

R 16.005958 9/22/22  
\$ 480.00 RB



City of Fitchburg  
Planning/Zoning Department  
5520 Lacy Road  
Fitchburg, WI 53711  
(608) 270-4200

# CONDITIONAL USE PERMIT APPLICATION

The undersigned owner, or owner's authorized agent, of property herein described hereby applies for a conditional use permit for the following described property:

1. **Location of Property:** Portions of parcels 225-0609-133-8060-2, 225-0609-133-9560-2, 225-0609-133-8001-2 and 225-0609-133-9501-2

**Street Address:** TBD - vacant land north of Irish Lane

**Legal Description - (Metes & Bounds, or Lot No. And Plat):** See attached exhibit - Tyto Solar Project Legal Description

\*\*\*Also submit in electronic format (MS WORD or plain text) by email to: [PLANNING@FITCHBURGWI.GOV](mailto:PLANNING@FITCHBURGWI.GOV)

2. **Current Use of Property:** Agricultural - row crop production

3. **Proposed Use of Property:** Solar energy generation project with continued agricultural use outside of project area

4. **Proposed Development Schedule:** Construction starting in Spring 2023, project in service by end of 2023

5. **Zoning District:** A-T: Transitional Agriculture

6. **Future Land Use Plan Classification:** Agriculture and Open Space

\*\*\*Pursuant to Section 22-3(b) of the Fitchburg Zoning Ordinance, all Conditional Use Permits shall be consistent with the currently adopted City of Fitchburg Comprehensive Plan.

\*\*\*Attach three (3) copies of a site plan which shows any proposed land divisions, plus vehicular access points and the location and size of all existing and proposed structures and parking areas. Two (2) of the three (3) copies shall be no larger than 11" x 17". Submit one (1) pdf document of the entire submittal to [planning@fitchburgwi.gov](mailto:planning@fitchburgwi.gov).

Additional information may be requested.

**Type of Residential Development (If Applicable):** N/A

**No. of Dwelling Units by Bedroom:** 1 BR  2 BR  3 BR  4 or More

**No. Of Parking Stalls:** No permanent parking spaces proposed

**Type of Non-residential Development (If Applicable):** Solar energy generation project

**Proposed Hours of Operation:** Unmanned operation 24/7 **No. Of Employees:** 0 Full Time

**Floor Area:** N/A **No. Of Parking Stalls:** N/A

**Sewer:** Municipal  Private  **Water:** Municipal  Private

**Current Owner of Property:** Robin Kruse and Daniel Snyder

**Address:** Kruse - 1473 330th Ave, Dyersville, IA 52040, Snyder - 53881 Snyder Rd., Gays Mills, WI 54631 **Phone No.:** Kruse - 319-480-1600, 608-521-0294

**Contact Person:** Eric Udelhofen

**Email:** [eric@oneenergyrenewables.com](mailto:eric@oneenergyrenewables.com)

**Address:** 834 E. Washington Ave, Suite 257, Madison, WI 53703 **Phone No.:** 608-514-5378

**Respectfully Submitted By:**  Eric Udelhofen - VP, OneEnergy Development, LLC

Owner's or Authorized Agent's Signature

\*\* It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting an CUP application to identify any concerns or issues of surrounding residents.

PLEASE NOTE - Applicants shall be responsible for legal or outside consultant costs incurred by the City. Submissions shall be made at least four (4) weeks prior to desired plan commission meeting.

**For City Use Only:** **Date Received:** SEPTEMBER 20, 2023 **Publish:**

**Ordinance Section No.:** **Fee Paid:** \$ 480.00

**Permit Request No.:** 24-2476-22

Receipt No: 16.005958

Sep 22, 2022

ROBIN KRUSE AND DANIEL SNYDER

LICENSES & PERMITS

CU-2476-22 480.00

Total: 480.00

CHECK

Check No: 2130 480.00

Payor:

ONE ENERGY DEVELOPMENT LLC

Total Applied: 480.00

Change Tendered: .00

09/22/2022 04:02PM

CITY OF FITCHBURG

5520 LACY RD

FITCHBURG WI 53711

608-270-4200



City of Fitchburg  
 Planning/Zoning Department  
 5520 Lacy Road  
 Fitchburg, WI 53711  
 (608-270-4200)

# ARCHITECTURAL & DESIGN REVIEW APPLICATION

**Applicant/Contact Person:** OneEnergy Development, LLC (Eric Udelhofen - VP Development)

**Address:** 834 E. Washington Ave, Suite 257

**Phone Number of Contact Person:** 608-514-5378

**City, State, Zip Code:** Madison, WI 53703

**Email of Contact Person:** eric@oneenergyrenewables.com

**Project Address:** TBD - vacant land north of Irish Lane  
 between HWY 14 and Cty Rd MM

**Lot:** \_\_\_\_\_ **Subdivision:** \_\_\_\_\_

**Project Type:** \_\_\_\_\_ **Multi-Family** \_\_\_\_\_ **Commercial** \_\_\_\_\_ **Industrial** \_\_\_\_\_ **Utility** \_\_\_\_\_ **Other**  
 \_\_\_\_\_ **New** \_\_\_\_\_ **Addition**

**Impervious Surface Ratio (ISR):** 5% ISR (City Standard: maximum 65% ISR)

All items listed below must be included with the application to be considered complete. If an item is not included with the application, the applicant must provide in writing the basis for not including it. Building and site plans submitted to the Fitchburg Plan Commission for architectural and design review shall contain the following information:

**Site Data:**

- 1. Lot or property dimensions. See Attachment A - ALTA Survey
- 2. Orientation (to north). See Attachment B - Site Plan
- 3. Adjacent highways, roads, drive, etc. See Attachments A & B
- 4. Existing natural features (rivers, ponds, wetlands). See Attachments A & B and 5.1
- 5. Existing buildings and/or improvements. See Attachment A - ALTA Survey
- 6. Existing and proposed site drainage. See Attachment 5.1 - Wetland Delineation
- 7. Utility plans, including main/lateral sizes and existing fire hydrants on site or within 300 feet of the site See Attachment B - Site Plan (N/A except electrical)
- 8. ISR shall be indicated on all plans. See Attachment B - Site Plan
- 9. Stormwater management plans and details, including grading plan. To be submitted to City Engineer prior to construction.
- 10. Lighting plan in footcandles and light fixture cut sheets. No permanent lighting proposed.

**Building:**

- 1. Building size, configuration and orientation. See Attachment B - Site Plan
- 2. Distance from lot lines. See Attachment B - Site Plan
- 3. Distance from other buildings, improvements and natural features. See Attachment B - Site Plan
- N/A 4. Location of well, septic tank, drainfield, etc. (if applicable)
- N/A 5. Additional proposed additions or new structures, including trash/recycling enclosure(s).
- N/A 6. Construction type (wood frame, structural steel, etc.).
- N/A 7. Foundation type (full basement, slab on grade, etc.).
- N/A 8. Number of levels.
- N/A 9. Siding/exterior covering type, color, texture, etc.
- N/A 10. Roof type (gable, hip, shed, flat, etc.) and pitch.
- N/A 11. Roofing material type, color, texture, etc.
- N/A 12. Exterior door and window location, size, type, etc.
- N/A 13. Fire protection sprinklers or fire alarm systems.

**Ingress, Egress, Parking:**

- 1. Location of highway and road access points. See Attachment B - Site Plan
- 2. Location, size, configuration of drivers and walks. See Attachment B - Site Plan
- N/A 3. Number, size, location of parking spaces.
- N/A 4. Location of handicapped parking and accessible building entrances.
- N/A 5. Bicycle rack(s).


**Landscaping:**

- 1. Location, species, size of existing trees, shrubs, and plantings. See Attachments A & B
- 2. Location, species, size of proposed plantings. Pollinator habitat within the fence.
- 3. Location and size of all paved, seeded/sodded and gravelled areas. See Attachment B - Site Plan
- 4. Location of all retaining walls, fences, berms and other landscape features. See Attachment A - Site Plan

**\*It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting an ADR application to identify any concerns or issues of surrounding residents.**

The preceding information is considered to be the minimum information for submission, and the City may require additional information for its review. Any interpretations provided by city officials as the result of submitting the attached information are based on the submitted plans, and any plan changes, may affect the interpretations.

It is the responsibility of the owner/applicant to insure compliance with all local and state requirements. The below signed applicant acknowledges the above information and hereby submits the attached information for the City's Architectural and Design Review Process.

Signed:  Eric Udelhofen - OneEnergy Development, LLC Date: 9/16/2022  
Applicant or Authorized Agent

**\*\*\* Application shall be accompanied by one (1) sets of full-size plans, two (2) sets no larger than 11"x17", and one (1) pdf document of the complete submittal to [planning@fitchburgwi.gov](mailto:planning@fitchburgwi.gov). Applications are due at least 4 weeks prior to the desired Plan Commission Meeting. The time frame assumes a complete set of plans is provided, and if it is not provided the Plan Commission date will be adjusted.**

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**FOR CITY USE ONLY**

Date Received: \_\_\_\_\_ Plan Commission Date: \_\_\_\_\_

Comments:

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September 20, 2022

Planning & Zoning Department  
City of Fitchburg, Wisconsin  
5520 Lacy Road  
Fitchburg, WI 53711  
Attn: Deanna Schmidt, AICP

Re: Tyto Solar Project Conditional Use Permit Application

Dear Planning and Zoning Members & Staff,

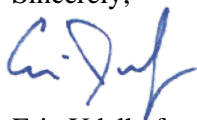
On behalf of OneEnergy Development, LLC, please find included with this letter a Conditional Use Permit Application and Architectural & Design Review Application for the construction and operation of a 6 Megawatt solar energy project on parcels 225-0609-133-8060-2, 225-0609-133-9560-2, 225-0609-133-8001-2 and 225-0609-133-9501-2 in Section 13, Township 6 North, Range 9 East in the City of Fitchburg, Dane County, Wisconsin.

Below is a list of materials submitted for ease of reference:

1. Conditional Use Permit Application & Narrative
2. Architectural & Design Review Application
3. Attachments:
  - a. Attachment A – ALTA Survey
  - b. Attachment B – Site Plan
  - c. Attachment C – Project Profile
  - d. Attachment D – Wetland delineation, Natural Resources Review & DNR Concurrences
  - e. Attachment E – Visual Renderings
  - f. Attachment F – Operations Plan

We look forward to working with the City of Fitchburg to advance the Tyto Solar project with an eye toward being prepared to start construction of the project in spring of 2023. Please don't hesitate to call to discuss further any time.

Sincerely,



Eric Udelhofen  
VP – Development  
[Eric@oneenergyrenewables.com](mailto:Eric@oneenergyrenewables.com)  
608-514-5378



Peter Murphy  
Project Manager  
[peter@oneenergyrenewables.com](mailto:peter@oneenergyrenewables.com)  
262-573-3089

## Legal Description – Tyto Solar Project Property

**Tax Key Number: 225-0609-133-8060-2 and 225-0609-133-9560-2**

The West one-half of the Northeast Quarter of the Southwest Quarter ( $W\frac{1}{2} NE\frac{1}{4} SW\frac{1}{4}$ ) and the West one-half of the Southeast Quarter of the Southwest Quarter ( $W\frac{1}{2} SE\frac{1}{4} SW\frac{1}{4}$ ) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin.

**Tax Key Number: 225-0609-133-8001-2 and 225-0609-133-9501-2**

The East one-half of the Southwest Quarter ( $E\frac{1}{2} SW\frac{1}{4}$ ) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin, described as follows: Commencing at the Northwest corner of the Northeast Quarter of the Southwest Quarter ( $NE\frac{1}{4} SW\frac{1}{4}$ ), Section 13, Township 6 North, Range 9 East, thence approximately South 2684 feet along the West line of the East Half of the Southwest Quarter ( $E\frac{1}{2} SW\frac{1}{4}$ ) of said section; thence approximately East along the centerline of highway, being the South line of said Section 13, 1341.5 feet; thence approximately North 2663 feet; thence approximately West 1333 feet to the place of beginning, EXCEPTING THEREFROM the following described lands: The West one-half of the Northeast Quarter of the Southwest Quarter ( $W\frac{1}{2} NE\frac{1}{4} SW\frac{1}{4}$ ) and the West one-half of the Southeast Quarter of the Southwest Quarter ( $W\frac{1}{2} SE\frac{1}{4} SW\frac{1}{4}$ ) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin.

ALSO, that part of the Northwest Quarter of the Southeast Quarter ( $NW\frac{1}{4} SE\frac{1}{4}$ ) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin, described as follows: Beginning at the Northwest corner of the Northwest Quarter of the Southeast Quarter ( $NW\frac{1}{4} SE\frac{1}{4}$ ); thence East along the quarter section line 30.0 feet; thence Southwesterly 42.4 feet to the East line of the Southwest Quarter ( $SW\frac{1}{4}$ ) of said Section 13; thence North along said East line 30.0 feet to the place of beginning.

**Addendum to Conditional Use Permit Application and Architectural Review for proposed  
Tyto Solar Project as required by  
Fitchburg Zoning Ordinance Section 22-507(b) and 22-483.**

This Conditional Use Permit Application (“CUP Application”) is made pursuant to Section 22-507(b) and 22-483 of the Fitchburg Zoning Code to allow One Energy Development, LLC (“OneEnergy” or “Applicant”) to install, operate, and maintain a solar generation project. The project is located on approximately 30 acres to be leased from Robin Kruse and Daniel Snyder.

***Background***

The Tyto Solar Project (the “Project”) is a proposed 6 Megawatt solar generation facility. OneEnergy is the Applicant, and will develop, engineer and construct the Project. When complete the Project is intended to be transferred to Madison Gas and Electric Company (“MGE”), who will own and operate the Project after it is constructed. A portion of the Tyto Solar Project will be used for the MGE Shared Solar program, which allows MGE customers to buy some of their energy from the project.

Over the past three months, OneEnergy has met with local community stakeholders including representatives from the City of Fitchburg and neighboring landowners. In addition, the Applicant hosted an open forum community meeting on the Project at the Fitchburg Library to answer questions and receive feedback on September 15, 2022. One neighbor called in advance of the meeting to ask a few questions about the exact location of the project area, and a second neighbor attended the meeting to ask more specific questions about the location and proposed seed mix and vegetation management plan. Additional details about the Project, as provided at the community meeting, are provided in **Attachment C: Project Profile**.

The Applicant has completed all environmental studies and surveys required to construct the Project including the following: wetland delineation, Phase I Environmental Site Assessment, geotechnical and soil analysis, and endangered resources review. The Applicant submitted requests for concurrence, where applicable, from State agencies (see **Attachment D: Natural Resources Review, Concurrences**). The Project is not expected to impact natural resources. A wetland was delineated as noted on **Attachment B: Preliminary Site Plan** but is avoided with a 75' buffer from the Project fence and access road except for a ~100' run where the setback is too close to the property boundary to allow for the full 12' access drive width. In this area, the access road encroaches on the 75' setback for about 100' for a total setback encroachment of 1,484 square feet. The Applicant is working with zoning staff to develop a plan to restore an area of wetland equivalent to approximately double the square footage of the setback encroachment, or ~3,000 square feet, in the vicinity of the access driveway.

In addition, a stormwater and erosion control plan is being developed and will be submitted to the City Engineer and the State for approval prior to March 15, 2023, with a copy to the City of Fitchburg Zoning Department.

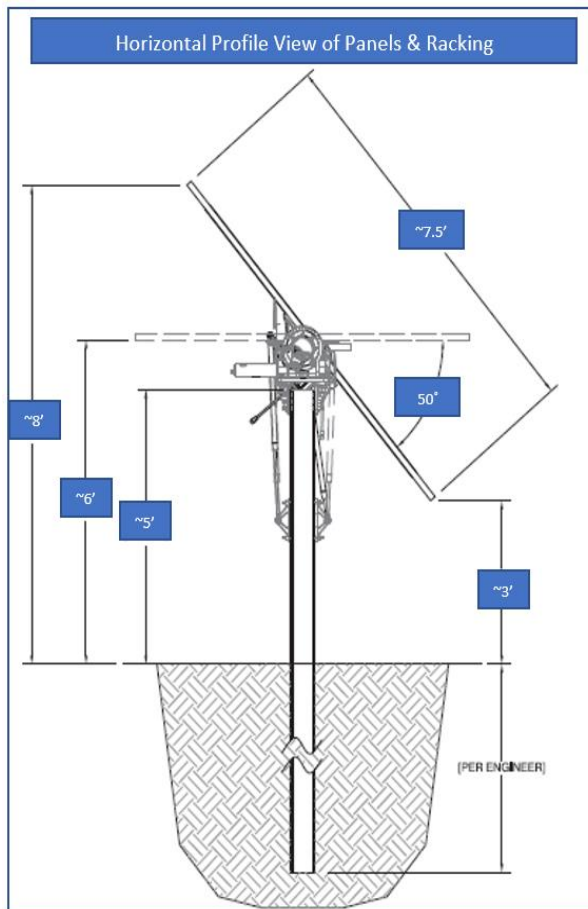
The Applicant intends to start construction on the Project in the spring or early summer of 2023, pending receipt of all required permits and approvals and availability of key equipment for the project. The Project is expected to be completed by the end of 2023. Once complete, the Project will generate local power for local customers within MGE's service territory.

## Project Details

- **General description and size of the proposed equipment and structures**

The Tyto Solar Project is a 6 Megawatt AC solar electric project that would interconnect to the existing distribution lines along Irish Lane. The project consists of the following major components:

- Gravel access drive – 12' wide with turnaround
- Pad-mounted transformer and electrical cabinet
- Inverters mounted on steel I Beams (to convert the DC power from the panels to AC power that can be used by the grid)
- Solar photovoltaic panels mounted to racking built on top of steel I-Beams driven into the ground. The I-Beams are anticipated to be approximately 5 feet tall, and the top edge of the panels is expected to be approximately 7.5-8 feet, the height of a mature corn plant.



## Fence

The project area is approximately 30 acres and will be fenced within an 8' tall deer-exclusion style fence, similar to what one might find around an orchard (see additional detail below).

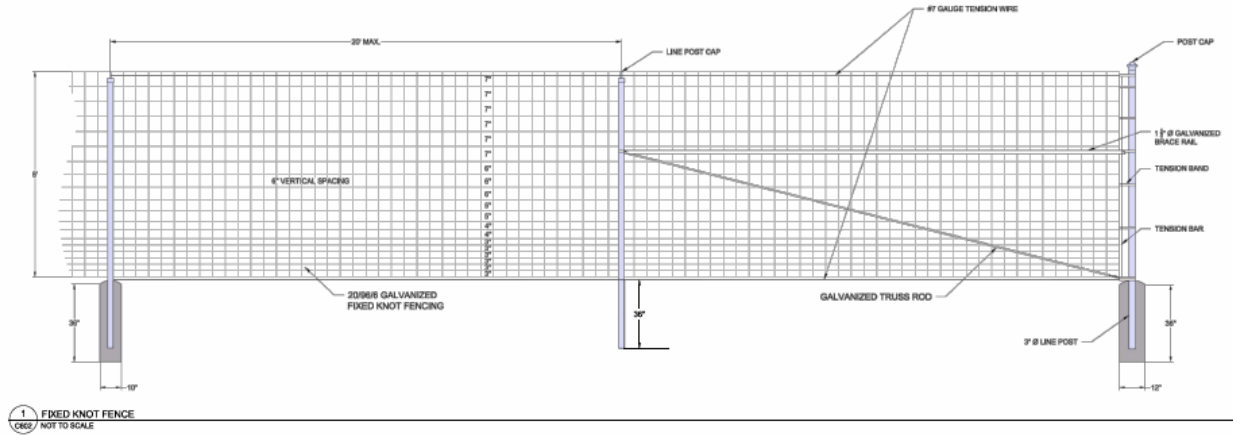


Figure 3 – Blue Prairie Solar Project in Black River Falls, WI

Please see **Attachment B: Preliminary Site Plan** for additional information on the fence location and the project layout.

- **Production**

- The nameplate capacity of the project is up to 6 MW AC. The project as proposed will produce roughly 12,000 MWh of electricity per year. This is enough electricity to power approximately 1,180 average Wisconsin homes.

- **Desirability of specific proposed location**

- Three main criteria dictate the feasibility of a solar project:
  - 1) Close to substation and adjacent to existing 3 phase distribution lines.
  - 2) Landowner interested in partnering to host the solar project.
  - 3) Site is suitable for the efficient construction of a solar project.

Below is a table summarizing our due diligence findings that reflect the site suitability for the subject property in the City of Fitchburg:

National Flood Hazard Database	No flood plains on site
Wetlands	No wetlands are present within the project area following on-site delineation.
Phase I Environmental Site Assessment	No recognized environmental conditions at the site.
Endangered Species Impacts	No impacts expected - Project is covered under the WI DNR Broad Incidental Take Permit/Authorization for No/Low Impact Activities
Title Report and ALTA Survey	Proposed site layout avoids existing easements & rights of way
Glare	Proposed panels have an anti-glare coating to minimize glare. Glare study finds no glare expected to adjacent residences and roadways.
Soils	Based on the observed subsurface conditions and the on-site geotechnical analysis, OneEnergy engineers have determined that the site is suitable to support of the proposed solar array systems and assumed site structures.

- **Setback requirements**

- The current design adheres to the City of Fitchburg side yard setback of 10' (Secs. 22-541 (4)), and front yard setback of 50 feet (Secs. 22-541 (3))
- The current design adheres to the City of Fitchburg wetland setback of 75' except for a short section of the access road where it is impossible to abide the 75' setback while remaining within the parcel boundary. This encroachment to the 75' setback represents an area of ~1,484 square feet. OneEnergy is developing a plan to restore an area of 3,000' of degraded wetlands in this area.

- **Road access**
  - As noted on the site layout, the access drive will enter from Irish Lane. If a conditional use permit is granted through the City of Fitchburg, a driveway permit and fire number application will be obtained prior to commencement of construction.
- **Parking considerations**
  - All vehicles associated with the project and its construction will be parked off-road within the boundaries of the job site. Adequate provision for this parking is factored into the site plan. Once the project is operational, the site is expected to be visited an average of once monthly. These minimal access and parking needs will be met by the access road.
- **Stormwater, drainage and sanitary disposal standards.**
  - The project will not have any on-site disposal or wastewater systems.
  - This project is designed with tracking technology which tracks the sun from east to west throughout the day. The drip edge of the panels moves as the trackers move. This spreads the panel runoff over a wider area than would be the case if the panels were fixed and drained to a single point.
  - As part of our stormwater permits which are submitted and obtained through the Wisconsin DNR, OneEnergy conducts a hydrology study showing how the water flows before the project is installed, as well as how it will be expected to flow after the project is installed.
  - Since the field will be planted to pollinator-friendly perennial vegetation using either a pollinator pasture mix for grazing sheep or a pollinator prairie mix to establish habitat for bees and other pollinators after construction, numerous studies throughout the Midwest (including the US Department of Energy-funded PV-Smart study on multiple solar projects in Minnesota) have shown that water infiltration actually **increases** after the installation of solar projects planted to perennial pollinator plantings relative to a pre-condition of conventional row-crop farming, since there is no tillage or soil disturbance associated with seeding or harvest. The water that flows off of solar panels is safe for people and wildlife.
  - For a solar project of this scale, the Wisconsin DNR requires a Construction Site Storm Water Runoff General Permit to be obtained prior to construction. This permit cannot be released until the permanent vegetation has established adequate growth (~70% coverage).
- **Controls to eliminate noise, dust, odor, smoke, noxious or toxic gases, operation of heavy machinery, heavy vehicles, increased traffic on public streets and other potentially objectionable operating conditions.**
  - Solar projects operate without odor, fumes, dust or vibration. Inverters that convert DC power to AC power are located near the middle of the project so that the noise they produce is not audible at the perimeter of the project.
  - The project would be constructed in approximately 4-6 months. During this time, road bans will be observed at all times by construction-related vehicles and trucks. OneEnergy will also ensure that no roads are blocked by its contractors during construction and no interference to emergency vehicle travel will occur. After

construction is complete, the project will require a visit from maintenance personnel an average of once monthly.

