



## MEMORANDUM

To: Nicholas Flodstrom  
*SunCode LLC*

From: Ashley Payne  
*Kimley-Horn and Associates, Inc.*

Date: January 21, 2026

Subject: *Blackberry Township, Kane County, Illinois – Douglas Family Farm Butterfly Garden and Solar Farm LLC Constraints Memorandum*

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### INTRODUCTION

SunCode LLC contracted Kimley-Horn and Associates, Inc. (Kimley-Horn) to review the Douglas Family Farm Butterfly Garden and Solar Farm LLC project study area for potential environmental constraints. See **Figure 1** for project location and **Figure 2** for the study area boundary. The study area is in Blackberry Township, Kane County, Illinois and is approximately 34 acres in size, located in Sections 34 and 35 of Township 39N, Range 7E. Kimley-Horn reviewed available background data to assist in determining if there are any potential constraints for the study area.

### CONSTRAINTS REVIEW:

#### *Aquatic Resources (Wetlands and Waterways)*

Kimley-Horn reviewed available topographic maps, the U.S. Fish and Wildlife (USFWS) National Wetlands Inventory (NWI), the National Hydrography Dataset (NHD), LiDAR, soil survey data, public waters, floodplain data, and aerial photography to identify potential wetlands or surface waters within the one mile of the study area.

#### *U.S. Geological Survey Topographic Map*

The Sugar Grove, Illinois 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle depicted the study area is depicted as undeveloped land. The USGS topographic map is presented in **Figure 3**.

#### *National Wetlands Inventory (NWI)*

The USFWS NWI,<sup>1</sup> shows one riverine wetland feature (R4SBC) present within the study area. The NWI-mapped features are presented in **Figure 4**.

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<sup>1</sup> USFWS. National Wetlands Inventory. Vector Digital Data. Published October 27, 2024.



#### *USGS National Hydrography Dataset (NHD)*

The USGS NHD,<sup>2</sup> shows two unnamed flowline segments within the study area. There are no waterbody features present within the study area. The NHD-mapped resources are presented in **Figure 4**.

#### *LiDAR Contours*

Kimley-Horn reviewed two-foot contours<sup>3</sup> to assess if any wetland areas or drainage swales may be present within the study area. The study area generally slopes to the north and east. The study area ranges in elevation from 710 to 746 feet above sea level. The LiDAR contours are presented in **Figure 5**.

#### *Kane County Soil Survey*

The soil survey Geographic (gSSURGO) database<sup>4</sup> identified 5 soil types within the study area. Approximately 4 percent of the study area is mapped with a predominantly hydric soils rating of 100 percent. The remainder of the study area is mapped with a predominantly non-hydric soils rating at or below 8 percent, or a non-hydric soils rating of 0 percent. Hydric soils rating data are presented in **Figure 6**.

#### *Illinois Department of Natural Resources (IDNR) Public Waters Inventory*

A review of the IDNR Public Waters Inventory<sup>5</sup> was completed. No IDNR Public Waters are located within the study area vicinity.

#### *Federal Emergency Management Agency Floodplain*

Based on Panel 17089C0310H (effective August 3, 2009) of the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) Viewer, the study area is not located within a FEMA 100-year floodplain. The FEMA floodplain data are presented in **Figure 7**.

#### *Previous Study Area Disturbance*

To determine previous land use and disturbance on the study area, Kimley-Horn reviewed historic aerials from 1993 to 2024 (**Attachment A**). However, it should be noted that the study area has been used for agricultural purposes since at least 1993.

#### ***Aquatic Resource Assessment***

Based on the National Wetlands Inventory and National Hydrography Dataset, Kimley-Horn identified potential wetlands and waterway features within the property (see Figure 4). A Level 1 (desktop) wetland delineation was conducted and is provided in a separate report. A Level 2 (field) Wetland Delineation is recommended to confirm the extents of wetlands and waterways within the project study area.

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<sup>2</sup> USGS. National Hydrography Dataset. Vector Digital Data. Published December 27, 2023.

<sup>3</sup> USGS. USGS 1 Meter DEM Panels. Published December 8, 2022.

<sup>4</sup> NRCS. National Soil Survey Geographic (gSSURGO). Illinois. Vector Digital Data. Published September 7, 2022.

<sup>5</sup> IDNR. 2023. Illinois Public Waters. Available online at

<https://idnr.maps.arcgis.com/apps/webappviewer/index.html?id=b64decfb69504164a46badb2841ebb11>



***USFWS Federally Listed Threatened and Endangered Species***

Kimley-Horn conducted a preliminary review of the potential for federally listed threatened, endangered, and proposed species to occur within the study area or be affected by the proposed project for the purposes of due diligence in compliance with the Endangered Species Act (ESA). A list of the threatened, endangered, and proposed species, and their designated critical habitats that could occur in Kane County was obtained and evaluated from the USFWS Information for Planning and Consultation (IPaC) online planning tool. This resource list is not considered official USFWS correspondence for ESA consultation. Habitat descriptions for the identified species were compared to the habitat within or near the study area. The resource list obtained via the USFWS IPaC for the project identified three species that should be considered in an effects analysis. The resource list is included in **Attachment B** and the identified species are reviewed below in **Table 1**.

**Table 1. Federally Listed Species**

Species	Status	Preferred Habitat	Findings
<i>Grus americana</i> (Whooping crane)	Experimental population, Non-essential	The whooping crane breeds, migrates, winters and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures, and agricultural fields.	No critical habitat has been designated for this species. The study area contains agricultural fields which are listed as habitat for the whooping crane. This species is classified as an experimental population, non-essential. Experimental population, non-essential status does not provide species protection under the Endangered Species Act listing process outside of federal lands. The project site located outside of federal National Wildlife Refuges and National Parks.
<i>Danaus plexippus</i> (Monarch butterfly)	Proposed Threatened	The monarch butterfly requires grassland habitats where milkweed and flowers are present. North American populations of the monarch butterfly typically follow a seasonal migration pattern.	Critical habitat has been proposed for this species. Potential preferred habitat may appear within the study area. The area is primarily active farmland. To avoid potential impacts, reseeding with native seed mixes is recommended, although not required.

