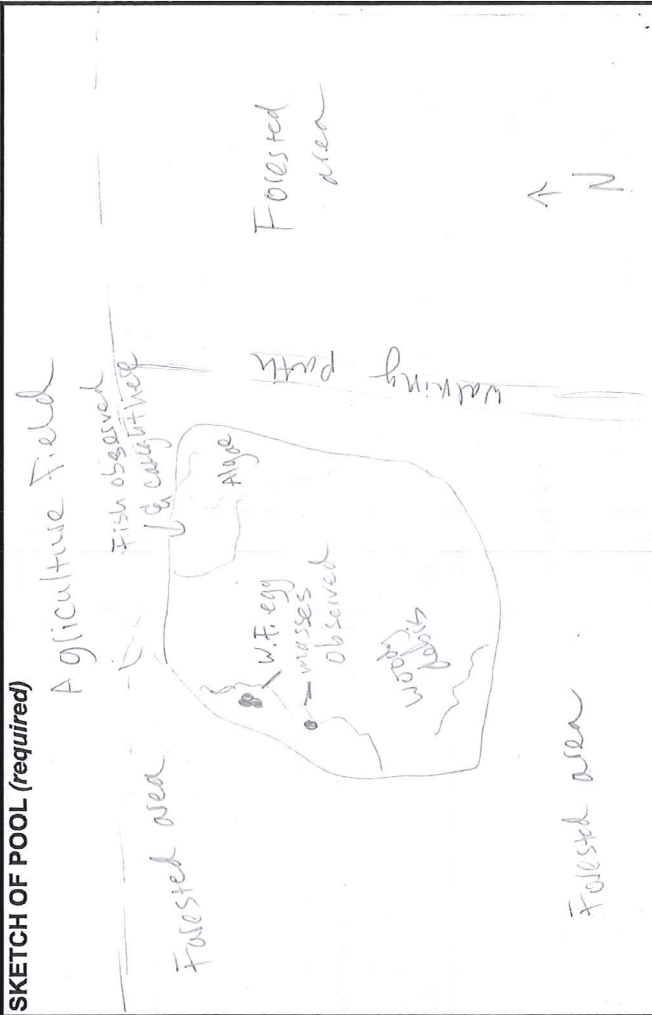
Pond #4

VERNAL POOL DATA SHEET, p. 2

Survey Date: _____ Investigator(s): _____ Town: _____ CAWS Pool #: _____ CAWS Project #: _____
 Project/property name: _____ Pool Type: Development Reference

SKETCH OF POOL (required)

Draw a rough, quick sketch of the pool showing approximate locations of egg masses & clusters in relation to pool features, like logs, algal mats, and islands. Show inlet/outlet if present. Include north arrow and approximate scale.



WILDLIFE OBSERVATIONS: (optional)

- Checklist of Facultative Herptile Fauna (Pool & Fringe):**
- Green Frog
 - Pickerel Frog
 - Bull Frog
 - Eastern Toad
 - Spotted Turtle
 - N. Water Snake
 - Spring Peeper
 - Gray Tree Frog
 - Pickerel Frog
 - Painted Turtle
 - Snapping Turtle
 - Blue-spot. salam.

Other Observed Fauna (Pool & Fringe):

Juvenile centrarchids

SKETCH OF TERRESTRIAL ENVELOPE AROUND POOL (required)

Circle any of the following factors that impaired your ability to observe egg masses, and indicate severity of impairment.

Factor

1. Surface algae
2. Surface pollen
3. Dark, tannin-colored water
4. Deep water
5. Turbidity
6. Dense shrubs
7. Other (specify)

Cloud cover

ADDITIONAL NOTES: (optional)

Hockey net observed on perimeter, suggests that pond holds water year-round.

Used a fishing pole and minnow trap to catch fish. 2 juvenile centrarchids were caught in the minnow traps, no fish were caught by line. Several (~100s) juvenile centrarchids were observed in the north sunny area of the pond.



To: Susan Moberg

Date: May 23, 2017

Memorandum

Project #: 42256.00

From: Jeff Peterson

Re: Tobacco Valley Solar, Simsbury CT
Initial Whip-poor-will Survey

Took advantage of the of the good weather following the public outreach meeting on May 11 to conduct a preliminary Whip-poor-will survey around the project area. This will be repeated during the first couple weeks in June when the moon is in the correct phase and weather permits.