- The solar project does not have lighted signs or any other lights.
- **Days and hours of operation.**
  - The solar project is operational during daylight hours but will not have days and hours of operation when it is open to the public. Construction activities will be limited to normal daylight working hours.
  - The project's electrical production will be remotely monitored 24/7.
- **Minimizing environmental impacts**
  - The proposed design minimizes impacts to adjacent wetlands and restores degraded wetlands to compensate for the ~500 square feet where the 75' wetland buffer is encroached upon by the access drive. See **Attachment D: Natural Resources Review, Concurrences** for a map of the delineated wetlands. Also, see the Site Plan in **Attachment B** for a depiction of the proposed project facilities relative to the delineated wetland boundaries.
- **Site Restoration**
  - When the Project is decommissioned, the infrastructure will be removed and the site restored to pre-development conditions for continued agricultural use with rested and restored soils.
- **Seeding**
  - The Project will install a low-growing pollinator grazing or pollinator prairie seed mix to be approved by the Wisconsin DNR as part of the project's stormwater permit.
- **Access**

Access to the equipment pads will be gained by an approximately 12' wide gravel road entering from Irish Lane. Please see the site plan in **Attachment B**.
- **Max Height**
  - The top edge of the panels is expected to be approximately 7.5-8 feet, the height of a mature corn plant.

## ***Proposed Conditions***

1. Tyto Solar shall obtain and maintain all applicable federal, state and local approvals and permits necessary to install, maintain and operate the Project including:
  - a. Submission of and compliance with an Erosion Control and Stormwater Management Permit as may be approved by the City Engineer
2. Construction, operation and maintenance of the proposed Projects shall substantially conform with this application including:
  - o Setbacks: The Project shall comply with all setback requirements for the Transitional Agriculture including the side yard setback of 10', and front yard setback of 50 feet
  - o Seeding: The Project shall utilize a low-growth pollinator grazing or pollinator prairie seed mix for final site stabilization when the Project is complete
  - o Fence: The Project shall utilize a fixed knot agricultural type fence
  - o Access: Access to the project shall occur via a new driveway off of Irish lane as shown on Attachment B, which shall require a new Driveway Permit from the City of Fitchburg
  - o Operations Plan: The Project shall substantially conform with Attachment F.
3. No parking shall be allowed on public roadways and permit holder shall provide temporary parking for construction within the Project areas or staging areas.
4. During the construction period, the permit holder shall pick up and dispose of all mud, dirt and debris generated by Project construction on public roads and rights-of-way on a daily basis.
5. Upon request of the City of Fitchburg, the permit holder shall arrange for appropriate on-site training for entities providing emergency services to the City of Fitchburg.
6. At the time the Project permanently ceases to operate, the permit holder shall restore the site to substantially the same condition as existed prior to construction.
7. Upon reasonable advance notice, the City of Fitchburg Planning and Zoning staff may enter the premises of operation in order to inspect those premises and to ascertain compliance with these conditions. Zoning staff conducting inspections shall be accompanied by the staff or employees of permit holder and will comply with any applicable workplace safety rules or standards for the project.

## ***General Standards***

- a. *That the establishment, maintenance, or operation of the conditional use will not be detrimental to or endanger the public health, safety, morals, comfort or general welfare.*

The use of this property for the Project will not be detrimental to, and in fact will positively impact, the public health, safety, comfort, and general welfare by providing local renewable energy to the community, host a significant pollinator planting, and result in restoration of degraded wetlands. A portion of the Project's output will be available to MG&E customers through their Shared Solar program. The Project will reduce the local carbon footprint while not requiring or impacting additional public services, e.g., sewer, water. The Project will not emit noticeable noise and no lighting is required.

- b. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.*

The Project will not be injurious to the use and enjoyment of other property in the area. The Project will be sited in a compatible agricultural land use area and exceed all applicable setbacks for the district. The Project will not require manned operation nor will it emit noticeable noise, nor require external lighting. Existing trees will be left in place to the maximum extent possible. On all other sides of the Project, the land use primarily consists of open agricultural lands and thus will not diminish or affect the character or enjoyment of those lands. The Project is well set back from adjacent residences and roadways.

- c. That the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.*

The Project will have no adverse impact on the normal and orderly development and improvements of the surrounding properties for their current or future permitted uses. The property will remain in the A-T Agricultural Transition district consistent with the City of Fitchburg's Future Land Use plan. The Project will be developed in a manner that complements the agricultural setting but using an agricultural fence, either a pasture for grazing sheep or a pollinator seed mix to attract foragers and birds, and topsoil will remain on-site consistent with good agricultural practices. The facility will not encroach physically or otherwise change the character of adjoining future property uses and maintain sufficient setbacks so as to further mitigate any potential effects.

- d. That adequate utilities, access road, drainage, and/or necessary facilities have been or are being provided.*

Adequate services to the Project, including utilities, access, fencing, and communications, have all been accounted for in the proposed use. Access will be via a proposed new driveway from Irish Lane. A fence will be built around the perimeter of the Project. An approximately 12' wide access drive will be built within the CUP property to allow access to the Project. The facility will be connected to existing electric distribution infrastructure along Irish Lane. Communications to and from the equipment on-site will be accomplished by wireless communications. Necessary stormwater improvements will be made consistent with the plans submitted by Applicant or as approved by the State. There will be no burden on additional City services such as sewer, water, or educational resources.

- e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.*

The Project will not have on-site employees and therefore will require very infrequent vehicle access, so there should be no associated traffic congestion in the public streets. During construction, there will be no on-street parking and the design for temporary staging areas provides sufficient room for off-street parking.

*f. That the conditional use shall, in all other respects, conform to the applicable regulations of the district in which it is located.*

The use meets all applicable regulations of the A-T-Transitional Agricultural Zoning District set forth in Section 22.481-484 of the City of Fitchburg Zoning Ordinance. This includes minimum lot size requirements, setbacks, height restrictions, and other building restrictions.

### ***Conditional Use Standards, Zoning District A-T Transitional Agriculture***

Section 22-483 of the City of Fitchburg Zoning Ordinance designates the intended use, a utility solar energy project, as a conditional use: "For the A-T Transitional Agriculture District, conditional uses are as follows: ... (3) Transportation, communications, pipeline, electric transmission, utility including wind energy, and drainage use." The use of the property for the project is consistent with uses allowed by the Farmland Preservation Statute, Wis. Stat. §91.46(1)(f). The term "Utility Use" has been further defined by the Department of Agriculture, Trade and Consumer Protection, with respect to farmland preservation, and "includes facilities for the generation of electricity from sunlight,..." See Wis. Admin. Code Department of Agriculture, Trade and Consumer Protection §ATCP 49.01(19). Thus, the proposed solar project meets the definition of allowed "Utility Use" per the City of Fitchburg Conditional Use standards and is consistent with the Farmland Preservation Program as further supported below and by the Department of Agriculture, Trade and Consumer Protection's promulgated rules.

#### ***A. The use and its locations in the farmland preservation zoning district are consistent with the purposes of the farmland preservation zoning district.***

In addition to the Department of Agriculture, Trade and Consumer Protection rules described above that allow solar generation as a conditional use, the Project is consistent with the purpose of the farmland preservation zoning district for the following reasons:

- The Project will use either a pollinator pasture mix for grazing sheep or a pollinator prairie mix to establish habitat for bees and other pollinators, consistent with the intended use of agricultural land around the project.
- The areas outside the fence will continued to be farmed.
- The Project will not negatively affect and more likely will positively affect neighboring agricultural uses, especially those dependent on pollinators, as the pollinator planting becomes established and contributes to the health and population of local pollinators.
- The Project will be consistent with the Future Land Use Plan in maintaining the urban growth plans for the area and preserving these agricultural lands.

- B. The use and its location in the farmland preservation zoning district are reasonable and appropriate, considering alternative locations, or are specifically approved under state or federal law.***

Solar, or Utility Use, is an approved Conditional Use in the Exclusive Agricultural District. The site's proximity to existing electrical distribution make it a cost-effective location for siting solar generation.

- C. The use is reasonably designed to minimize the conversion of land, at and around the site of the use, from agricultural use or open space use.***

Solar projects generally do not trigger additional growth and will not contribute to the conversation of land around them. Instead, the Project will enable preservation of the area and its continued and future use for agriculture.

- D. The use does not substantially impair or limit the current or future agricultural use of surrounding parcels of land that are zoned for or legally restricted to agricultural use.***

The Project will not limit or impact adjacent uses, including agricultural uses. In fact, the remaining property is planned to be farmed right up to the fence line.

- E. Construction damage to land remaining in agricultural use is minimized and repaired, to the extent feasible.***

The Project is designed to minimize any disturbance to agricultural land. The Project uses a driven piling racking system which, when decommissioned, is easily removed from the site. In addition, all topsoil will remain on-site and the site plan is designed to minimize grading required. At the end of the Project's useful life, all components are removed and the land returned to substantially the same condition as it was previously.

**Attachment A**  
**ALTA Survey / Parcel Boundary Map**

# ALTA/NSPS LAND TITLE SURVEY

Vacant Land in Fitchburg, Wisconsin.

**PARCEL 1:**  
The West one-half of the Northeast Quarter of the Southwest Quarter (W1/2 NE1/4 SW1/4) and the West one-half of the Southeast Quarter of the Southwest Quarter (W1/2 SE1/4 SW1/4) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin.

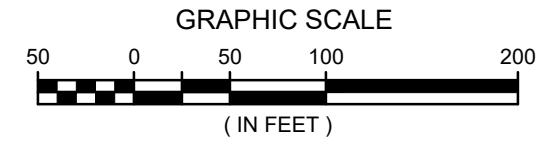
**PARCEL 2:**  
The East one-half of the Southwest Quarter (E1/2 SW1/4) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin, described as follows: Commencing at the Northwest corner of the Northeast Quarter of the Southwest Quarter (NE1/4 SW1/4), Section 13, Township 6 North, Range 9 East, thence approximately South 2684 feet along the West line of the East Half of the Southwest Quarter (E1/2 SW1/4) of said section; thence approximately East along the centerline of highway, being the South line of said Section 13, 1341.5 feet; thence approximately North 2663 feet; thence approximately West 1333 feet to the place of beginning, EXCEPTING THEREFROM the following described The West one-half of the Northeast Quarter of the Southwest Quarter (W1/2 NE1/4 SW1/4) and the West one-half of the Southeast Quarter of the Southwest Quarter (W1/2 SE1/4 SW1/4) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin.

ALSO, that part of the Northwest Quarter of the Southeast Quarter (NW1/4 SE1/4) of Section 13, Township 6 North, Range 9 East, in the City of Fitchburg, Dane County, Wisconsin, described as follows: Beginning at the Northwest corner of the Northwest Quarter of the Southeast Quarter (NW1/4 SE1/4); thence East along the quarter section line 30.0 feet; thence Southwesterly 42.4 feet to the East line of the Southwest Quarter (SW1/4) of said Section 13; thence North along said East line 30.0 feet to the place of beginning.

PREPARED FOR: ONE ENERGY RENEWABLES  
SURVEY NO: 168854-KAC

FOUND 3/4" IRON PIPE NE CORNER OF SW 1/4 SEC. 13-6-9

LEGEND	
○ BOLLARD	○ SANITARY MANHOLE
+ SOIL BORING/MONITORING WELL	○ SANITARY CLEANOUT OR SEPTIC VENT
↑ FLAGPOLE	○ SANITARY INTERCEPTOR MANHOLE
✦ MAILBOX	○ MISCELLANEOUS MANHOLE
□ SIGN	○ WATER VALVE
□ AIR CONDITIONER	○ HYDRANT
□ CONTROL BOX	○ WATER SERVICE CURB STOP
◇ TRAFFIC SIGNAL	○ WATER MANHOLE
✦ IRRIGATION CONTROL BOX	○ WELL
□ CABLE PEDESTAL	○ WATER SURFACE
○ POWER POLE	○ WETLANDS FLAG
○ GUY WIRE	○ MARSH
○ SPOT/YARD/PEDESTAL LIGHT	○ CONIFEROUS TREE
○ HANDICAPPED PARKING	○ DECIDUOUS TREE
○ PULL BOX	○ SHRUB
○ ELECTRIC MANHOLE	○ -EDGE OF TREES
○ ELECTRIC PEDESTAL	○ -SANITARY SEWER
○ ELECTRIC METER	○ -STORM SEWER
○ ELECTRIC TRANSFORMER	○ -WATERMAIN
○ TELEPHONE MANHOLE	○ -MARKED GAS MAIN
○ TELEPHONE PEDESTAL	○ -MARKED ELECTRIC
○ UTILITY VAULT	○ -OVERHEAD WIRES
○ GAS VALVE	○ -BUREAU ELEC. SERV.
○ GAS METER	○ -MARKED TELEPHONE
○ GAS WARNING SIGN	○ -MARKED CABLE TV LINE
○ STORM MANHOLE	○ -MARKED FIBER OPTIC
○ ROUND INLET	○ -UTILITY PER PLAN
○ SQUARE INLET	○ -INDICATES EXISTING
○ STORM SEWER END SECTION	○ -780
	○ -CONTOUR ELEVATION
	○ -INDICATES EXISTING
	○ -SPOT ELEVATION



**A. Basis of Bearings**  
Bearings are based on the North line of the Southwest 1/4 of Section 13, Township 6 North, Range 9 East, which bears South 88°01'13" East.

**B. Title Commitment**  
**PARCEL 1:**  
This survey was prepared based on Knight Barry Title Group, title commitment file number: 2106741, commitment date November 12, 2021, which lists the following easements and/or restrictions from schedule B-II:

1-5, 10, 11, 15, and 17-20 - **NOT SURVEY RELATED.**  
6-9, 12, and 13 - **VISIBLE EVIDENCE SHOWN, IF ANY.**

14. Electric Line Easement to Madison Gas and Electric Company as evidenced by the Lis Pendens filed April 2, 1965 as Document No. 1127556; amended by Easement Supplement recorded February 25, 1986 in Vol. 7820 of Records, Page 13 as Document No. 1922792; assigned to American Transmission Company LLC by an Easement Assignment recorded January 29, 2001 as Document No. 3283453. - **DOES NOT LIE WITHIN OR CROSS THE SURVEYED PROPERTY - ITS LOCATION IS SHOWN.**

16. Right of Way Grant to Michigan Wisconsin Pipe Line Company and other matters contained in the instrument recorded November 14, 1969 in Vol. 145 of Records, Page 76 as Document No. 1254241; modified by Partial Release of Easement recorded October 9, 1980 in Vol. 2295 of Records, Page 47 as Document No. 1683676. - **LIES WITHIN OR CROSSES THE SURVEYED PROPERTY - IT IS A BLANKET EASEMENT - ITS LOCATION IS NOT SHOWN.**

**PARCEL 2:**  
This survey was prepared based on Knight Barry Title Group, title commitment file number: 2106740, commitment date November 12, 2021, which lists the following easements and/or restrictions from schedule B-II:

1-5, 10, 11, 15, and 17-20 - **NOT SURVEY RELATED.**  
6-9, 12, and 13 - **VISIBLE EVIDENCE SHOWN, IF ANY.**

14. Electric Line Easement to Madison Gas and Electric Company as evidenced by the Lis Pendens filed April 2, 1965 as Document No. 1127556; amended by Easement Supplement recorded February 25, 1986 in Vol. 7820 of Records, Page 13 as Document No. 1922792; assigned to American Transmission Company LLC by an Easement Assignment recorded January 29, 2001 as Document No. 3283453. - **LIES WITHIN OR CROSSES THE SURVEYED PROPERTY - ITS LOCATION IS SHOWN.**

16. Right of Way Grant to Michigan Wisconsin Pipe Line Company and other matters contained in the instrument recorded November 14, 1969 in Vol. 145 of Records, Page 76 as Document No. 1254241; modified by Partial Release of Easement recorded October 9, 1980 in Vol. 2295 of Records, Page 47 as Document No. 1683676. - **LIES WITHIN OR CROSSES THE SURVEYED PROPERTY - IT IS A BLANKET EASEMENT - ITS LOCATION IS NOT SHOWN.**

**C. Flood Note**  
According to flood insurance rate map of the City of Fitchburg, community panel number 55025C0585H, effective date of September 17, 2014, this site falls in zone X (areas determined to be outside the 0.2% annual chance floodplain). Flood Hazard Impact is subject to map scale uncertainty.

**D. Municipal Zoning**  
No zoning report provided.

**E. Notes**  
As to table A item 11  
Surveyor's responsibility to coordinate markings shall be limited to one marking request to 811 (national "call before you dig" number) based on the property address, as provided by the client.  
Note to the client, insurer, and lender - With regard to Table A, item 11, information from the sources checked within will be combined with observed evidence of utilities pursuant to Section 5.5.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response.  
As of the field date indicated below in certificate (most recent site visit/inspection), it appears some underground utilities were not marked. This affected the surveyor's assessment of the location of the utilities resulting in partial illustration and/or mapping per plan. Where additional or more detailed information is required, the client is advised that excavation may be necessary.

There is no visible evidence of recent earth moving work, building construction or building additions observed in the process of conducting the fieldwork.

There are no proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction or observed in the process of conducting the fieldwork.

There is no visible evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.

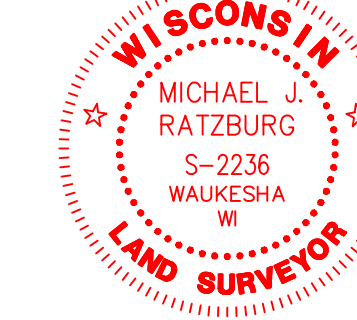
To: Daniel Snyder; Robin Kruse; and Knight Barry Title Group; and Stewart Title Guaranty Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 6(a), 6(b), 7(a), 7(b2) 8, 11(a), 11(b), 13, 14, 16, 17, 18, 19 and 20 of Table A thereof. The fieldwork was completed on August 24, 2022.

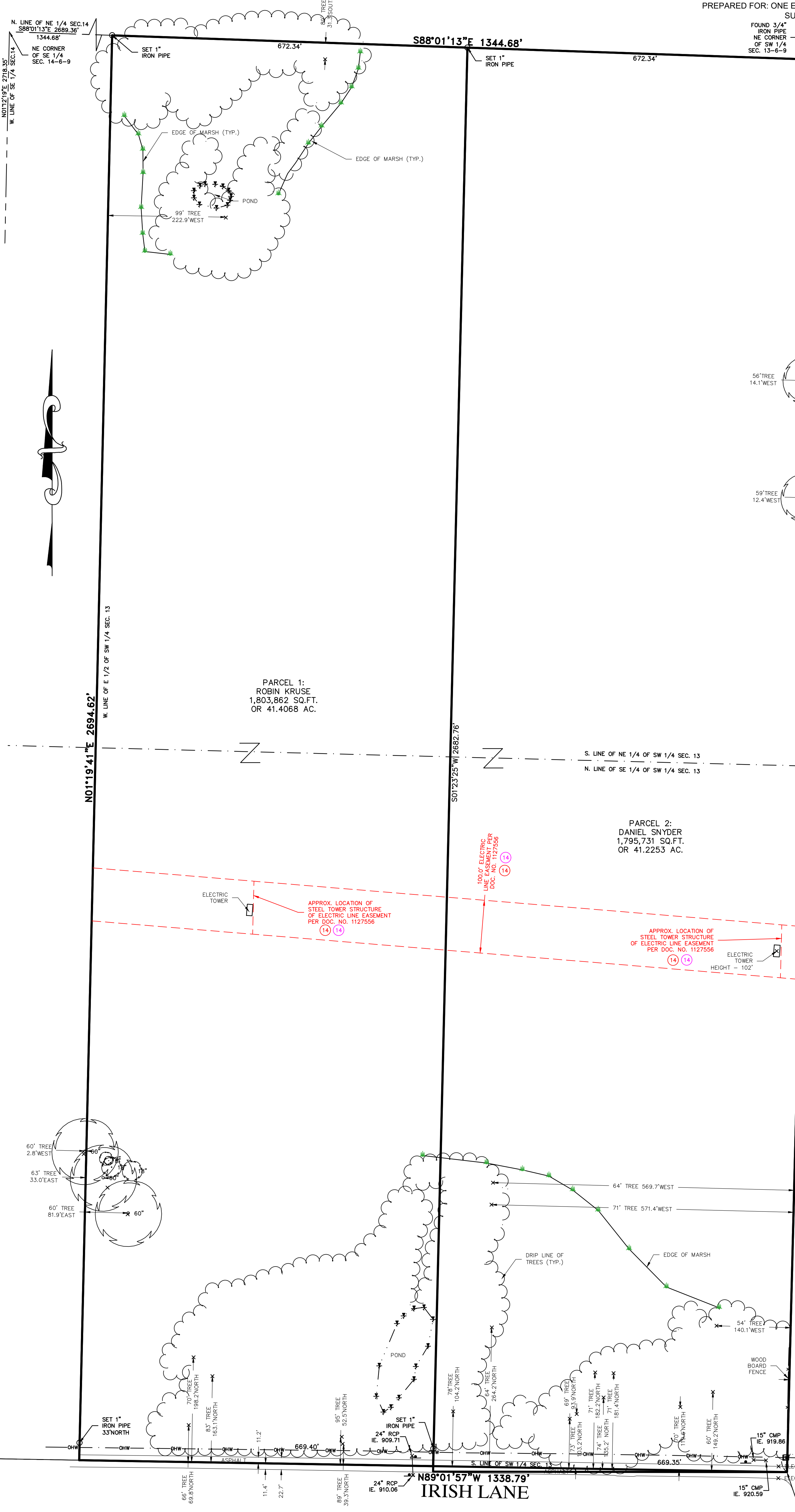
Date of Plat or Map: August 29, 2022

I CERTIFY, that this survey was prepared under my supervision and is correct to the best of my professional knowledge and belief and complies with Chapter AE-7 of the Wisconsin Administrative Code.

*Michael J. Ratzburg*



Michael J. Ratzburg  
Professional Land Surveyor  
Registration Number S-2236  
michael.ratzburg@rasmith.com



DIGGERS HOTLINE TICKET NOS: 20223424002 & 4004  
THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.  
(P) INDICATES PIPE SIZES PER RECORD PLANS. OTHER PIPE SIZES ARE ESTIMATED. NO PIPE SIZES SHOULD BE RELIED UPON WITHOUT FURTHER VERIFICATION.