Species	Status	Preferred Habitat	Findings
<i>Argynnis idalia occidentalis</i> (Western regal fritillary)	Proposed Threatened	The western regal fritillary is most often found in native prairie habitat regions, specifically in prairies that contain violets ( <i>Viola sp.</i> ). Larval development may occur in upland prairie, and larvae feed exclusively on violets. The adult western regal fritillary feeds on a variety of floral nectar.	No critical habitat has been designated for this species. Minimal preferred habitat may appear within the study area. To avoid potential impacts, reseeding with native prairie seed mixes and violets is recommended, although not required.

### ***Migratory Birds***

The MBTA protects all birds in Illinois except for nonnative species such as house sparrows (*Passer domesticus*) and rock doves (*Columba livia*) (16 U.S.C. 703–712, omitting 709). The MBTA prohibits take, as defined to mean “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” The MBTA prohibits the accidental or “incidental” taking or killing of migratory birds. The phrase “incidental take” is used when migratory birds are taken or killed because of an otherwise lawful activity but the “take” is not the purpose of that activity. It is our understanding that “incidental take” is enforceable under the MBTA under recent regulatory proposals.

On October 4, 2021, the USFWS published an Advanced Notice of Proposed Rulemaking (ANPR) announcing the intent to develop proposed regulations that would establish a permitting system to authorize the incidental take of migratory birds, in certain circumstances. Secretary of the Interior Director’s Order 225 establishes criteria for the types of conduct that will be a priority for enforcement activities with respect to incidental take of migratory birds. The ANPR identifying the permit regime for allowing incidental take of birds covered by the MBTA was issued to the federal Office of Information and Regulatory Affairs (OIRA) and is pending release, as of date of this report. Therefore, there is no incidental take permit for migratory birds as the USFWS continues to review the appropriate permitting regime.

According to the IPaC resource list, 20 migratory species on the Birds of Conservation Concern (BCC) list may occur within the study area. The BCC list was updated in 2023 by the USFWS and is an effort to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act.”

### ***IDNR State Listed Threatened, Endangered, and Species of Special Concern***

The IDNR identified the presence of the northern long-eared bat in the vicinity of the study area. However, the IDNR determined that adverse effects are unlikely. The IDNR showed no record of Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. The IDNR Consultation Letter is included in Attachment B.



### *Historic Resources Database Review*

Kimley-Horn reviewed the Illinois Inventory of Archaeological Sites (IIAS) database for known historic resources within the project vicinity. Kimley-Horn did not identify any previously recorded cultural resources or previous surveys in the study area or half-mile radius during the review. According to the IIAS database, the study area does not appear within an area of archaeological resource potential (see **Attachment C**). The results of the IIAS review are sensitive in nature and should not be shared publicly.

### **CONCLUSIONS AND RECOMMENDATIONS:**

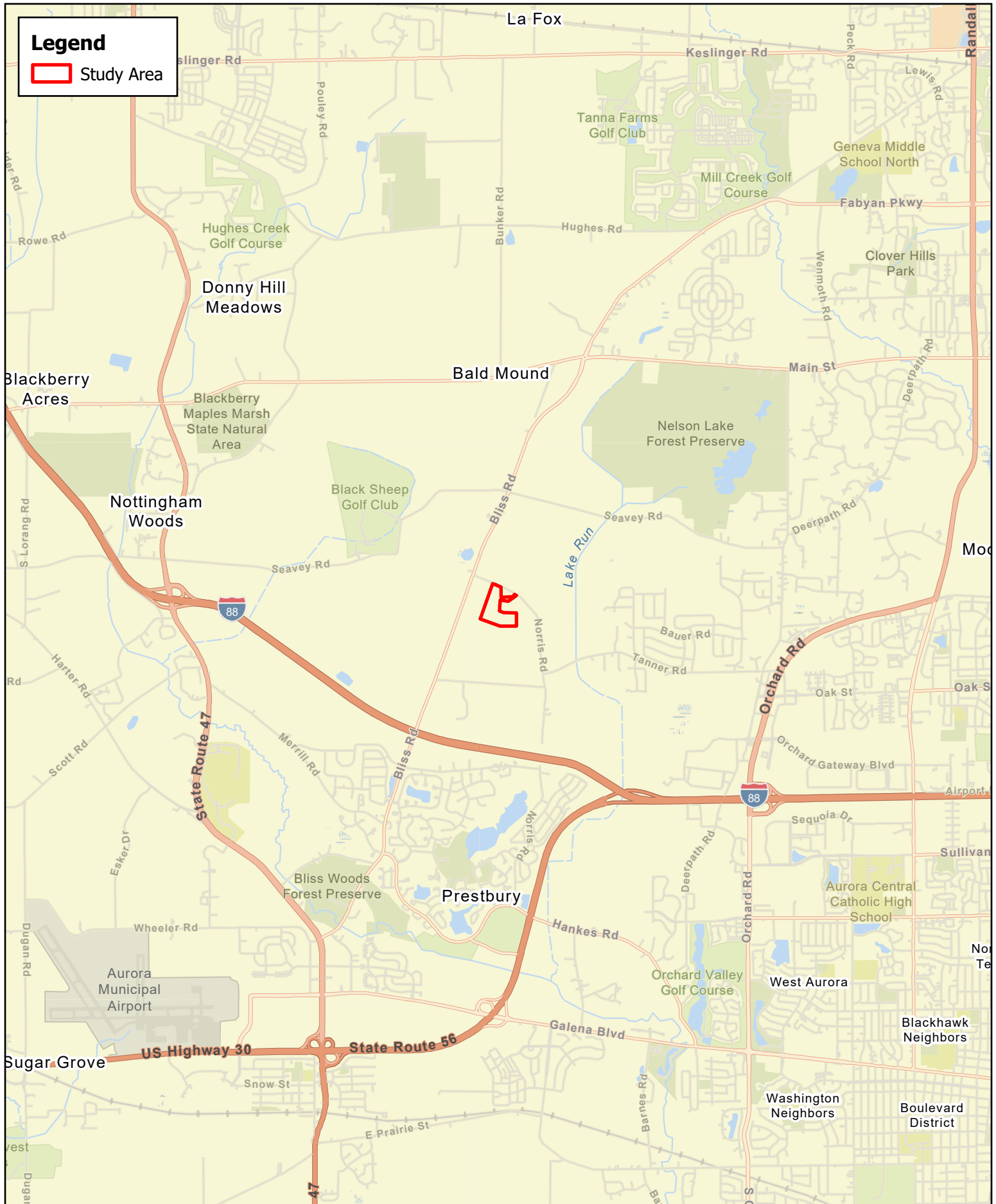
Based on the information reviewed, Kimley-Horn has identified potential environmental constraints that could require additional planning.

