WETLAND DELINEATION REPORT

Litchfield Solar – Carson Power
City of Litchfield
Parcel Number(s): 15-17-100-004 and 15-17-200-010
Montgomery County, Illinois

Prepared For:

Carson Power, LLC
110 William St, 24th Floor
New York, NY 10038

Attn: Owen Hooper,
Director of Development Operations

Prepared By:

Langan Engineering and Environmental Services, LLC
200 W Madison Street, Suite 1920
Chicago, Illinois 60606
NJ Certificate of Authorization No.: 24GA27996400

6 December 2024
Langan Project Number: 541060301

LANGAN

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1.0 SITE LOCATION AND DESCRIPTION

This Wetland Delineation Report has been prepared for the Site located on Historic Route 66 in the City of Litchfield, Montgomery County, Illinois (Figures 1 and 2). The approximate 24±-acre property is identified as parcel numbers 15-17-100-004 and 15-17-200-010 on the municipal tax maps (Figure 3) ("the Site"). The approximate center of the Site is located at 39.141232°N, -89.672104°W.

The Site is bound by Historic Route 66 to the east and agricultural land to the north, south, and west (Figure 1). Site photographs are provided in Appendix A.

The project site is currently an agricultural field used for the purpose of row crop production. There are no existing structures on-site and an access drive is present along the northern site boundary (Figure 4). An agricultural swale is present in the central portion of the study area and did not qualify as a wetland during the site visit (see Appendix D - USACE Data Sheets). The site was noted as being in a seasonal mild drought. However, preceding the site visit there were multiple days with rainfall and site conditions appeared normal on the day of the site visit.

Site grades are approximately 685 feet, per the North American Vertical Datum of 1988 (NAVD 88). The site is located in the West Fork Shoal Creek (HUC-10) watershed (Figure 1). The mapped path of West Fork Shoal Creek surface water is to the east of the site.

The Federal Emergency Management Agency (FEMA) Effective Flood Insurance Rate Map (FIRM) does not have current mapped digital data information within and around Litchfield, IL. The Litchfield area flood data for the site dates back to 1/9/1981 (FIRM panel 1709920005A).

The United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) database does not identify any mapped water features on-site (Figure 5).

Langan wetland scientists performed a site inspection on 12 November 2024. The presence of wetlands was confirmed in the northeast portion of the Site. Wetland A is further described in Section 2.0 below.

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey mapper shows five soil map units to be located onsite.

The following soil map units are present along the periphery of the site: Harrison silt loam, 0 to 2 percent slopes (127A), Harrison silt loam, 2 to 5 percent slopes (127B), Oconee-Darmstadt-Coulterville silt loams, 2 to 5 percent slopes, eroded (882B2), Herrick-Biddle-Piasa silt loams, 0 to 2 percent slopes (894A), and Cowden-Piasa silt loams, 0 to 2 percent slopes, hydric (993A)(Figure 6).

The USFWS Information for Planning and Consultation System (IPaC) Official Species List, dated 13 November 2024 from the Southern Illinois Sub-Office Ecological Services Field Office identifies the potential presence of the endangered Indiana bat (*Myotis sodalis*), the experimental population, non-essential Whooping Crane (*Grus americana*), and the candidate species, the monarch butterfly (*Danaus plexippus*)(Appendix C).

2.0 WETLAND SITE VISIT

The subject property was evaluated for the presence of potential wetlands by Langan wetland scientists on 12 November 2024, in accordance with USACE guidelines as specifically referenced in the 1987 *Corps of Engineers Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region*, Version 2.0, August 2010. This methodology utilizes a three-parameter approach to identify and delineate wetlands. The technical criteria require a field evaluation of the dominance of hydrophytic vegetation, the presence of suitable wetland hydrology, and hydric soils in a positive determination. Observations for these parameters are discussed below and data sheets showing the absence of wetland features onsite are included in Appendix D.

The project site is fully developed as an agricultural field used for row crop production. The majority of the site is therefore devoid of volunteer vegetation and was dominated by remnant corn from the previous harvest. A farmed wetland review was conducted following protocol outlined by the U.S. Department of Agriculture (USDA) Farm Service Agency in coordination with the use of the Antecedent Precipitation Tool (APT) issued by the U.S. Army Corps of Engineers. The aerial summary and antecedent precipitation results are included (Appendix B). Eleven total signatures were reviewed, however, none were present in greater than 50% of aerials with normal precipitation. The area identified as Signature 1 coincides with flagged Wetland A.

The eastern and northern vegetated upland areas consisted of common grasses and invasives species with no saplings, shrubs, or trees. Dominant species consisted of Kentucky blue grass (*Poa pratensis*), foxtail (*Setaria spp.*), dandelion (*Taraxacum*

officinale), goldenrod (*Solidago spp.*), red clover (*Trifolium pratense*), and English plantain (*Plantago lanceolata*).

One wetland was identified within the northeastern portion of the site as shown on the Site Aerial Photograph (Figure 4). Refer to the wetland delineation field data sheets for additional information on vegetation, soils, and hydrology (Appendix D).

Wetland A

Wetland A is a 0.058-acre wetland located in the northeastern corner of the site. The majority of the wetland is comprised of low-quality herbaceous vegetation that partially extends into the agricultural field. Wetland A also connects to the roadside drainage ditch associated with Historic U.S. Route 66. During the farmed wetland review, Wetland A was reviewed as Signature 1. Although Signature 1 was not present in greater than 50% of the reviewed aerials with normal precipitation, during the site visit perennial wetland vegetation was observed and the wetland was flagged.

The dominant vegetation observed within the wetland is Fall Panic Grass (*Panicum dichotomiflorum*), yellow foxtail (*Setaria pumila*), lance-leaved American-aster (*Symphyotrichum lanceolatum*), and pinkweed (*Persicaria pensylvanica*).

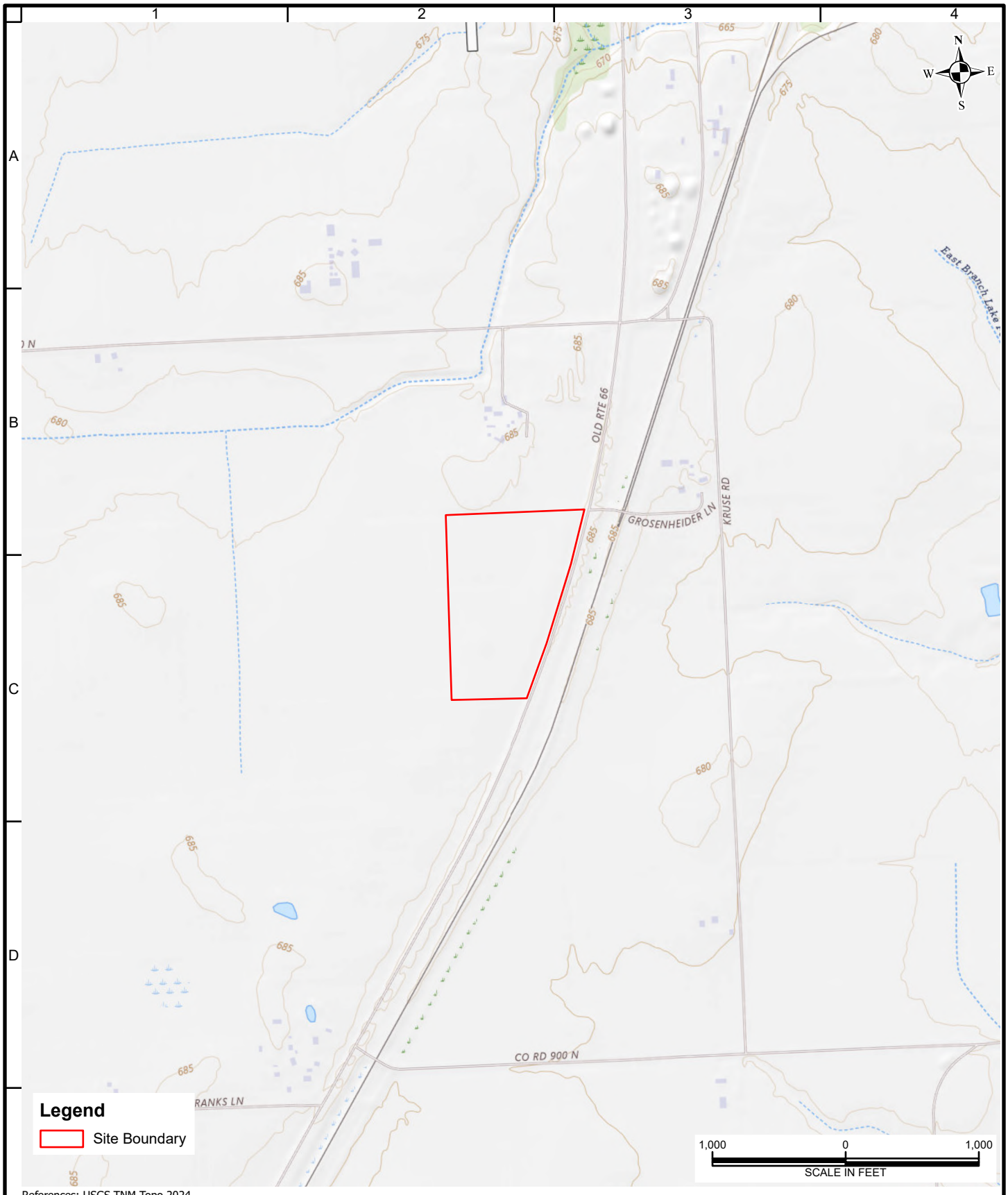
Hydrologic indicators observed within Wetland A include surface water, a high-water table, saturation visible on aerial imagery, and geomorphic position.