R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC.  
ALL COPYRIGHTS TO THESE DRAWINGS ARE RESERVED. THEY MAY NOT BE COPIED, CHANGED, OR ASSIGNED TO ANY THIRD PARTY IN ANY MANNER WITHOUT OBTAINING THE EXPRESSED WRITTEN PERMISSION OF R.A.SMITH, INC.



16745 W. Bluemound Road  
Brookfield, WI 53005-5938  
(262) 781-1000  
rasmith.com

**Attachment B**  
**Site Plan**

# TYTO SOLAR

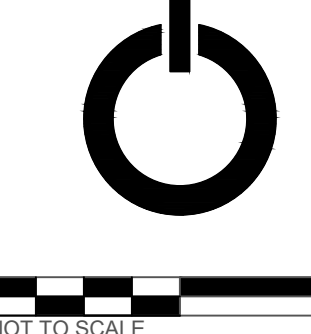
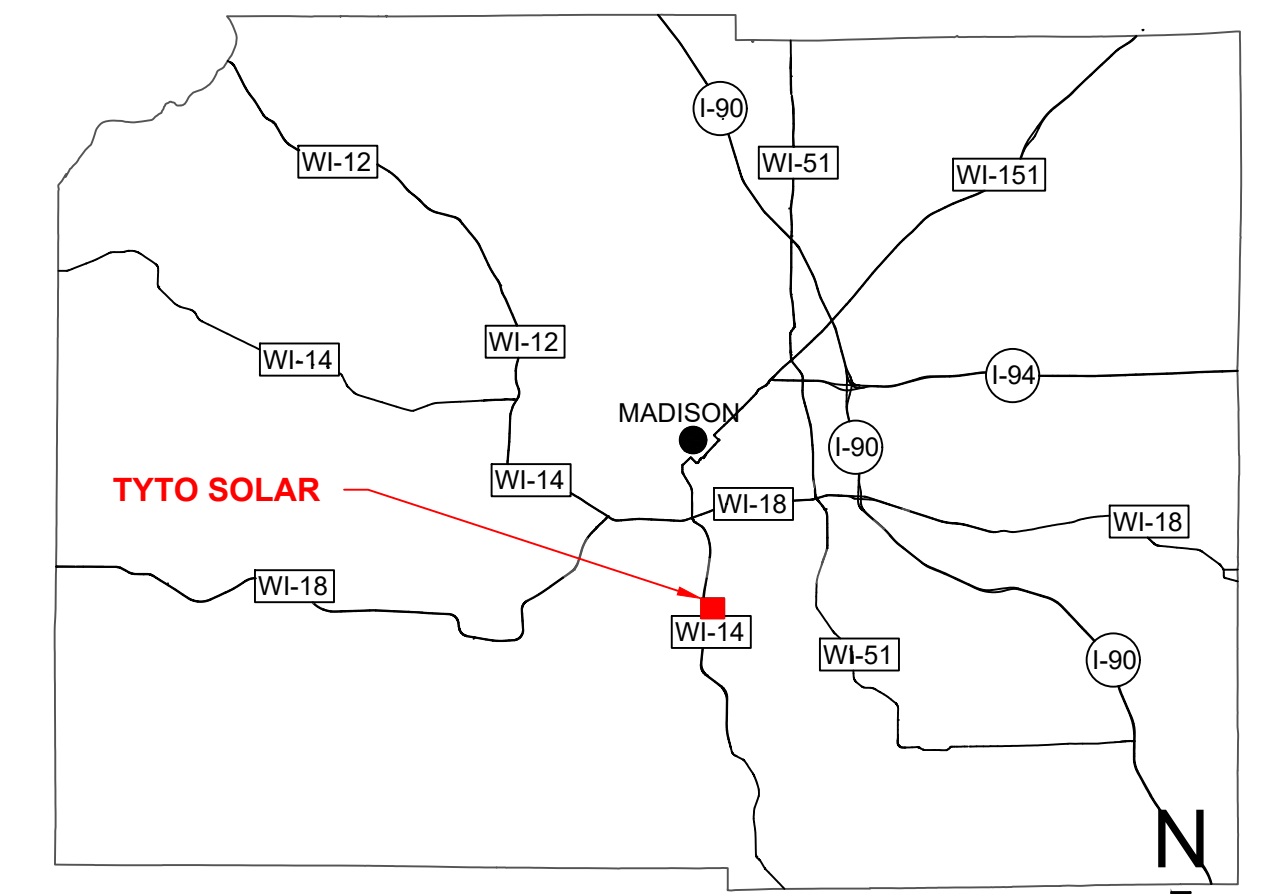
5506 IRISH LANE, FITCHBURG, WI 53713

SOLAR PV PROJECT  
7.207 MWDC / 6.000 MWAC

## LEGEND

- PROPOSED GRAVEL ACCESS ROAD
- DELINEATED WETLAND
- STAGING AREA
- INTERCONNECTION EQUIPMENT
- PARCEL BOUNDARY
- PROJECT ZONING OFFSET
- PROJECT SECURITY FENCE
- NEIGHBOR PARCEL BOUNDARY
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING UTILITY LINE
- UNDERGROUND GENERATION TIE
- OVERHEAD GENERATION TIE
- EXISTING UTILITY POLE
- NEW UTILITY POLE
- UTILITY EASEMENT

## DANE COUNTY MAP



## PROJECT DETAILS

THIS PROJECT CONSISTS OF THE DESIGN AND INSTALLATION OF 6.000 MWAC SOLAR PHOTOVOLTAIC SYSTEM. MODULES ARE TO BE MOUNTED IN A SINGLE AXIS TRACKERS, WHICH FOLLOW THE SUN FROM EAST TO WEST THROUGHOUT THE DAY OR MOUNTED AT A FIXED TILT FACING SOUTH.

### SITE DETAILS:

PARCEL ID: 060913380602  
OWNER: ROBIN KRUSE  
ACREAGE: 20.0000

PARCEL ID: 060913395602  
OWNER: ROBIN KRUSE  
ACREAGE: 20.0000

PARCEL ID: 0609133800212  
OWNER: DANIEL SNYDER  
ACREAGE: 20.0000

PARCEL ID: 060913395012  
OWNER: DANIEL SNYDER  
ACREAGE: 20.0000

### LAND USE SUMMARY:

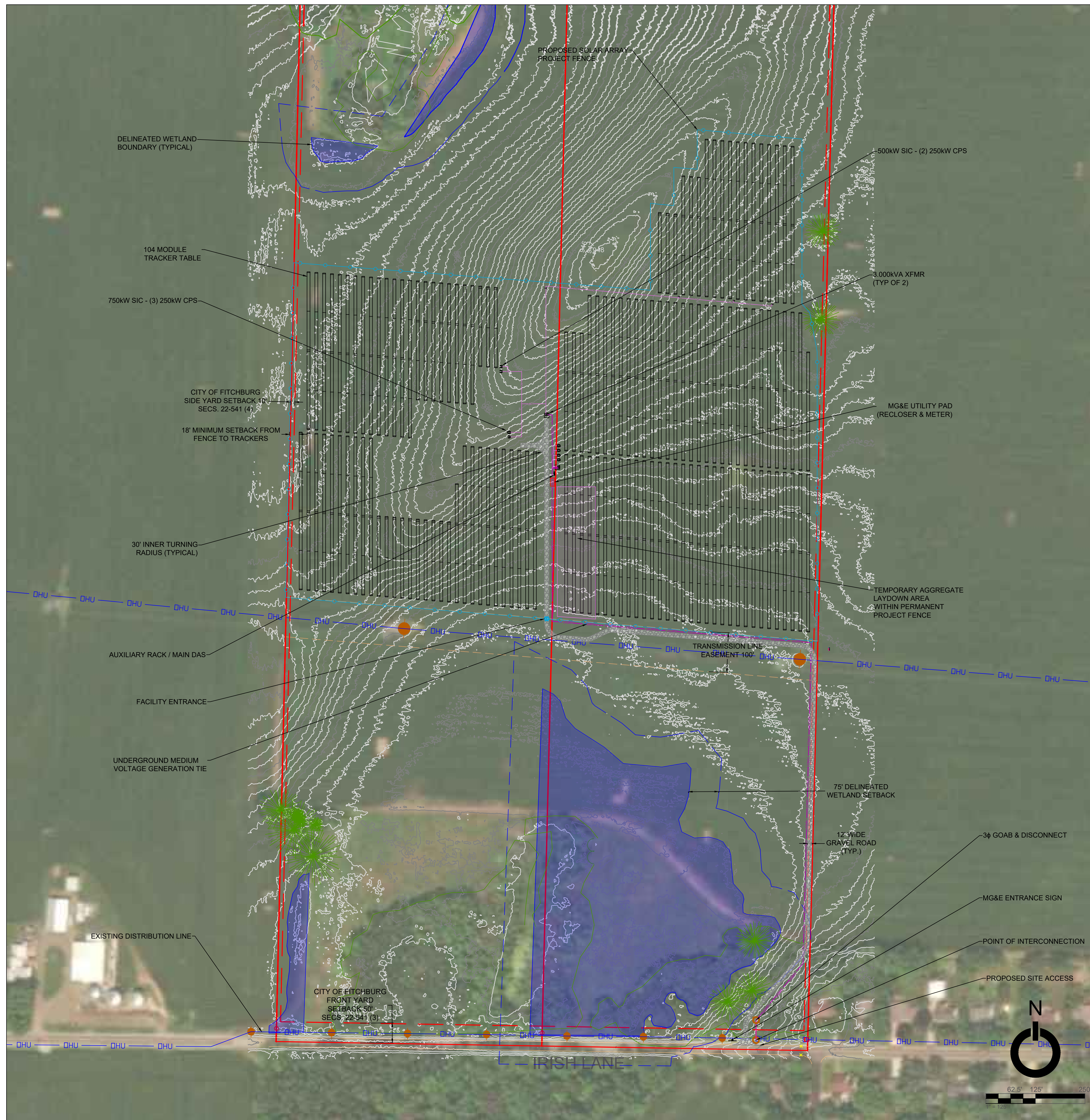
TOTAL PARCEL AREA (ACRES): 80.00  
TOTAL LEASED AREA (ACRES): 75.00  
TOTAL FENCED AREA (ACRES): 29.06  
GRAVEL ACCESS ROAD (ACRES): 0.66  
STAGING AREA (ACRES): 0.73  
IMPERVIOUS SURFACE RATIO: 0.05

### DESIGN SUMMARY:

MODULE POWER: 550W  
MODULE COUNT: 13,104  
ARRAY DC VOLTAGE: 1500V  
INVERTER SIZE: 250kVA  
INVERTER COUNT: 24  
DC SIZE: 7.207MWdc  
AC SIZE: 6.000MWac  
DC/AC RATIO: 1.201  
GROUND COVERAGE RATIO: 38.0%  
ASCE 7-22 GSL: 41 PSF  
ASCE 7-22 WIND SPEED: 100 MPH

### ADDITIONAL NOTES:

- BASEMAP DEVELOPED FROM ALTA SURVEY PERFORMED BY RaSMITH
- PARCEL DATA TAKEN FROM FIELD SURVEY
- WETLANDS SHOWN WERE FIELD DELINEATED BY EOR INC.



2003 Western Ave, Suite 225  
Seattle, WA 98121  
oneenergyrenewables.com  
206 922 7072

WRITTEN DIMENSIONS ON THIS PLAN SHALL SUPERCEDE SCALED DIMENSIONS. CONTRACTORS ARE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS. THIS DRAWING, DESIGN, CONCEPT AND ARRANGEMENT REMAIN THE PROPERTY OF ONEENERGY RENEWABLES AND SHALL NOT BE COPIED, DISCLOSED OR REPRODUCED WITHOUT CONSENT.

REVISION LOG					
REV	DESCRIPTION	DATE	BY	CK'D	PM
A1	PRELIMINARY - NOT FOR CONSTRUCTION	10.20.2021	AA	-	FH
A2	PRELIMINARY - NOT FOR CONSTRUCTION	02.04.2022	SJ	IR	FH
A3	PRELIMINARY - NOT FOR CONSTRUCTION - PERMIT LAYOUT	09.19.2022	AK	IR	EU

# PRELIMINARY

## NOT FOR CONSTRUCTION

TYTO SOLAR

5506 IRISH LANE, FITCHBURG  
WI 53713

SHEET TITLE: **SITE PLAN**

DATE: 09.20.2022 SHEET NO: **G-100**  
PM: EU ENG: IR

**Attachment C**  
**Tyto Solar Project Profile**



# TYTO SOLAR

## Project Overview

OneEnergy Renewables is in the process of developing a 6 MW solar project in Fitchburg, WI. The project is located on Irish Lane, north of an existing high voltage transmission line, between State Highway 14 and County Highway MM (Please see site plan on reverse). OneEnergy Renewables will develop, design, and construct the solar project, and Madison Gas & Electric will own the project.

A portion of the electricity from the Tyto Solar Project will be used for the MGE Shared Solar program, which allows MGE customers to buy some of their energy from the project.

The project will occupy approximately 30 acres, and has an expected useful life of over 30 years, providing clean, renewable energy for years to come.

### SYSTEM CAPACITY

Up to 6 MW  
30 acres

### SYSTEM COMPONENTS

Single-axis tracker (tracks the sun from east to west throughout the day)

### LOCATION

Address tentatively 4986 Irish Lane Fitchburg, WI 53711 (Between State Highway 14 and County Highway MM on Irish Lane)

### 13,016 MEGAWATT HOURS PER YEAR IS EQUIVALENT TO...



**1,280**

HOUSEHOLDS POWERED BY SOLAR ENERGY



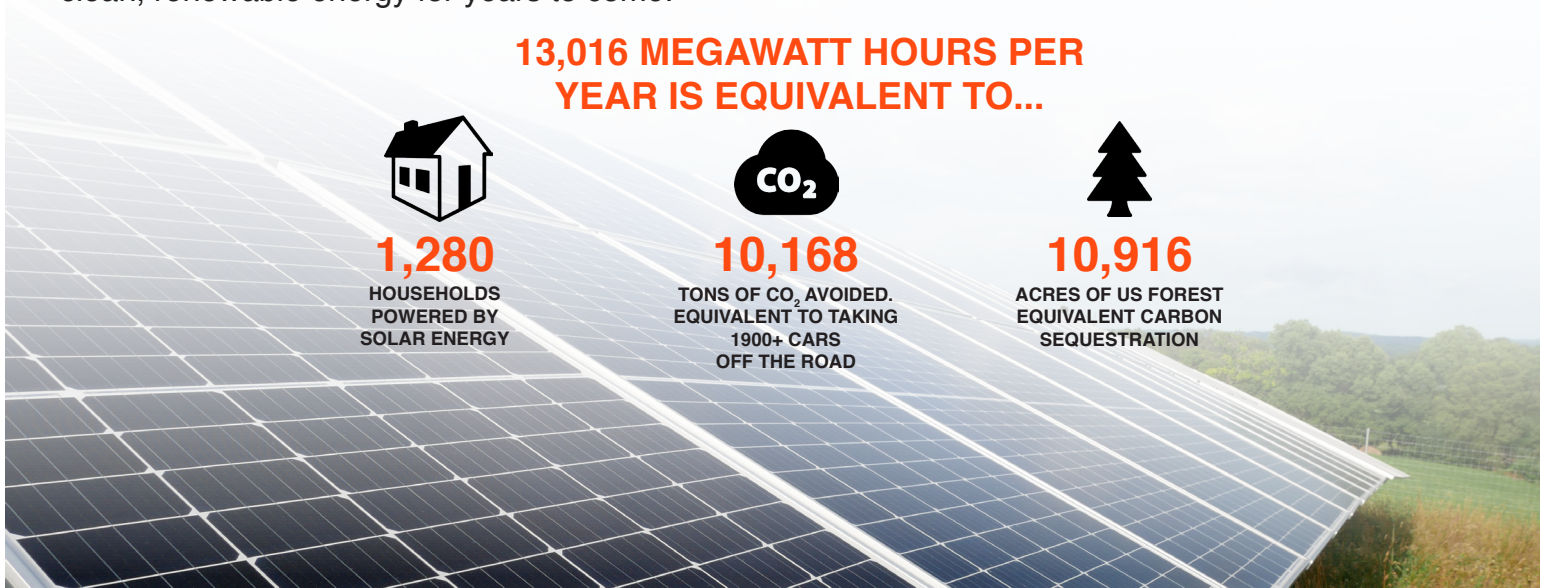
**10,168**

TONS OF CO<sub>2</sub> AVOIDED. EQUIVALENT TO TAKING 1900+ CARS OFF THE ROAD



**10,916**

ACRES OF US FOREST EQUIVALENT CARBON SEQUESTRATION



# Sustainable Design and Construction

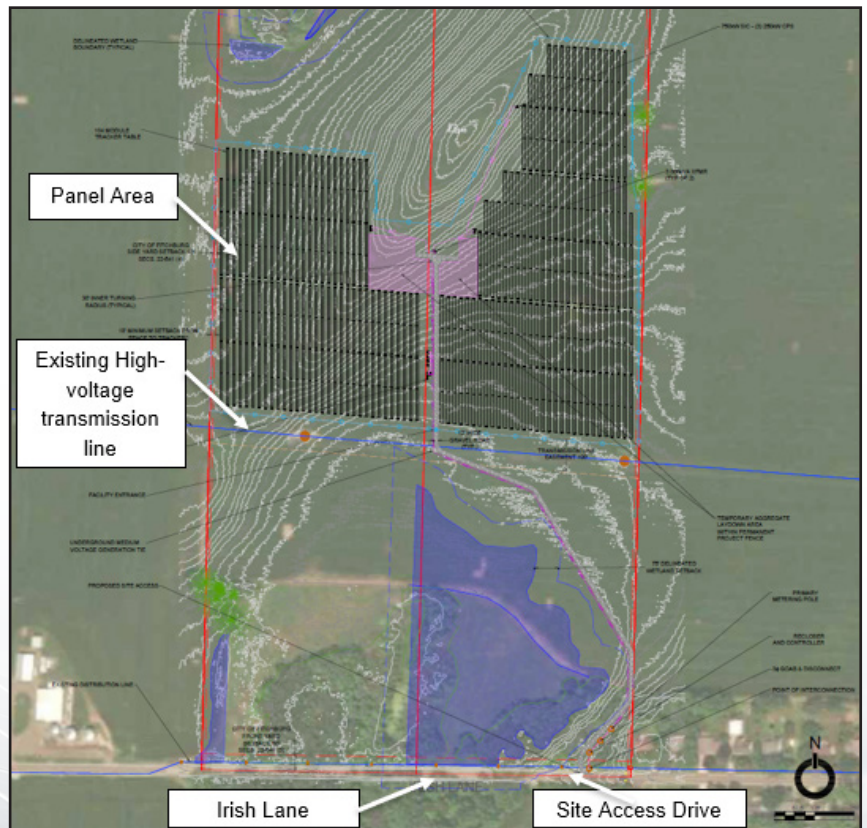


The area beneath and around the panels will be planted to a low-growing perennial pollinator mix. This increases water infiltration relative to conventional row-cropping. Water that flows off solar panels is safe for people and wildlife.

The project area will be fenced within an 8' tall deer-exclusion style fence, similar to what one might find around an orchard. Such a design fits well within agricultural settings.

When the Project is decommissioned, the infrastructure will be removed and the site restored to pre-development conditions for continued agricultural use with rested and restored soils.

## PROPOSED TYTO SOLAR PROJECT SITE PLAN



## Contact

**ERIC UDELHOFEN**  
VP - DEVELOPMENT

608.514.5378 |C

[eric@oneenergyrenewables.com](mailto:eric@oneenergyrenewables.com)

834 E. Washington Avenue, Suite 257  
Madison, WI 53703



**Attachment D**  
**Wetland Delineation, Natural Resources Review**  
**and DNR Concurrences**



## Endangered Resources Preliminary Assessment

Created on **9/19/2022**. This report is good for one year after the created date.

DNR staff will be reviewing the ER Preliminary Assessments to verify the results provided by the Public Portal. ER Preliminary Assessments are only valid if the project habitat and waterway-related questions are answered accurately based on current site conditions. If an assessment is deemed invalid, a full ER review may be required even if the assessment indicated otherwise.

### Results

A search was conducted of the NHI Portal within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area. Based on these search results, below are your next steps.

#### No further action is necessary.

This project is covered by the Broad Incidental Take Permit/Authorization for No/Low Impact Activities (No/Low BITP/A) (<https://dnr.wi.gov/topic/ERReview/ITNoLowImpact.html>). This BITP/A covers projects that the DNR has determined will have no impact or a minimal impact to endangered and threatened species in the state. Due to this coverage under the No/Low BITP/A, a formal review letter is not needed and there are no actions that need to be taken to comply with state and/or federal endangered species laws, any take that may result from the proposed project is permitted/authorized.

A copy of this document can be kept on file and submitted with any other necessary DNR permit applications to show that the need for an ER Review has been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.