On May 11, the weather was fair with the temperature in the 40s and a slight breeze. Sunset was at 7:58 and moonrise was at 8:41 just before the meeting let out. I reconnoitered and listened at three stations before actually starting the survey. I allowed the moon to rise for about one hour before starting the "official" survey at the temporary cul-de-sac at the end of Casterbridge Crossing. I listened for six minutes beginning at 9:46 but did not detect a whip-poor-will call. I parked at the farm road entrance to site north of Litchfield Drive from 10:04 to 10:10 and did not detect any calls. Finally, I parked on the farm road at the tobacco barns on Hoskins Road and listened from 10:25 to 10:31 and did not detect any nightjar calls.

While the moon was unobstructed and bright, the temperature felt a bit low in comparison with nights I had surveyed in past years. Unless NDDB indicates otherwise, I intend to repeat the survey during the next window between June 1 and June 17 based on recommendations from the Nightjar Survey Network.

Nightjar Stops Description Data

(only needed if you did not submit in any previous year or you have not mapped stops online; go to www.nightjars.org for the easiest and most preferred method by interactively mapping your points)

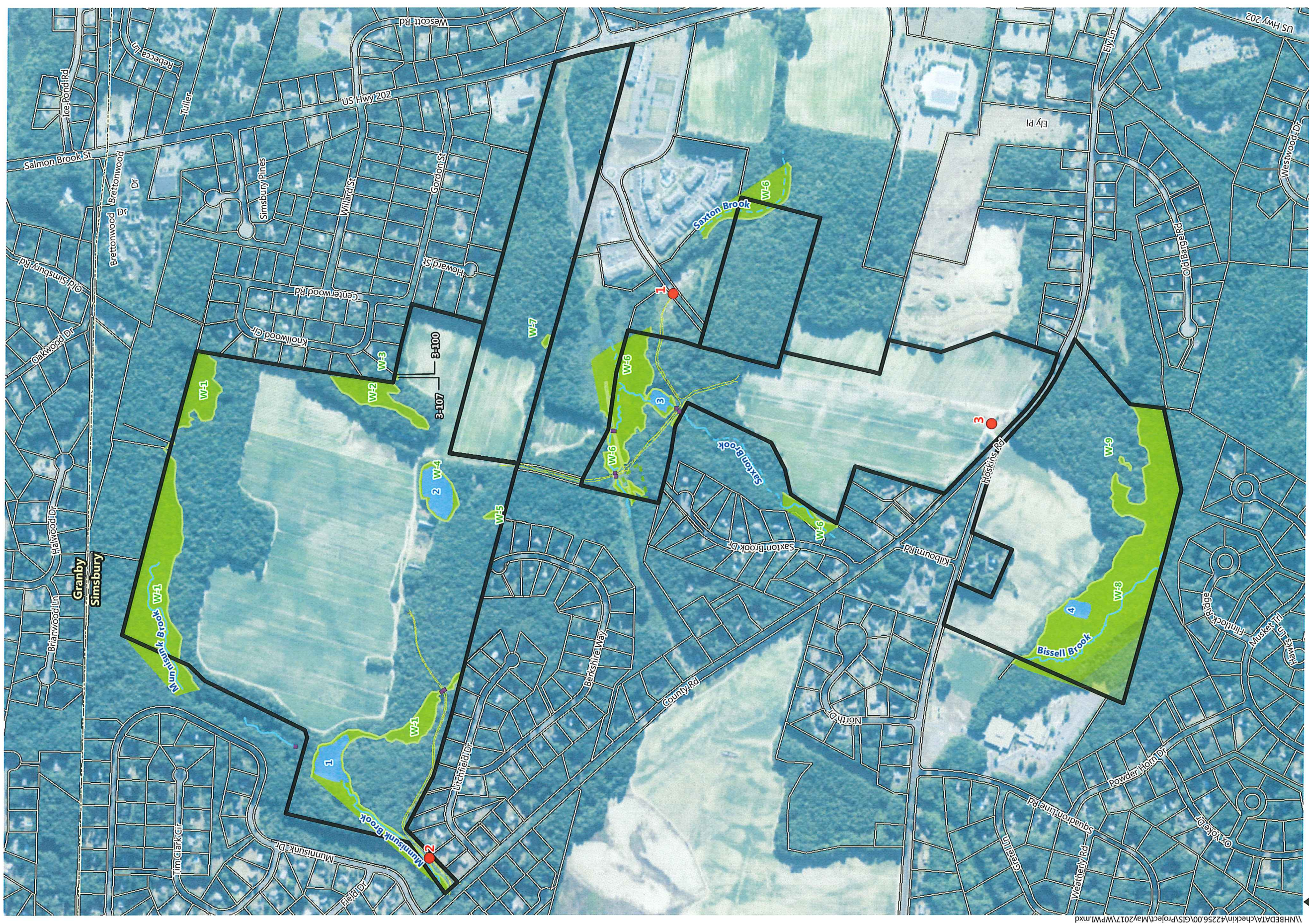
Use this form if you are not able to provide a digital map of your stopping points at www.nightjars.org