Based on the aquatic resource assessment, Kimley-Horn identified potential wetlands and waterways within the study area. A Level 1 (Desktop) wetland delineation was conducted to determine the extents of wetlands and waterways within the study area, and those results are available in a separate report.

Potential suitable habitat for federally listed species may be present within the study area. If tree clearing is anticipated, it is recommended to be completed between November 1 and March 31, which is outside of the active bat season. To avoid potential impacts to the monarch butterfly, reseeding with native seed mixes is recommended, although not required. The IDNR determined that adverse effects to state listed species or protected resources are unlikely.


No previously recorded cultural resources were identified within the study area during this review. The HARGIS database reported that the whole study area had been previously surveyed for historic and architectural resources, however there was no survey number or description provided. The survey report is not on file with HARGIS. The IIAS database indicated that there were two previous archaeological surveys conducted in the northeastern corner and along the southeastern border of the study area. The northeastern survey (K18012) was conducted in 2009. The southeastern survey (K9446) was conducted in 1999. The study area does not intersect with an area of archaeological resource potential, according to the IIAS. Eight previous surveys were conducted and two previously recorded cultural resources were identified within the half-mile radius.

# Figures

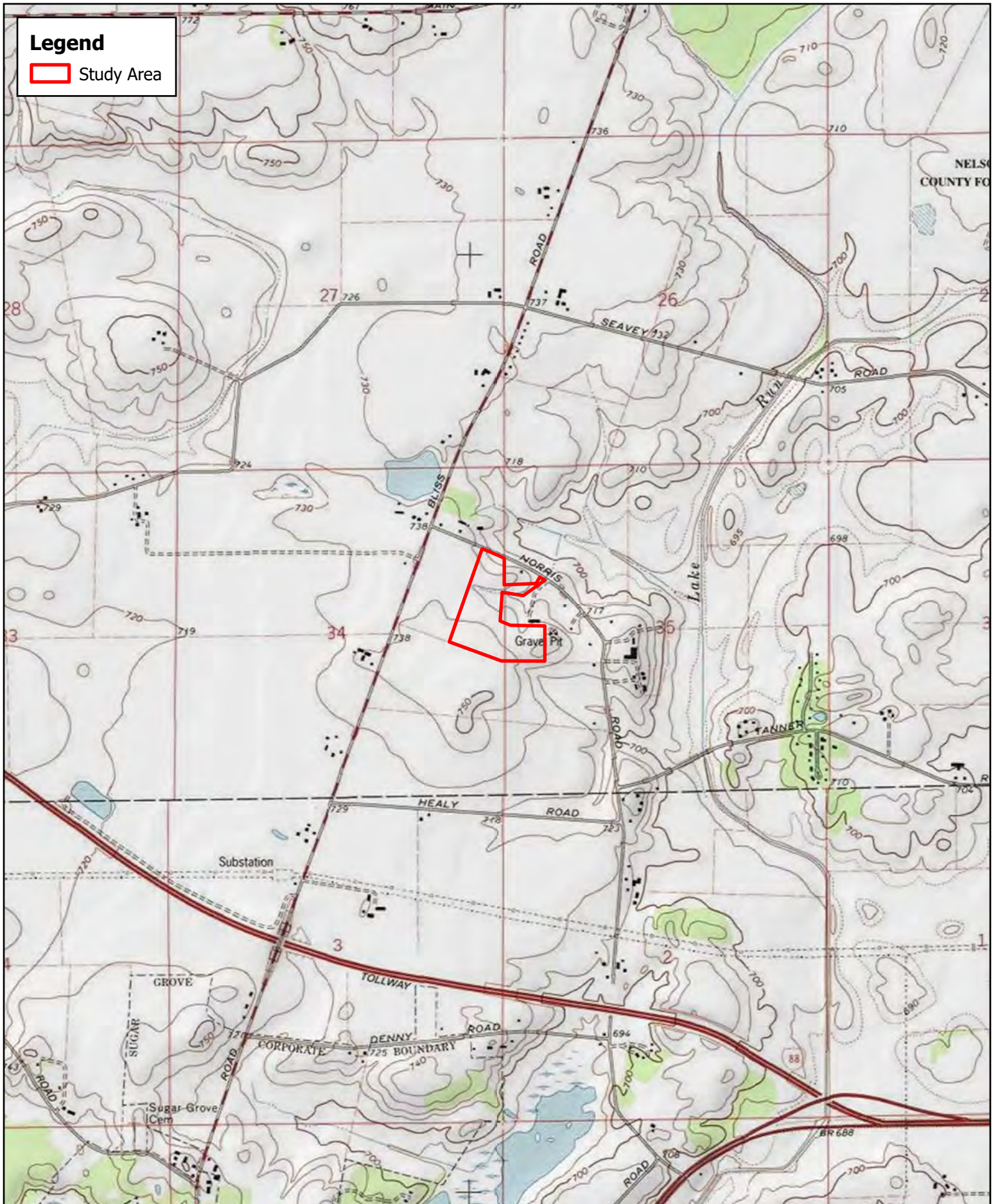




**Legend**

 Study Area

Aerial Imagery Courtesy of NAIP (2023)