### Project Information

Landowner name	Tyto LLC
Project address	4986 Irish Lane Fitchburg, WI 53711
Project description	Ground Mounted Solar Electric Project

### Project Questions

Does the project involve a public property?	No
Is there any federal involvement with the project?	No
Is the project a utility, agricultural, forestry or bulk sampling (associated with mining) project?	Yes
Is the project property in Managed Forest Law or Managed Forest Tax Law?	No
Project involves tree or shrub removal?	No
Is project near (within 300 ft) a waterbody or a shoreline?	No
Is project within a waterbody or along the shoreline?	No

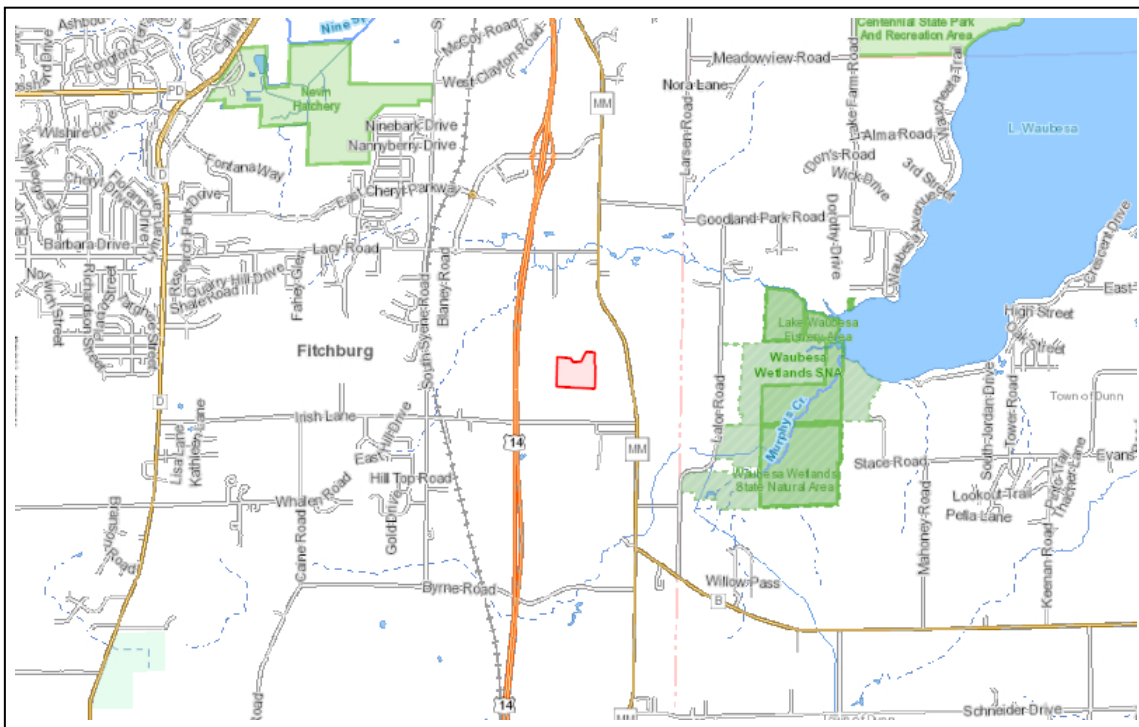
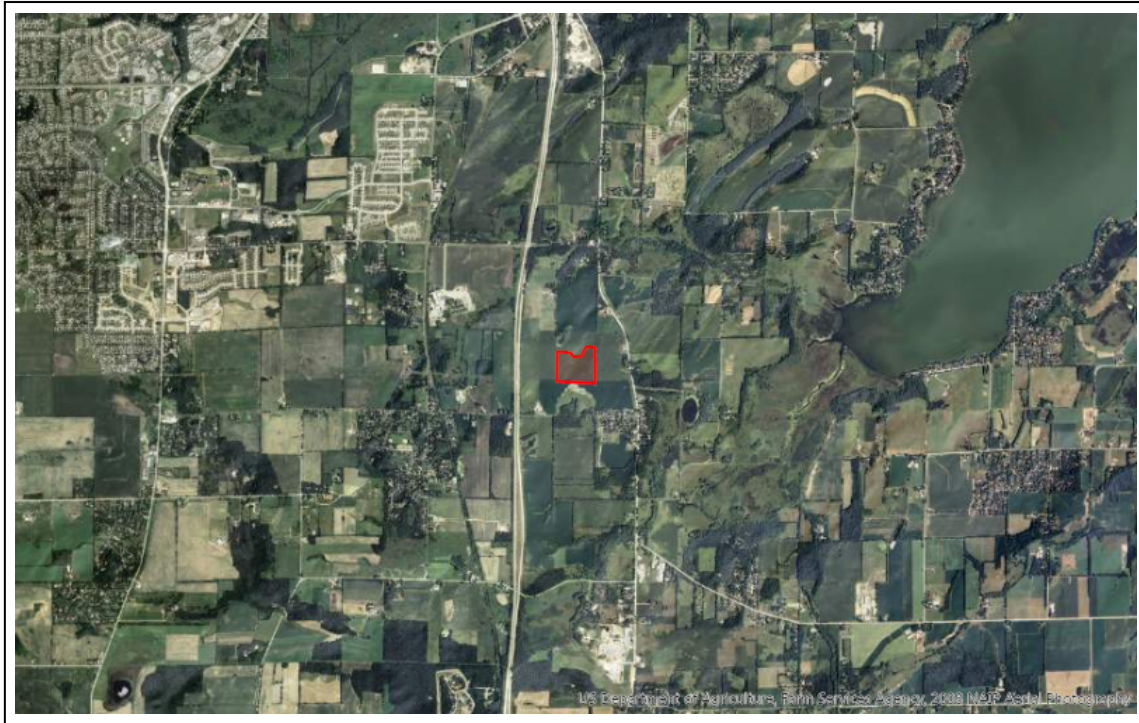
Does the project area (including access routes, staging areas, laydown yards, select sites, source/fill sites, etc.) occur **entirely within** one or more of the following habitats?

Urban/residential	No
Manicured lawn	No

Public Portal ID: **ce227@DX8**

9/19/2022, 4:15:04 PM

Artificial/paved surface	No
Agricultural land	Yes
Areas covered in crushed stone or gravel	No



The information shown on these maps has been obtained from various sources, and is of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. Users of these maps should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>.

<https://dnrx.wisconsin.gov/nhiportal/public>

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
4101 American Blvd E  
Bloomington, MN 55425-1665  
Phone: (952) 252-0092 Fax: (952) 646-2873

In Reply Refer To:  
Project Code: 2022-0086566  
Project Name: Tyto Solar

September 19, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

## To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

### **Threatened and Endangered Species**

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS IPaC system by completing the same process used to receive the enclosed list.

### **Consultation Technical Assistance**

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

## Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### Northern Long-Eared Bats

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
  - Trees found in highly developed urban areas (e.g., street trees, downtown areas),
-

- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, please use the northern long-eared bat determination key in IPaC. This tool streamlines consultation under the 2016 rangewide programmatic biological opinion for the 4(d) rule. The key helps to determine if prohibited take might occur and, if not, will generate an automated verification letter. No further review by us is necessary.

*Please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the bat by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of northern long-eared bats after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.*

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of](#)

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[Whooping Cranes in the Eastern United States.”](#)

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

#### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

#### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRRERReview@wi.gov](mailto:DNRRERReview@wi.gov)

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We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

## **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

4101 American Blvd E

Bloomington, MN 55425-1665

(952) 252-0092

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## Project Summary

Project Code: 2022-0086566

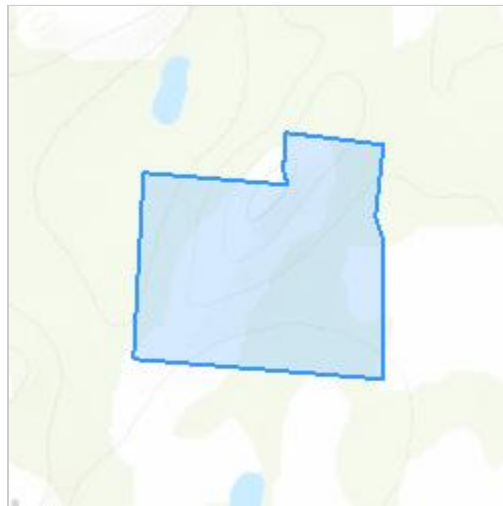
Project Name: Tyto Solar

Project Type: Power Gen - Solar

Project Description: Tyto Solar will include approximately 30 acres of agricultural land in the city of Fitchburg, WI. Some light grading and clearing may take place but there will be little change to the quantity of impervious surface. It is expected that the project will generate 6 of power.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.99100145,-89.37899178250777,14z>



Counties: Dane County, Wisconsin

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## Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Birds

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

### Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Flowering Plants

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/601">https://ecos.fws.gov/ecp/species/601</a>	Threatened
Mead's Milkweed <i>Asclepias meadii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8204">https://ecos.fws.gov/ecp/species/8204</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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# **USFWS National Wildlife Refuge Lands And Fish Hatcheries**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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## Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31

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NAME	BREEDING SEASON
<b>Black Tern <i>Chlidonias niger</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20
<b>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10
<b>Bobolink <i>Dolichonyx oryzivorus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
<b>Canada Warbler <i>Cardellina canadensis</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
<b>Cerulean Warbler <i>Dendroica cerulea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 22 to Jul 20
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Eastern Whip-poor-will <i>Antrostomus vociferus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
<b>Golden-winged Warbler <i>Vermivora chrysoptera</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8745">https://ecos.fws.gov/ecp/species/8745</a>	Breeds May 1 to Jul 20
<b>Henslow's Sparrow <i>Ammodramus henslowii</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3941">https://ecos.fws.gov/ecp/species/3941</a>	Breeds May 1 to Aug 31
<b>Lesser Yellowlegs <i>Tringa flavipes</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Marbled Godwit <i>Limosa fedoa</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds May 1 to Jul 31

NAME	BREEDING SEASON
<b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Ruddy Turnstone</b> <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Short-billed Dowitcher</b> <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12

(0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

**Breeding Season (■)**

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

**Survey Effort (|)**

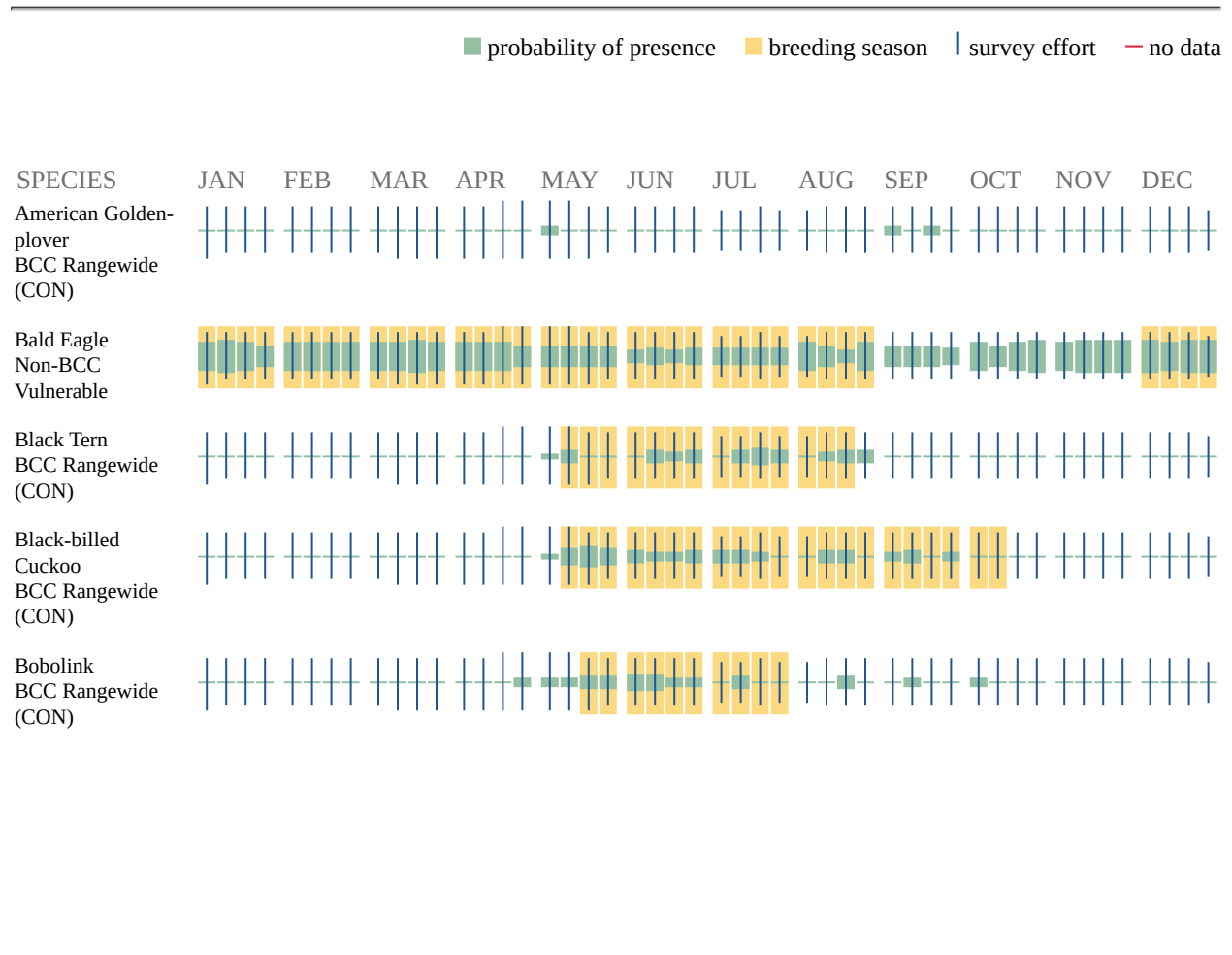
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data (-)**

A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## **Migratory Birds FAQ**

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look

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at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be

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aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.  
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

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## **IPaC User Contact Information**

Agency: OneEnergy Renewables  
Name: Peter Murphy  
Address: 834 E. Washington Ave,  
Address Line 2: Ste. 257  
City: Madison  
State: WI  
Zip: 53703  
Email: peter@oneenergyrenewables.com  
Phone: 2625733089

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## Eric Udelhofen

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**From:** Radermacher, Geri M - DNR <Geri.Radermacher@wisconsin.gov>  
**Sent:** Tuesday, September 13, 2022 9:09 AM  
**To:** Joe Pallardy  
**Cc:** Eric Udelhofen; Ethan Hau; Beth Esser; Peter Murphy  
**Subject:** FW: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility  
**Attachments:** 2022.08.29\_5%Layout\_Tyto\_6.00MWac\_Update.pdf; Wetland\_Delineation\_Report\_Tyto\_8.20.2022.pdf

Caution! This message was sent from outside your organization.

[Allow sender](#) | [Block sender](#)

Hi Joe,

Thank you for submitting the wetland consultation request for the proposed One Energy Renewable Tyto Solar Facility in Dane County. I reviewed the information and agree it accurately identifies wetland for state regulatory purposes for the purpose of this project. Please upload this **email and attachments** with any WDNR permit application submittals as proof of wetland consultation. Please keep in mind all waterways mapped in the WDNR 24K hydro layer and any additional waterways field located are considered navigable unless determined non-navigable by the WDNR through a navigability determination.

Please note this determination did not include a review for approvals or permits needed for:

- [Cultural/archaeological/historical resources](#),
- [state threatened or endangered species](#),
- [state stormwater/erosion control permitting](#),
- [state wastewater permitting](#),
- [state water use permitting](#), or
- easements needed for crossing of [WDNR property](#) (state lands, state trails, etc.)
- resource identification, approvals, permits, or authorizations needed from tribal entities for work within tribal reservation boundaries

Take care,  
~Geri

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Geri Radermacher

Energy Project Liaison

Office of Energy- <https://dnr.wisconsin.gov/topic/Sectors/UtilityPermitting.html>

Wisconsin Department of Natural Resources

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Waukesha WI 53188

Cell Phone: (262) 239-0994

[geri.radermacher@wi.gov](mailto:geri.radermacher@wi.gov)



[dnr.wi.gov](http://dnr.wi.gov)



---

**From:** Joe Pallardy [jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)  
**Sent:** Tuesday, September 13, 2022 8:37 AM  
**To:** Radermacher, Geri M - DNR [Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)  
**Subject:** RE: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

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Hi Geri,

That is an oversight on my part. I failed to digitize the Study Area correctly last night.

Please see attached, (updated updated) figure.

We delineated all wetland resources within the entire project footprint.

Thanks,

**Joe Pallardy**

Water and Natural Resource Specialist / Renewable Energy Specialist  
[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)

**EOR: water | ecology | community**

p: 608.839.6146 [www.eorinc.com](http://www.eorinc.com)  
c: 630.388.9820

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---

**From:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>  
**Sent:** Tuesday, September 13, 2022 7:34 AM  
**To:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>  
**Subject:** FW: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

Hi Joe,

Thanks for providing the updated figure. It looks like some of the project area is proposed outside of the wetland investigation area. Please explain why the entire project area was not investigated as part of the wetland delineation. Also discuss how the wetland boundary was established in the area outside of the wetland delineation area.

Thanks,

~Geri

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Geri Radermacher

Energy Project Liaison

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---

**From:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>  
**Sent:** Monday, September 12, 2022 9:59 PM  
**To:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>  
**Subject:** RE: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

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Geri,

Thanks – yes pollinator habitat underneath the array and within the proposed footprint, but also wetland work outside of the project area.

Also, I forgot to attach the wetland investigation area, thanks for the reminder. See attached. The yellow polyline is the wetland investigation area.

Thanks,

**Joe Pallardy**

Water and Natural Resource Specialist / Renewable Energy Specialist  
[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)

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**From:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>  
**Sent:** Monday, September 12, 2022 9:53 PM  
**To:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>  
**Subject:** RE: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

Hi Joel,

That is great to hear they are proposing vegetation enhancement. Hopefully it includes the establishment of much needed pollinator habitat. Make sure to provide the updated site layout figure to include the wetland investigation area.

Thanks ,  
~Geri

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**Geri Radermacher**

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[geri.radermacher@wi.gov](mailto:geri.radermacher@wi.gov)



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---

**From:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>

**Sent:** Monday, September 12, 2022 8:15 PM

**To:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>

**Subject:** RE: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

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Geri,

Hi Geri,

No wetland disturbance is proposed. Thanks for the email.

Cool note: We are helping OneEnergy on a small wetland mitigation plan to enhance the wetlands outside of the Study Area, likely vegetation enhancement. The exact scope is yet to be determined pending a meeting with the City of Fitchburg.

Thanks,

**Joe Pallardy**

Water and Natural Resource Specialist / Renewable Energy Specialist

[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)

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**From:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>  
**Sent:** Monday, September 12, 2022 6:00 PM  
**To:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>  
**Subject:** FW: Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

Hi Joe,

Thank you for submitting the wetland consultation request for the proposed One Energy Renewable Tyto Solar Facility in Dane County. The text in the wetland consultation email is contradictory as one sentence states, "The site was designed to avoid wetland impacts" and the next sentence begins with "As the anticipated disturbance in wetlands is less than 400 square feet." Please clarify if wetland disturbance is proposed. Also, please update the site layout figure to include the wetland delineation investigation area.

Thanks,  
~Geri

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Geri Radermacher

Energy Project Liaison

Office of Energy- <https://dnr.wisconsin.gov/topic/Sectors/UtilityPermitting.html>

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---

**From:** Joe Pallardy <[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)>  
**Sent:** Wednesday, August 31, 2022 10:47 PM  
**To:** Radermacher, Geri M - DNR <[Geri.Radermacher@wisconsin.gov](mailto:Geri.Radermacher@wisconsin.gov)>  
**Cc:** Eric Udelhofen <[eric@oneenergyrenewables.com](mailto:eric@oneenergyrenewables.com)>; Ethan Hau <[ehau@eorinc.com](mailto:ehau@eorinc.com)>; Beth Esser <[beth@oneenergyrenewables.com](mailto:beth@oneenergyrenewables.com)>; Peter Murphy <[peter@oneenergyrenewables.com](mailto:peter@oneenergyrenewables.com)>  
**Subject:** Wetland Concurrence Request OneEnergy Renewables - Tyto Solar Facility

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Good evening, Geri,

I have attached a wetland delineation report that EOR developed for a proposed solar facility located in Dane County, Wisconsin.

I have also attached a PDF of the solar array layout with the delineated wetland boundaries. The site was designed to avoid wetland impacts.

As the anticipated disturbance in wetlands is less than 400 square feet, we will not be applying for permit coverage under WDNR-GP3-2018. Can you confirm our approach for the purposes of this project? We would like to use this correspondence as part of future stormwater permitting submittals.

Should you have any questions, comments or need additional project information to assist in your evaluation, please let me know.

Thanks,

**Joe Pallardy**

Water and Natural Resource Specialist / Renewable Energy Specialist

[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)

**EOR: water | ecology | community**

p: 608.839.6146 [www.eorinc.com](http://www.eorinc.com)

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Prepared by Emmons & Olivier Resources, Inc.

Prepared for the Tyto Solar Facility, a One Energy Renewables Project

## Tyto Solar Wetland Delineation Report

City of Fitchburg, Dane County, Wisconsin



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## 1. EXECUTIVE SUMMARY

The purpose of this report is to provide One Energy Renewables with an evaluation of potential existing wetlands and jurisdictional waters within the **Study Area** that may preclude, constrain, or otherwise affect development of the proposed Tyto Solar Facility. The Study Area encompasses all potential locations for the proposed solar facility, including associated access roads, and seeks to avoid potential wetland impacts. The Study Area aligns with parcel identification numbers 060913380602, 060913380012, 060913395012 and 060913395602.

EOR conducted an initial screening and onsite wetland review of the Study Area, in accordance with Wisconsin Department of Natural Resources (WDNR) wetland screening and delineation procedures, to evaluate the presence or absence of wetlands within the Study Area.

Evaluation of the Study Area began with an initial review of Wisconsin Wetland Inventory (WWI) and WDNR Wetland Indicator Soils data. Additionally, offsite evaluation measures included review of historical aerial imagery, National Hydrography Dataset, high-resolution (2-foot) digital elevation data, topographic survey data, Soil Survey Geographic (SSURGO) hydric soil classification data and morphological evaluation of the in-situ soil profile.

Results from the offsite wetland analysis identified two suspect areas with the potential for supporting wetland hydrology. A Level 2 onsite delineation performed by EOR on October 12, 2021, confirmed that the two (2) suspect areas contained three (3) wetland resources. A second Level 2 onsite delineation was performed on August 19, 2022 to delineate wetland boundaries within a potential access road within an expanded Study Area that included the property's eastern boundary. EOR recommends submittal of this report to the WDNR Office of Energy staff to validate the boundary of the delineated wetlands and wetland types in relation to the proposed location for the solar array and associated access roads and utility easements. This report is intended to provide Office of Energy Water Management Specialists (WMS) documentation of our evaluation of wetland boundaries within the Study Area for Wetland Review Correspondence, to be included in the WDNR NOI online permit application submittal.

### 1.1. Review Team and Contact Information

The delineation was performed by Ethan Hau and Joe Pallardy.