Observer Name	Jeff Peterson
State	CT
County	Hartford
Route Name and Number	Tobacco Valley Solar, Simsbury
Year of Survey	2017

Stop#	Latitude e.g., dec degrees 38.43567 or deg, min, sec 38° 56' 07''	Longitude e.g., dec degrees 71.45465 or deg, min, sec 71° 25' 39''	or Location Description	Comments
1	41.907456°	-72.794404°		Cul-De-Sac
2	41.911814°	-72.808773°		Farm Road
3	41.901459°	-72.797548°		Farm Road
4				
5				
6				
7				
8				
9				
10				

If you do not enter these data online, mail this form to: Nightjar Survey Network, The Center for Conservation Biology, College of William and Mary, Williamsburg, VA 23187-8795 or email digitally completed version to: nightjars@nightjars.org. Include *Nightjar Survey* on subject line of email. Thank you for all your help.

May 11, 2017 Sunset 7:58
 Moon Rise 8:41



Simsbury, Connecticut

**Initial WPWI Survey
May 11, 2017**

Project Site

Wetland Resource Area

Farm Pond

Delineated Wetland Edge

Stream

DWW Solar

Approximate Stream

Existing Gravel Road

WPWI Survey Points

Wetland Area Not Surveyed

Town Boundary

Adjacent Parcels

Culvert

0 325 650 1300 Feet

\\NHBEDATA\checkin\42256.00\GIS\Project\May2017\WPWI.mxd

Moberg, Sue

From: Kearney, Shannon <Shannon.Kearney@ct.gov>
Sent: Tuesday, May 23, 2017 3:04 PM
To: Moberg, Sue; DEEP Nddbrequest
Cc: Peterson, Jeff; Zyko, Karen; DeBarros, Nelson
Subject: RE: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Hello Sue and Jeff,

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I recommend:

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If you continue to plan to withhold tree cutting activity until the end of July. Use of the callback is not as vital, but if you wanted to cut earlier, you should ensure that you use a callback with your survey to increase your detection probability.

Thank you,
-Shannon

Shannon B. Kearney
Wildlife Division
Connecticut Department of Energy and Environmental Protection PO Box 1550, Burlington, CT 06013
P: 860.424.3170(E: shannon.kearney@ct.gov

www.ct.gov/deep

Conserving, improving and protecting our natural resources and environment; Ensuring a clean, affordable, reliable, and sustainable energy supply.

-----Original Message-----

From: Moberg, Sue [mailto:smoberg@VHB.com]

Sent: Tuesday, May 23, 2017 2:29 PM

To: DEEP Nddbrequest

Cc: Peterson, Jeff; Zyko, Karen; DeBarros, Nelson; Kearney, Shannon

Subject: RE: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good afternoon, attached is some additional information for your consideration. VHB completed a vernal pool survey of the potentially suitable ponds within the project site. Based on the observations and sampling results, VHB concluded that the ponds do not meet the criteria to be considered vernal pools. Additionally, VHB conducted one night-time survey for Whip-poor-will on May 11, 2017. Documentation of the survey is attached. Additional Whip-poor-will surveys are proposed for early June.