**Figure 3. USGS Topographic Map**  
 Blackberry Township, Kane County  
 SunCode LLC

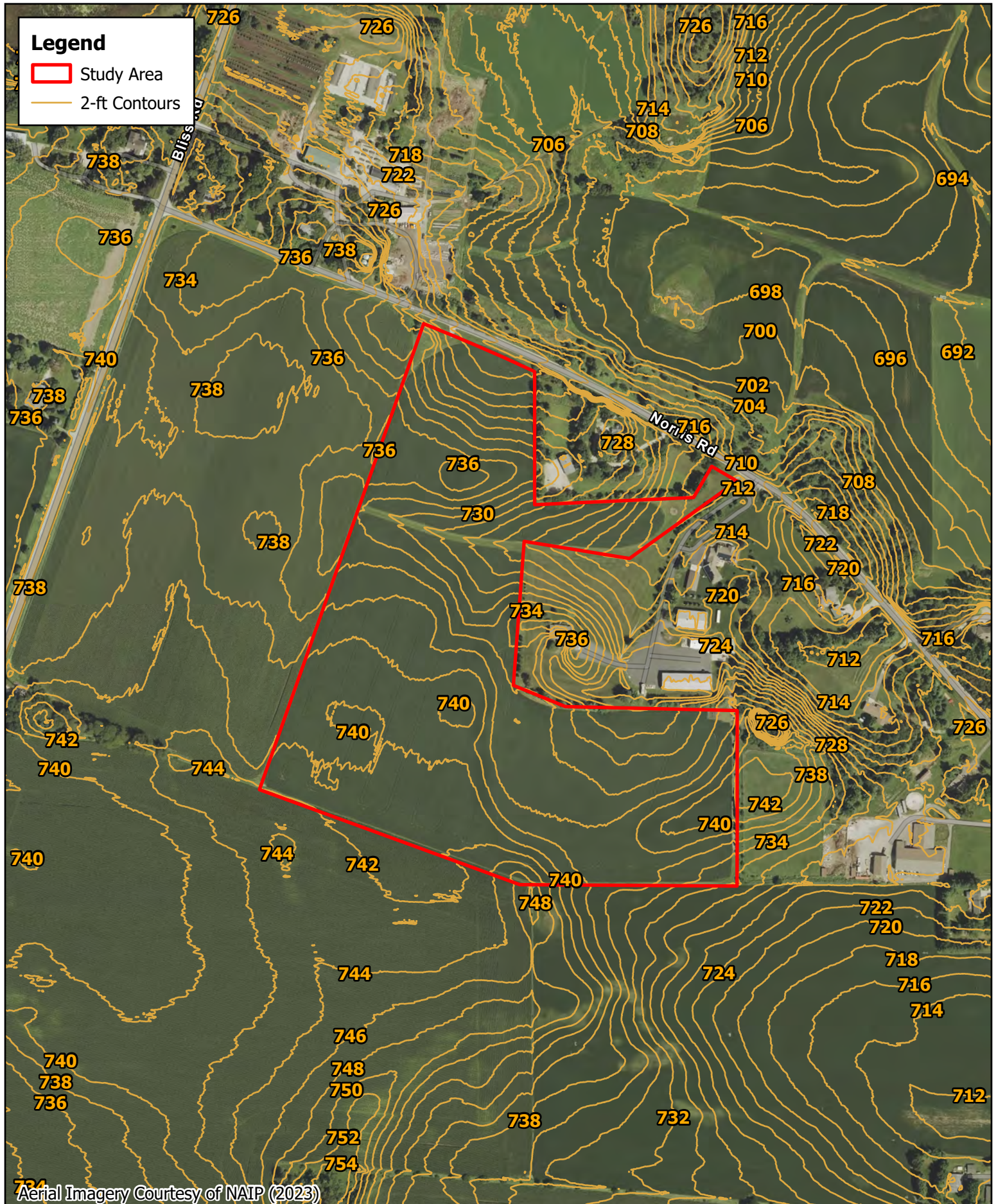


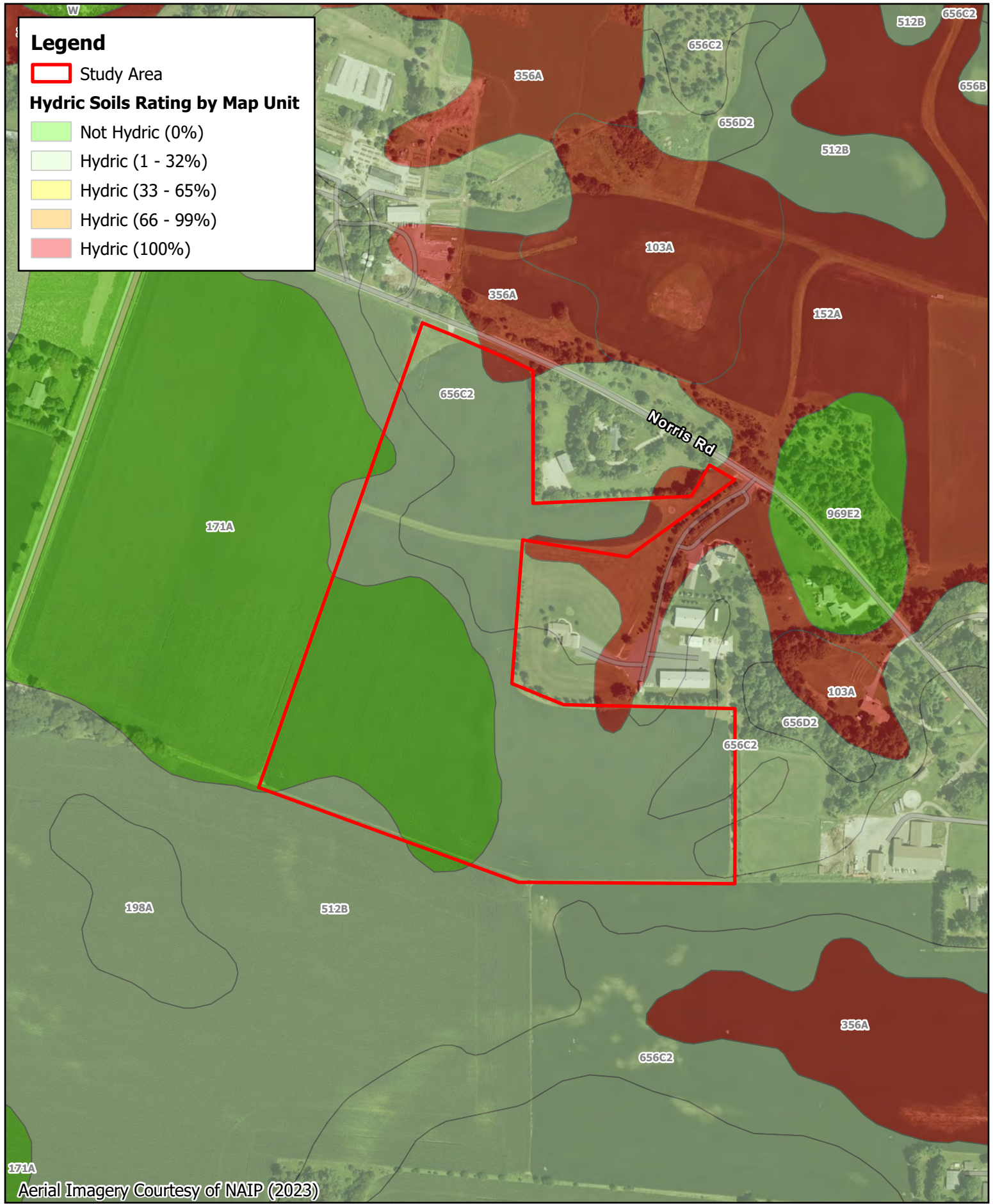
**Legend**

- Study Area
- NWI
- NHD Waterbody
- NHD Flowline

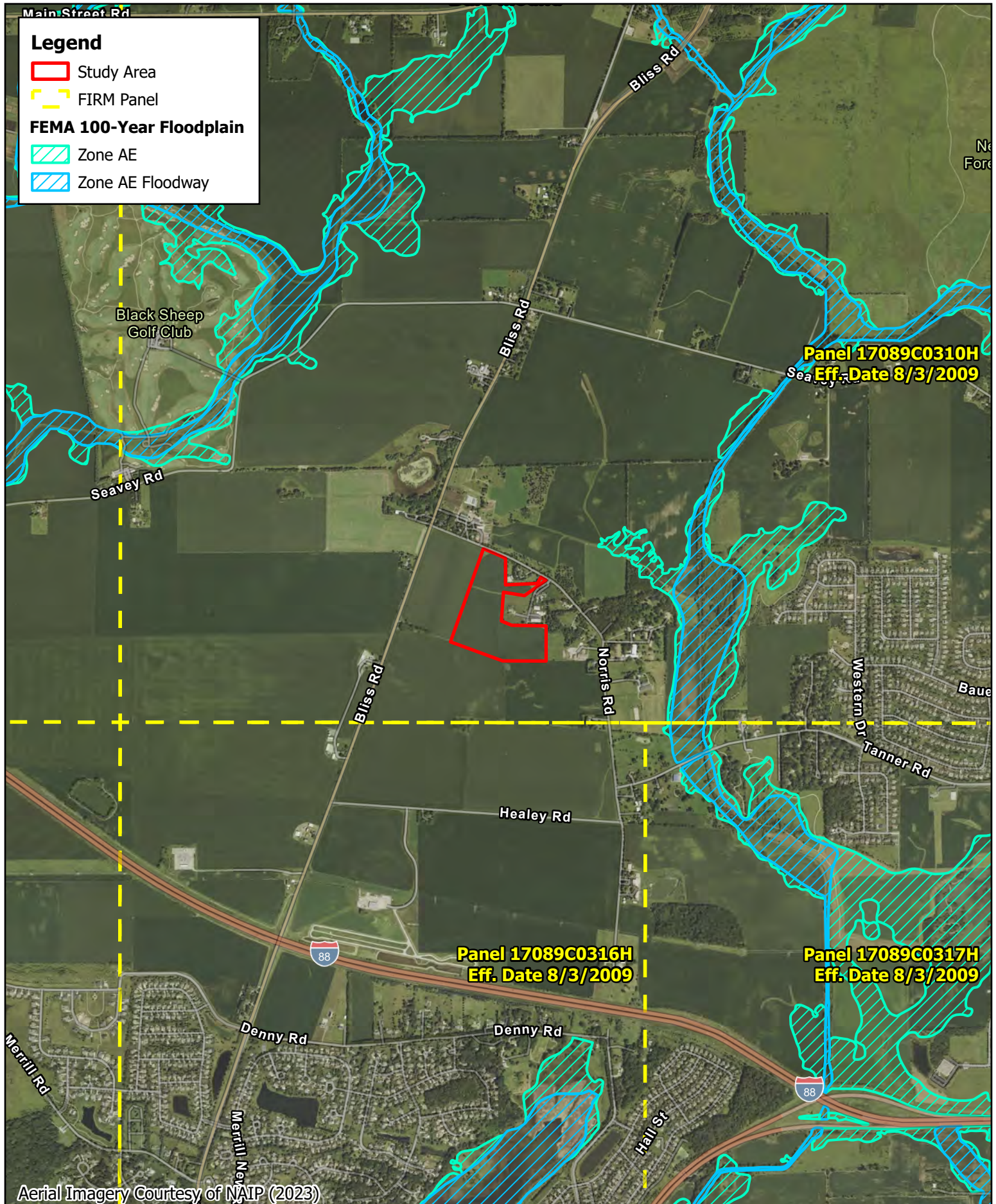
Aerial Imagery Courtesy of NAIP (2023)