Soils within Wetland A met the criteria for hydric soil indicators depleted below dark surface (A11) and depleted matrix (F3).

3.0 CONCLUSION

The regulatory boundaries of wetlands and jurisdictional waters (a Waters of the United States) have been delineated in compliance with the USACE delineation manual. One wetland is present onsite in the northeastern corner of the site.

FIGURES



References: USGS TNM Topo 2024

LANGAN

Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606

T: +1 312-547-7700 F: 312-547-7701 ww.langan.com

Project

LITCHFIELD SOLAR

PARCEL NO.: 15-17-100-004
AND 15-17-200-010

LITCHFIELD

MONTGOMERY COUNTY ILLINOIS

Figure Title

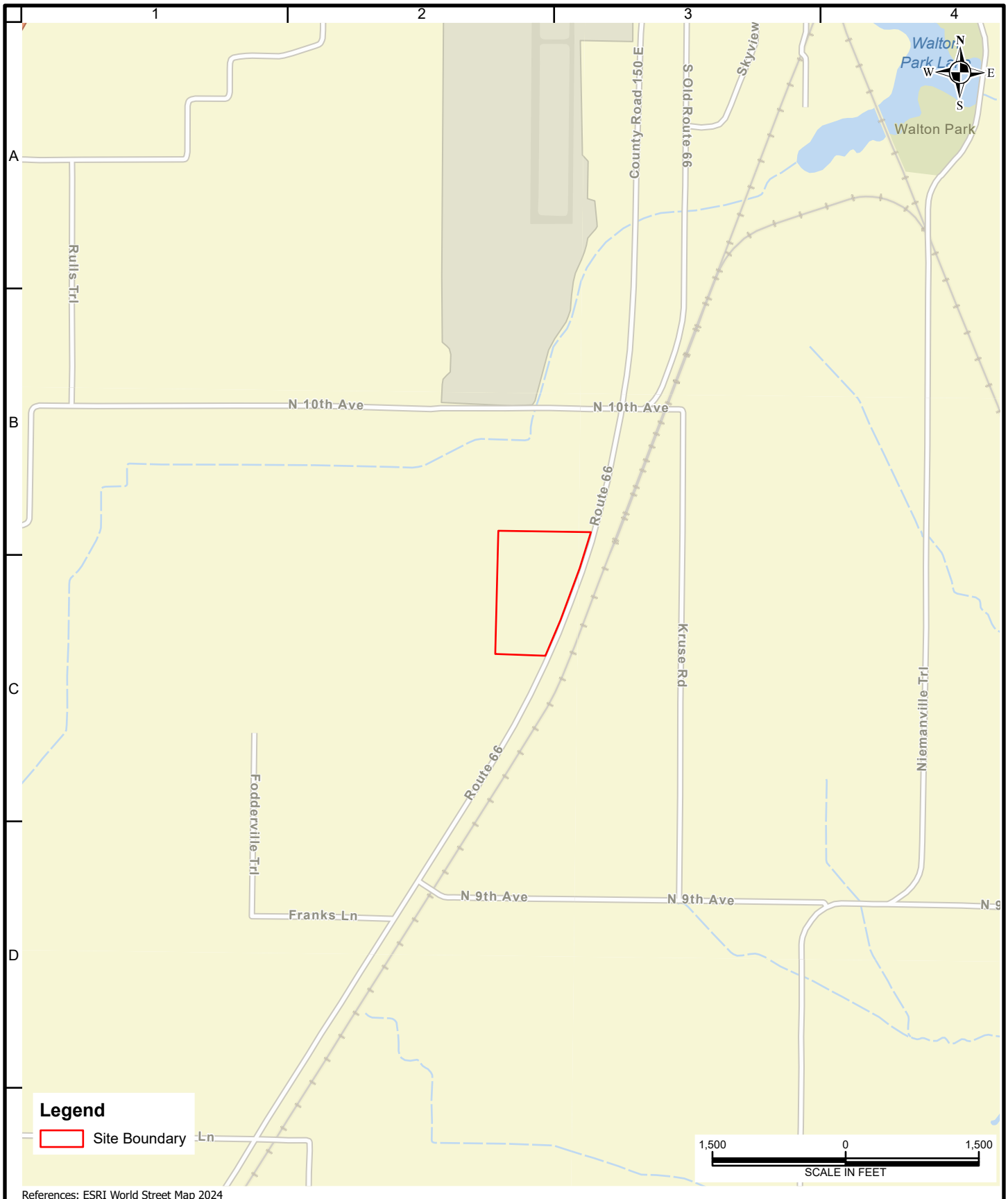
USGS SITE LOCATION MAP

Project No.	541060301
Date	11/21/2024
Scale	1" = 1,000'
Drawn By	OBH

Figure No.

1

Path: \\langan.com\data\CHI\data3\541060301\Project Data\ArcGIS\APRX\541060301\541060301.aprx Date: 11/21/2024 User: ohollander Time: 3:01 PM



References: ESRI World Street Map 2024

LANGAN
Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606
T: +1 312-547-7700 F: 312-547-7701 www.langan.com

Project
LITCHFIELD SOLAR
PARCEL NO.: 15-17-100-004
AND 15-17-200-010
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
VICINITY MAP

Project No.	541060301
Date	11/25/2024
Scale	1" = 1,500'
Drawn By	OBH

Figure No.
2

Path: \\langan.com\data\CHI\data3\541060301\Project Data\ArcGIS\APRX\541060301\541060301.aprx Date: 11/25/2024 User: ohollander Time: 9:58 AM

References: Montgomery County, Illinois Beacon Parcel Viewer

LANGAN
Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606
T: +1 312-547-7700 F: 312-547-7701 ww.langan.com

Project
LITCHFIELD SOLAR
PARCEL NO.: 15-17-100-004
AND 15-17-200-010
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
TAX MAP

Project No.	541060301
Date	11/21/2024
Scale	1" = 600'
Drawn By	OBH

Figure No.
3

Path: \\langan.com\data\CHI\data3\541060301\Project Data\ArcGIS\APRX\541060301\541060301.aprx Date: 11/21/2024 User: ohollander Time: 4:40 PM

References: ESRI World Imagery 2024

LANGAN
Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606
T: +1 312-547-7700 F: 312-547-7701 ww.langan.com

Project
LITCHFIELD SOLAR
PARCEL NO.: 15-17-100-004
AND 15-17-200-010
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
SITE AERIAL PHOTOGRAPH