Regards,
Sue

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: Moberg, Sue

Sent: Friday, May 5, 2017 5:09 PM

To: 'DEEP Nddbrequest' <DEEP.Nddbrequest@ct.gov>

Cc: Peterson, Jeff <jpeterson@VHB.com>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>; Kearney, Shannon <Shannon.Kearney@ct.gov>

Subject: RE: NDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good afternoon Dawn, attached is the revised Attachment B - Detailed Site Map with work limits. This map depicts the site boundaries, the boundaries of the field delineated inland wetlands, and the limit of work. I opted not to include the proposed solar array on this figure since it obscures the aerial information. So also attached is a separate figure that depicts the proposed project layout. Please let me know if you have any questions.

I hope this information is helpful in completing your review. Let me know if you need anything else.

Regards,
Sue

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: DEEP Nddbrequest [mailto:DEEP.Nddbrequest@ct.gov]

Sent: Thursday, April 27, 2017 5:42 PM

To: Moberg, Sue <smoberg@VHB.com>

Cc: Peterson, Jeff <jpeterson@VHB.com>; DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>; Kearney, Shannon <Shannon.Kearney@ct.gov>

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Sue,

Thank you for submitting the draft conservation measures for a proposed solar project in Simsbury. Will the project encompass all three properties we reviewed or has it been narrowed down a bit? I am reviewing your conservation strategies and have shared the report with other biologists in our program Mr. Nelson DeBarros for plants and Ms. Shannon Kearney for birds and invertebrates so that we may review your strategies in a comprehensive way. When we have finished our review I will write back to you and let you know if we have any questions or suggestions. If one of our program biologists wishes to have a site visit(s) would that be available as well? Thank you for contacting our program and for sending forward your draft conservation measures.

Take care,

Dawn
Dawn M. McKay
Wildlife Division
Bureau of Natural Resources
Connecticut Department of Energy and Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
P: 860.424.3592 | E: dawn.mckay@ct.gov<mailto:dawn.mckay@ct.gov>

From: Moberg, Sue <smoberg@VHB.com>
Sent: Tuesday, April 25, 2017 5:30 PM
To: DEEP Nddbrequest
Cc: Peterson, Jeff; McKay, Dawn; Zyko, Karen
Subject: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good afternoon, please find attached VHB's draft conservation measures plan for the proposed solar project in Simsbury. CT DEEP issued preliminary assessments #s 201509947, 201509960 and 201600041 in response to VHBs NDDDB review request in December 2015.

As you requested in your email below, VHB prepared this memo to outline a proposed strategy for surveying for the listed species, an evaluation of potential effects should the species be present and a proposed conservation strategy for protecting the species if it is present or if suitable host habitat is present.

VHB is planning to initiate surveys for the listed avian species (horned lark, vesper sparrow, grasshopper sparrow and whip-poor-will) as described in the attached memo beginning as early as next week. We would appreciate your feedback on the proposed surveys and any suggestions you may have regarding timing of the surveys.

If appropriate at this time, we would appreciate the opportunity to meet and discuss the proposed conservation measures outlined in the memo and receive your feedback. Failing that, additional guidance on the consultation process would be appreciated as we anticipate filing a petition with the Siting Council in May or June 2017.

Thank you,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com<http://www.vhb.com/>

From: Zyko, Karen [mailto:Karen.Zyko@ct.gov] On Behalf Of DEEP Nddbrequest
Sent: Wednesday, March 8, 2017 12:13 PM

To: Moberg, Sue <smoberg@VHB.com>
Cc: Peterson, Jeff <jpeterson@VHB.com>; McKay, Dawn <Dawn.McKay@ct.gov>
Subject: RE: Request for NDDDB State-listed Species Review - Simsbury, CT

Sue, We received your request for the Solar project design development in Simsbury. We have provided multiple species lists in the past and I don't see that you have really addressed them. The listed species have the potential to occur outside NDDDB areas which have not been surveyed. Some of the species on the lists previously provided are grassland birds (grasshopper sparrow, horned lark, savanna sparrow, eastern meadowlark) - if the fields on your site have been continuously managed as row crops or turf and do not provide grassland habitat then please state this. Some of the species are sand species or their host plants like sandy soils and open disturbed areas potentially around the edges of the fields - this whole area is underlain by sand or sand and gravel. Please address these species including Scribbled sallow moth, Spinose flower moth, Big sand tiger beetle, and hognose snakes. We stated concerns about discharges that could impact the Farmington River- please provide more information showing that no wastewater or stormwater will impact the Farmington River during and after construction.

Tree clearing and ground disturbing equipment have the potential impact the turtles, snakes and tree roosting bats. Please provide protection measures or timing of work to address these species. If you locate vernal pools during your surveys please state how you will protect them.

I can see that you have adjusted your project out of the floodplain areas so the Rana pipiens and the plants have been addressed.

Please provide this additional information so that we can proceed with your request.

Karen Zyko
Department of Energy & Environmental Protection Bureau of Natural Resources, Wildlife Division
79 Elm St, Hartford, CT 06106
860-424-3378

From: Kelsey, Coreen [mailto:CKelsey@VHB.com]
Sent: Monday, February 27, 2017 3:27 PM
To: DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov<mailto:DEEP.Nddbrequest@ct.gov>>
Subject: Request for NDDDB State-listed Species Review - Simsbury, CT

Good Afternoon,

Please find attached our request for NDDDB State-listed Species Review for Simsbury, CT.

Thank you.

Coreen

Coreen L. Kelsey
Project Coordinator

[cid:image001.gif@01D2BDE7.AE4B2120]

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109

P 860.807.4306 | F 860.372.4570
ckelsey@vhb.com<mailto:CKelsey@VHB.com>

Engineers | Scientists | Planners | Designers www.vhb.com<<http://www.vhb.com/>>

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Vanasse Hangen Brustlin, Inc. | info@vhb.com<<mailto:info@vhb.com>>

Moberg, Sue

From: Moberg, Sue
Sent: Thursday, May 25, 2017 8:46 AM
To: 'DEEP Nddbrequest'; 'Kearney, Shannon'
Cc: Jeff Peterson (jpeterson@VHB.com); 'Zyko, Karen'; 'DeBarros, Nelson'
Subject: FW: NDDDB Preliminary assessments 201509947, 201509960 and 201600041 - Simsbury, CT

Good morning Shannon, thank you very much for this input. The one survey that we completed for Nightjar was pretty opportunistic. We had a night meeting in town, and so it seemed to make sense to go try to collect some data since we were already there. Although there was a beautiful full moon and the sky was clear, it was cool and a little breezy so probably was not a good night for it in retrospect.

We will plan to do additional surveys employing callback and will increase the sampling density to address the 400 meter limitation as you advise.

Ultimately, we will still strive to meet the time of year limitations on clearing as outlined in the conservation measures document, but would like to try to keep our options open to the degree possible.

Thank you,

Susan Moberg
Principal

P 401.457.2055
www.vhb.com

-----Original Message-----

From: Kearney, Shannon [mailto:Shannon.Kearney@ct.gov]
Sent: Tuesday, May 23, 2017 3:04 PM
To: Moberg, Sue <smoberg@VHB.com>; DEEP Nddbrequest <DEEP.Nddbrequest@ct.gov>
Cc: Peterson, Jeff <jpeterson@VHB.com>; Zyko, Karen <Karen.Zyko@ct.gov>; DeBarros, Nelson <Nelson.DeBarros@ct.gov>
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I recommend:

☐ Best times to survey for whip-poor-will are when moon is at least half illuminated and above the horizon, and not obscured by clouds. You will want minimal wind for your survey. In our experience, detection rates increase also after midnight, before sunrise. With a 6 minute survey point, that is 3 min of silent listening followed by callback, followed by 3 minutes of silent listening, you will have 60% probability of detecting the bird, given it is present, within 400m of your survey point. You will need to conduct multiple points in your project area on multiple nights to be sure that it is not there at all.

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Thank you,
-Shannon

Shannon B. Kearney
Wildlife Division
Connecticut Department of Energy and Environmental Protection PO Box 1550, Burlington, CT 06013
P: 860.424.3170(E: shannon.kearney@ct.gov

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Wildlife Division
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Connecticut Department of Energy and Environmental Protection
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Project Coordinator

[cid:image001.gif@01D2BDE7.AE4B2120]

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P 860.807.4306 | F 860.372.4570
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