**Figure 4. NWI, NHD**  
Blackberry Township, Kane County  
SunCode LLC





**Figure 6. Hydric Soils Rating**  
Blackberry Township, Kane County  
SunCode LLC



# **ATTACHMENT A**

## Historic Aerials

**Legend**

 Study Area

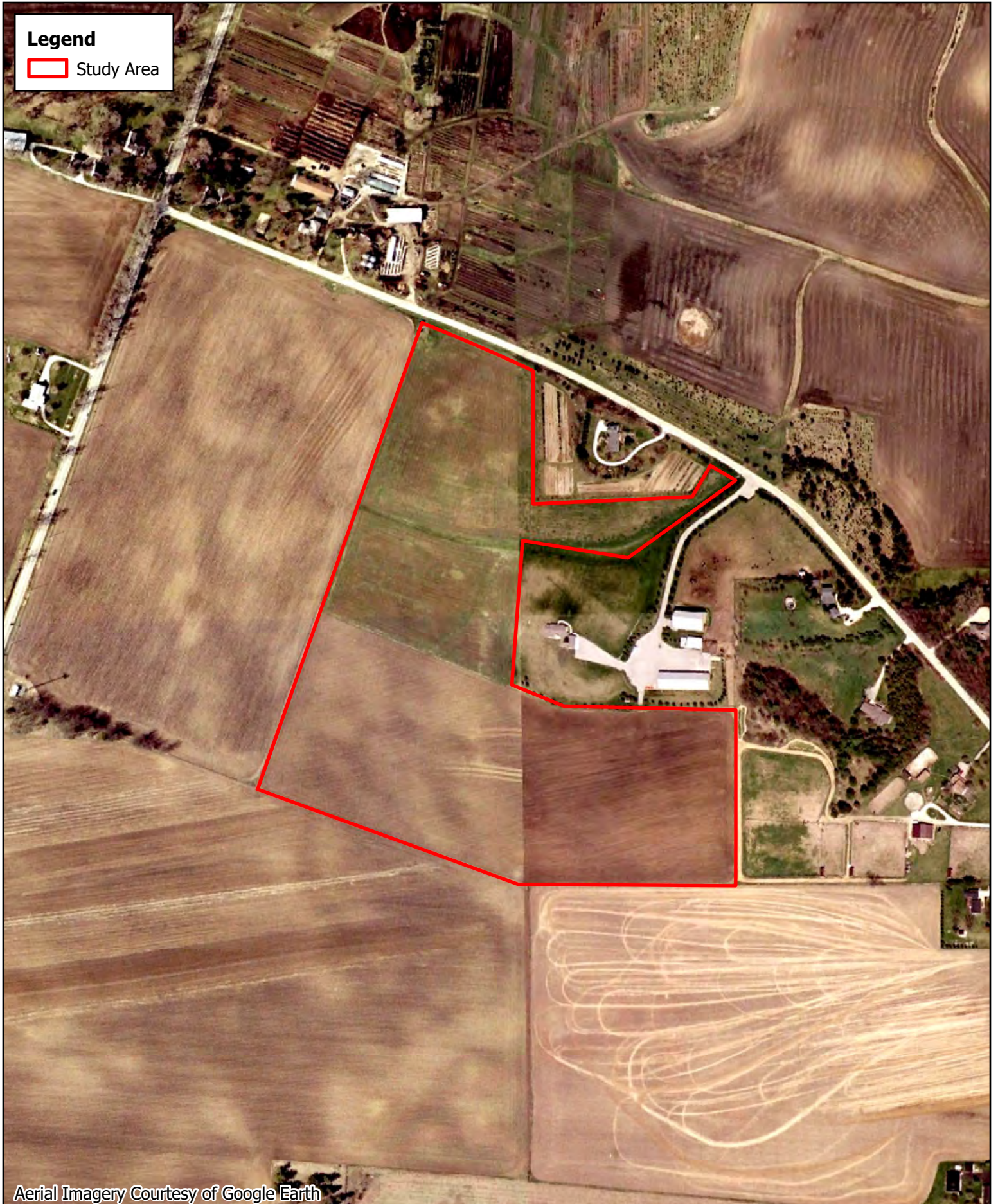


Aerial Imagery Courtesy of Google Earth



**Legend**

 Study Area



Aerial Imagery Courtesy of Google Earth



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Aerial Imagery Courtesy of Google Earth



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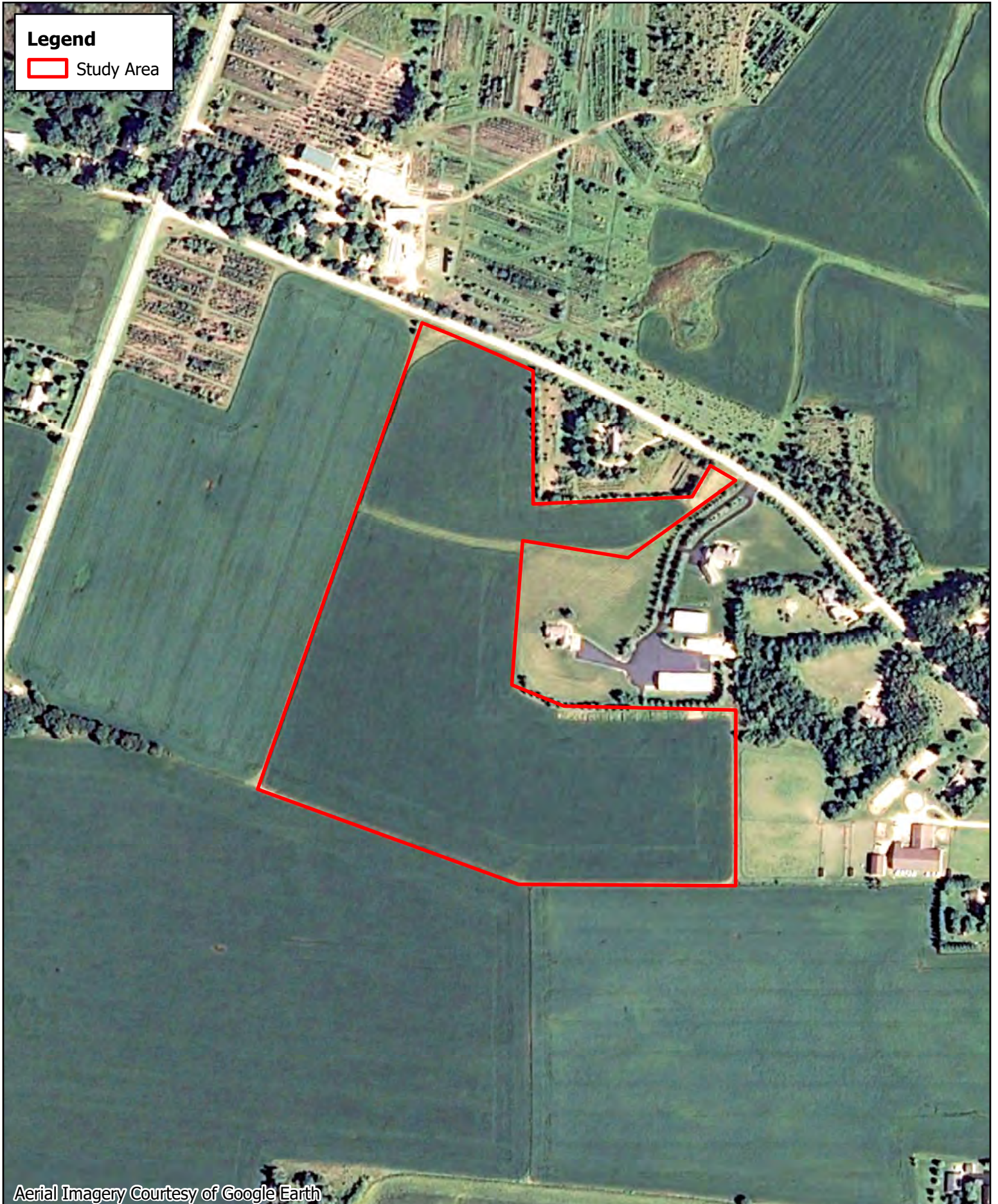


Aerial Imagery Courtesy of Google Earth



**Legend**

 Study Area



Aerial Imagery Courtesy of Google Earth



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 Study Area



Aerial Imagery Courtesy of Google Earth



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 Study Area



Aerial Imagery Courtesy of Google Earth



# **ATTACHMENT B**

## Species Resources



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Chicago Ecological Service Field Office  
1511 47th Ave  
Moline, IL 61265-7022  
Phone: (309) 757-5800

In Reply Refer To:

01/13/2026 15:54:13 UTC

Project Code: 2026-0035610

Project Name: Douglas Family Butterfly Garden and Solar Farm LLC

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:

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/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (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. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please 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. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the 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 IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) 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 NLEB 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 NLEB 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.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## 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:

**Chicago Ecological Service Field Office**

1511 47th Ave

Moline, IL 61265-7022

(309) 757-5800

## PROJECT SUMMARY

Project Code: 2026-0035610

Project Name: Douglas Family Butterfly Garden and Solar Farm LLC

Project Type: Power Gen - Solar

Project Description: SunCode LLC is seeking to build a community scale solar farm within the study area. The solar farm will contain rows of solar modules mounted on posts set in the ground individually, as well as access roads and utilities. No tree clearing is anticipated.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.81781785,-88.41589531302299,14z>



Counties: Kane County, Illinois

## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 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.

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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.

**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> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/12017">https://ecos.fws.gov/ecp/species/12017</a>	Proposed Threatened

**CRITICAL HABITATS**

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## **IPAC USER CONTACT INFORMATION**

Agency: Kimley-Horn and Associates  
Name: Dominic Evenson  
Address: 11995 Singletree Ln  
Address Line 2: Suite 225  
City: Eden Prairie  
State: MN  
Zip: 55344  
Email: dominic.evenson@kimley-horn.com  
Phone: 6124741595

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Project information

### NAME

Douglas Family Butterfly Garden and Solar Farm LLC

### LOCATION

Kane County, Illinois



### DESCRIPTION

Some(SunCode LLC is seeking to build a community scale solar farm within the study area. The solar farm will contain rows of solar modules mounted on posts set in the ground individually, as well as access roads and utilities. No tree clearing is anticipated.)

## Local office

Chicago Ecological Service Field Office

☎ (309) 757-5800

1511 47th Ave  
Moline, IL 61265-7022

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [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.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	<a href="#">EXPN</a>

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> Wherever found No critical habitat has been designated for this species.	Proposed Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

### Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

### Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

### Review the FAQs

The FAQs below provide important additional information and resources.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

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.

<https://ecos.fws.gov/ecp/species/1626>

## 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 ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "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  $0.05/0.25 = 0.2$ .
3. 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.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

#### 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.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

#### 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.



## Bald & Golden Eagles FAQs

### What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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 an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

### Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 line or no data line (red horizontal) 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 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 and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

### How do I know if eagles are 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 resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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.

### Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

#### 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.

## Migratory birds

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

#### Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

#### Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

#### Review the FAQs

The FAQs below provide important additional information and resources.

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. <a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a>	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</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/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10

Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Cerulean Warbler <i>Setophaga cerulea</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/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 21 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/8329">https://ecos.fws.gov/ecp/species/8329</a>	Breeds Jun 1 to Aug 20
Henslow's Sparrow <i>Centronyx henslowii</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/3941">https://ecos.fws.gov/ecp/species/3941</a>	Breeds May 1 to Aug 31
Hudsonian Godwit <i>Limosa haemastica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs <i>Tringa flavipes</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/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <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
Ruddy Turnstone <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
Rusty Blackbird <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
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere



Cerulean Warbler BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Chimney Swift BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Eastern Whip-poor-will BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Grasshopper Sparrow BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Henslow's Sparrow BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Hudsonian Godwit BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Kentucky Warbler BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Lesser Yellowlegs BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Pectoral Sandpiper BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Prothonotary Warbler BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Red-headed Woodpecker BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Ruddy Turnstone BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Rusty Blackbird BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Semipalmated Sandpiper BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Short-billed Dowitcher BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Upland Sandpiper BCC - BCR	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
Wood Thrush BCC Rangewide (CON)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

## Migratory Bird FAQs

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

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed 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 [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

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) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection 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, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**Why are subspecies showing up on my list?**

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

**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 to 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 resident), you may query your location using the [RAIL Tool](#) and view 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 IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), 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 Rangeland" 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 [Bald and Golden Eagle Protection 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 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 BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

### 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.

### 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 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 look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). 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 does not represent all birds present in your project area. 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 and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

### Interpreting the Probability of Presence Graphs

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 taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

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

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.

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.

#### **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.

## Facilities

### National Wildlife Refuge lands

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 at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

### Wetlands in the National Wetlands Inventory (NWI)

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.

This location overlaps the following wetlands:

RIVERINE  
[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

**Applicant:** SunCode LLC  
**Contact:** Dominic Evenson  
**Address:** 1 Park Plaza Suite 600  
Irvine, CA 92614

**IDNR Project Number:** 2609524  
**Date:** 01/13/2026

**Project:** Douglas Family Farm Butterfly Gardn and Solar Farm LLC  
**Address:** South of Norris Rd, Sugar Grove

**Description:** Construction of a solar farm with associated access roads and utilities.

## Natural Resource Review Results

### Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Northern Long-Eared Myotis (*Myotis septentrionalis*)

**An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.**

#### Location

The applicant is responsible for the accuracy of the location submitted for the project.

**County:** Kane

**Township, Range, Section:**

39N, 7E, 34

39N, 7E, 35



#### **IL Department of Natural Resources**

##### **Contact**

Adam Rawe  
217-785-5500  
Division of Ecosystems & Environment

#### **Government Jurisdiction**

IL Environmental Protection Agency  
Terri LeMasters  
1020 North Grand Avenue East  
Springfield, Illinois 61944 -9276

#### **Disclaimer**

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

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# Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

January 15, 2026

Dominic Evenson  
SunCode LLC  
1 Park Plaza Suite 600  
Irvine, CA 92614

**RE: Douglas Family Farm Butterfly Gardn and Solar Farm LLC**  
**Project Number(s): 2609524**  
**County: Kane**

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, the Department recommends:

Establishing pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:  
<https://dnr.illinois.gov/conservation/pollinatorscorecard.html>

The site should be de-compacted before planting.

Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.

Required fencing, excluding areas near or adjacent to public access areas, should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Woven wire or a suitable habitat wildlife friendly fence should be used. Barbed wire should be avoided.

Trees should be cleared between November 1st and March 31st. All night lighting should follow IDA guidance.



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This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Isabella Allyn  
Division of Ecosystems and Environment  
217-785-5500

# **ATTACHMENT C**

## Historic Resources

# Historic & Architectural Resources Geographic Information System - HARGIS

Illin



## Legend

### National Register Properties

- Entered in the NR
- Determined eligible for the NR
- Part of a NR Historic District - contributing
- Part of a NR Historic District

### Surveyed Properties

- Surveyed, no NR determination

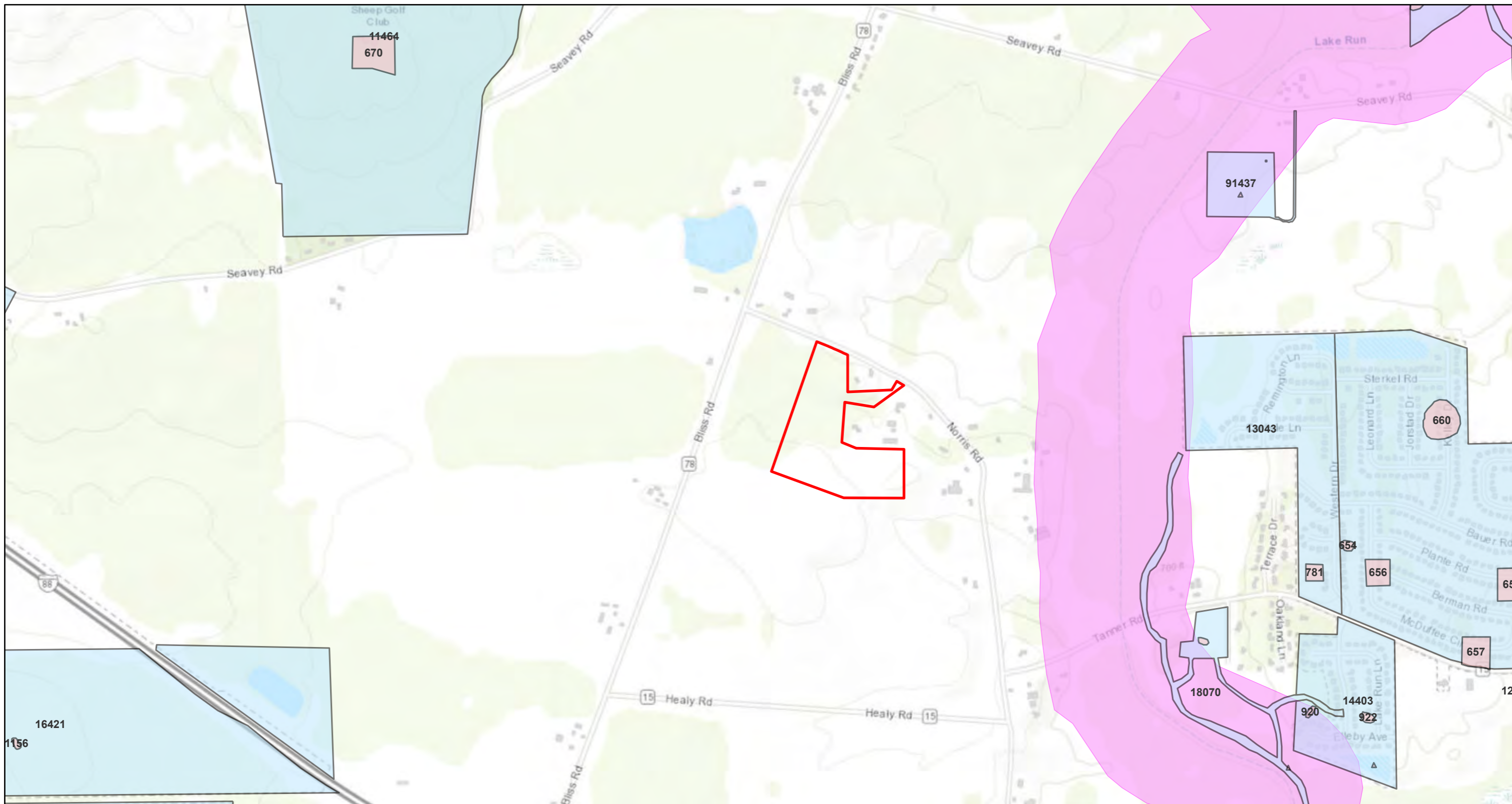
### National Register Districts



### CLG Districts

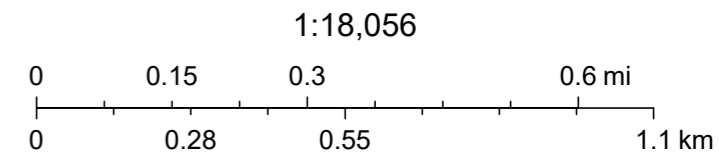


# Douglas Family Farm Butterfly Garden and Solar Farm LLC



1/15/2026, 3:38:15 PM

- Study Area
- IAS Sites
- Surveys
- Archaeological Resource Potential



County of Kane, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA