August 16, 2025

U.S. Army Corps of Engineers – Chicago District

To Whom It May Concern,

Area M Consulting (Area M), on behalf of SV CSG Sun Trust Solar, LLC, conducted a field wetland delineation within the proposed SV CSG Sun Trust Solar, LLC solar project (Project) located near Gilberts, IL in Kane County.

No wetlands were identified or mapped during the field delineation. Tyler Creek, a named tributary/ditch, intersects the southern boundary of the Study Area. As proposed, the Project will include posts supporting photovoltaic arrays, an access road, various equipment pads, vegetative screening, fencing, and an infiltration pond. All Project components are designed to avoid wetlands. We submit the enclosed wetland determination report, along with the Project footprint and design, to support our **request for a letter of No Permit Required.**

If you have any questions about this wetland determination, please contact me at (208) 241-5280.

Sincerely,

Jonathan Knudsen, WDC, MS
Field Director/Wetland Specialist
Area M Consulting

AREA M

Wetland Delineation Report
SV CSG Sun Trust Solar, LLC
Kane County, Illinois

Prepared for:

Sunvest Solar LLC
330 W. State Street
Suite 1
Geneva, IL 60123

Prepared by:

Area M Consulting, LLC
Environmental Consultants
2023 Alameda Street
Roseville, MN 55113
www.areamconsulting.com

August 2025

AREA M

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I certify that, to the best of my knowledge, this wetland delineation and report were completed following current wetland standards as set forth by the USACE, NRCS, and other agencies. Findings in this report represent Area M's best judgement based on conditions and information available at the time of the wetland delineation.

_____

Jonathan Knudsen, WDC, MS
Field Director/Wetland Specialist
MN Certified Wetland Delineator 1307
Virginia DPOR Professional Wetland Delineator 3402000205

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TABLES

APPENDICES

INTRODUCTION

Area M Consulting (Area M) was contracted to conduct a wetland delineation for the SV CSG Sun Trust Solar, LLC (Project) located within Kane County, Illinois. The Area M biologist conducted a routine Level 2 Delineation, as defined by the United States Army Corps of Engineers (USACE) within the entire Project boundaries following procedures and methods outlined by the USACE Wetland Delineation Manual (USACE, 1987), Midwest Regional Supplement (USACE, 2012), and Illinois Mapping Conventions protocol (NRCS, 1998). This wetland delineation report is assembled to assist the Client with internal planning and to meet regulatory requirements necessary for permitting a community solar garden (CSG) in Kane County, Illinois for the Illinois Adjustable Block Program.

PROJECT DESCRIPTION

The Project, encompassing 43.5 acres, is located one mile southwest of Gilberts, IL in Sections 23 & 26, T42N:R7E (Study Area) (Map 1, Appendix A). The Study Area includes a flat, agricultural field bounded to the north by HWY 72. Shelter belts delineate the eastern and western boundaries. Tyler Creek, an incised, bermed ditch, runs west to east just south of the southern Study Area boundary. The entire Study Area is agricultural and is cropped annually. The riparian zone and flood plain associated with Tyler Creek intersect the southern portion of the Study Area. The surrounding landscape is a mosaic of cropland, riparian woodlands, wetlands, and residential/commercial development associated with nearby towns. The entire Study Area is private property.

OFF-SITE REVIEW

Prior to fieldwork, Area M conducted a comprehensive desktop review of data sources to identify the presence/absence and extent of wetlands that could occur within the Study Area. Areas with wetland signatures, suggesting potential wetland conditions, were evaluated in greater detail during the field investigation. The following data sources were reviewed; the analysis of each data set is discussed in greater detail in the later part of this section.

- Hydrologic soil data
- Elevation Data
  - Illinois Light Detection and Ranging (LiDAR) Data
  - United States Geological Survey (USGS) topographic maps
- Mapped Wetlands/Waterbodies
  - U.S. Fish and Wildlife Services (USFWS) National Wetland Inventory (NWI)
  - Illinois Department of Natural Resources (IDNR) Public Waters
  - National Hydrography Dataset (NHD)
- Historic and current aerial photographs

Mapped Wetland Data

The NWI (USFWS, 2025), Illinois Public Waters (IDNR, 2025) and NHD (USGS, 2025) data sets were reviewed to document mapped wetlands and/or waterbodies within the Study Area. No features mapped within these datasets intersect the Study Area (Map 3, Appendix A). The Federal Emergency Management Agency (FEMA) flood map was also accessed to determine if the Study Area is intersected by high-risk flood zones (FEMA, 2025). The southern third of the Study Area is intersected by the floodway, 100-year floodplain, and 500-year floodplain associated with Tyler Creek (Appendix B).

Soils

The Web Soil Survey (NRCS, 2025) was reviewed to summarize mapped soil types which occur within the Study Area. Soil units 100% hydric ratings are mapped throughout the majority of the Study Area. A full list of hydric soils components and attributes are listed in Appendix C.

Topographic Data

Elevation and topographic data were reviewed within the Study Area to identify potential basins and depressional areas which could be indicative of wetlands. The Study Area topography is relatively flat, and overall slopes to the southwest towards Tyler Creek (Appendix A). The total topographic relief of the Study Area is approximately 18 feet.

Historic Aerial Photography Review

Historic aerial photographs (slides) were analyzed for hydric signatures in conjunction with antecedent precipitation, following the Illinois Wetland Mapping Conventions protocol (NRCS, 1997). This procedure is a useful method for identifying wetlands, particularly in farm fields, due to the lack of natural vegetation and/or hydrology. Aerial imagery date, antecedent precipitation (imagery month, 1 month prior, and 2 months prior), and climactic status for each slide are listed below (Table 2). Climatic status (Dry, Normal, or Wet) was determined based on the NRCS/USACE method for using hydrology and meteorological data to evaluate wetland hydrology (Sprecher and Warne, 1997). Upon slide review, two areas (Area 1 and Area 2) with at least one wetland signature (potential wetlands) were identified within the Study Area (Appendix D).

Table 1. Imagery dates and antecedent precipitation status.

Imagery Date	Wetland Signature[1]		Antecedent Precipitation Status[2]
	Area 1	Area 2	
4/1993	No	Yes	Normal Conditions
3/1999	No	No	Normal Conditions
3/2002	No	No	Wetter than Normal
4/2005	Yes	Yes	Normal Conditions
6/2005	No	No	Drier than Normal
6/2006	No	No	Normal Conditions
6/2007	No	No	Normal Conditions
5/2008	No	No	Normal Conditions
6/2009	No	No	Normal Conditions
5/2010	Yes	Yes	Wetter than Normal
9/2011	No	No	Normal Conditions
4/2013	No	Yes	Wetter than Normal
4/2015	No	No	Normal Conditions
7/2017	No	No	Normal Conditions
7/2018	Yes	No	Wetter than Normal
10/2018	No	No	Wetter than Normal
10/2019	No	No	Wetter than Normal
6/2020	No	No	Wetter than Normal
5/2023	No	No	Normal Conditions
4/2024	Yes	Yes	Wetter than Normal
3/2025	No	No	Normal Conditions

[1]Wetland Mapping Conventions (NRCS, 1998)
[2]Antecedent Precipitation Tool (EPA, 2025)

Off-site Summary

Overall, the off-site review suggests that wetlands are absent from the Study Area based on the slide review in conjunction with local topography, NWI, and soil data. Tyler Creek intersects the very southern boundary of the Study Area. The entire Study Area was investigated in greater detail during the field survey.

FIELD DELINEATION

Methodology

Suspected wetlands (Areas) identified during the off-site analysis were investigated in the field using routine on-site delineation methods in accordance with the USACE Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE, 2010). This included the characterization of vegetation, soils, and hydrology on-site. Wetlands are defined by the USACE as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." For an area to

be delineated as a regulated wetland, the vegetative, hydrologic, and soil characteristics must all be present and consistent with federal and state classification criteria.

Transects were established in representative transition zones, perpendicular between suspected wetland and upland areas. Survey Points were recorded along each transect, moving from wetland to upland to determine the wetland boundary. Wetland criteria were evaluated at each Survey Point and a Wetland Determination Form – Midwest Region (Form) was completed. The entire Study Area was surveyed in the field to confirm the absence of additional wetlands.

The location and boundaries of wetland features identified by Area M during field surveys were mapped using a Trimble Geoexplorer 6000 which typically achieves accuracy within 2 feet. A map depicting wetland boundaries, survey points, and transects is included in Appendix A. Representative photos of the Study Area are included in Appendix E. Forms are included in Appendix F.

Field Conditions

Area M conducted a field delineation within the Study Area on May 29, 2025. Field conditions were warm and windy, with partly cloudy skies. The temperature was approximately 78 degrees Fahrenheit. The crop field had been planted with corn at the time of the survey. Antecedent precipitation conditions were drier than normal, but rain had fallen recently.

Field Review Summary

Based upon this routine Level 2 Wetland Delineation, it is the professional opinion of Area M, wetlands are absent from the Study Area and Tyler Creek intersects the southern boundary (Map 5; Appendix A).

Waterway 1 -Tyler Creek – 0.20 acres (within Study Area)

Tyler Creek encroaches into the southern portion of the Study Are. This waterway is a perennial tributary with incised banks and earthen berm along the north edge of the bank (to prevent flooding). The reach of creek which intersects the Study Area is channelized. No fringe wetlands were identified outside of the well-defined bank.

Area 1 – Upland

Area 1, a small, inconspicuous depression identified during the off-site review, is located with the cropped field in the north-central portion of the Study Area. However, this area showed wetland hydrology signatures in 1 of 11 slides with normal antecedent precipitation (4 of 21 overall). Therefore, this area was determined to be upland. During the field visit, the depression was difficult to identify in the field. At SP 1, in the center of the feature, soils were hydric but wetland hydrology was not observed. The plant community was not evaluated or used as wetland criteria due to cropping.

Area 2 – Upland

Area 2, the flat floodplain associated with Tyler Creek, includes the cropped field in the southern third of the Study Area. However, this area showed wetland hydrology signatures in 2 of 11 slides with normal antecedent precipitation (5 of 21 overall). Therefore, this area was determined to be upland. At SP 2, in the

lower portion of the floodplain, soil was hydric but wetland hydrology was not observed. The plant community was not evaluated or used as wetland criteria due to cropping.

RESULTS AND RECOMMENDATIONS

Based upon this routine Level 2 Wetland Delineation, it is the professional opinion of Area M that the Study Area contains one feature that satisfies the criteria to be a wetland/waterway pursuant to the Army Corps of Engineers' 1987 Manual with subsequent clarification memoranda and pursuant to confirmation by the USACE (Appendix A). Waterway 1 (Tyler Creek) is likely jurisdictional under Section 404 of the Clean Water Act and subject to regulation by the USACE. Although floodplains are not typically regulated by the USACE, the IDNR or local government (Kane County) may require additional permitting or mitigation to build within the high-risk flood zones. The wetlands and wetland boundaries described within this report are characterized based on the conditions in the field at the time of the survey and subject to verification by state, federal, and local agencies, which have final authority over wetland presence, extent, and jurisdictional status.

REFERENCES

Federal Emergency Management Agency (FEMA). 2025. Flood Map Service, access at https://msc.fema.gov/portal/home

Environmental Laboratory. 1987. *Corp of Engineers Wetlands Delineation Manual*. Wetlands Research Program. Technical Report Y-87-1. Department of the Army, Waterways Experiment Station, US Army *Corp of Engineers*. Vicksburg, Mississippi, USA.

Environmental Laboratory. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0).* U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi, USA.

Environmental Protection Agency (EPA). 2024. Antecedent Precipitation Tool. *Downloaded from*: https://www.epa.gov/wotus/antecedent-precipitation-tool-apt

Illinois Department of Natural Resources (IDNR). 2024. Public waters of the State, Ill. Adm. Code Ch. I, Sec. 3704. *Accessed February 2018 from* www.dnr.illinois.gov/WaterResources/Pages/PublicWaters.aspx

Natural Resources Conservation Service (NRCS). 2025. Web Soil Survey. (United States Department of Agriculture) *Accessed from* http://www.websoilsurvey.nrcs.usda.gov

NRCS. 1998. Illinois wetland mapping conventions. Champaign, Illinois.

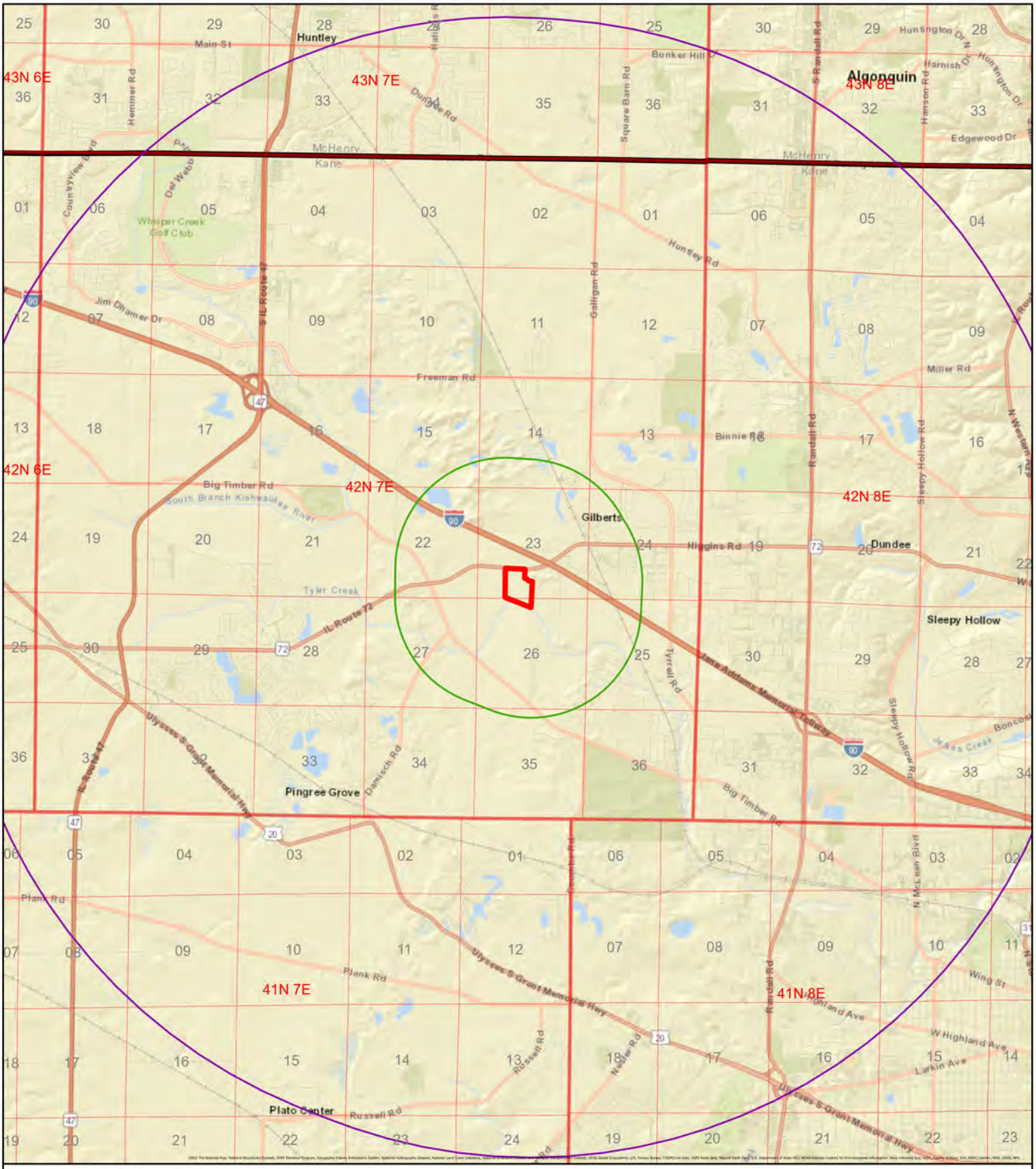
United States Geology Survey (USGS). 2025. National Hydrography Dataset. *Accessed and downloaded February 2018 from* https://nhd.usgs.gov/NHD_High_Resolution.html

United States Fish and Wildlife Service (USFWS). 2025. National Wetland Inventory: Wetlands Online Mapper. *Accessed from* http://www.fws.gov/wetlands/data/mapper.HTML

Sprecher, S.W. and Andrew G. Warne, A.G., 2000. Accessing and Using Meteorological Data to Evaluate Wetland Hydrology. WRAP Technical Notes Collection, ERDC/EL TR-WRAP-00-1. U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Appendix A:

Maps



SV CSG Sun Trust Solar, LLC

Map 1. Location Map

Kane County, IL

S23&26 T42N:R&E
43.5 Acres
42.097835 Lat
-88.386754 Long

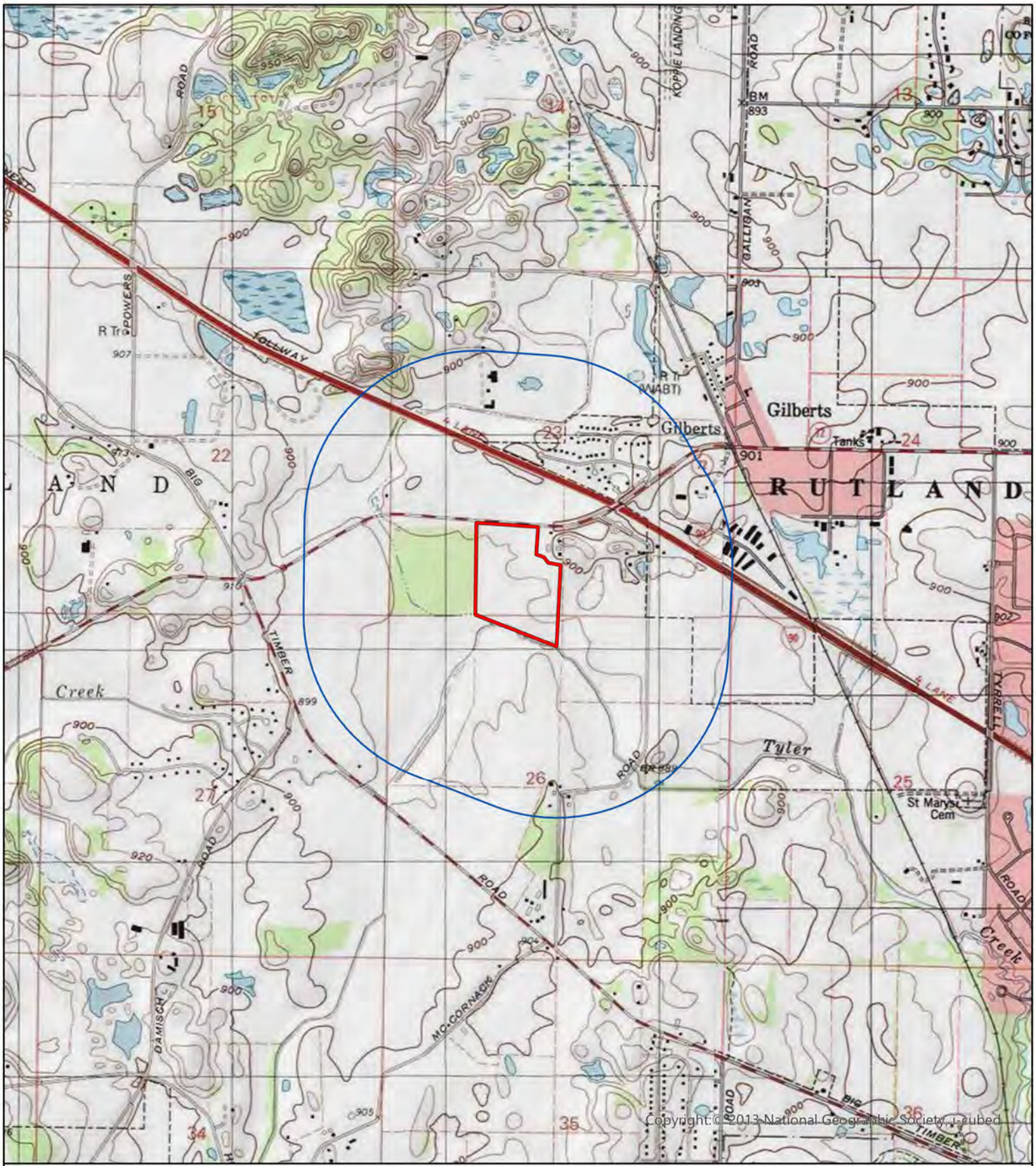
Project Polygon
Project Location
1-Mile Buffer
5-mile Buffer
Section Line
Township Line
County Line

MCHENRY
LAKE
DEKALB
KANE
COOK
DUPAGE

N
W
E
S

AREA M

Miles
0 0.4 0.8
1:75,000



SV CSG Sun Trust Solar, LLC

Map 2. 1:24,000 Topographic

Kane County, IL

Study Area

0.5-Mile Buffer

N W E S

AREA M

Miles 0 0.13 0.25 0.5

1:24,000

SV CSG Sun Trust Solar, LLC

Map 3. Wetland Map

Kane County, IL

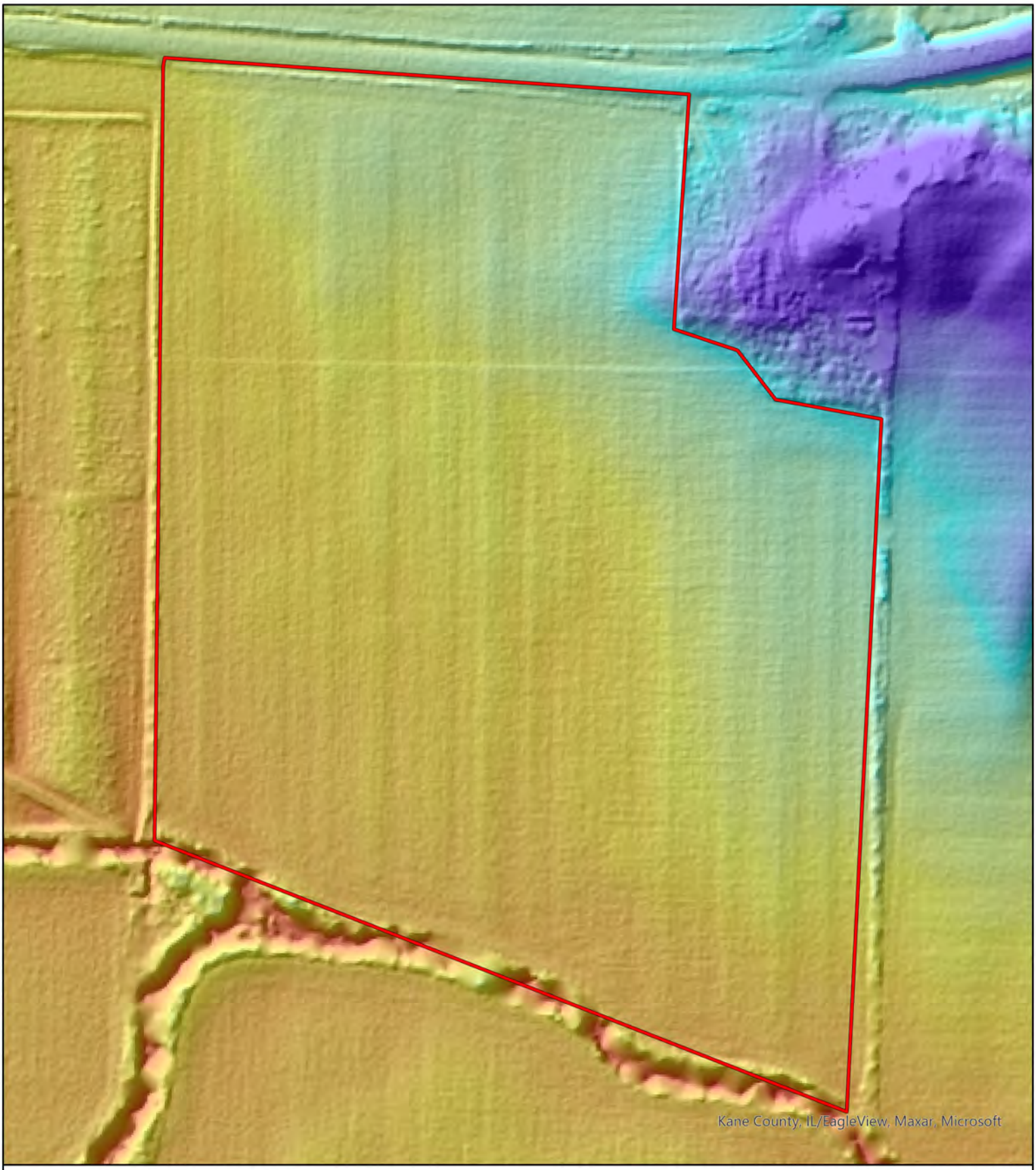
- Study Area
- NWI Wetland
- NHD Flowline
- NHD Waterbody
- Floodway
- 100-year Floodplain
- 500-year Floodplain
- Minimal Flood Hazard

N
W E
S

AREA M

0 112.5 225 450 Feet

1:4,290



SV CSG Sun Trust Solar, LLC

Map 4. Lidar Map

Kane County, IL

Study Area

Relative Elevation

High

Low

N

W E

S

AREAM

Feet

0 75 150 300

1:2,820

SV CSG Sun Trust Solar, LLC

Map 5. Wetland Delineation Map

Kane County, IL

- Study Area
- Delineated Wetland
- Waterway
- Wetland Transect
- Wetland Samplling Point - Upland
- Wetland Sampling Point - Wetland

N
W E
S

AREAM

Feet
0 105 210 420

1:4,000

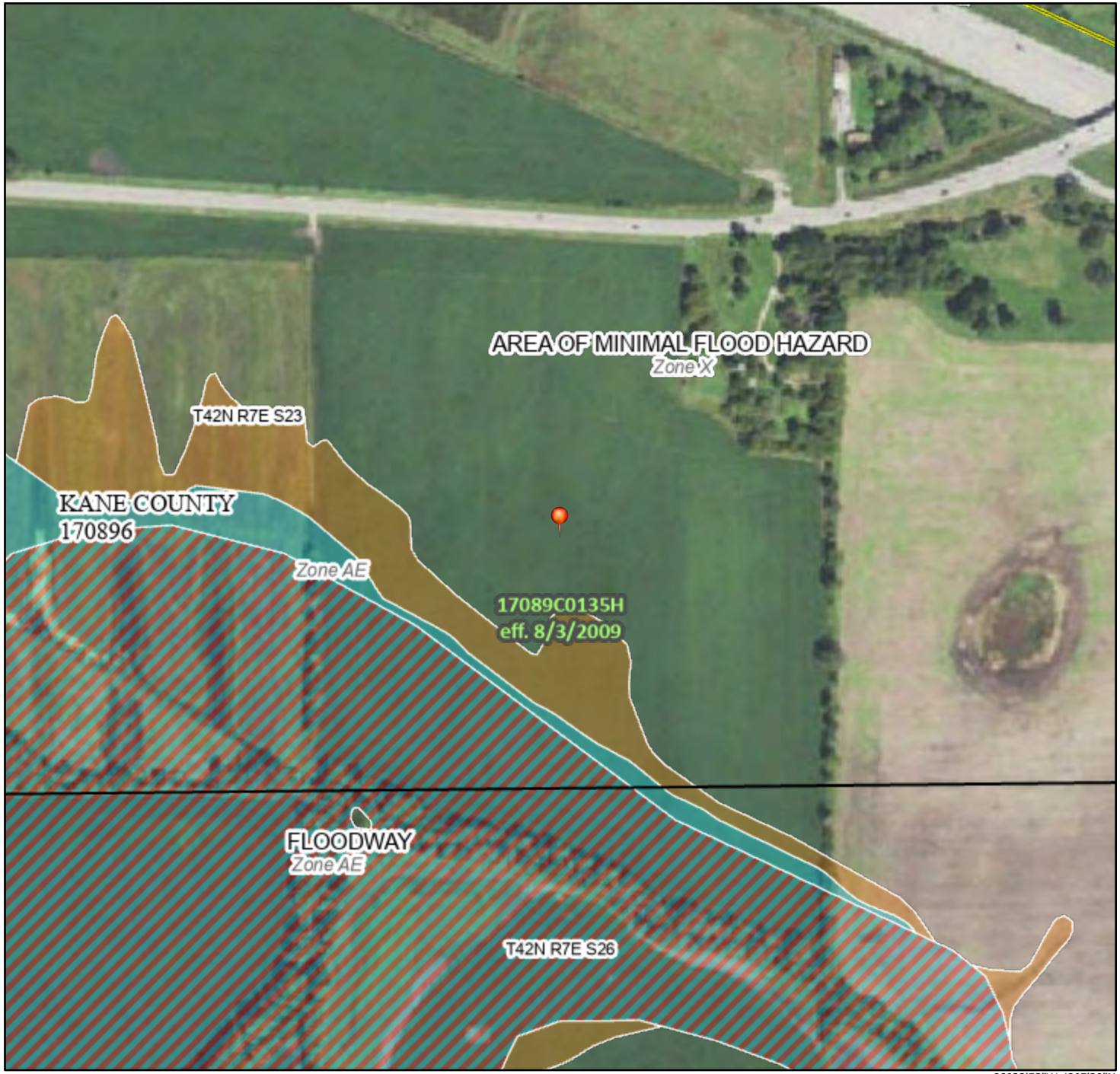
Appendix B:

FEMA Firmette

National Flood Hazard Layer FIRMette

FEMA

88°23'31"W 42°6'5"N



88°22'53"W 42°5'39"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/16/2025 at 2:01 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix C:

Soils Reports

Hydric Rating by Soils Unit & Hydric Soil List – All components

Hydric Rating by Map Unit—Kane County, Illinois
(SV CSG Sun Trust Solar, LLC_PA)

Map Scale: 1:3,350 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kane County, Illinois
Survey Area Data: Version 18, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
152A	Drummer silty clay loam, 0 to 2 percent slopes	100	37.5	86.3%
327C2	Fox silt loam, 4 to 6 percent slopes, eroded	0	3.6	8.4%
792A	Bowes silt loam, 0 to 2 percent slopes	6	2.3	5.4%
Totals for Area of Interest			**43.5**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components–IL089-Kane County, Illinois					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
152A: Drummer silty clay loam, 0 to 2 percent slopes	Drummer-Drained	90-100	Stream terraces on outwash plains,stream terraces on till plains,swales on outwash plains,swales on till plains	Yes	2
	Peotone-Drained	0-9	Depressions on outwash plains	Yes	2
	Harpster-Drained	0-9	Depressions on outwash plains	Yes	2
327C2: Fox silt loam, 4 to 6 percent slopes, eroded	Fox-Eroded	85-95	— error in exists on —	No	—
	Casco	2-8	— error in exists on —	No	—
	Kane	3-7	— error in exists on —	No	—
792A: Bowes silt loam, 0 to 2 percent slopes	Bowes	90	Outwash plains,stream terraces	No	—
	Dunham	3	Outwash plains,stream terraces	Yes	2
	Drummer	3	Outwash plains,ground moraines	Yes	2

Data Source Information

Soil Survey Area: Kane County, Illinois
Survey Area Data: Version 18, Aug 21, 2024

Appendix D:

Aerial Imagery Slides

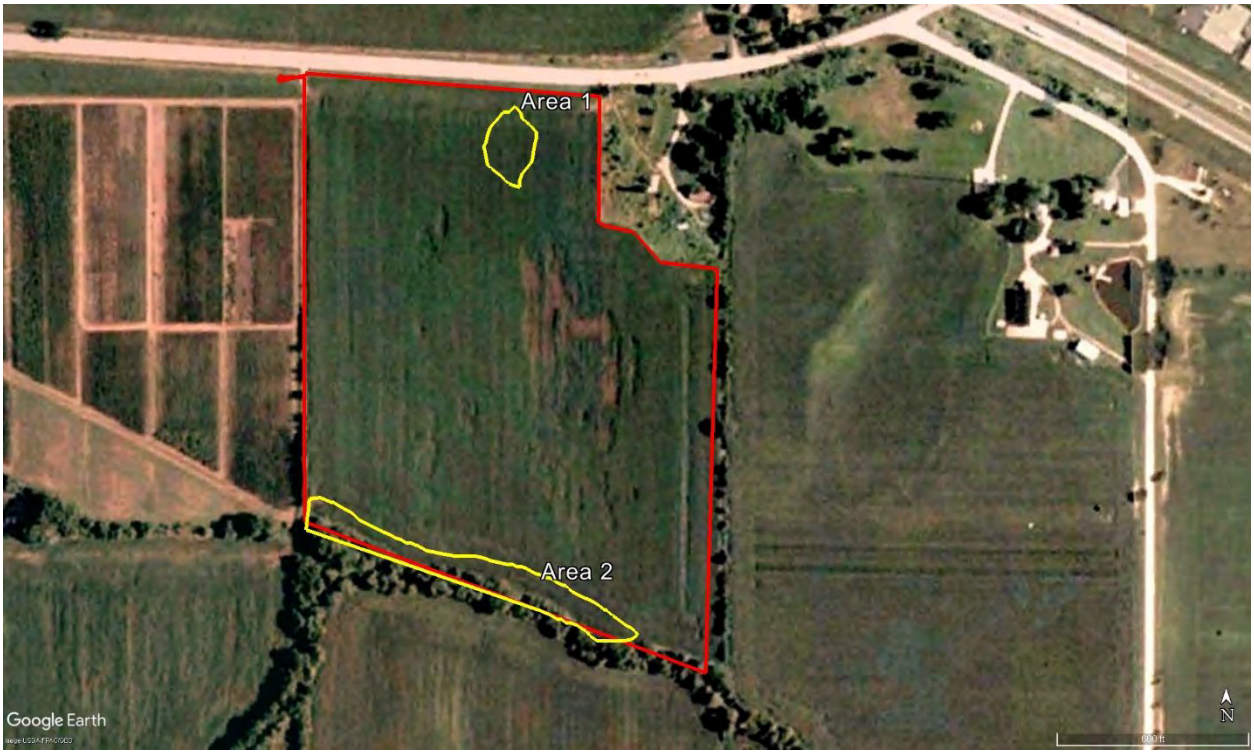
April 1993

March 1999

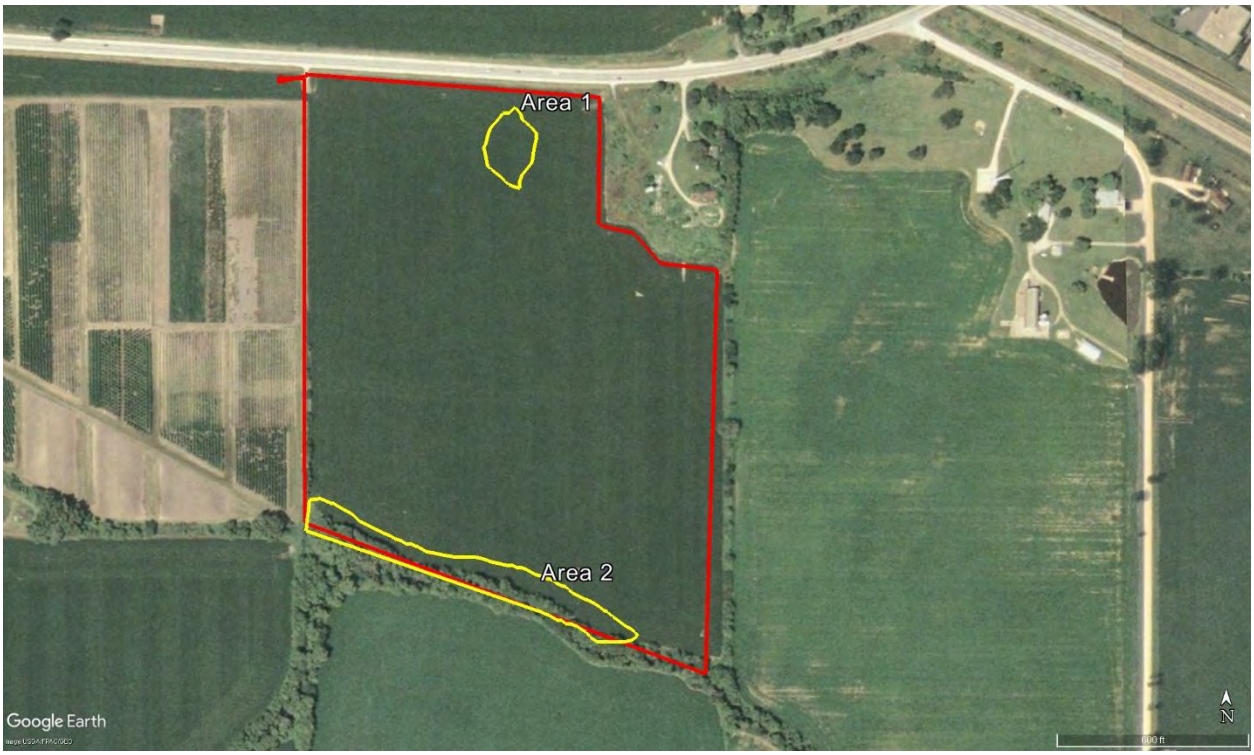
March 2002

April 2005

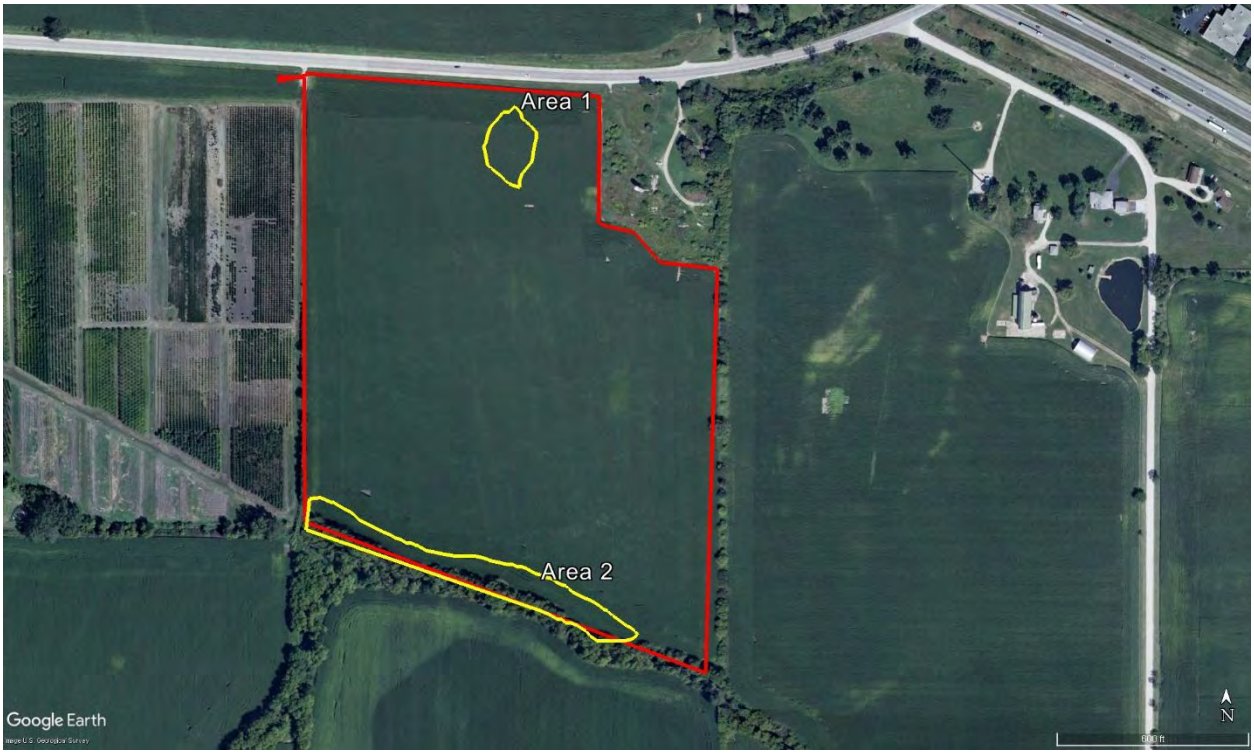
June 2005



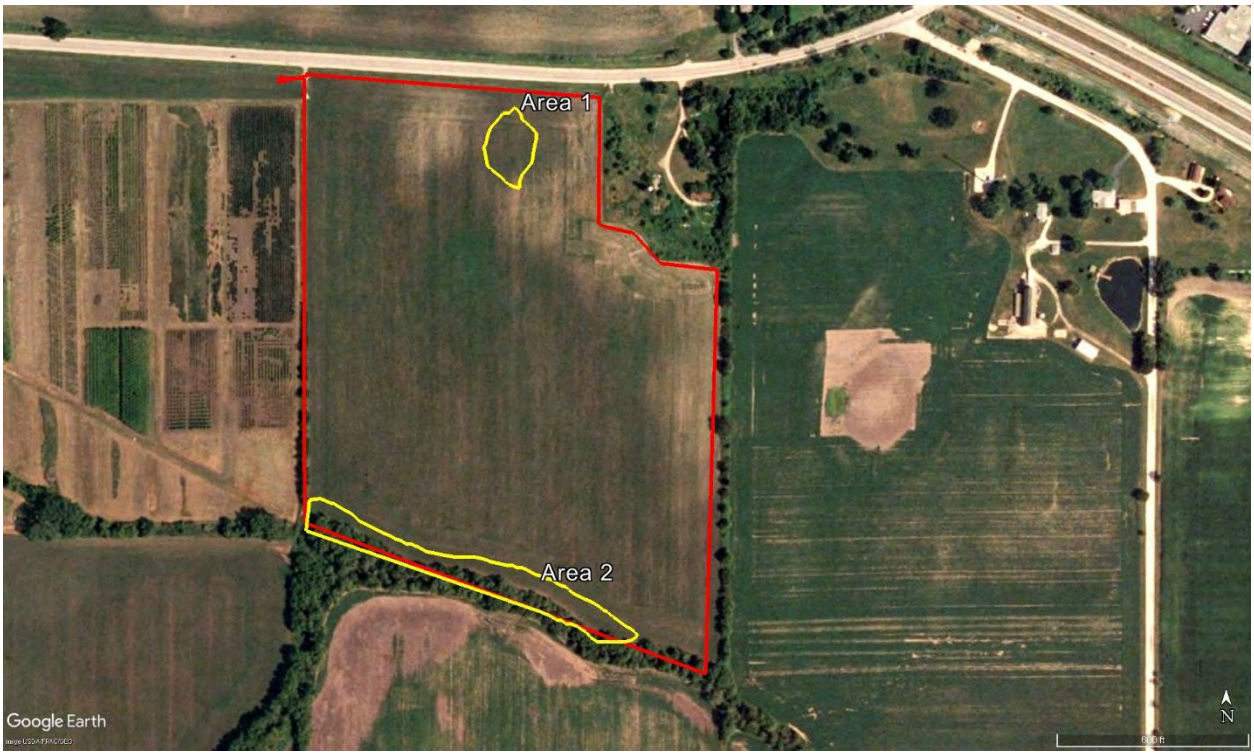
June 2006



June 2007

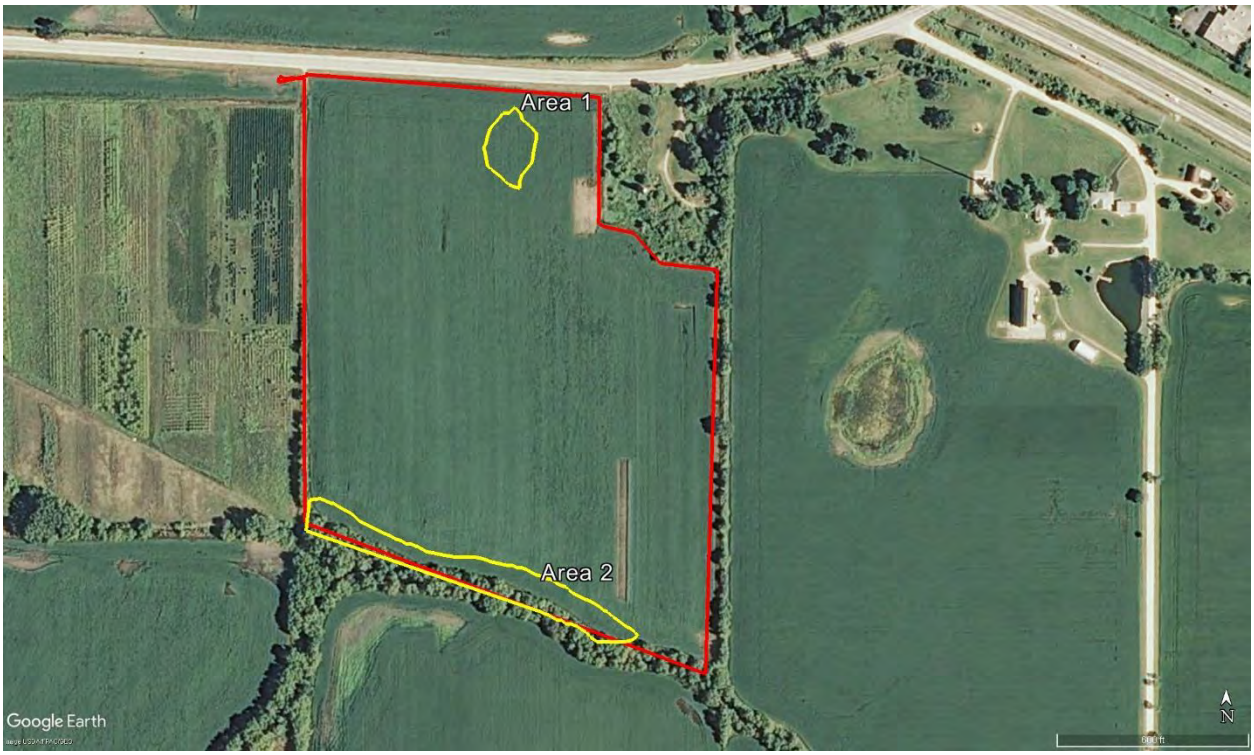


May 2008

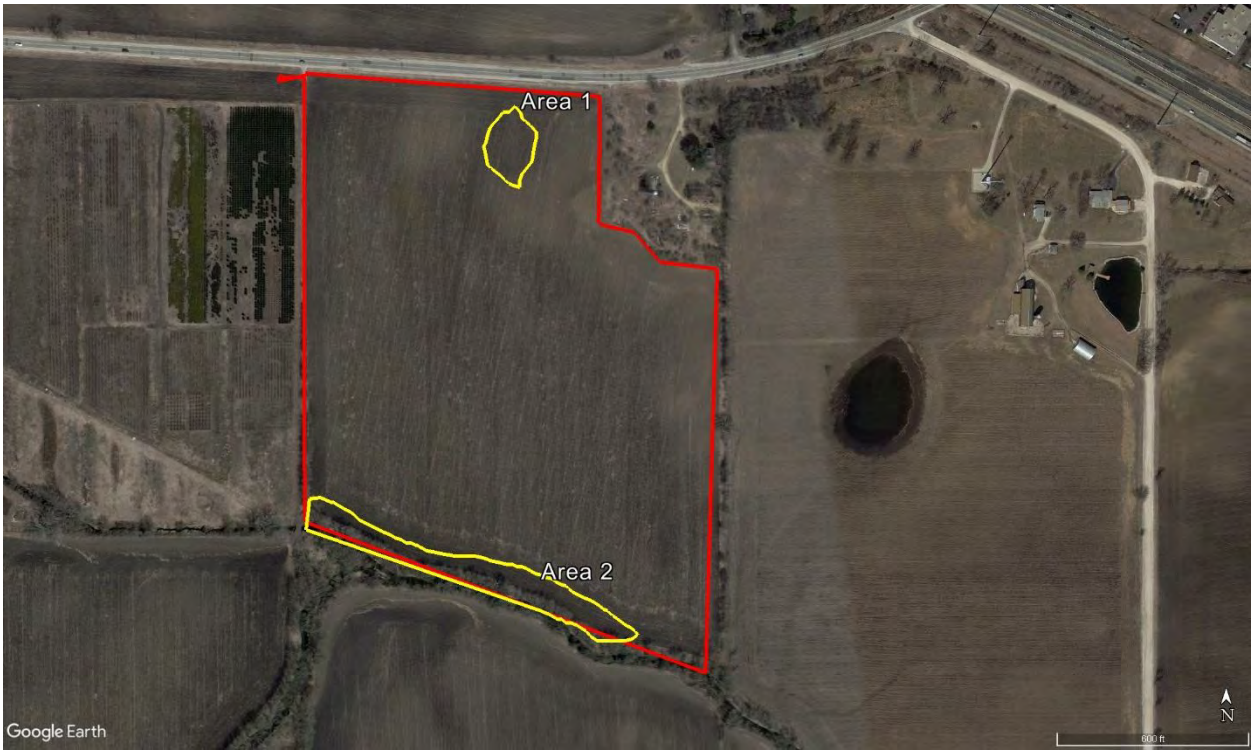


June 2009

May 2010



September 2011

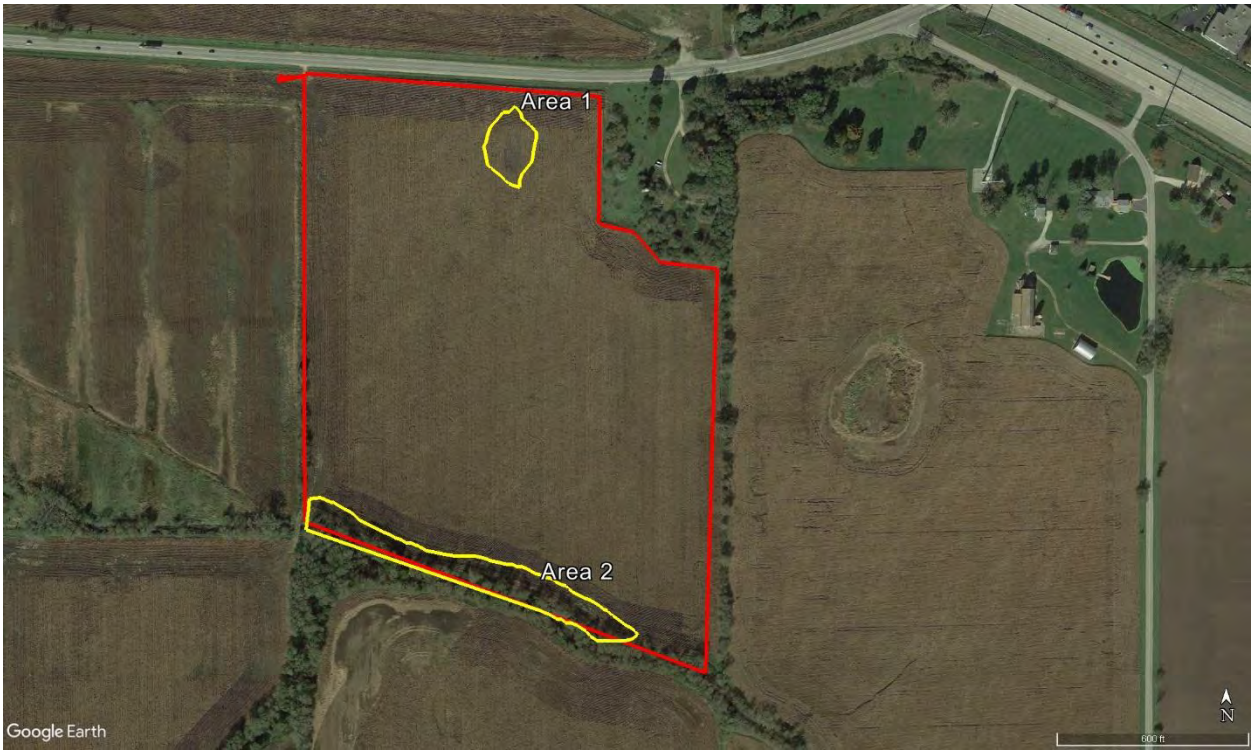


April 2013

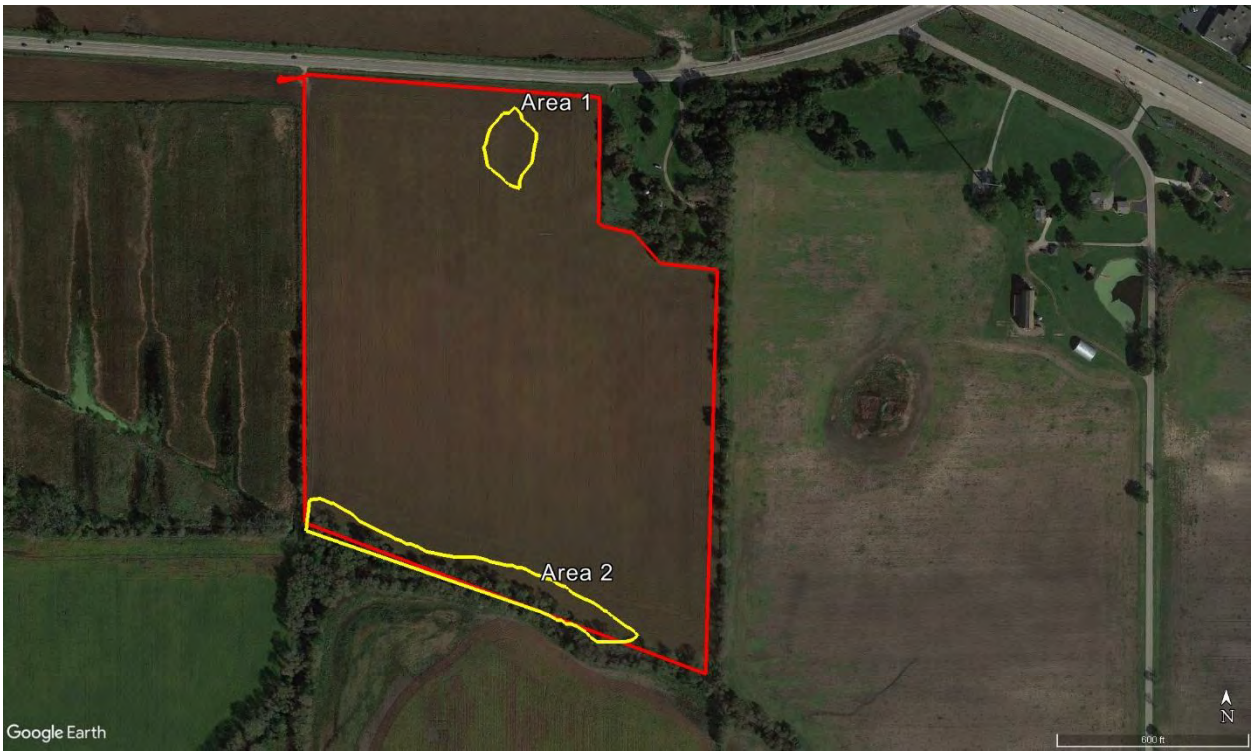
April 2015

July 2017

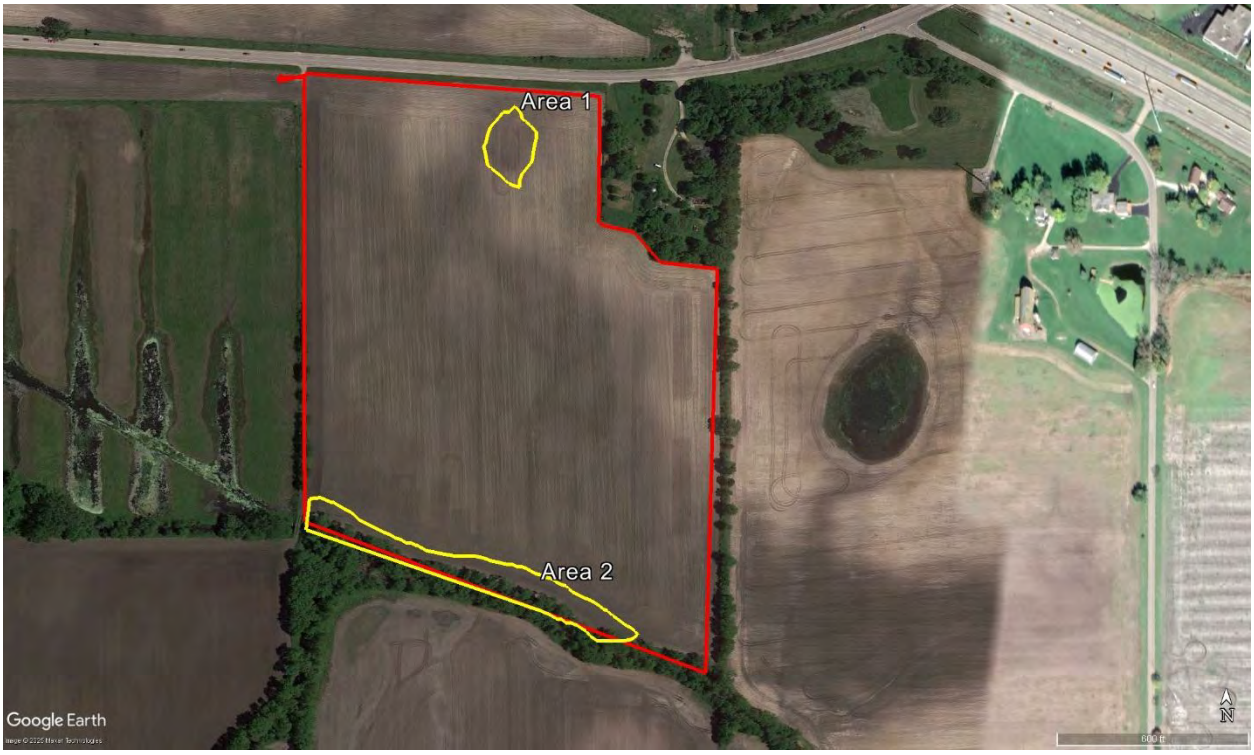
July 2018



October 2010

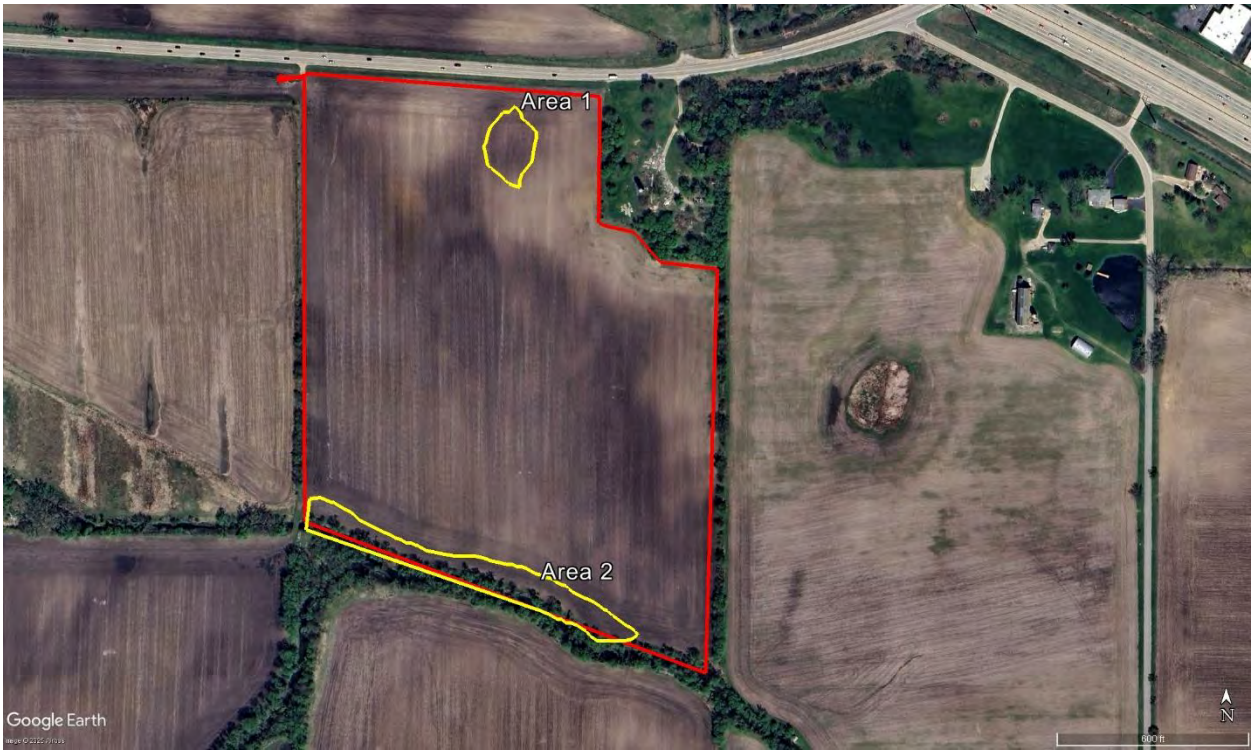


October 2019

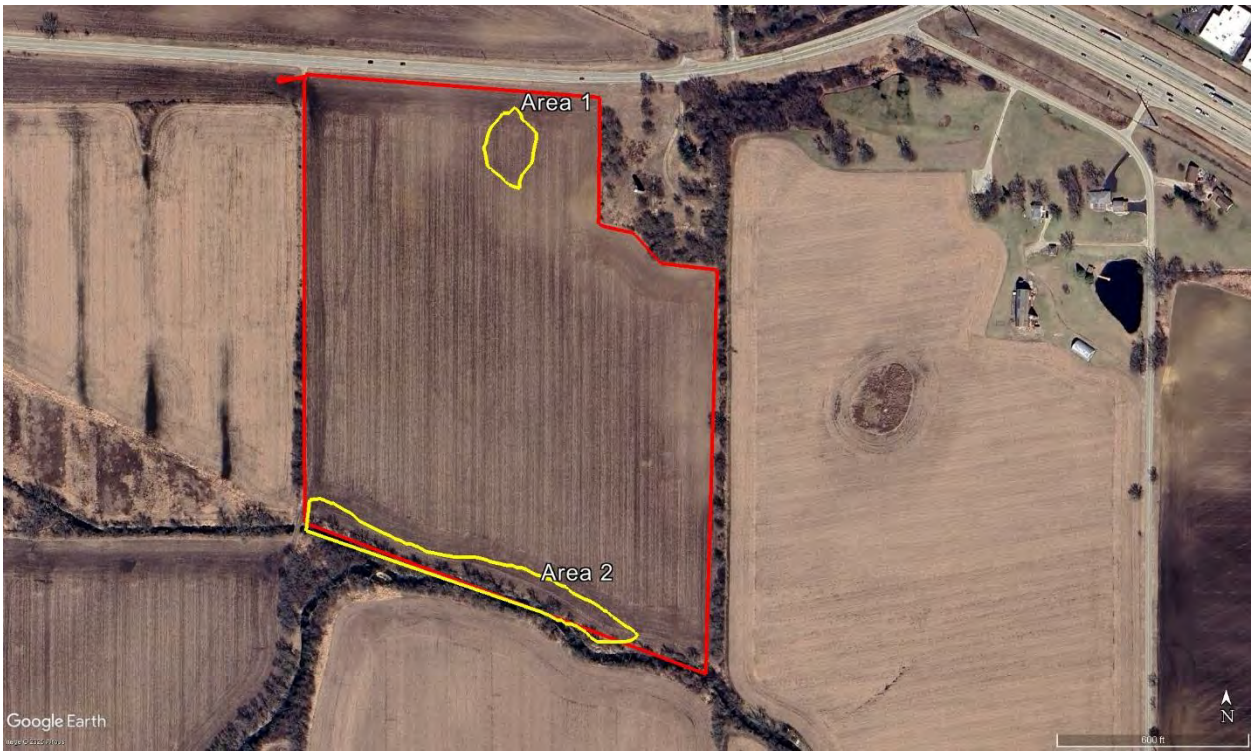


June 2020

May 2023



April 2024



March 2025

Appendix E:

Field Photographs

General upland landscape on landfill, viewed to the southeast from the center of the Study Area

General upland Project landscape on landfill, viewed to the north from the eastern boundary of the Study Area

General Project landscape, viewed to the southwest from the northeastern corner of the Study Area

Area 1 (inconspicuous depression), viewed to the southeast from the northwest of the feature

Area 2, the floodplain, viewed to the east from the southern edge of the Study Area

Tyler Creek, a ditch, viewed to the south from beyond the southern extent of the Study Area

Appendix F:

Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SV CSG Sun Trust Solar, LLC City/County: Kane Sampling Date: 5/28/2025

Applicant/Owner: SV CSG Sun Trust Solar, lLC State: IL Sampling Point: SP 1

Investigator(s): J Knudsen Section, Township, Range: 23, 26 T42, R2E

Landform (hillside, terrace, etc.): Subtle depression Local relief (concave, convex, none): None

Slope (%): 1 Lat: 42.0993167 Long: -88.38653373 Datum: NAD 83

Soil Map Unit Name: 152A - Drummer silty clay loam, 0 to 2 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

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 ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
SP within depression identified during offsite review. Could not local deppression in field. Antecedent precipipation condiitions were drier than normal. Area was cropped and natural vegetation was mostly absent.Not normal circumstances.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)			
1.			
2.			FACW
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

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)

Prevalence Index worksheet:

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 =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
Veg not used as wetland criteria due to cropping

SOIL

Sampling Point: SP 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	100					Loamy/Clayey	Dark, blocky.
18-22	10YR 4/1	95	10YR 5/6	5	C	M	Loamy/Clayey	Depleted with redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]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** X **No** ___

Remarks:
Reduced soils with redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Off-site review suggest area is UPLAND.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SV CSG Sun Trust Solar, LLC City/County: Kane Sampling Date: 5/28/2025

Applicant/Owner: SV CSG Sun Trust Solar, lLC State: IL Sampling Point: SP 2

Investigator(s): J Knudsen Section, Township, Range: 23, 26 T42, R2E

Landform (hillside, terrace, etc.): Floodplain Local relief (concave, convex, none): None

Slope (%): 1 Lat: 42.09616268 Long: -88.38828763 Datum: NAD 83

Soil Map Unit Name: 152A - Drummer silty clay loam, 0 to 2 percent slopes NWI classification: FEMA 100-year

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation X , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

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 ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
SP within 100-year floodplian adjancet to floodway. Antecedent precipipation condiitions were drier than normal. Area was cropped and natural vegetation was mostly absent.Not normal circumstances.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15ft)			
1.			
2.			FACW
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30ft)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

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)

Prevalence Index worksheet:

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 =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
Veg not used as wetland criteria due to cropping

SOIL

Sampling Point: SP 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	100					Loamy/Clayey	Dark, blocky.
20-22	10YR 4/1	95	10YR 5/6	5	C	M	Loamy/Clayey	Depleted with redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]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** X **No** ___

Remarks:
Reduced soils with redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Off-site review suggest area is UPLAND.