#### **Wetland Delineators**

Ethan Hau, Environmental Scientist  
[ehau@eorinc.com](mailto:ehau@eorinc.com)

Joe Pallardy, Water, Natural Resources, & Renewable  
Energy Specialist  
[jpallardy@eorinc.com](mailto:jpallardy@eorinc.com)

Emmons & Olivier Resources, Inc. (EOR)  
119 S Main St  
Cottage Grove, WI 53527  
608.839.4422

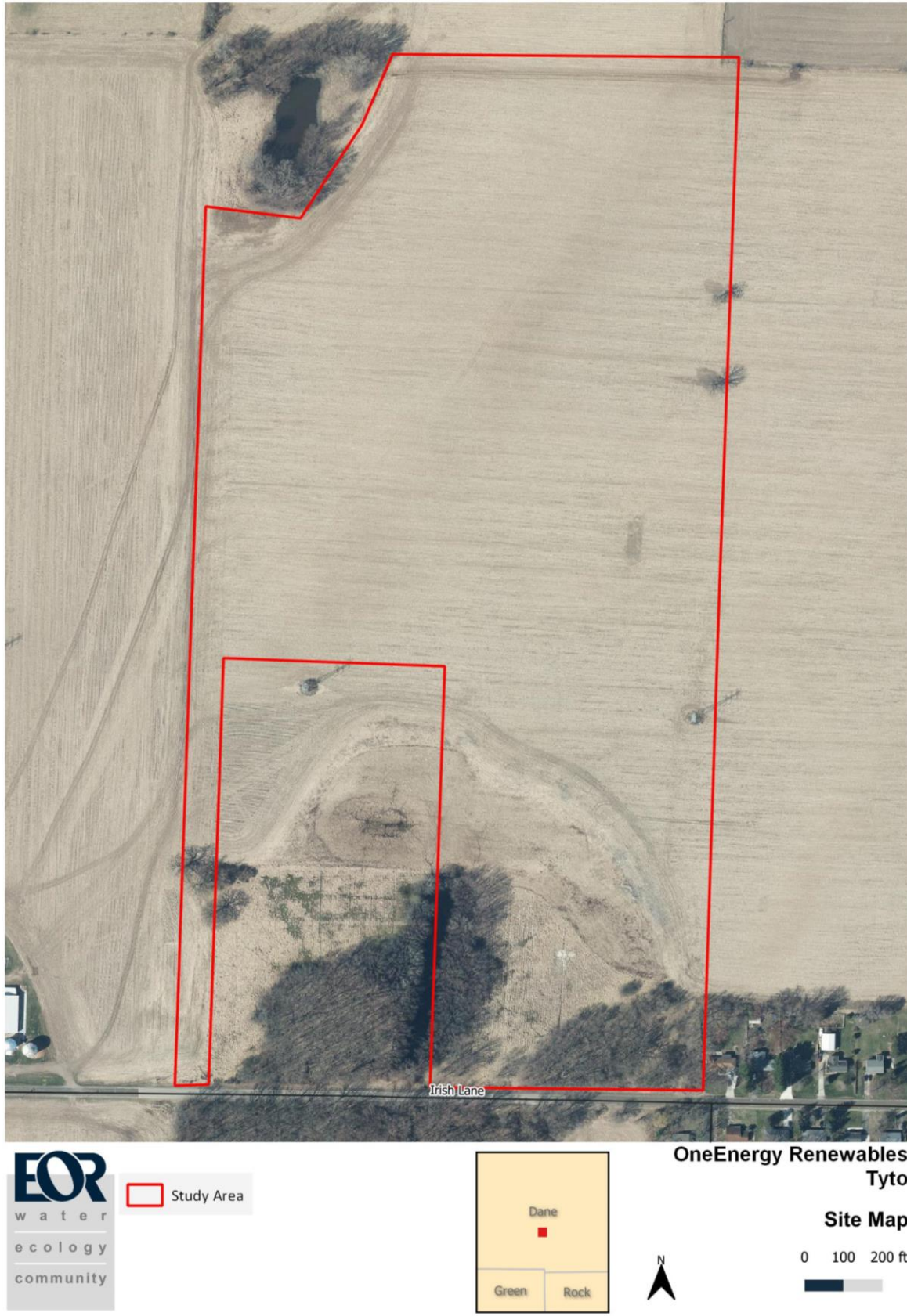


Figure 1. Study Area

## 2. INTRODUCTION

The proposed project includes construction of the Tyto Solar Facility within an approximately 65-acre site located in the City of Fitchburg, Wisconsin, north of Irish Lane, west of its intersection with County Highway MM. The legal description is the NE and SE quarters of the SW quarter of Section 13, Township 06N Range 09E. The Study Area is within four parcels (**Figure 2**). The construction of the community solar facility will take place on private lands. The Study Area is currently being tilled and planted in corn with the exception of the eastern portion of the Study Area which is forested.

## 3. METHODOLOGY

### 3.1. Offsite – Level 1 Wetland Delineation

The Wisconsin Department of Natural Resources (WDNR) has established an initial screening process using Wisconsin Wetland Inventory and Wetland Indicators layers, topography (LIDAR) data, and aerial imagery to determine if there is the potential for wetlands to be impacted by a proposed project. The portions of the project that were clearly outside of any potential wetlands identified in accordance with WDNR guidance document were deemed as “wetland-free” non-wetland areas.

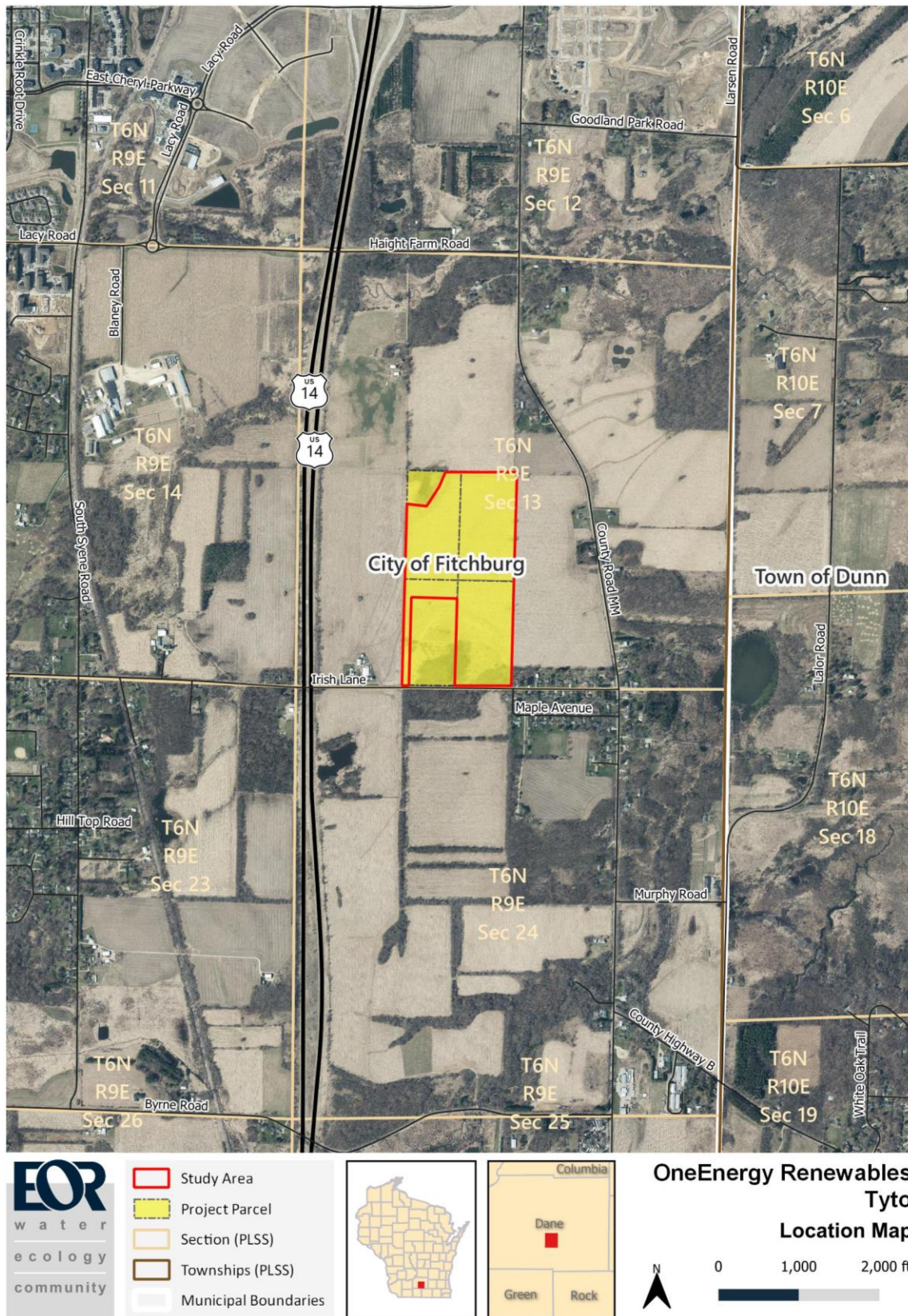
#### 3.1.1. Supplementary Data Collection

The following data were collected and reviewed prior to reviewing historical aerial imagery in accordance with [WDNR and Army Corps of Engineers’ 2015 technical guidance document](#):

- Dane County high resolution digital elevation data and 1-foot elevation contours (**Figure 3**)
- Natural Resources Conservation Service (NRCS) SSURGO hydric soil classification data (**Figure 4**)
- WDNR Wetland Indicator Soils Data (**Figure 5**)
- WDNR Wisconsin Wetland Inventory (WWI) (**Figure 5**)
- WDNR 24k Hydrography Open Waters and Streams Data (**Figure 5**Error! Reference source not found.)

#### 3.1.2. Supplementary Data Analysis

The Wisconsin Wetland Inventory and Wetland Indicators layers were reviewed to identify mapped wetlands and areas of potential wetland soils within 75 feet of the Study Area. If neither the Wisconsin Wetland Inventory layer nor the Wetland Indicators layer identified a wetland within 75 feet of the Study Area, the Natural Resources Conservation Service (NRCS) Engineering Toolbox Version 1.1.7 was used to analyze the high-resolution 3-meter digital elevation data to evaluate likely drainage paths and depressions. This tool was helpful in identifying potential wetlands within the Study Area.



**Figure 2.** Proposed Solar Facility is located within the City of Fitchburg, Wisconsin, north of Irish Lane, west of its intersection with County Road MM.

### 3.1.3. Historical Aerial Imagery Review

Historical aerial imagery was acquired from the National Agriculture Imagery Program (NAIP), Dane County GIS web service (DCImap), and Google Earth (**Appendix A**). All areas exhibiting a potential wetland signature within 75 feet of the Study Area were identified in each aerial photograph.

## 3.2. Onsite – Level 2 Wetland Delineation Methods

### 3.2.1. Data Collection and Tabulation

EOR followed methodology in accordance with the [Wisconsin DNR and U.S. Army Corps of Engineers 2015 Guidance Document](#) and methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual and supplemental methods identified in the Northcentral and Northeast Regional Supplement to delineate wetlands within the Study Area (USACE 2012). Wetland and upland observations and data were recorded in the field and subsequently entered into the U.S. Army Corps of Engineers Automated Wetland Determination Data Form – Northcentral and Northeast. Sample points and delineated boundaries were collected in the field using corrected differential Global Positioning System (GPS) and mapped using ArcMap v. 10.8 and QGIS v. 3.16.

### 3.2.2. Wetland Indicator Methodology

EOR conducted field work on October 12, 2021, to validate the presence/absence of wetland resources identified through the offsite analysis and to identify wetland boundaries. A transect was established in a representative transition zone of the potential wetland. The transect consisted of sample point in the potential wetland, and if wetland criteria were met, one point in the upland. Soils, vegetation, and hydrology were documented at each sample point and provided in data sheets. A follow up site visit was performed on August 19, 2022 to validate the presence/absence of wetland resources along property's eastern boundary.

#### Vegetation

Observed plant species were identified and assigned corresponding Northcentral and Northeast Region wetland indicator status. The wetland probability indicator status of dominant plant species was determined using the 2016 National Wetland Plant List v3.3.

#### Soils

Soil profiles were collected to a minimum of 24 inches. Soil colors were determined using the Munsell Soil Color Charts. Soils were described to include those hydric indicators immediately below the A-horizon. A hydric soil determination was made based upon soil characterization (texture, color), soil order, ponding, and flooding frequency.

#### Hydrology

As required in the 1987 Manual, the presence of subsurface hydrology or indicators thereof was characterized in the rooting zone to a minimum of 24 inches. Primary and secondary hydrology indicators were identified according to the Northcentral and Northeast Region Supplement.

### Delineation Boundary Determination

Wetland boundaries were determined after taking into consideration the parameters of soil, hydrology, vegetation, topography, and professional judgment at paired upland and wetland sample points. Boundary GPS data was collected at sufficient and appropriate intervals, depending on curvature and assumed accuracy.

## 4. RESULTS

### 4.1. Offsite – Level 1 Wetland Delineation

#### 4.1.1. Topography and Hydrology

Regionally the Study Area is situated in a glacial (drumlin and moraine) landscape with moderately sloped hills and pothole wetlands. The site is located predominantly in an agricultural field with gentle to moderate slopes, and depressions. Site drainage is from topographic high points located on a drumlin ridge near on the north central portion of the Study Area (**Figure 3**). Drainage from north- and west-facing slopes is to a closed depression, forming an open-water wetland northwest of the Study Area. Drainage from east- and south-facing slopes is to a large wetland complex to the south. Elevations range from 948 feet above mean sea level near the central portion of the Study Area to 911 feet near the southwestern corner where a large depression extends into the Study Area.

The Wisconsin Wetland Inventory identified three mapped wetlands within the Study Area (**Figure 5** Error! Reference source not found.).

#### 4.1.2. Soils Data

NRCS SSURGO data mapped three Predominantly Non-Hydric soil units within the Study Area (**Figure 4**). No mapped public watercourses or waterbodies were identified within the Study Area. Mapped WWI wetlands and wetland indicator soils were identified within the Study Area. The remainder of the Study Area contains Not-Hydric soil units (**Table 1**). The Predominately Non-Hydric soil units (EfB, RaA, and VwA) align with the low-lying areas in the northwestern and southern portions of the property. Hydric ratings were based on those identified in the SSURGO database.

**Table 1. NRCS Soils and Hydric Rating**

Soil Unit	Hydric Classification	Drainage class
<b>EfB</b> – Elburn silt loam, 0 to 3 percent slopes	Predominately Non-Hydric	Somewhat poorly drained
<b>RaA</b> – Radford silt loam, 0-3% slopes	Predominately Non-Hydric	Somewhat poorly drained
<b>VwA</b> – Virgil silt loam, gravelly substratum, 0-3% slopes	Predominately Non-Hydric	Somewhat poorly drained
<b>PoA</b> – Plano silt loam, gravelly substratum, 0-2% slopes	Not Hydric	Well drained
<b>PnB</b> – Plano silt loam, till substratum, 2-6% slopes	Not Hydric	Well drained
<b>RnC2</b> – Ringwood silt loam, 6-12% slopes, eroded	Not Hydric	Well drained
<b>RnB</b> – Ringwood silt loam, 2-6% slopes	Not Hydric	Well drained

### 4.1.3. Water Resources Data

No mapped public watercourses or waterbodies were identified within the Study Area. The WWI identified one E1K and one Type 3/E1K wetland in the Study Area (Figure 5).

## 4.2. Aerial Imagery Analysis

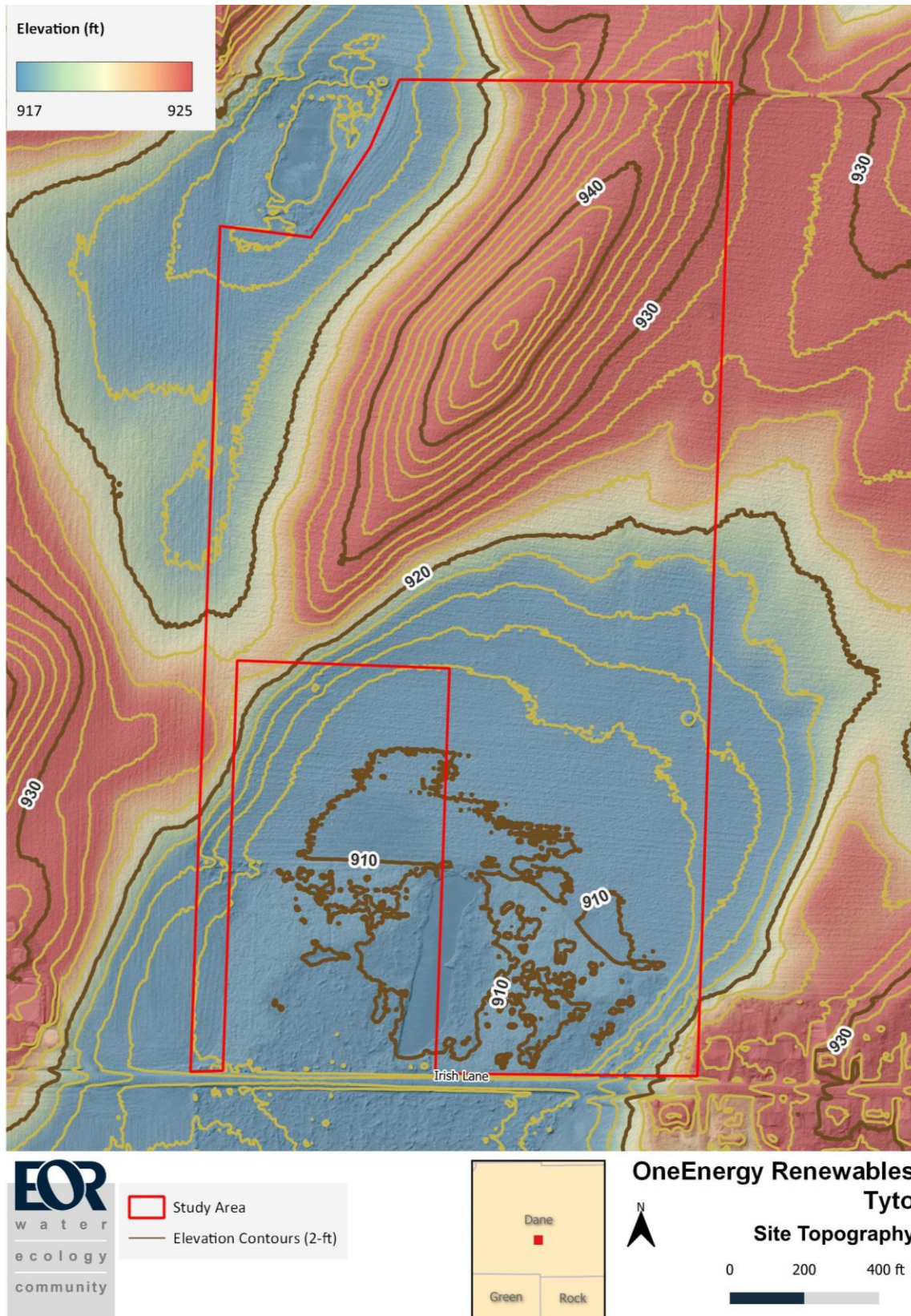
EOR reviewed 13 photos from 2002 to 2020 (**Appendix A**). Of these, six images had normal antecedent precipitation levels in the three months preceding the image date (**Table 2**). Wetland signatures for Area 1 were observed in 100% of images with normal antecedent precipitation. Wetland signatures for Area 2 were observed in 83% of images with normal antecedent precipitation.

**Table 2. WDNR hydrology assessment with aerial imagery recording form**

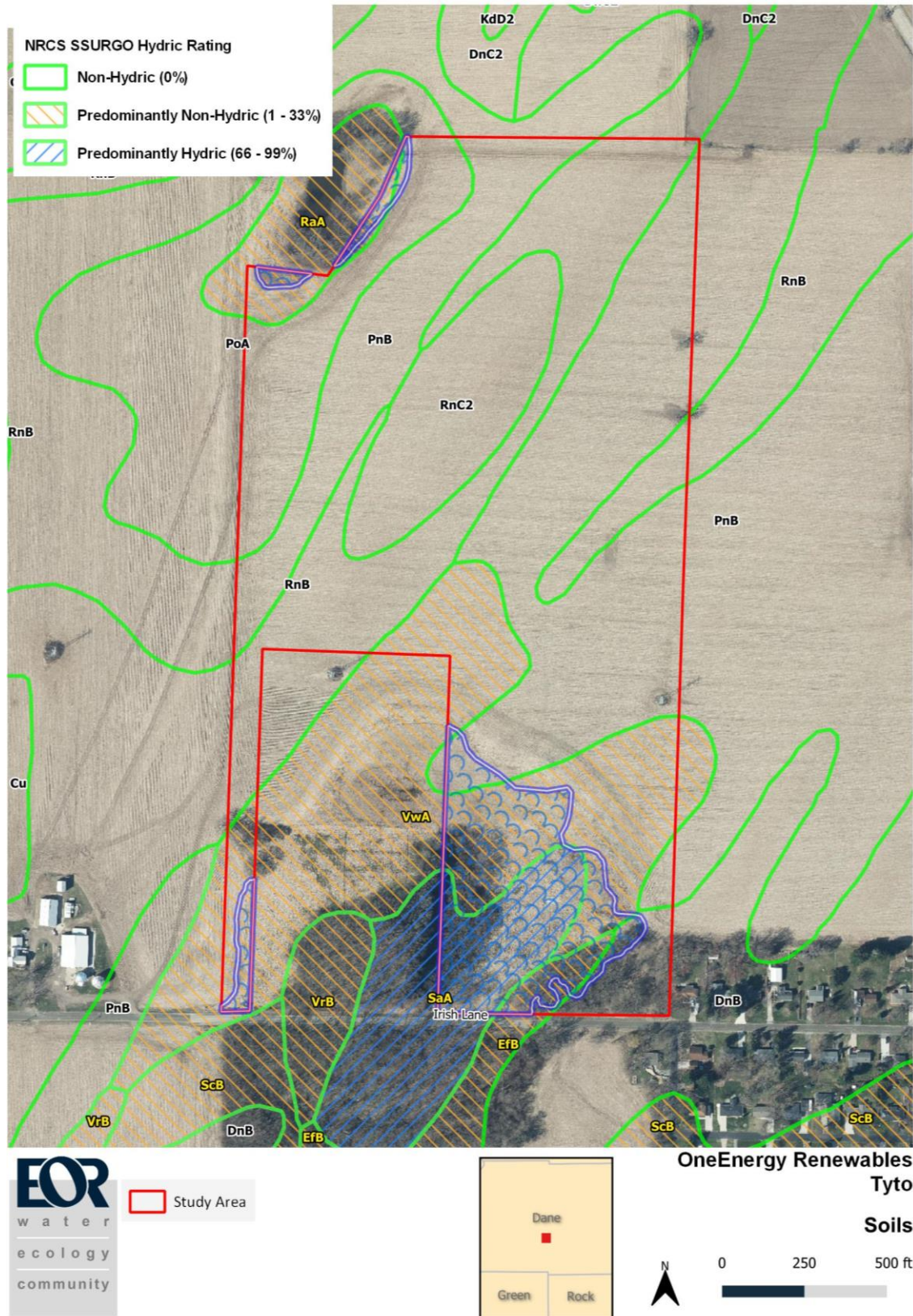
Month, Year	Image Source	Antecedent Precipitation (1991-2020)	Interpretation (list hydrology indicators observed, e.g. crop stress, drowned out, standing water, etc.)	
			Area 1 (S)	Area 2 (N)
9/4/2002	NAIP	Dry	SW	NC
8/30/2004	Google Earth	Normal	NC, WS	NC
6/3/2006	NAIP	Normal	NC	NC
6/22/2008	NAIP	Normal	NC	NC
4/1/2010**	Dane County	Dry	WS, SS	NC
6/27/2010	NAIP	Wet	NV	NV
9/26/2010	Google Earth	Normal	WS	NV
9/27/2013	NAIP	Normal	SW	SW
4/1/2014	Dane County	Dry	SS	SW
10/1/2015**	NAIP	Wet	WS	NC
4/17/2017	Dane County	Wet	SS	WS
10/3/2018	Google Earth	Wet	WS	WS
4/4/2020	Dane County	Normal	WS	WS
<b># Normal Aerial Images</b>			<b>6</b>	<b>6</b>
<b># Normal Aerial Images with wet signature</b>			<b>6</b>	<b>5</b>
<b>% Normal Aerial Images with wet signature</b>			<b>100%</b>	<b>83%</b>
<b># Wet Aerial Images</b>			<b>4</b>	<b>4</b>
<b># Wet Aerial Images with wet signature</b>			<b>3</b>	<b>3</b>
<b>% Wet Aerial Images with wet signature</b>			<b>67%</b>	<b>67%</b>

\*NSS- No Soil Wetness Signature, NV – Normal Vegetative Cover, CS- Crop Stress, DO-Drowned Out, WS- Wetland Signature, AP, - Altered Pattern, and NC – Not Cropped, SS – Soil Wetness Signature, SW – Standing Water. Wetland signature definitions adapted from 2015 WI Department of Natural Resources and USACE technical guidance document [“Guidance for Submittal of Delineation Reports”](#). Signature codes adapted from 2016 Minnesota Board of Water and Soil Resources document [“Guidance for Offsite Hydrology/Wetland Determinations.”](#)

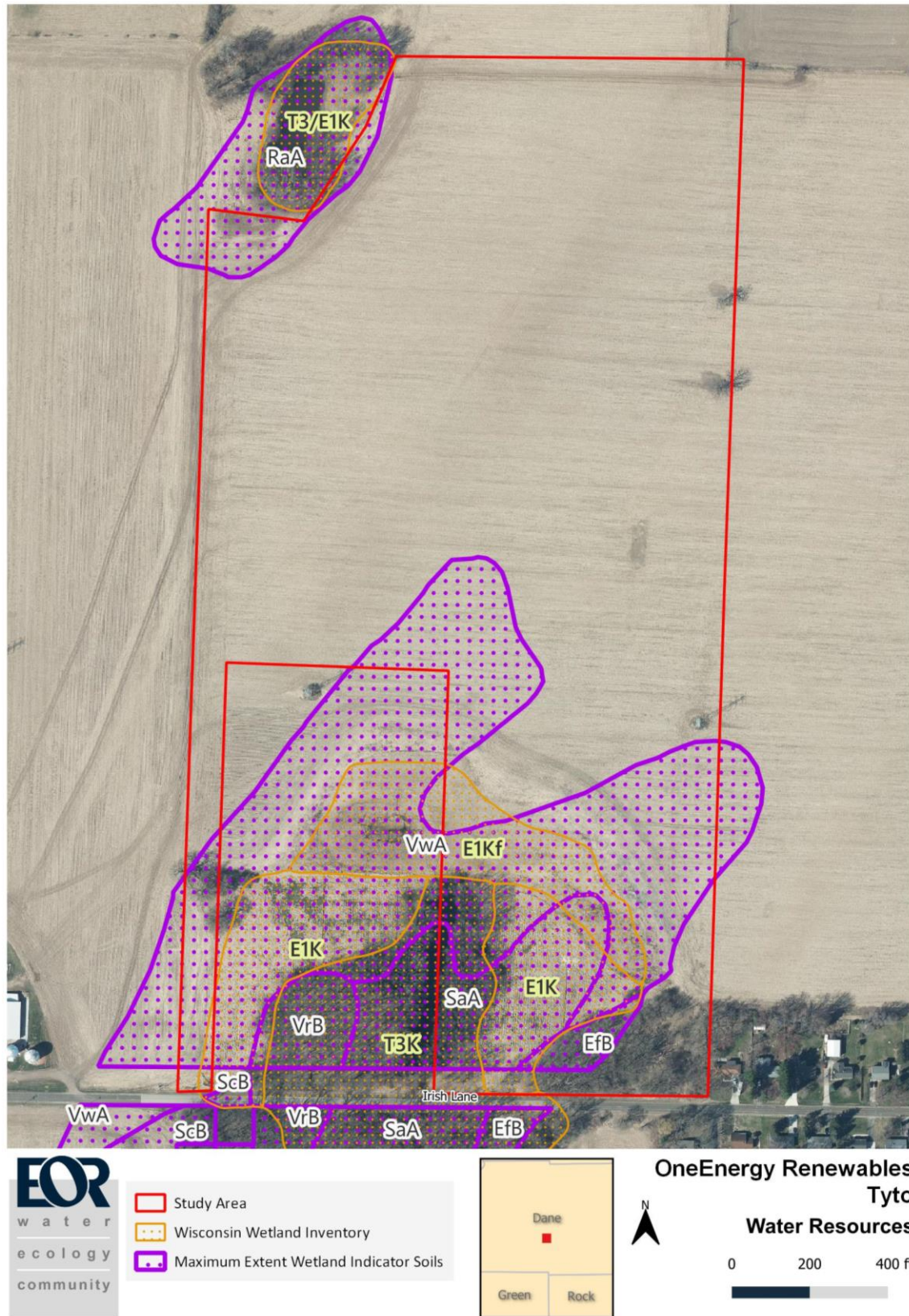
\*\*Aerial/Satellite imagery exact date of capture unknown; Assumed April 1 for spring leaf-off and October 1 for fall leaf-on.



**Figure 3.** Topography (LiDAR) is gently rolling with overland drainage generally directed towards northwest and south sides of the Study Area.



**Figure 4.** NRCS Soil Survey Geographic Database Hydric Soil Classification identified two Predominantly Non-Hydric soil units within the Study Area. Soils throughout the remainder of the Study Area are Non-Hydric.



**Figure 5.** No mapped public waterbodies or watercourses were identified within the Study Area. Mapped WWI wetlands and wetland indicator soils were identified within the Study Area.

**4.2.1. Offsite Delineation Boundary Determination**

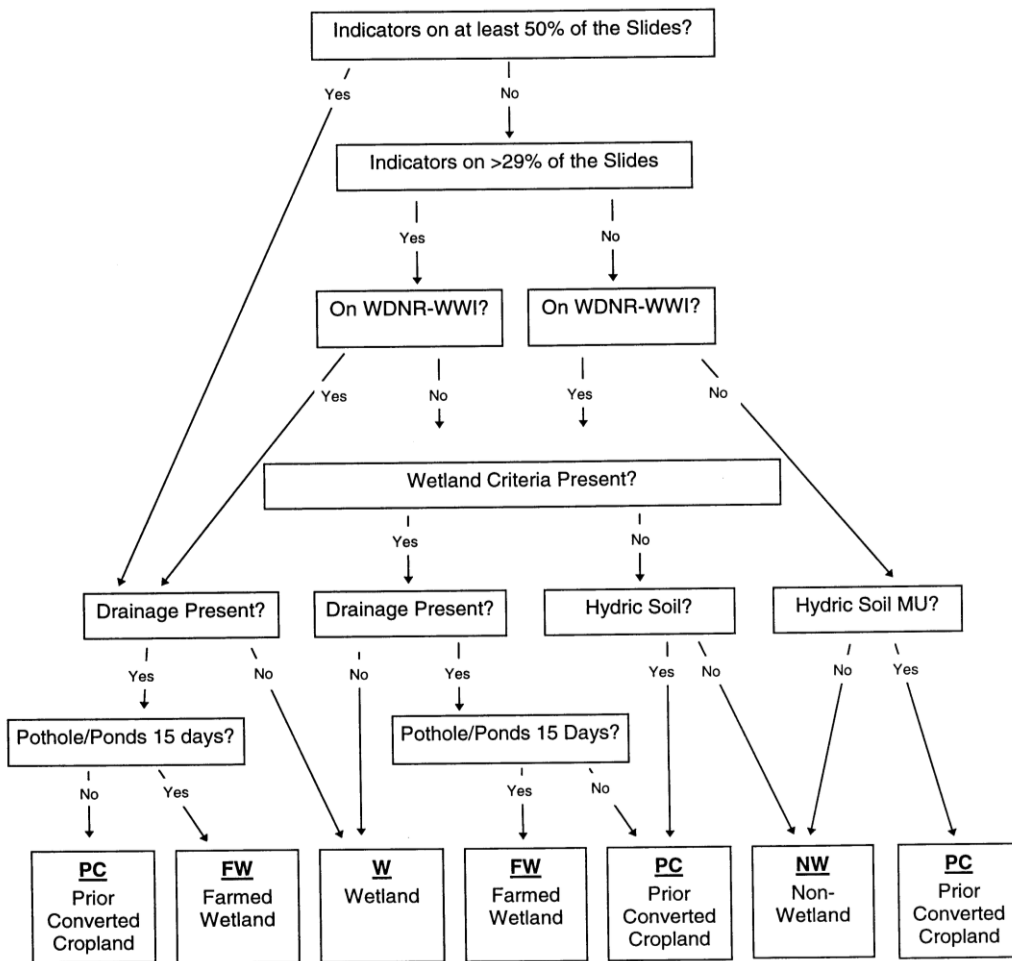
The Wisconsin Department of Natural Resources guidance document for offsite hydrology determination (**Figure 6**) indicates the following decision matrix be used to identify areas with wetland hydrology (**Table 3**).

**Table 3. WDNR Wetland Determination Form Decision Matrix**

Location	Indicators on at least 50% of aerial photos with normal precipitation	Drainage Present	Potholes/Ponds for 15 days?	Prior Converted Cropland?	Farmed Wetland?	Wetland?
Area 1	Yes	No	-	-	-	Yes
Area 2	Yes	Yes*	Yes	-	Yes	-

\*Located in/near cultivated agricultural field; tile drainage assumed present

**FSA Wetland Determination on Cropland by Aerial Slide Review\***



\*On-site verification is required for final determination/delineation.

**Figure 6:** Wetland determination matrix from WDNR and USACE 2015 guidance document.

### 4.2.2. Recommendations

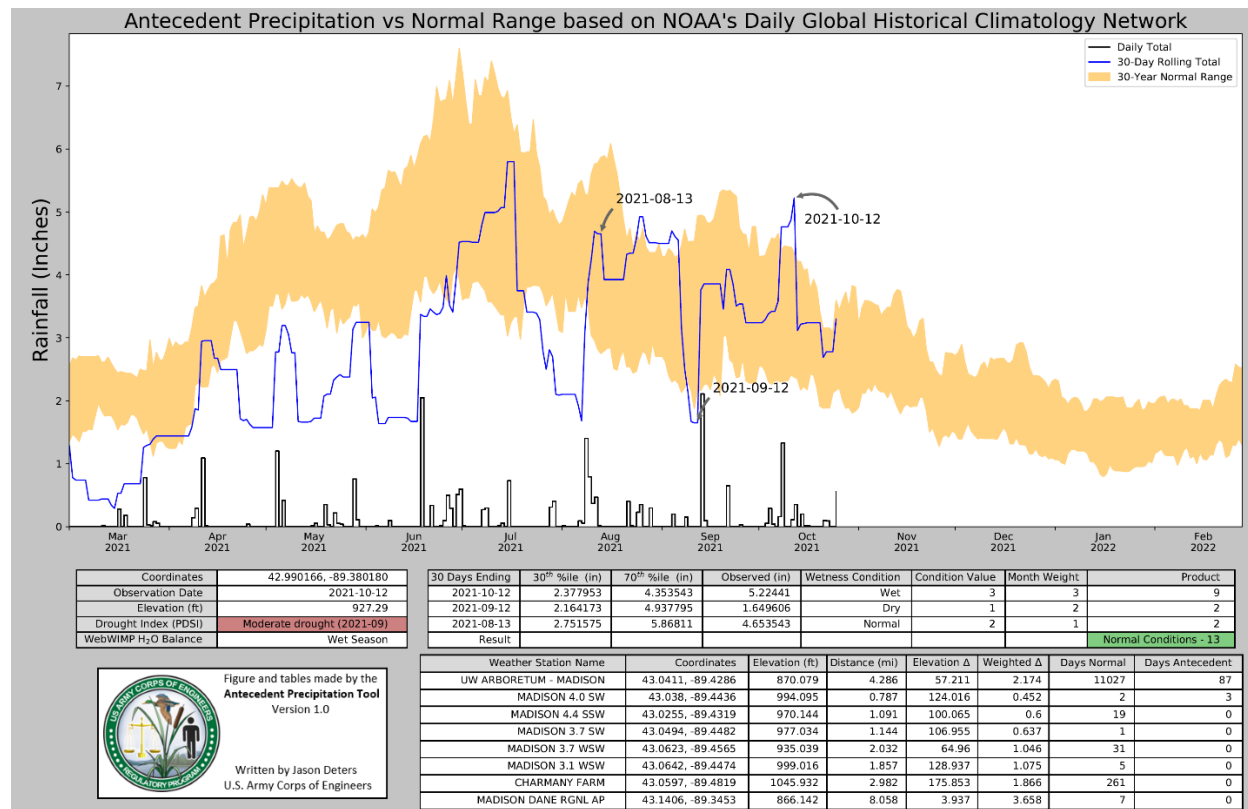
Analysis of the high-resolution LiDAR data, current and historical site images, and SSURGO soils data suggested at least two wetlands were present on this site. A Level 2 delineation was performed to delineate the boundaries of all wetland areas within the Study Area.

### 4.3. Onsite – Level 2 Wetland Delineation Results

#### 4.3.1. Antecedent Precipitation

The initial wetland delineation was conducted on October 12, 2021. Antecedent precipitation data from the [EPA's Antecedent Precipitation Tool](#) indicated the three-month antecedent precipitation was normal prior to field work; with the previous month also mostly in the normal range (Figure 7). The study area likely received significant precipitation the day preceding the field delineation. According to [Weather Underground personal station KWIFITCH41](#) in Fitchburg, a 0.47-inch rain event was recorded on October 11-12.

The follow up wetland delineation was conducted on August 19, 2022 to validate the presence/absence of wetlands along the property's eastern boundary. [EPA's Antecedent Precipitation Tool](#) indicated the three-month antecedent precipitation was normal prior to field work; with the previous month also receiving a normal amount of precipitation (Figure 8).



**Figure 7.** Antecedent precipitation totals were normal for the preceding three months, with moderate drought conditions occurring earlier in the growing season.

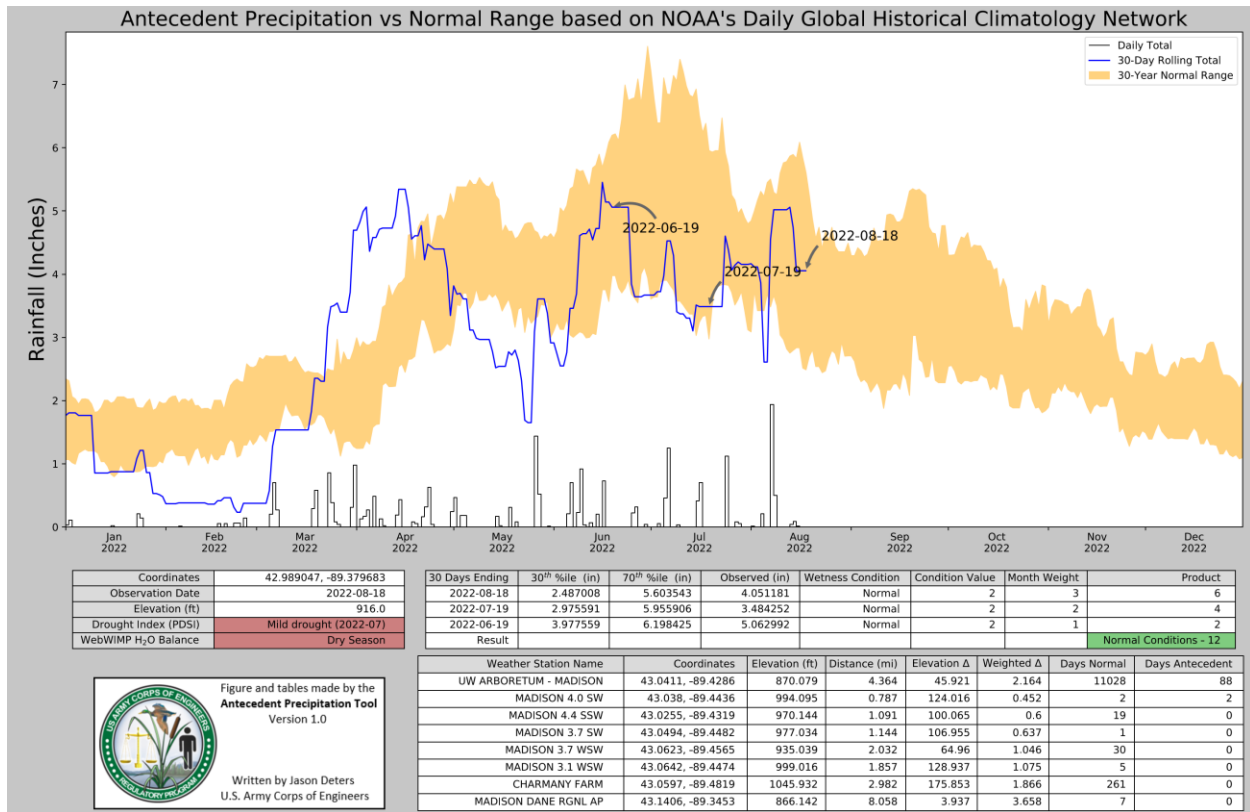


Figure 8. Antecedent precipitation totals were normal for the preceding three months during the August, 2022 site visit.

#### 4.4. Wetland Descriptions

EOR identified four (4) wetlands within the Study Area, which were also identified in the offsite (Level I) review. No evidence of additional wetlands was observed during the field visit. Additional details of sample points can be found in the site photographs and data sheets included in **Appendix B** and **Appendix C**.

**Table 4. Delineated Wetlands**

Wetland ID	Wetland Type			Area (Acres) Within Study Area	
	Cowardin <i>et al</i> / NWI	Circular 39	Eggers and Reed		Wisconsin Wetland Inventory
Wetland 1	PEMAf	Type 1	Seasonally Flooded Basin (farmed)	E2Kf	0.42
Wetland 2a	PEMAf	Type 1	Seasonally Flooded Basin (farmed)	E2Kf	0.15
Wetland 2b	PEMAf	Type 1	Seasonally Flooded Basin (farmed)	E2Kf	0.14
Wetland 3	PFOA/PEMAf	Type 1	Seasonally Flooded Forested / Emergent / Farmed Basin	T3K/ E2K	7.69

**Wetland 1** is located along the southwestern boundary of the Study Area. It forms the western fringe of a large wetland complex, consisting of a wet meadow, floodplain forest, and open water wetland.

Within the delineated wetland area of Wetland 1, the vegetation was dominated by reed canary grass (*Phalaris arundinacea*) and corn (*Zea mays*) in the cultivated portion of the wetland. Soils at the wetland sample point (W-1) were dark (10YR 2/1) loam/clay and met the requirements of hydric indicator A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix). Hydrology indicators included secondary indicators C9 (Saturation Visible on Aerial Imagery), D2 (Geomorphic Position), and D5 (FAC-Neutral Test). The water table was observed at 17 inches below ground surface, with saturation occurring up to 14 inches.

At the upland (U-1) sample point, vegetation was dominated by corn (*Zea mays*). Soils at the upland point did not meet requirements of any hydric soil indicators. At the upland point, two secondary hydrology indicators were present, C9 and D2; the sampling point therefore met wetland hydrology criteria. No water table was encountered at the upland point; however, saturation was observed at 20 inches below surface.

Wetland 1 was classified as a Type 1, PEMAf, Seasonally Flooded Basin - farmed. This wetland was delineated to the Study Area boundary, but extends outside of the Study Area boundary roughly following the WWI mapped wetland. The boundary of Wetland 1 aligns well with the commonly saturated and uncropped regions of Area 1 (in the Study Area's "panhandle") identified in the historical aerial imagery review.

An additional upland (U-2) sample point was collected near the midpoint of the Study Area's main southern boundary. Vegetation at U-2 consisted entirely of cultivated corn (*Zea mays*) with no evidence of crop stunting or stress. Soils were dark (10YR 2/1) and did not meet any hydric indicators. One secondary hydrology indicator, D2 (Geomorphic Position), was met at point U-2.

**Wetlands 2a and 2b** are situated in a shallow depression located near the northwestern boundary of the Study Area. Wetlands 2a and 2b consist primarily of the cultivated fringes of an uncropped "island" wetland complex, which also includes a forested wetland outside the Study Area.

**Wetland 2a:** Within the delineated area of Wetland 2a, the vegetation was dominated by reed canary grass (*Phalaris arunindacea*). *P. arunindacea* and silver maple (*Acer saccharinum*) were the dominant species found at the wetland sample point (W-3) with some stunted corn (*Zea mays*) occurring in the cultivated area of the wetland. Soils at the wetland sample point (W-3) were dark (10YR 2/1) with prominent redox concentrations; soils met the requirements of hydric indicators A2 (Histic Epipedon) and A3 (Black Histic). Hydrology indicators included primary indicators B7 (Inundation Visible on Aerial Imagery), B8 (Sparsely Vegetated Concave Surface), and secondary indicators D1 (Stunted/Stressed Plants), D2 (Geomorphic Position), and D5 (FAC-Neutral Test).

At the upland (U-3) sample point, vegetation was dominated by healthy corn (*Zea mays*). Soils at the upland sample point were similar to those at the wetland point (dark surface layer) but did not meet the requirements of any hydric indicator. One secondary hydrology indicator, D2 (Geomorphic Position), was met at point U-3.

Wetland 2a was classified as a Type 1, PEMAf, Seasonally Flooded Basin - farmed. This wetland was delineated to the Study Area boundary, but extends outside of the Study Area boundary roughly following the WWI mapped wetland. The boundary of Wetland 2a aligns well with the commonly uncropped and saturated regions of Area 2 identified in the historical aerial imagery review.

**Wetland 2b:** Within the delineated area of Wetland 2b, the vegetation was dominated by reed canary grass (*Phalaris arunindacea*) and stunted corn (*Zea mays*). Nearby wetland sample point W-3 (see Wetland 2a) was used as the wetland point for delineating the boundary of Wetland 2b. Similar vegetation, soils, and hydrology indicators would have been found if another wetland sample point had been collected.

A supplemental upland (S-3) sample point was taken outside the commonly inundated/saturated region of Area 2. Vegetation at this point was dominated by healthy corn. Soils were dark (10YR 2/1) loam/clay and met the requirements of hydric indicator F6 (Redox Dark Surface). One secondary hydrology indicator, C9 (Saturation Visible on Aerial Imagery), was met at point S-3.

Wetland 2b was classified as a Type 1, PEMAf, Seasonally Flooded Basin - farmed. This wetland was delineated to the Study Area boundary, but extends outside of the Study Area boundary roughly following the WWI mapped wetland. The boundary of Wetland 2b aligns well with the commonly saturated and uncropped regions of Area 2 identified in the historical aerial imagery review.

**Wetland 3** is located along the south-southeastern boundary of the Study Area. It forms the eastern fringe of a large wetland complex, consisting of a wet meadow, floodplain forest, farmed wetlands, and open water wetland and is hydrologically connected to Wetland 1. This wetland was delineated to the Study Area boundary but extends outside of the Study Area.

Within the delineated wetland area of Wetland 3, the vegetation was dominated by a mix of herbaceous species, predominately reed canary grass (*Phalaris arundinacea*) and forest species including box elder (*Acer negundo*), sugar maple (*Acer saccharum*), and common buckthorn (*Rhamnus carthica*). Soils at wetland sample points (1W and 2W) were dark (10YR 3/1) and had a loam/clay textures. Wetland point 1W met the requirements of hydric indicators A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix). Wetland point 2W met the requirements of hydric indicators F6 (Redox Dark Surface) and F8 (Redox Depressions). Hydrology indicators included secondary indicators C9 (Saturation Visible on Aerial Imagery), D2

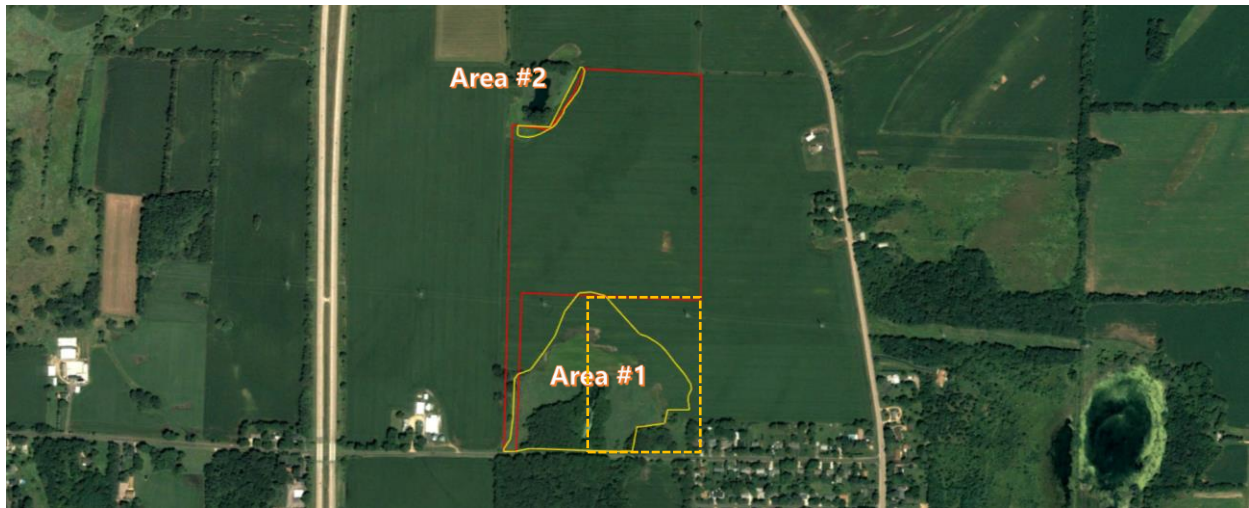
(Geomorphic Position), and D5 (FAC-Neutral Test). All three upland pits (1u, 2u, and 3u) lacked wetland hydrology.


Wetland 3 was classified as a Type 1, PFOA/PEMAf, Seasonally Flooded Forested Basin that is fringed by a Seasonally Flooded Emergent Vegetation Basin that is partially farmed.



Figure 9. Delineated Wetlands

### 5. APPENDIX A: HISTORICAL AERIAL IMAGE REVIEW



**Figure 10.** August 2004 Historical Aerial Image – Source: Google Earth.  = Updated Study Area




**Figure 11.** June 2006 Historical Aerial Image – Source: FSA.  = Updated Study Area





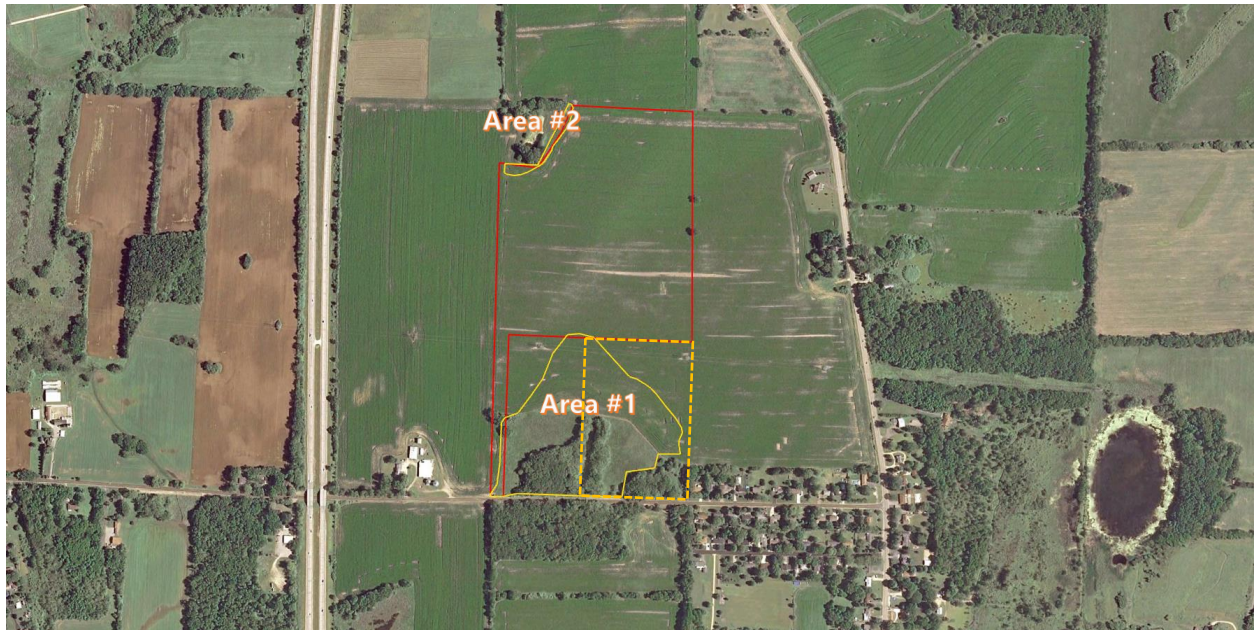

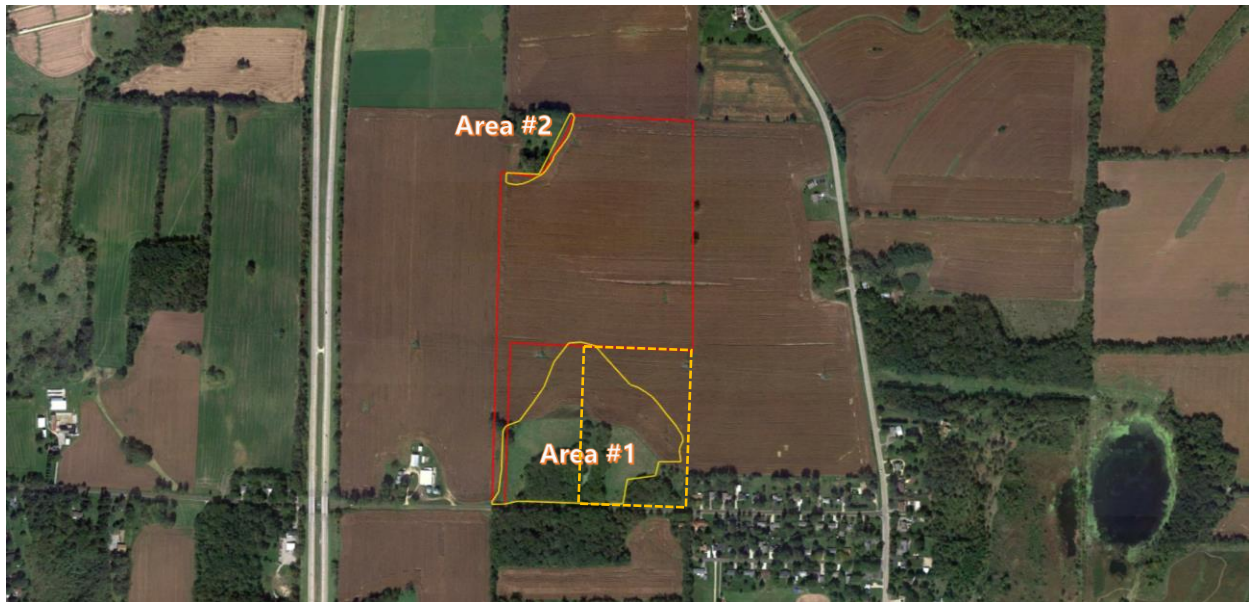
Figure 12. June 2008 Historical Aerial Image – Source: FSA.  = Updated Study Area




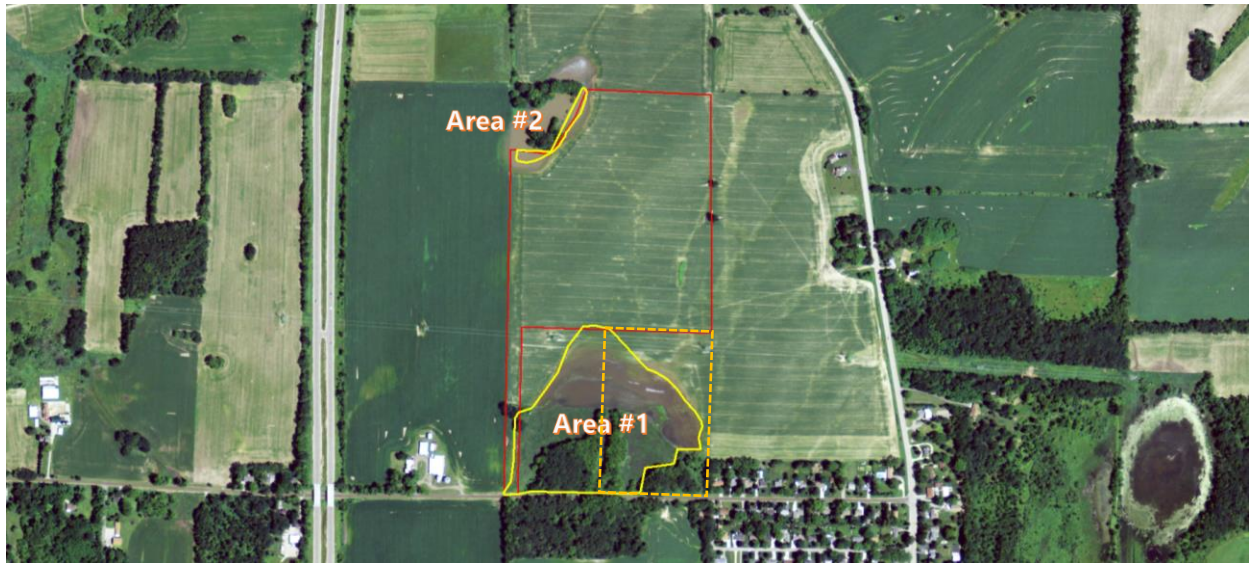
Figure 13. April 2010 Historical Aerial Image – Source: Dane County.  = Updated Study Area



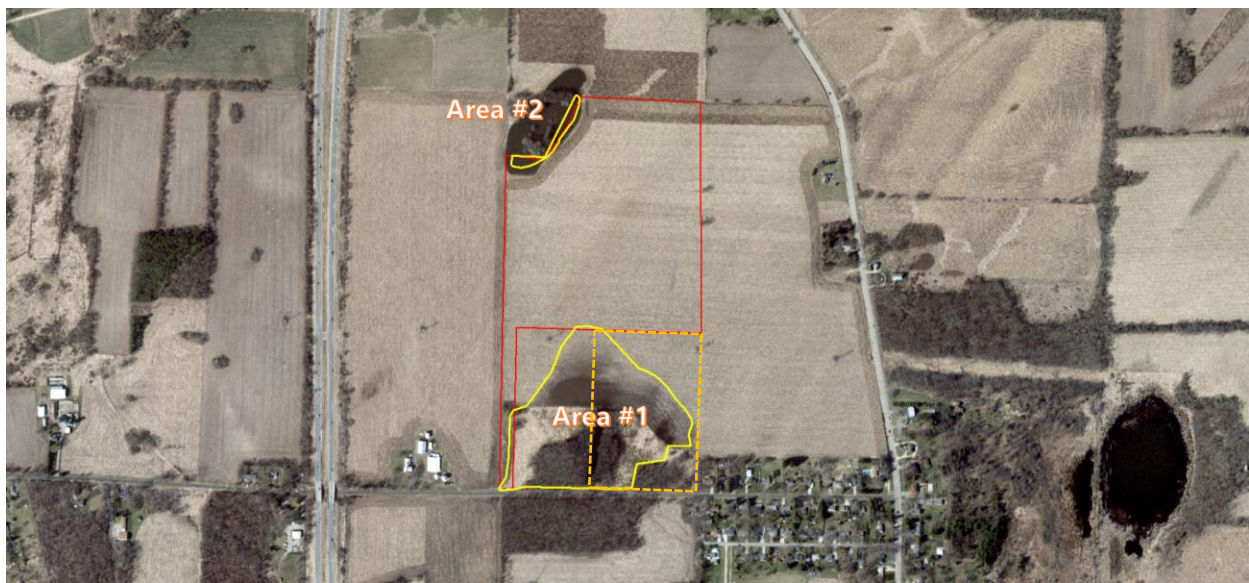
**Figure 14.** June 2010 Historical Aerial Image – Source: FSA.  = Updated Study Area



**Figure 15.** September 2010 Historical Aerial Image – Source: Google Earth.  = Updated Study Area



**Figure 16.** September 2013 Historical Aerial Image – Source: FSA.  = Updated Study Area



**Figure 17.** April 2014 Historical Aerial Image – Source: Dane County.  = Updated Study Area

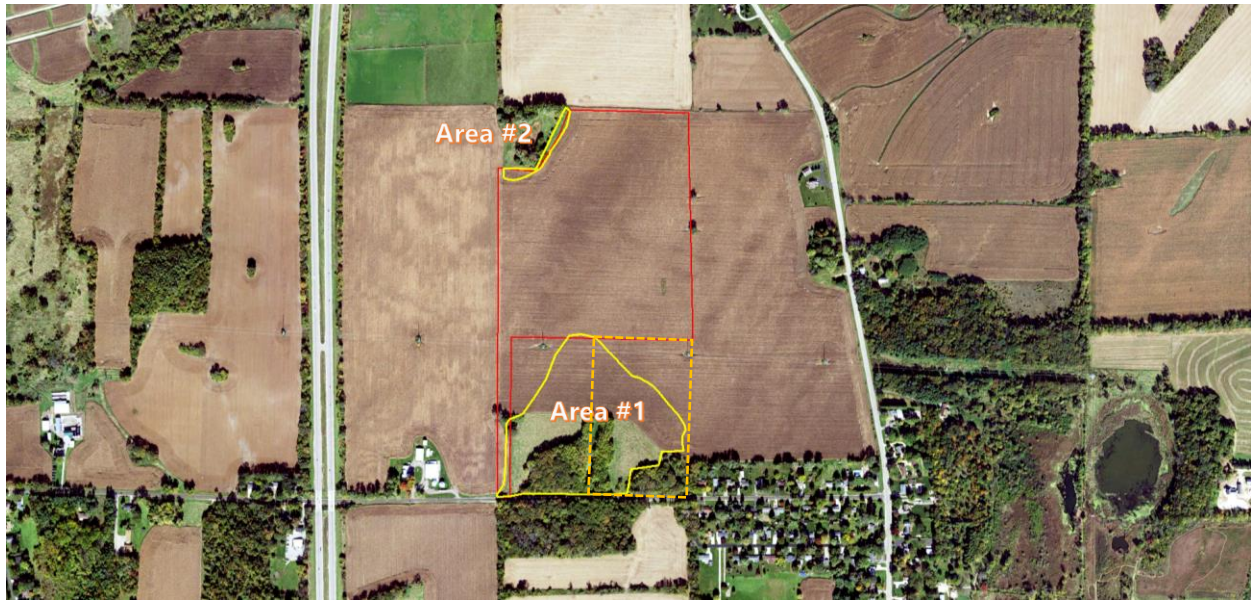



Figure 18. October 2015 Historical Aerial Image – Source: FSA.  = Updated Study Area

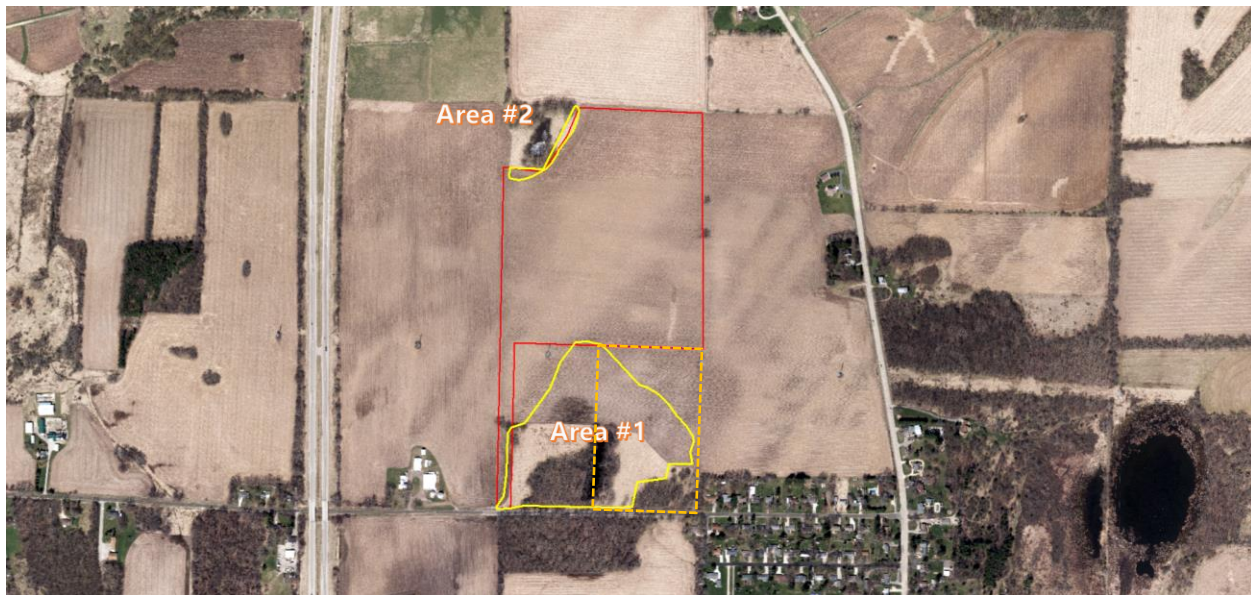

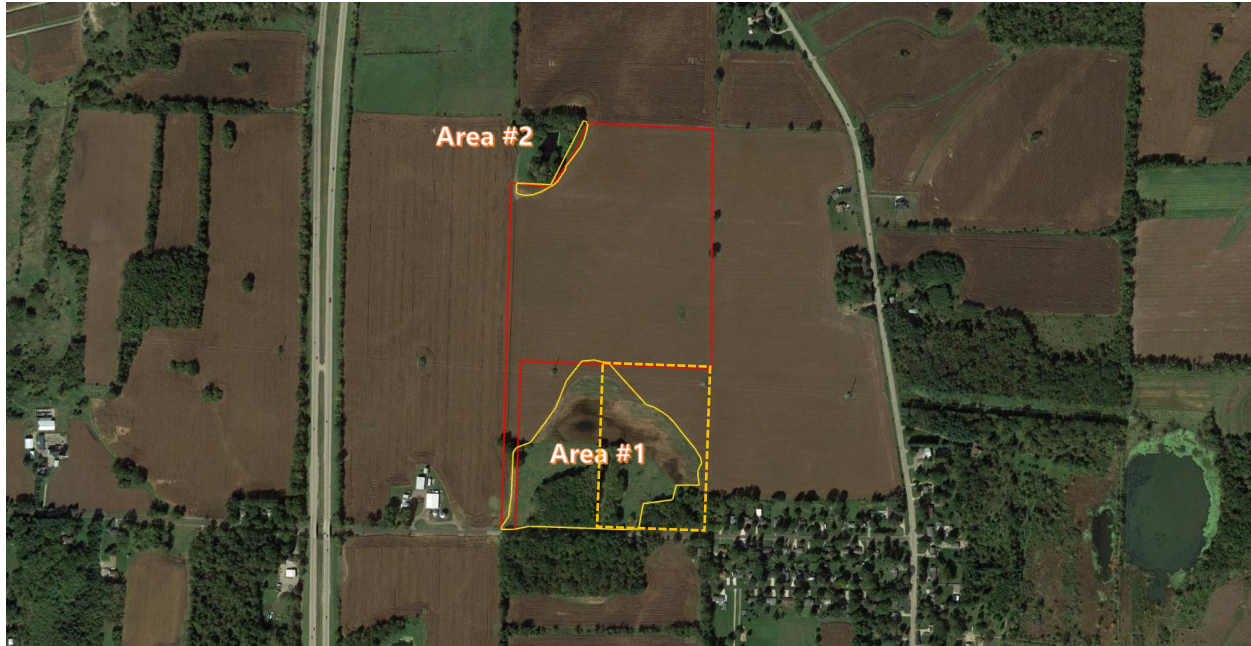

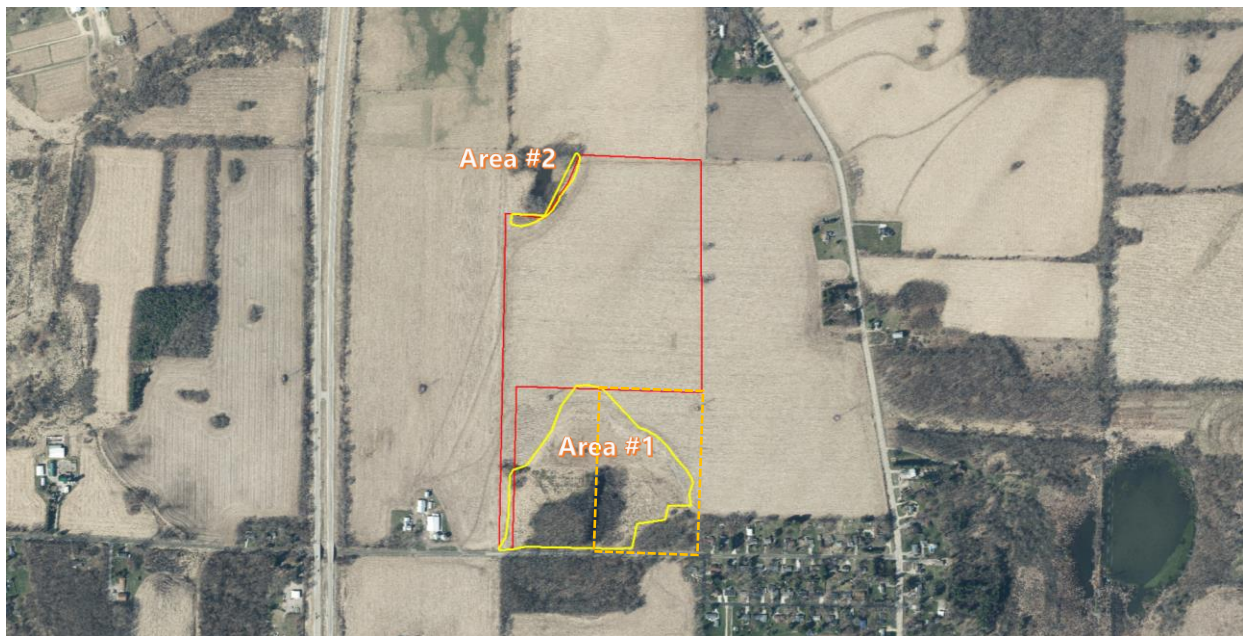



Figure 19. April 2017 Historical Aerial Image – Source: Dane County.  = Updated Study Area



**Figure 20.** October 2018 Historical Aerial Image – Source: Google Earth.  = Updated Study Area



**Figure 21.** April 2020 Historical Aerial Image – Source: Dane County.  = Updated Study Area

**6. APPENDIX B: SITE PHOTOGRAPHS**



**Photo 1:** Wetland 1 - Upland Sampling Pit U-1



**Photo 2:** Wetland 1 - Wetland Sampling Pit W-1



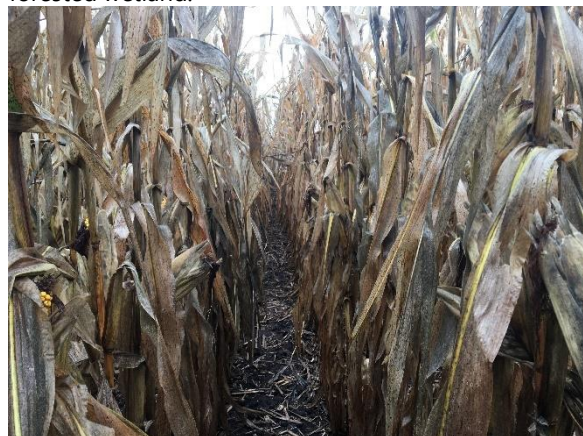
**Photo 3:** Wetland 1 – Looking north-northeast into reed canary grass-dominated portion of wetland.



**Photo 4:** Wetland 1 – Looking east from near wetland edge into seasonally flooded basin and transition to forested wetland.



**Photo 5:** Upland Sampling Pit U-2.



**Photo 6:** Vegetation at Upland Sampling Pit U-2.



**Photo 7:** Wetland 2a – Wetland Sampling Pit W-3



**Photo 8:** Wetland 2a – Looking west-northwest at wetland on fringe of cultivated field.



**Photo 9:** Wetland 2a – Upland Sampling Pit U-3



**Photo 10:** Wetland 2b – Supplementary Upland Sampling Pit S-3



**Photo 11:** Wetland 2b – Looking northwest near wetland edge at forested area of wetland; note stunted corn.



**Photo 12:** Wetland 2b – Looking south near edge of farmed portion of wetland and large uncropped "island"



**Photo 13:** Wetland 3 – Wetland Sampling Pit 2W looking south



**Photo 14:** Wetland 3 – Wetland Sampling Pit 2W looking north



**Photo 15:** Wetland 3 – Wetland Sampling Pit 1W looking southeast



**Photo 16:** Wetland 3 – Wetland Sampling Pit 1W looking northeast



**Photo 17:** Wetland 3 – Standing near Wetland Sampling Pit 2W looking at the wetland to upland transition.



**Photo 18:** Standing at Upland Pit 3U looking west



**Photo 19:** Standing at Upland Pit 1U looking north



**Photo 20:** Standing at Upland Pit 2U looking north

## **7. APPENDIX C: WETLAND DATA SHEETS**

**WETLAND-1**  
**SEASONALLY FLOODED BASIN**  
**(farmed)**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: W-1  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Sideslope of large depression Local relief (concave, convex, none): none Slope %: 0-1  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.9867519 Long: -89.3815855 Datum: NAD 1983  
 Soil Map Unit Name: Virgil silt loam, gravelly substratum, 0-3% slopes NWI classification: E1K  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> If yes, optional Wetland Site ID: <u>Wetland 1</u>
Remarks: (Explain alternative procedures here or in a separate report.) Near edge of cultivated corn field.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) _____ <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>X</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>17</u> Saturation Present? Yes <u>X</u> No <u>    </u> Depth (inches): <u>14</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: W-1

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply by: OBL species <u>2</u> x 1 = <u>2</u> FACW species <u>95</u> x 2 = <u>190</u> FAC species <u>1</u> x 3 = <u>3</u> FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>101</u> (A) <u>207</u> (B) Prevalence Index = B/A = <u>2.05</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15</u> )</b>				
1. <u>Sambucus canadensis</u>	<u>1</u>	<u>No</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				
<b>Herb Stratum (Plot size: <u>5</u> )</b>				
1. <u>Phalaris arundinacea</u>	<u>94</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Amaranthus tuberculatus</u>	<u>2</u>	<u>No</u>	<u>OBL</u>	
3. <u>Setaria faberi</u>	<u>3</u>	<u>No</u>	<u>FACU</u>	
4. <u>Urtica dioica</u>	<u>1</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
=Total Cover				
<b>Woody Vine Stratum (Plot size: _____ )</b>				
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
Hydrophytic Vegetation Present?      Yes <u>X</u> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Fitchburg, Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: U-1  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Sideslope of large depression Local relief (concave, convex, none): none Slope %: 0-1  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.98678 Long: -89.3816463 Datum: NAD 1983  
 Soil Map Unit Name: Virgil silt loam, gravelly substratum, 0-3% slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) In cultivated corn field.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1)      _____ Water-Stained Leaves (B9) _____ High Water Table (A2)      _____ Aquatic Fauna (B13) _____ Saturation (A3)      _____ Marl Deposits (B15) _____ Water Marks (B1)      _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)      _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) <u>X</u> Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>20</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: U-1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>45</u></td> <td>x 5 = <u>225</u></td> </tr> <tr> <td>Column Totals: <u>49</u> (A)</td> <td><u>238</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.86</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species <u>2</u>	x 4 = <u>8</u>	UPL species <u>45</u>	x 5 = <u>225</u>	Column Totals: <u>49</u> (A)	<u>238</u> (B)	Prevalence Index = B/A = <u>4.86</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>1</u>	x 2 = <u>2</u>																			
FAC species <u>1</u>	x 3 = <u>3</u>																			
FACU species <u>2</u>	x 4 = <u>8</u>																			
UPL species <u>45</u>	x 5 = <u>225</u>																			
Column Totals: <u>49</u> (A)	<u>238</u> (B)																			
Prevalence Index = B/A = <u>4.86</u>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
			=Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
			=Total Cover																	
<b>Herb Stratum</b> (Plot size: <u>5</u> )																				
1. <u>Zea mays</u>	45	Yes	UPL																	
2. <u>Taraxacum officinale</u>	1	No	FACU																	
3. <u>Setaria faberi</u>	1	No	FACU																	
4. <u>Urtica dioica</u>	1	No	FAC																	
5. <u>Acer saccharinum</u>	1	No	FACW																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
			49 =Total Cover																	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
			=Total Cover																	
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) In cultivated corn field; no visible crop stress.																				



**UPLAND U-2  
(NO ASSOCIATED WETLAND)**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Fitchburg, Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: U-2  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Sideslope of large depression Local relief (concave, convex, none): none Slope %: 0-2  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42°59'22.26"N Long: 89°22'46.033"W Datum: NAD 1983  
 Soil Map Unit Name: Virgil silt loam, gravelly substratum, 0-3% slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) In cultivated corn field.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)	<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: U-2

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>45</u> x 5 = <u>225</u> Column Totals: <u>45</u> (A) <u>225</u> (B) Prevalence Index = B/A = <u>5.00</u>
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Zea mays</u>	<u>45</u>	<u>Yes</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>  </u> 1 - Rapid Test for Hydrophytic Vegetation <u>  </u> 2 - Dominance Test is >50% <u>  </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>  </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
=Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.) In cultivated corn field; no crop stress observed.				

**SOIL**

Sampling Point U-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 2/1	100					Loamy/Clayey	
10-12	10YR 3/1	98	10YR 5/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
12-26	10YR 4/4	97	10YR 5/6	3	C	M	Loamy/Clayey	Distinct redox concentrations

## **WETLAND COMPLEX 2**

**WETLAND-2a  
SEASONALLY FLOODED BASIN  
(farmed)**

**WETLAND-2b  
SEASONALLY FLOODED BASIN  
(farmed)**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Fitchburg, Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: W-3  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 0-1  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42°59'33.702"N Long: 89°22'51.711"W Datum: NAD 1983  
 Soil Map Unit Name: Radford silt loam, 0-3% slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>Wetland 2a</u>
Remarks: (Explain alternative procedures here or in a separate report.) Edge of cultivated field near uncropped "island" wetland: shallow pond surrounded by forested wetland, wet meadow. Stunted, sparse corn near edge.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) <u>X</u> Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) <u>X</u> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) <u>X</u> Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: W-3

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>195</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.17</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>90</u> (A)	<u>195</u> (B)	Prevalence Index = B/A = <u>2.17</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>85</u>	x 2 = <u>170</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>90</u> (A)	<u>195</u> (B)																			
Prevalence Index = B/A = <u>2.17</u>																				
1. <u>Acer saccharinum</u>	<u>35</u>	<u>Yes</u>	<u>FACW</u>																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>35</u>	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
		=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5</u> )																				
1. <u>Zea mays</u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
2. <u>Phalaris arundinacea</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>55</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
		=Total Cover																		
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) Cultivated corn is sparse, stunted/stressed. Reed canary grass dominates open area of wetland.																				



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Fitchburg, Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: U-3  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Midslope of depression Local relief (concave, convex, none): concave Slope %: 0-1  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42°59'33.438"N Long: 89°22'51.174"W Datum: NAD 1983  
 Soil Map Unit Name: Radford silt loam, 0-3% slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
Remarks: (Explain alternative procedures here or in a separate report.) In cultivated corn field near uncropped "island" of silver maple, reed canary grass.			

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) <u>X</u> Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: U-3

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>37</u> (A)</td> <td><u>183</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.95</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>2</u>	x 4 = <u>8</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>37</u> (A)	<u>183</u> (B)	Prevalence Index = B/A = <u>4.95</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>2</u>	x 4 = <u>8</u>																			
UPL species <u>35</u>	x 5 = <u>175</u>																			
Column Totals: <u>37</u> (A)	<u>183</u> (B)																			
Prevalence Index = B/A = <u>4.95</u>																				
_____ =Total Cover																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<u>Herb Stratum</u> (Plot size: <u>5</u> )																				
1. <u>Zea mays</u>	35	Yes	UPL																	
2. <u>Setaria faberi</u>	1	No	FACU																	
3. <u>Abutilon theophrasti</u>	1	No	FACU																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ =Total Cover																				
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
Hydrophytic Vegetation Present?      Yes _____      No <u>X</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) In cultivated corn field; no evidence of crop stress observed.																				



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Fitchburg, Dane Sampling Date: 10/12/2021  
 Applicant/Owner: OneEnergy Renewables (OER) State: WI Sampling Point: S-3  
 Investigator(s): Joe Pallardy, Ethan Hau Section, Township, Range: Section 13, T06N, R09E  
 Landform (hillside, terrace, etc.): Midslope of depression Local relief (concave, convex, none): none Slope %: 0-1  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42°59'35.0041" Long: -89°22'48.0913" Datum: NAD 1983  
 Soil Map Unit Name: Radford silt loam, 0-3% slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) In cultivated corn field near uncropped "island" wetland.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) _____ _____ Surface Water (A1)                      _____ Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) _____ Saturation (A3)                                      _____ Marl Deposits (B15) _____ Water Marks (B1)                                      _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)                              _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)                                      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)                                      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)                                      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7)                      _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) <u>X</u> Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION – Use scientific names of plants.**

Sampling Point: S-3

<u>Tree Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of:                      Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>45</u> x 5 = <u>225</u> Column Totals: <u>45</u> (A) <u>225</u> (B)  Prevalence Index = B/A = <u>5.00</u>
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
=Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Zea mays</u>	<u>45</u>	<u>Yes</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
=Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.) Cultivated corn field; no evidence of crop stress observed.				

**SOIL**

Sampling Point S-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-22	10YR 2/1	98	10YR 5/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
22-27	10YR 4/4	95	10YR 5/6	5	C	M	Loamy/Clayey	Distinct redox concentrations

**WETLAND 3**  
**SEASONALLY FLOODED FORESTED**  
**/ EMERGENT / FARMED BASIN**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Dane County Sampling Date: 2022-08-19  
 Applicant/Owner: OneEnergy Renewables State: Wisconsin Sampling Point: OERTyto-1u  
 Investigator(s): Ethan Hau Section, Township, Range: sec 13 T006N R009E  
 Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): None Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.986650 Long: -89.377973 Datum: WGS84  
 Soil Map Unit Name: Elburn silt loam, 0 to 3 percent slopes NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)    	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: <b>Minimal geomorphic position due to slope position</b>	

**VEGETATION** – Use scientific names of plants.

Sampling Point: OERTyto-1u

	Absolute % Cover	Dominant Species?	Indicator Status															
<b>Tree Stratum</b> (Plot size: <u>30</u> )																		
1. <u><i>Quercus macrocarpa</i></u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67</u> (A/B)														
2. <u><i>Acer negundo</i></u>	<u>30</u>	<u>Y</u>	<u>FAC</u>															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>90</u>	= Total Cover																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																		
1. <u><i>Rhamnus cathartica</i></u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0.00</u></td> <td>x 1 = <u>0.00</u></td> </tr> <tr> <td>FACW species <u>3.00</u></td> <td>x 2 = <u>6.00</u></td> </tr> <tr> <td>FAC species <u>59.00</u></td> <td>x 3 = <u>177.00</u></td> </tr> <tr> <td>FACU species <u>69.00</u></td> <td>x 4 = <u>276.00</u></td> </tr> <tr> <td>UPL species <u>0.00</u></td> <td>x 5 = <u>0.00</u></td> </tr> <tr> <td>Column Totals: <u>131.00</u> (A)</td> <td><u>459.00</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.5</u>	Total % Cover of:	Multiply by:	OBL species <u>0.00</u>	x 1 = <u>0.00</u>	FACW species <u>3.00</u>	x 2 = <u>6.00</u>	FAC species <u>59.00</u>	x 3 = <u>177.00</u>	FACU species <u>69.00</u>	x 4 = <u>276.00</u>	UPL species <u>0.00</u>	x 5 = <u>0.00</u>	Column Totals: <u>131.00</u> (A)	<u>459.00</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0.00</u>	x 1 = <u>0.00</u>																	
FACW species <u>3.00</u>	x 2 = <u>6.00</u>																	
FAC species <u>59.00</u>	x 3 = <u>177.00</u>																	
FACU species <u>69.00</u>	x 4 = <u>276.00</u>																	
UPL species <u>0.00</u>	x 5 = <u>0.00</u>																	
Column Totals: <u>131.00</u> (A)	<u>459.00</u> (B)																	
2. <u><i>Prunus serotina</i></u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u><i>Acer negundo</i></u>	<u>3</u>	<u>N</u>	<u>FAC</u>															
4. <u><i>Viburnum opulus</i></u>	<u>3</u>	<u>N</u>	<u>FACW</u>															
5. <u><i>Celtis occidentalis</i></u>	<u>1</u>	<u>N</u>	<u>FAC</u>															
6. _____																		
7. _____																		
	<u>22</u>	= Total Cover																
<b>Herb Stratum</b> (Plot size: <u>5</u> )																		
1. <u><i>Ambrosia trifida</i></u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u><i>Solanum dulcamara</i></u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
3. <u><i>Phytolacca americana</i></u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>16</u>	= Total Cover																
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																		
1. <u><i>Parthenocissus quinquefolia</i></u>	<u>3</u>	<u>N</u>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
2. _____																		
3. _____																		
4. _____																		
	<u>3</u>	= Total Cover																
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.)																		

**SOIL**

Sampling Point: OERTyto-1u

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/1	100					L	
16-24	10YR 5/2	85	10YR 5/6	15	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Dane County Sampling Date: 2022-08-19  
 Applicant/Owner: OneEnergy Renewables State: Wisconsin Sampling Point: OERTyto-1w  
 Investigator(s): Ethan Hau Section, Township, Range: sec 13 T006N R009E  
 Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.986679 Long: -89.378356 Datum: WGS84  
 Soil Map Unit Name: Elburn silt loam, 0 to 3 percent slopes NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)     	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: OERTyto-1w

	Absolute % Cover	Dominant Species?	Indicator Status															
<b>Tree Stratum</b> (Plot size: <u>30</u> )																		
1. <u><i>Acer saccharinum</i></u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.00</u> (A/B)														
2. <u><i>Acer negundo</i></u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>60</u>	= Total Cover																
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )																		
1. <u><i>Rhamnus cathartica</i></u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0.00</u></td> <td>x 1 = <u>0.00</u></td> </tr> <tr> <td>FACW species <u>67.00</u></td> <td>x 2 = <u>134.00</u></td> </tr> <tr> <td>FAC species <u>28.00</u></td> <td>x 3 = <u>84.00</u></td> </tr> <tr> <td>FACU species <u>10.00</u></td> <td>x 4 = <u>40.00</u></td> </tr> <tr> <td>UPL species <u>0.00</u></td> <td>x 5 = <u>0.00</u></td> </tr> <tr> <td>Column Totals: <u>105.00</u> (A)</td> <td><u>258.00</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.46</u>	Total % Cover of:	Multiply by:	OBL species <u>0.00</u>	x 1 = <u>0.00</u>	FACW species <u>67.00</u>	x 2 = <u>134.00</u>	FAC species <u>28.00</u>	x 3 = <u>84.00</u>	FACU species <u>10.00</u>	x 4 = <u>40.00</u>	UPL species <u>0.00</u>	x 5 = <u>0.00</u>	Column Totals: <u>105.00</u> (A)	<u>258.00</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0.00</u>	x 1 = <u>0.00</u>																	
FACW species <u>67.00</u>	x 2 = <u>134.00</u>																	
FAC species <u>28.00</u>	x 3 = <u>84.00</u>																	
FACU species <u>10.00</u>	x 4 = <u>40.00</u>																	
UPL species <u>0.00</u>	x 5 = <u>0.00</u>																	
Column Totals: <u>105.00</u> (A)	<u>258.00</u> (B)																	
2. <u><i>Prunus serotina</i></u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. <u><i>Acer negundo</i></u>	<u>3</u>	<u>N</u>	<u>FAC</u>															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>28</u>	= Total Cover																
<b>Herb Stratum</b> (Plot size: <u>5</u> )																		
1. <u><i>Circaea alpina</i></u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u><i>Phalaris arundinacea</i></u>	<u>2</u>	<u>N</u>	<u>FACW</u>															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>17</u>	= Total Cover																
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )																		
1. _____				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.														
2. _____																		
3. _____																		
4. _____																		
	_____ = Total Cover																	
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.)																		

**SOIL**

Sampling Point: OERTyto-1w

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/1	100					L	
10-20	10YR 5/2	85	10YR 5/6	15	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Dane County Sampling Date: 2022-08-19  
 Applicant/Owner: OneEnergy Renewables State: Wisconsin Sampling Point: OERTyto-2u  
 Investigator(s): Ethan Hau Section, Township, Range: sec 13 T006N R009E  
 Landform (hillslope, terrace, etc.): Sideslope Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.987320 Long: -89.377243 Datum: WGS84  
 Soil Map Unit Name: Virgil silt loam, gravelly substratum, 0 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)    	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:   	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: OERTyto-2u

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0.00</u> x 1 = <u>0.00</u> FACW species <u>0.00</u> x 2 = <u>0.00</u> FAC species <u>0.00</u> x 3 = <u>0.00</u> FACU species <u>0.00</u> x 4 = <u>0.00</u> UPL species <u>100.00</u> x 5 = <u>500.00</u> Column Totals: <u>100.00</u> (A) <u>500.00</u> (B)  Prevalence Index = B/A = <u>5.0</u>	
Sapling/Shrub Stratum (Plot size: <u>15</u> )	1. _____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Herb Stratum (Plot size: <u>5</u> )	1. <u>Glycine max</u>	<u>100</u>	<u>Y</u>		<u>UPL</u>
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>100</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
Woody Vine Stratum (Plot size: <u>30</u> )	1. _____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>	
Remarks: (Include photo numbers here or on a separate sheet.) <b>Healthy crops</b>					

**SOIL**

Sampling Point: OERTyto-2u

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/1	100					L	
8-13	10YR 3/1	95	10YR 5/6	5	C	M	L	
13-20	10YR 5/2	70	10YR 5/6	30	C	M	CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Tyto City/County: Dane County Sampling Date: 2022-08-19  
 Applicant/Owner: OneEnergy Renewables State: Wisconsin Sampling Point: OERTyto-2w  
 Investigator(s): Ethan Hau Section, Township, Range: sec 13 T006N R009E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K, MLRA 95B Lat: 42.987266 Long: -89.377274 Datum: WGS84  
 Soil Map Unit Name: Dodge silt loam, 2 to 6 percent slopes NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)     	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:   	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: OERTyto-2w

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30</u> )					
1. <u><i>Acer saccharinum</i></u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)	
2. <u><i>Acer negundo</i></u>	<u>10</u>	<u>Y</u>	<u>FAC</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<u>20</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0.00</u> x 1 = <u>0.00</u> FACW species <u>90.00</u> x 2 = <u>180.00</u> FAC species <u>10.00</u> x 3 = <u>30.00</u> FACU species <u>0.00</u> x 4 = <u>0.00</u> UPL species <u>0.00</u> x 5 = <u>0.00</u> Column Totals: <u>100.00</u> (A) <u>210.00</u> (B)  Prevalence Index = B/A = <u>2.1</u>	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Herb Stratum</b> (Plot size: <u>5</u> )					
1. <u><i>Phalaris arundinacea</i></u>	<u>80</u>	<u>Y</u>	<u>FACW</u>		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
<u>80</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: (Include photo numbers here or on a separate sheet.)					

**SOIL**

Sampling Point: OERTyto-2w

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-13	10YR 3/1	95	10YR 5/6	5	C	M	L	
13-20	10YR 5/3	70	10YR 5/6	30	C	M	L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: \_\_\_\_\_ City/County: \_\_\_\_\_ Sampling Date: \_\_\_\_\_  
 Applicant/Owner: \_\_\_\_\_ State: \_\_\_\_\_ Sampling Point: \_\_\_\_\_  
 Investigator(s): \_\_\_\_\_ Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) ___ Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION** – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> _____ Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____ )	1. _____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: _____ )	1. _____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: _____ )	1. _____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____
Remarks: (Include photo numbers here or on a separate sheet.)				



**Attachment E**  
**Visual Renderings**

## **Attachment F – Operations Plan**

## OneEnergy Renewables

### Tyto Solar Project

#### Solar Generating Facility Operations Plan

**Type of Activity Proposed:** OneEnergy Development, LLC is proposing to build a solar generation plant (the “Facility” or “Project”) consisting of up to 30 acres of solar modules and associated collection equipment that delivers power to the electric grid. The Facility will have a maximum capacity of up to approximately 6 MW AC. The on-site equipment at the Facility will consist primarily of solar modules mounted on single-axis trackers to generate direct current (DC) electricity. Inverters that are integrated into the Facility will convert the DC electricity to alternating current (AC) electricity to allow it to be delivered to the existing electric distribution system.

The Facility will be an unmanned plant that will operate through local and remote control/monitoring. Local control will occur through autonomous controllers. The PV system will be monitored remotely through the MGE Energy Management System and by the operations and maintenance contractor’s Data Acquisition System (DAS). After construction is complete, there will be limited access to the site for periodic inspections (monthly), troubleshooting, and maintenance.

The Facility will provide solar electricity to serve the needs of local MGE customers.

1. **Hours of Operation:** The solar facility will operate continuously. This Facility will not be continuously staffed and will not be open to the public. It is anticipated that once construction is complete, operations and maintenance personnel (one or two people) will access the site once or twice per month for inspection or minor maintenance.
2. **Number of Employees:** There will be no employees stationed at the Facility. As noted in Item No. 1 above, one or two people will visit the site a once or twice each month for inspection and minor maintenance, as needed.
3. **Anticipated Customers:** No customers will be served at the Facility, and there will be no traffic associated with such customers. The renewable electricity generated from the Facility will be used to serve the needs of local MGE customers.
4. **Outside Storage:** None.
5. **Outdoor Activities:** Inspection of the solar electric system and periodic maintenance as described above.
6. **Outdoor Lighting:** No permanent outdoor lighting.
7. **Outside Loudspeakers:** None.
8. **Proposed Signs:** The site will include necessary safety signage and an entrance sign.
9. **Trash Removal:** There will not be trash generated at this site. Any minor trash, such as note paper or written instructions, will be removed immediately.



1

4

2

3