Project No.	541060301
Date	11/25/2024
Scale	1" = 250'
Drawn By	OBH

Figure No. 4

Path: \\langan.com\data\CHI\data3\541060301\Project Data\ArcGIS\APRX\541060301\541060301.aprx Date: 11/25/2024 User: ohollander Time: 10:26 AM

References: : U.S. Fish & Wildlife Service National Wetlands Inventory GIS Data, Accessed 08/12/2024; ESRI World Imagery 2024

LANGAN
Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606
T: +1 312-547-7700 www.langan.com

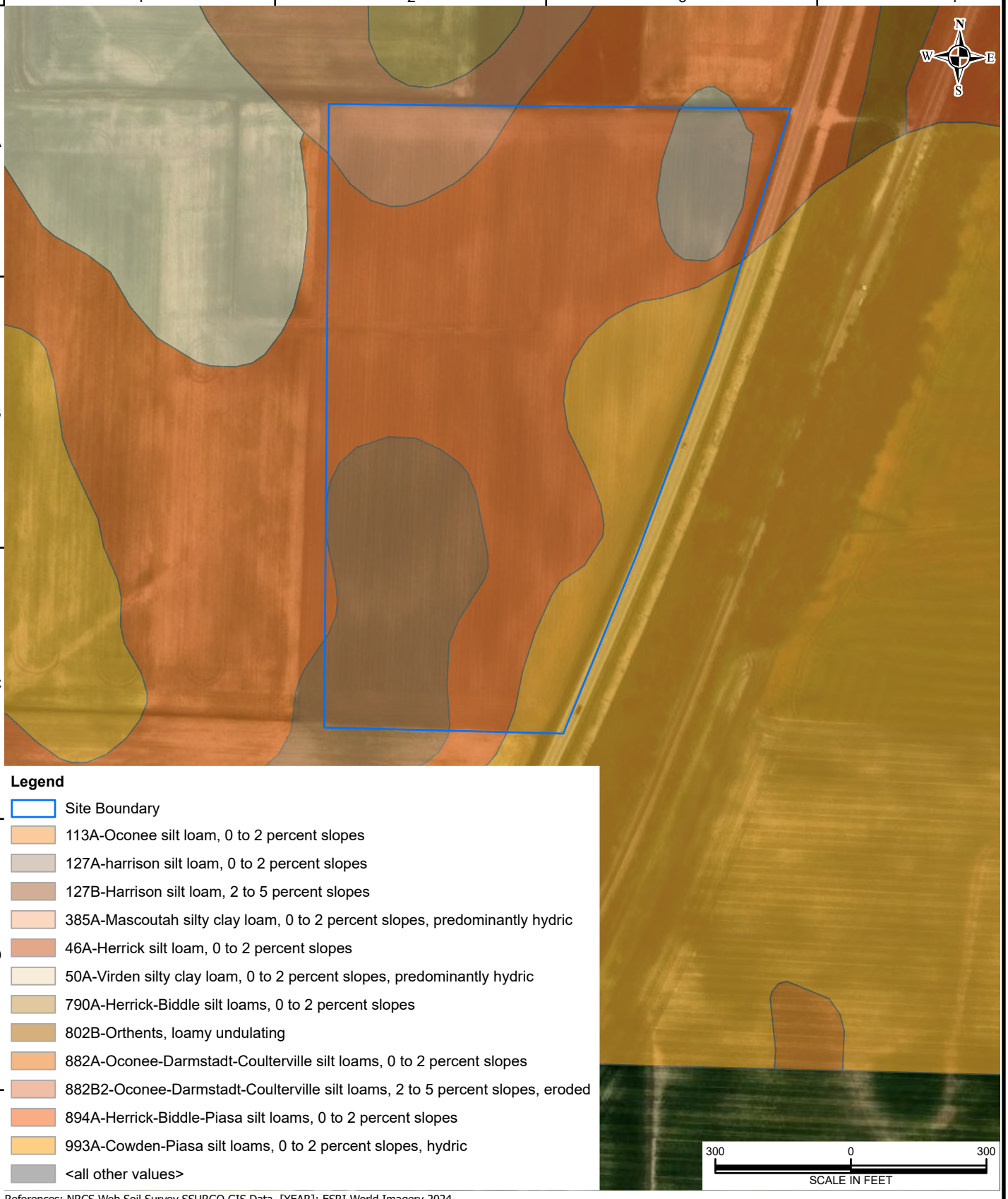
Project
LITCHFIELD SOLAR
PARCEL NO.: 15-17-100-004
AND 15-17-200-010
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
NWI
WETLANDS MAP

Project No.	541056001
Date	11/13/2024
Scale	1" = 500'
Drawn By	OBH

Figure No. 5

Path: \\langan.com\data\CHI\data0\541056001\Project Data\ArcGIS\APRX\541056001\541056001.aprx Date: 11/13/2024 User: ohollander Time: 3:20 PM



Legend

- Site Boundary
- 113A-Oconee silt loam, 0 to 2 percent slopes
- 127A-harrison silt loam, 0 to 2 percent slopes
- 127B-Harrison silt loam, 2 to 5 percent slopes
- 385A-Mascoutah silty clay loam, 0 to 2 percent slopes, predominantly hydric
- 46A-Herrick silt loam, 0 to 2 percent slopes
- 50A-Virden silty clay loam, 0 to 2 percent slopes, predominantly hydric
- 790A-Herrick-Biddle silt loams, 0 to 2 percent slopes
- 802B-Orthents, loamy undulating
- 882A-Oconee-Darmstadt-Coulterville silt loams, 0 to 2 percent slopes
- 882B2-Oconee-Darmstadt-Coulterville silt loams, 2 to 5 percent slopes, eroded
- 894A-Herrick-Biddle-Piasa silt loams, 0 to 2 percent slopes
- 993A-Cowden-Piasa silt loams, 0 to 2 percent slopes, hydric
- <all other values>

References: NRCS Web Soil Survey SSURGO GIS Data, [YEAR]; ESRI World Imagery 2024

LANGAN
Langan Engineering and
Environmental Services, LLC
200 West Madison Street, Suite 1920
Chicago, IL 60606
T: +1 312-547-7700 F: 312-547-7701 ww.langan.com

Project
LITCHFIELD SOLAR
PARCEL NO.: 15-17-100-004
AND 15-17-200-010
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
NRCS SOILS MAP

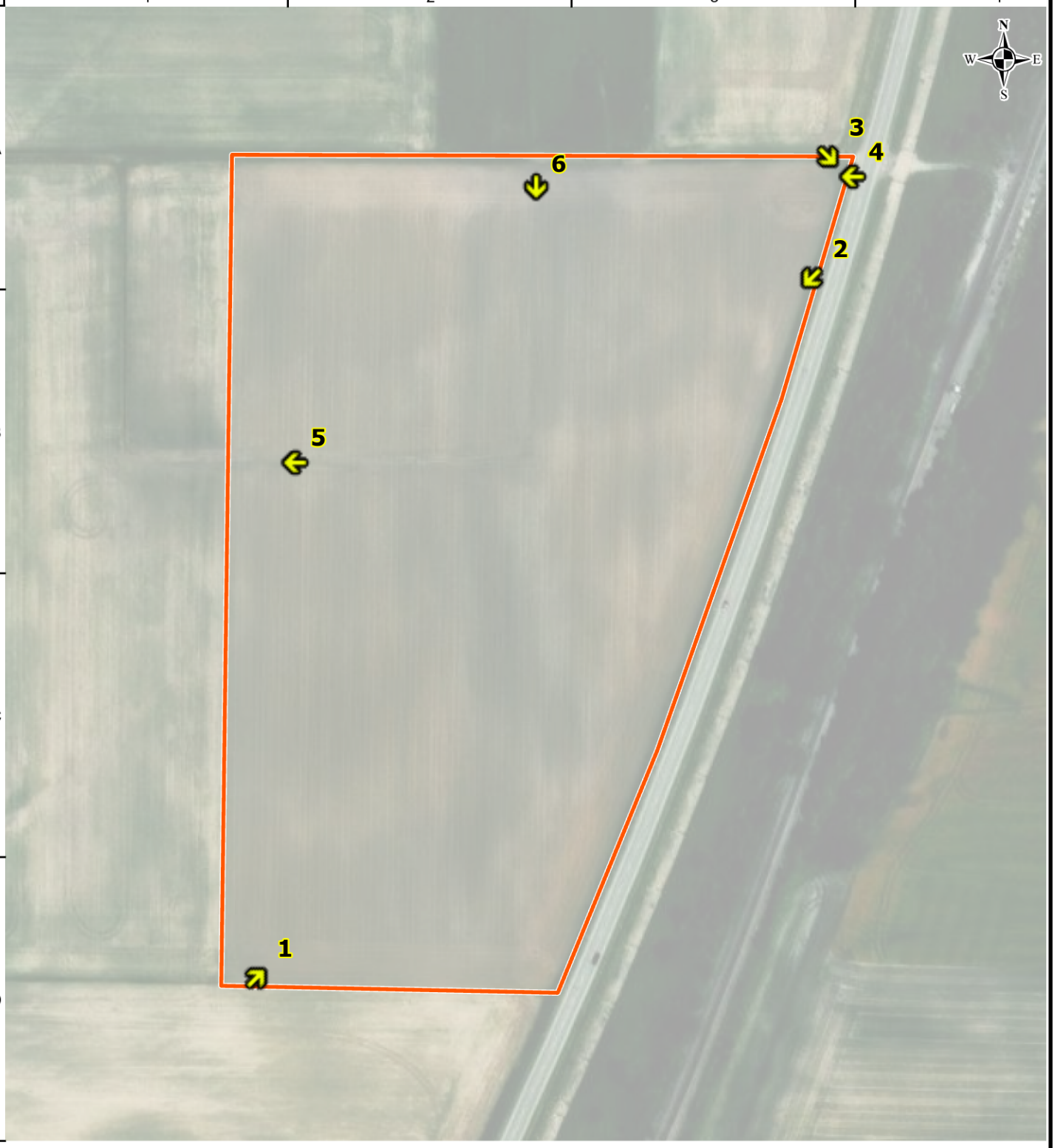
Project No. 541060301
Date 11/22/2024
Scale 1" = 300'
Drawn By OBH

Figure No. 6

Path: \\langan.com\data\CHI\data3\541060301\Project Data\ArcGIS\APRX\541060301\541060301.aprx Date: 11/22/2024 User: ohollander Time: 4:20 PM

APPENDIX A

SITE PHOTOGRAPHS AND PHOTOGRAPH LOCATION MAP



Legend

Photograph Location/Direction

Subject Property Boundary

300 0 300
SCALE IN FEET

NOTES:
1. AERIAL IMAGERY OBTAINED THROUGH LANGAN'S SUBSCRIPTION TO ESRI'S ARCGIS SOFTWARE LICENSING.
2. PHOTOGRAPH LOCATIONS BASED ON FIELD MEASUREMENTS.

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ Certification of Authorization No. 24GA27996400

Project
LITCHFIELD SOLAR
LITCHFIELD
MONTGOMERY COUNTY ILLINOIS

Figure Title
PHOTOGRAPH LOCATION MAP

Project No.	541060301
Date	11/27/2024
Scale	1"=300'
Drawn By	IHB

Figure No. 1

Path: \\langan.com\data\CHI\data0\541056001\Project Data\ArcGIS\APRX\541056001\541056001.aprx Date: 11/27/2024 User: ibaker Time: 10:35 AM

LANGAN

Site Photographs

Client Name:	Project Name and Location:	Project No.
Carson Power	Litchfield Solar, Litchfield, Montgomery Co., IL	541060301

Date	Photo No.
11/12/2024	1

Direction Photo Taken:

NE

Description:

Overall view of site. Previous harvest contained corn as row crop.

Date	Photo No.
11/12/2024	2

Direction Photo Taken:

SW

Description:

View of right-of-way along Historic U.S. Route 66. Grass vegetation observed.

LANGAN

Site Photographs

Client Name:	Project Name and Location:	Project No.
Carson Power	Litchfield Solar, Litchfield, Montgomery Co., IL	541060301

Date	Photo No.
11/12/2024	3

Direction Photo Taken:

SE

Description:

Wetland A as flagged in the field.

Date	Photo No.
11/12/2024	4

Direction Photo Taken:

W

Description:

Standing water and road-side drainage ditch within Wetland A.

LANGAN

Site Photographs

Client Name:	Project Name and Location:	Project No.
Carson Power	Litchfield Solar, Litchfield, Montgomery Co., IL	541060301

Date	Photo No.
11/12/2024	5

Direction Photo Taken:

W

Description:

Western portion of the agricultural swale. Corn row crop present throughout. Off-site portion seen in background without tall remnant row crop.

Date	Photo No.
11/12/2024	6

Direction Photo Taken:

S

Description:

Northern portion of agricultural swale. Corn row crop present throughout. Volunteer vegetation dominated by foxtail.

APPENDIX B

FARMED WETLAND REVIEW

Figure 1. Farmed wetland review utilizing the Antecedent Precipitation Tool. Annual farmed wetland signatures shown in yellow. None of these signatures were present in greater than 50% of the aerials reviewed with normal precipitation levels.

LANGAN

Project Name: Litchfield Solar - Carson Power
Project Number: 541056001
Location (Lat/Long): 39.141152, -89.672173

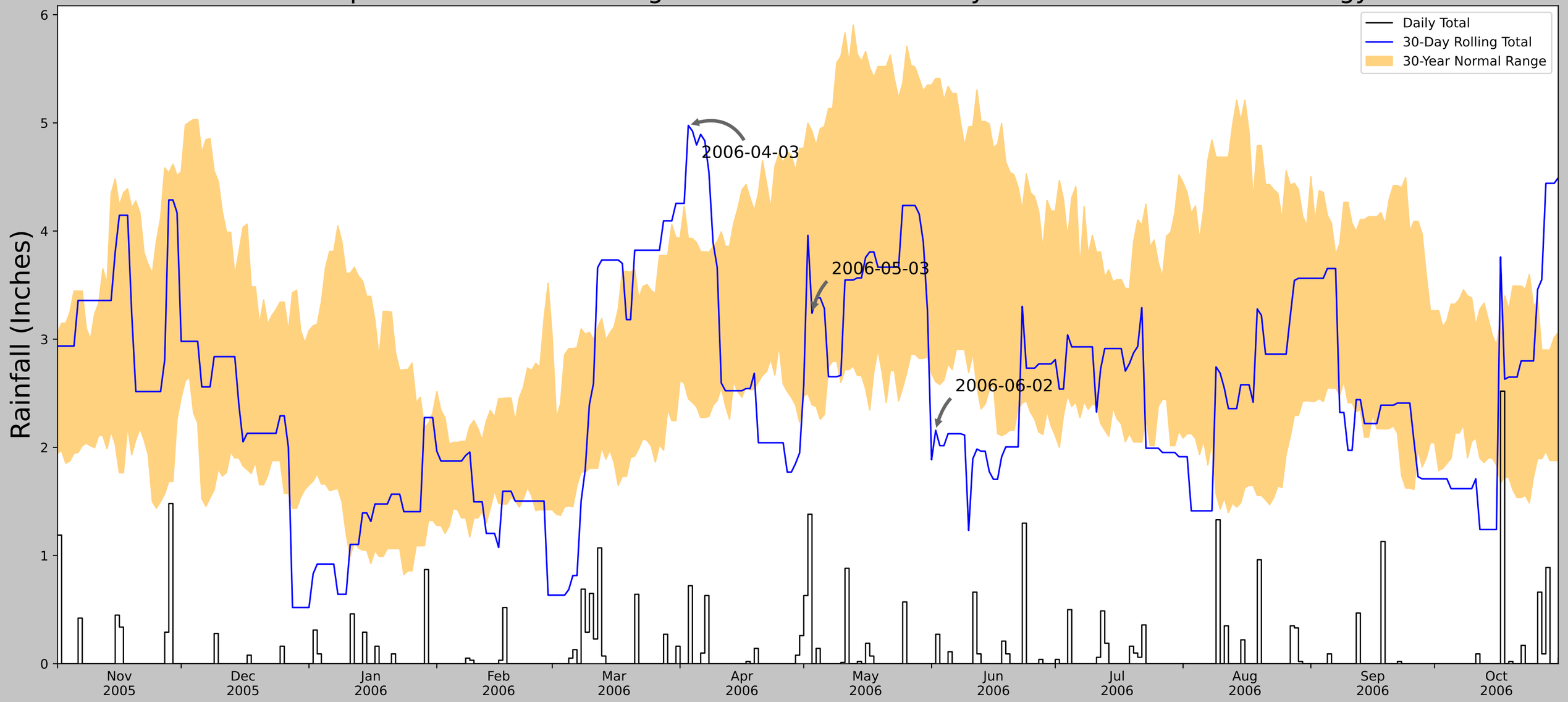
Aerial Date*	Antecedent Precipitation Condition**	Signature 1	Signature 2	Signature 3	Signature 4	Signature 5	Signature 6	Signature 7	Signature 8	Signature 9	Signature 10	Signature 11
6/2/2006	Normal Conditions	N	Y	N	N	N	N	N	N	N	N	N
6/6/2007	Normal Conditions	N	N	N	Y	Y	N	N	N	N	N	N
6/23/2010	*Wetter than Normal*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*
9/28/2012	Normal Conditions	Y	Y	N	N	N	N	N	N	N	Y	N
10/21/2020	Normal Conditions	N	N	N	N	N	N	N	N	N	N	N
9/13/2022	Normal Conditions	N	N	N	N	N	N	N	N	N	N	N
Total number of signatures in Normal Conditions		1	2	0	1	1	0	0	0	0	1	0
Hydric Soil Mapped		N	N	N	N	N	Y	N	N	Y	Y	Y
Mapped NWI***		N	N	N	N	N	N	N	N	N	N	N
Percentage of years present in Normal Conditions		20%	40%	0%	20%	20%	0%	0%	0%	0%	20%	0%
Signature qualifies as wetland		No	No	No	No	No	No	No	No	No	No	No

*Aerial photographs are provided by Google Earth Aerial Imagery

**Antecedent Precipitation Conditions are provided by the USACE Antecedent Precipitation Tool

***Mapped National Wetlands Inventory present within signature qualifies as a signature

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.141152, -89.672173
Observation Date	2006-06-02
Elevation (ft)	682.959
Drought Index (PDSI)	Severe drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2006-06-02	2.605512	5.411417	2.15748	Dry	1	3	3
2006-05-03	2.393307	4.922441	3.240158	Normal	2	2	4
2006-04-03	2.45	3.931496	4.976378	Wet	3	1	3
Result							Normal Conditions - 10

US Army Corps of Engineers

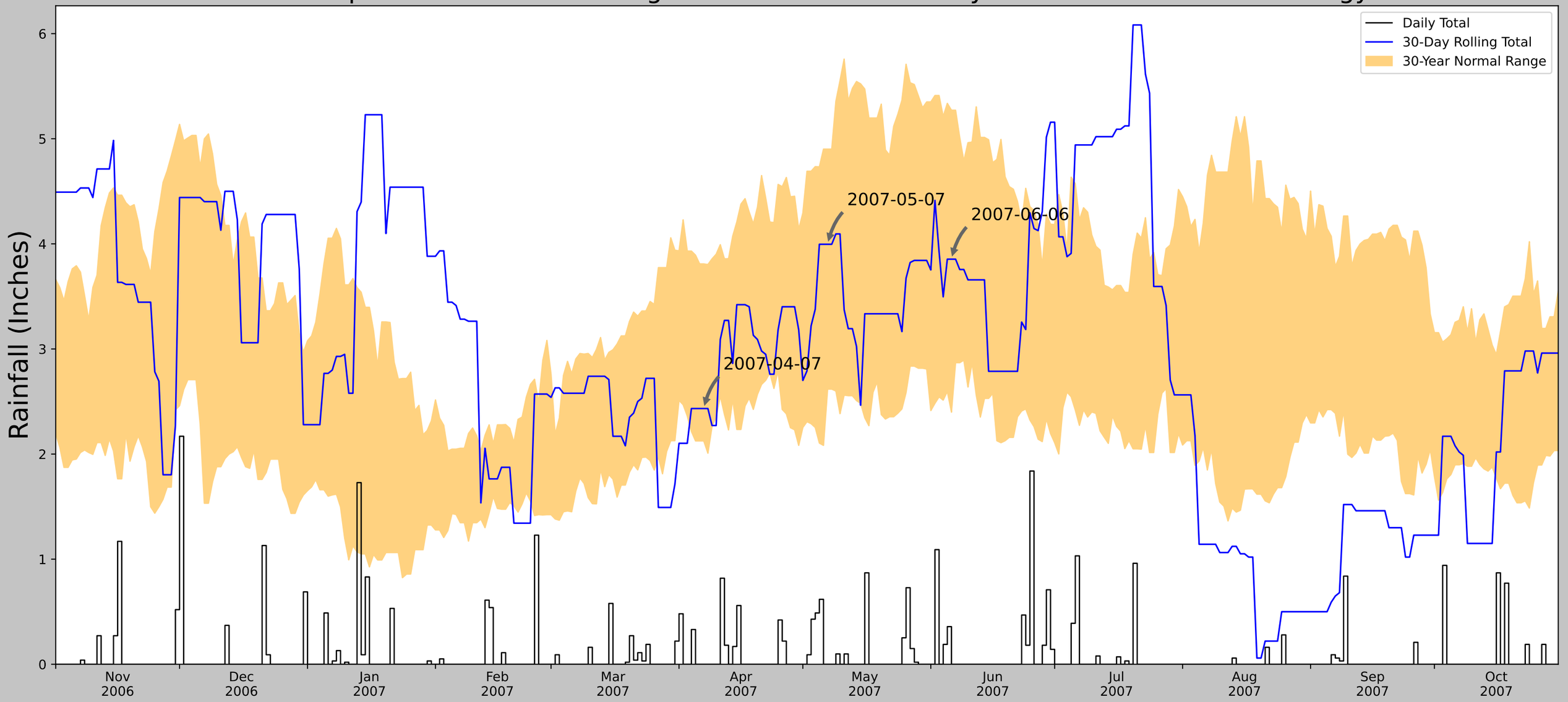
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11261	90
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	90	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.141152, -89.672173
Observation Date	2007-06-06
Elevation (ft)	682.959
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2007-06-06	2.398425	5.271654	3.854331	Normal	2	3	6
2007-05-07	2.617717	4.901575	3.996063	Normal	2	2	4
2007-04-07	2.124803	3.809055	2.433071	Normal	2	1	2
Result							Normal Conditions - 12

US Army Corps of Engineers

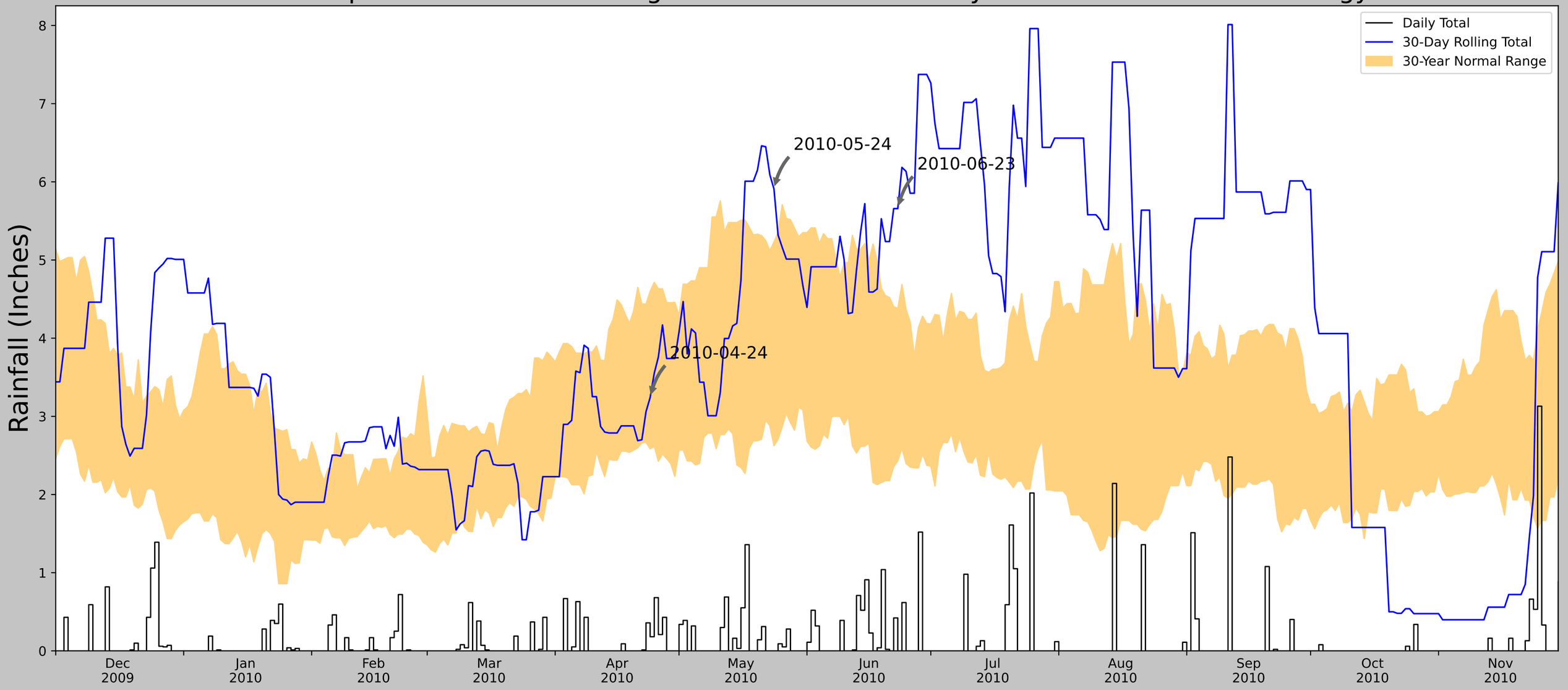
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11291	90
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	60	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.141152, -89.672173
Observation Date	2010-06-23
Elevation (ft)	682.959
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2010-06-23	2.429528	4.379528	5.65748	Wet	3	3	9
2010-05-24	2.623228	5.23189	5.909449	Wet	3	2	6
2010-04-24	2.585039	4.598819	3.240158	Normal	2	1	2
Result							Wetter than Normal - 17

US Army Corps of Engineers

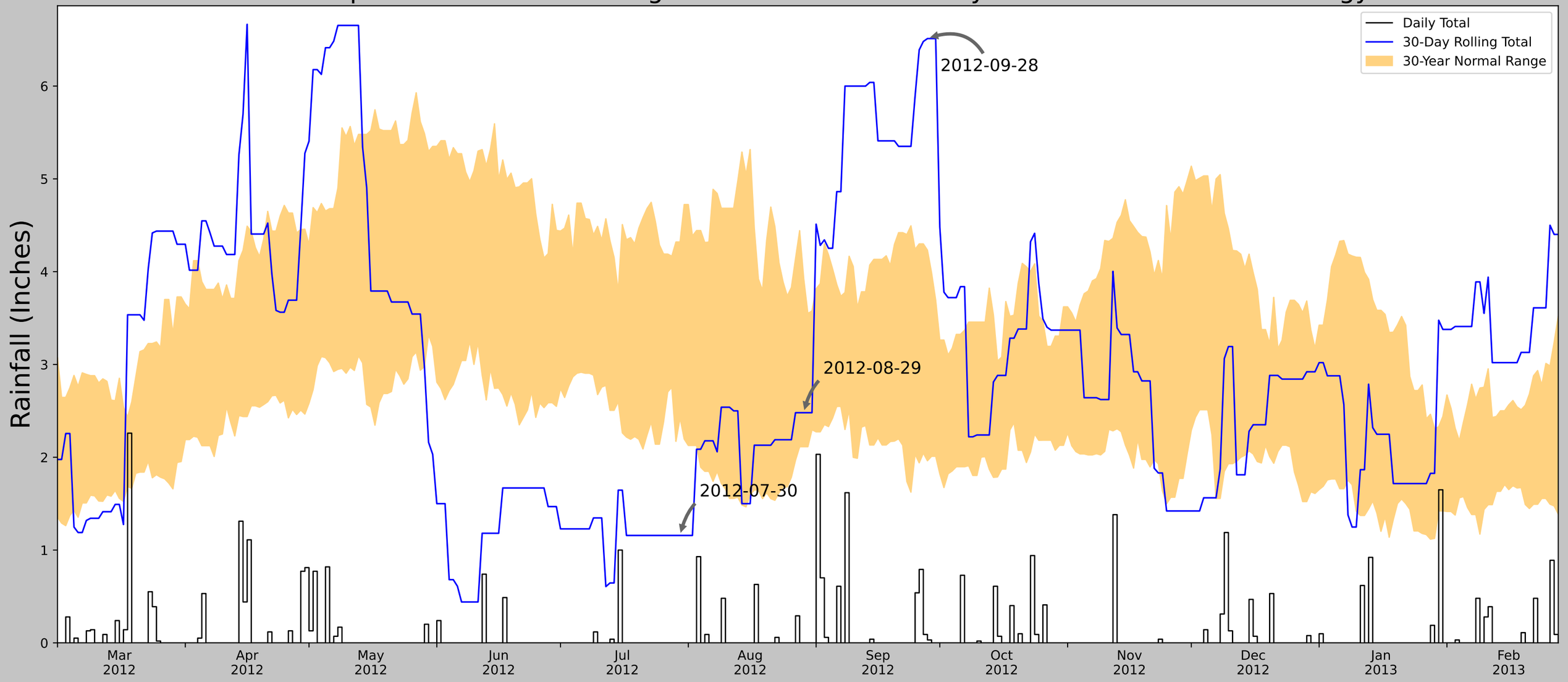
ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11254	90
LITCHFIELD 0.8 SE	39.1696, -89.644	679.134	7.362	9.186	3.381	29	0
LITCHFIELD 0.2 SE	39.1737, -89.6541	688.976	7.418	19.028	3.479	3	0
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	65	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.141152, -89.672173
Observation Date	2012-09-28
Elevation (ft)	682.959
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2012-09-28	1.962205	4.23189	6.511811	Wet	3	3	9
2012-08-29	2.113386	3.922441	2.480315	Normal	2	2	4
2012-07-30	2.424803	4.320079	1.15748	Dry	1	1	1
Result							Normal Conditions - 14

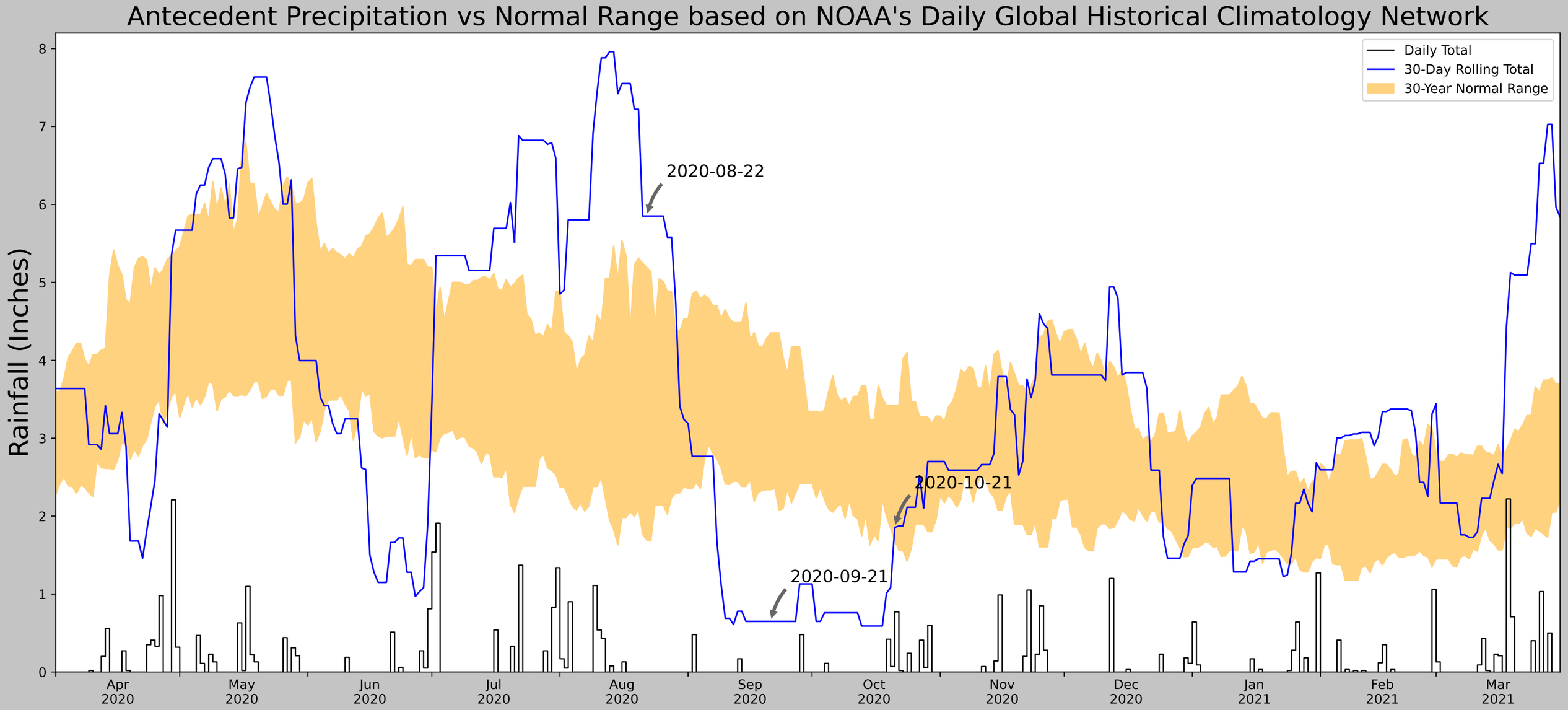
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11218	89
MOUNT OLIVE 0.4 S	39.0664, -89.7281	679.134	1.499	9.186	0.688	2	1
LITCHFIELD 0.8 SE	39.1696, -89.644	679.134	7.362	9.186	3.381	60	0
LITCHFIELD 0.2 SE	39.1737, -89.6541	688.976	7.418	19.028	3.479	6	0
STAUNTON 1.5 WSW	39.0012, -89.8125	600.066	7.748	69.882	4.028	1	0
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	63	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0



Coordinates	39.141152, -89.672173
Observation Date	2020-10-21
Elevation (ft)	682.959
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2020-10-21	1.68189	3.422047	1.854331	Normal	2	3	6
2020-09-21	2.338976	4.35315	0.649606	Dry	1	2	2
2020-08-22	1.690945	5.192914	5.850394	Wet	3	1	3
Result							Normal Conditions - 11

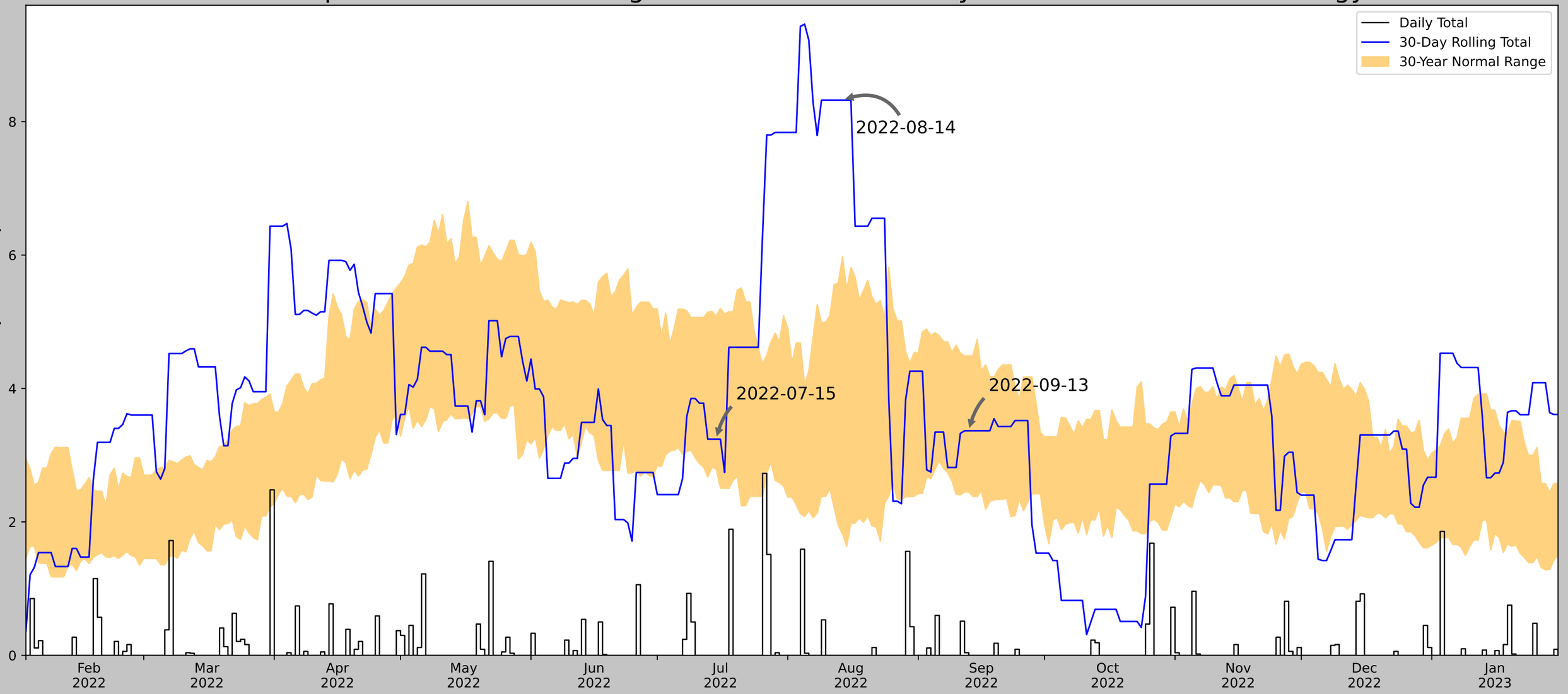
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11161	90
MOUNT OLIVE 0.4 S	39.0664, -89.7281	679.134	1.499	9.186	0.688	64	0
LITCHFIELD 0.8 SE	39.1696, -89.644	679.134	7.362	9.186	3.381	60	0
LITCHFIELD 0.2 SE	39.1737, -89.6541	688.976	7.418	19.028	3.479	6	0
STAUNTON 1.5 WSW	39.0012, -89.8125	600.066	7.748	69.882	4.028	1	0
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	59	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0



Coordinates	39.141152, -89.672173
Observation Date	2022-09-13
Elevation (ft)	682.959
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-09-13	2.446457	4.490551	3.366142	Normal	2	3	6
2022-08-14	1.822047	5.973622	8.322835	Wet	3	2	6
2022-07-15	2.790945	5.084646	3.240158	Normal	2	1	2
Result							Normal Conditions - 14

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MT OLIVE 1 E	39.0728, -89.7014	669.948	4.976	13.011	2.304	11143	88
MOUNT OLIVE 0.4 S	39.0664, -89.7281	679.134	1.499	9.186	0.688	82	2
LITCHFIELD 0.8 SE	39.1696, -89.644	679.134	7.362	9.186	3.381	60	0
LITCHFIELD 0.2 SE	39.1737, -89.6541	688.976	7.418	19.028	3.479	6	0
STAUNTON 1.5 WSW	39.0012, -89.8125	600.066	7.748	69.882	4.028	1	0
HILLSBORO	39.1611, -89.4919	629.921	12.781	40.027	6.263	59	0
MEDORA 1 S	39.1561, -90.1392	606.955	24.165	62.993	12.396	2	0

APPENDIX C

THREATENED AND ENDANGERED SPECIES CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Southern Illinois Sub-Office
Southern Illinois Sub-office
8588 Route 148
Marion, IL 62959-5822
Phone: (618) 998-5945
Email Address: Marion@fws.gov
https://www.fws.gov/office/illinois-iowa-ecological-services

In Reply Refer To: 11/13/2024 20:16:29 UTC
Project Code: 2025-0019155
Project Name: Litchfield Solar-Carson Power

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 attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation. If you determine that other federally protected species not listed in this Official Species List are present in your action area, you are still responsible to analyze your potential effects to those species and consult with the U.S. Fish and Wildlife Service if consultation is required.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the Information for Planning and Consultation (IPaC) website https://ipac.ecosphere.fws.gov at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service

(Service) if they determine their project “may affect” listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or more Determination Keys to conclude consultation on your action for species covered by those keys.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.???????

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have “no effect” on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude “no species habitat or species present” and document your finding in your project records. For example, if the project area is located entirely within a “developed area” (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project’s immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, ‘may affect’ is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species’ resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a ‘no effect’ determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."
4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: https://www.fws.gov/library/collections/midwest-region-section-7-consultations.
You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (Perimyotis subflavus) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website https://www.fws.gov/library/collections/bald-and-golden-eagle-management.

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

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries

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:

Southern Illinois Sub-Office
Southern Illinois Sub-office
8588 Route 148
Marion, IL 62959-5822
(618) 998-5945

PROJECT SUMMARY

Project Code: 2025-0019155
Project Name: Litchfield Solar-Carson Power
Project Type: Power Gen - Solar
Project Description: Site used for agricultural row crop production (corn in previous harvest). Proposed solar array development with associated utilities, access, and stormwater.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.1410451,-89.6721206708516,14z

Counties: Montgomery 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[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

---

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

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* 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: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Olivia Hollander
Address:	200 W Madison Street
Address Line 2:	Suite 1920
City:	Chicago
State:	IL
Zip:	60606
Email	ohollander@langan.com
Phone:	8476528288

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: Langan
Contact: Olivia Hollander
Address: 200 West Madison Street
Suite #1920
Chicago, IL 60606

IDNR Project Number: 2506127
Date: 11/13/2024

Project: Litchfield Solar
Address: Historic Route 66, Litchfield

Description: Site used for agricultural row crop production (corn in previous harvest). Proposed solar array development with associated utilities, access, and stormwater.

Natural Resource Review Results

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. 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. Termination does not imply IDNR's authorization or endorsement.

Location

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

County: Montgomery

Township, Range, Section:
8N, 5W, 17

IL Department of Natural Resources Contact
Alex Davis
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
U.S. Army Corps of Engineers

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.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

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.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

APPENDIX D

USACE DATA SHEETS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 3
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? **Yes** **No** X

Remarks:
In northern end of linear feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	60	Yes	UPL
2. *Panicum dichotomiflorum*	35	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	95 (A)		370 (B)

Prevalence Index = B/A = 3.89

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** X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 3

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
0-16	10YR 3/1	100				M	Loamy/Clayey	
16-24	2.5Y 4/1	90			D	M	Loamy/Clayey	
			10YR 5/6	10	C			Prominent redox concentrations

[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)
- ___ 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]:

- ___ 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** ___ **No** X

Remarks:

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)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X 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? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 4
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? **Yes** **No** X

Remarks:
Upland, east of linear feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	60	Yes	UPL
2. *Panicum dichotomiflorum*	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	75 (A)		330 (B)

Prevalence Index = B/A = 4.40

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** X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-40	10YR 3/1	95				M	Loamy/Clayey	
			10YR 5/6	5	C			Prominent redox concentrations

[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)
- ___ 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)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 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:

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? (includes capillary fringe) Yes ___ No X Depth (inches): ___

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 5
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes No X
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? **Yes** **No** X

Remarks:
In similarly situated area to the linear feature, along north Site boundary

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Poa pratensis*	30	Yes	FAC
2. *Setaria pumila*	20	Yes	FAC
3. *Trifolium pratense*	20	Yes	FACU
4. *Taraxacum officinale*	15	No	FACU
5. *Panicum dichotomiflorum*	10	No	FACW
6. *Amaranthus palmeri*	5	No	FACU
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	50	x 3 =	150
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	100 (A)		330 (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:
- 1 - Rapid Test for Hydrophytic Vegetation
- X 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** X **No**

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 5

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
0-42	10YR 3/1	100				M	Loamy/Clayey	
42-46	10YR 4/1	60			D	M	Loamy/Clayey	
			10YR 3/1	38		M		
			10YR 5/6	2	C			Prominent redox concentrations

[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)
- ___ 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]:

- ___ 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** ___ **No** X

Remarks:

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 6
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? **Yes** X **No**

Remarks:
In northeast, Wetland A

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Setaria pumila*	30	Yes	FAC
2. *Panicum dichotomiflorum*	30	Yes	FACW
3. *Amaranthus palmeri*	30	Yes	FACU
4. *Digitaria sanguinalis*	10	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	30	x 3 =	90
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	100 (A)		310 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- X 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** X **No**

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 6

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
0-8	10YR 2/1	100				M	Loamy/Clayey	
8-20	2.5Y 5/2	85			D	M	Loamy/Clayey	
			2.5Y 5/6	15	C			Prominent redox concentrations

[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)
- X Depleted Below Dark Surface (A11)
- ___ 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 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:

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 3
Water Table Present?	Yes X	No ___	Depth (inches): 3
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 6

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 7
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes No X

Is the Sampled Area within a Wetland? **Yes** **No** X

Remarks:
Upland, north of Wetland A in access drive

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Poa pratensis*	40	Yes	FAC
2. *Taraxacum officinale*	20	Yes	FACU
3. *Plantago lanceolata*	20	Yes	FACU
4. *Trifolium pratense*	15	No	FACU
5. *Digitaria sanguinalis*	5	No	FACU
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.60

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** X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 7

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
0-16	10YR 2/1	100				M	Loamy/Clayey	
16-30	2.5Y 4/2	80			D	M	Loamy/Clayey	
			2.5Y 3/1	10		M		
			2.5Y 5/6	10	C			Prominent redox concentrations

[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]:

- ___ 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:

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar | City/County: Litchfield / Montgomery Co. | Sampling Date: 11/12/2024
Applicant/Owner: Carson Power | State: IL | Sampling Point: DP 1
Investigator(s): O. Hollander | Section, Township, Range: N S17 T8N R5W
Landform (hillside, terrace, etc.): None | Local relief (concave, convex, none): None
Slope (%): | Lat: 39.141232 | Long: -89.672104 | Datum:
Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) | NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes No X
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? **Yes** **No** X

Remarks:
In western portion of linear feature

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	70	Yes	UPL
2. *Panicum dichotomiflorum*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	70	x 5 =	350
Column Totals:	80 (A)		370 (B)

Prevalence Index = B/A = 4.63

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** X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/2	100			D	M	Loamy/Clayey	
10-24	2.5Y 4/1	85			D	M	Loamy/Clayey	
			10YR 5/6	15	C			Prominent redox concentrations

[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)
- ___ 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 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:

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)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X 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? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Litchfield Solar City/County: Litchfield / Montgomery Co. Sampling Date: 11/12/2024

Applicant/Owner: Carson Power State: IL Sampling Point: DP 2

Investigator(s): O. Hollander Section, Township, Range: N S17 T8N R5W

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

Slope (%): _____ Lat: 39.141232 Long: -89.672104 Datum: _____

Soil Map Unit Name: Herrick-Biddle-Piasa silt loams (894A) NWI classification: N/A

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Upland, north of linear feature in NW portion of Site

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	_____ =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Zea mays*	60	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 =Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	_____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	60 (A)		300 (B)

Prevalence Index = B/A = 5.00

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 X

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop recently harvested. Remnant stalks present.

SOIL

Sampling Point: DP 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
0-24	10YR 4/2	100			D	M	Loamy/Clayey	
24-36	2.5Y 4/1	85			D	M	Loamy/Clayey	
			10YR 5/6	15	C			Prominent redox concentrations

[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)
- ___ 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)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 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:

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? (includes capillary fringe) Yes ___ No X Depth (inches): ___

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

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

Remarks: