Assured Wetland Delineation Report

Dane County Parcel 0512-064-9660-3

Town of Albion, Dane County, Wisconsin

June 21, 2024

Project Number: 20241262

506 Springdale Street | Mount Horeb, WI 53572 | www.heartlandecological.com

Dane County Parcel 0512-064-9660-3

Town of Albion, Dane County, Wisconsin

June 21, 2024

Prepared for:

Ms. Elizabeth Heneghan

JE Acres, LLC.

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Prepared by:

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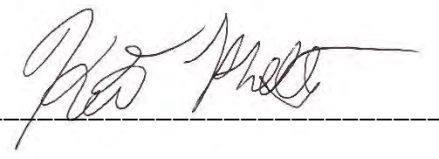

Keith Phelps, Environmental Scientist

Jeff Kraemer, Principal

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1.0 Introduction

Heartland Ecological Group, Inc. ("Heartland") completed an assured wetland determination and delineation on the Dane County Parcel 0512-064-9660-3 site on May 14th, 2024 at the request of JE Acres, LLC. Fieldwork was completed by Jeff Kraemer, an assured delineator qualified via the Wisconsin Department of Natural Resources' (WDNR's) Wetland Delineation Assurance Program (Appendix E, Qualifications). The 9.69-acre site (the "Study Area") is east of the intersection of US Highway (US) 51 and Ramsey Road, in the southeast ¼ of Section 6, T5N, R11E, Town of Albion, Dane County, WI (Figure 1, Appendix A). The purpose of the wetland delineation was to determine the location and extent of wetlands within the Study Area.

One (1) wetland area totaling approximately 6.49 acres was delineated and mapped within the Study Area (Figure 7, Appendix A). Wetlands, waterways, and water bodies discussed in this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of the WDNR, and local zoning authorities. Heartland recommends this report be submitted to local authorities, the WDNR, and USACE for final jurisdictional review and concurrence.

2.0 Methods

2.1 Wetlands

Wetlands were determined and delineated using the criteria and methods described in the USACE Wetland Delineation Manual, T.R. Y-87-1 ("1987 Corps Manual") and the applicable *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*. In addition, the *Guidance for Submittal of Delineation Reports to the St. Paul District USACE and the WDNR* (WDNR, 2015) was followed in completing the wetland delineation and report.

Determinations and delineations utilized available resources including the U.S. Geological Survey's (USGS) *WI 7.5 Minute Series (Topographic) Map* (Figure 2, Appendix A), the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service's (NRCS) Soil Survey Geographic Database (SSURGO) *Web Soil Survey* (Figure 3, Appendix A), the WDNR's *Wetland Indicator* data layer (Figure 4, Appendix A), the WDNR's *Wisconsin Wetland Inventory* data layer (Figure 5, Appendix A), the WNDR's *24k Hydro Flowlines (Rivers and Streams)* data layer (Figure 2 and 5, Appendix A), the WDNR's *Color-Stretch LiDAR and Hillshade Image Service Layer* (Figure 6, Appendix A), and aerial imagery available through the USDA Farm Service Agency's (FSA) National Agriculture Imagery Program (NAIP) and Dane County's Land Information Office.

Wetland determinations were completed on-site at sample points, often along transects, using the three (3) criteria (vegetation, soil, and hydrology) approach per the 1987 Corps Manual and the Regional Supplement. Procedures in these sources were followed to demonstrate that, under normal circumstances, wetlands were present or not present based on a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology.

Atypical conditions were encountered within the Study Area due to the presence of agricultural fields including row-cropping and hay fields in areas with soils that may be hydric based on the *Web Soil Survey* and the WDNR *Surface Water Data Viewer's* wetland indicator data layer. Therefore, procedures for managed plant communities in the *Problematic hydrophytic vegetation* section described in Chapter 5 of the Regional Supplement were used. NAIP imagery were reviewed for evidence of crop stress, saturation, or inundation signatures. Sample point placements for the wetland delineation were partially determined based on such signatures.

In actively farmed areas within the Study Area where hydric soils may be present, methods described in Chapter 5 (Difficult Wetland Situations) of the Regional Supplement were followed. Available aerial imagery was analyzed using procedures described in the *Guidance for Offsite Hydrology/Wetland Determinations* (USACE and Minnesota Board of Water and Soil Resources, July 2016 – "July 2016 Guidance"). An off-site aerial imagery analysis (Off-Site Analysis) was completed to document the presence or absence of wetland signatures and assist in the wetland determination. A wetland signature is evidence, recorded by aerial imagery, of ponding, flooding, or impacts of saturation for sufficient duration to meet wetland hydrology and possibly wetland vegetation criteria. Wetland signatures often vary based on the type and seasonal date of the aerial imagery. For example, there are seven (7) standardized signature types in actively farmed settings described in the July 2016 Guidance. To assist in interpretations of wetland signatures, a WETS analysis was used to compare antecedent precipitation in the three (3) months leading up to each aerial image to the long-term (30-year) precipitation averages and standard deviation to determine if antecedent precipitation conditions for each image was normal, wet, or dry. Areas within agricultural fields are typically determined to be wetland if hydric soils and wetland hydrology indicators are present and aerial images taken in the five (5) (or more) most recent normal antecedent precipitation images show at least one (1) of the wetland signatures per the July 2016 Guidance. Although the off-site analysis concentrates on imagery taken under normal antecedent precipitation conditions, the images determined to be taken under wet and dry antecedent precipitation conditions were also analyzed and considered. Determinations and delineation of wetlands in agricultural areas are typically based on an outline of the largest wetland signature on an image taken under "normal" antecedent conditions, and based on the consistency of the signatures (USDA, NRCS 1998).

Recent weather conditions influence the visibility or presence of certain wetland hydrology indicators. An assessment of recent precipitation patterns helps to determine if climatic/hydrologic conditions were typical when the field investigation was completed. Therefore, a review of antecedent precipitation in the 90 days leading up to the field investigation was completed. Using an Antecedent Precipitation Tool (APT) analysis developed by the USACE (Deters & Gutenson 2021), the amount of precipitation over these 90 days was compared to averages and standard deviation thresholds observed over the past 30 years to generally represent if conditions encountered during the investigation were

normal, wet, or dry. Recent precipitation events in the weeks prior to the investigation were also considered while interpreting wetland hydrology indicators. Additionally, the Palmer Drought Severity Index was checked for long-term drought or moist conditions (NOAA, 2018).

The uppermost wetland boundary and sample points were identified and marked with wetland flagging and located with a Global Navigation Satellite System (GNSS) receiver capable of sub-meter accuracy. In some cases, wetland flagging was not utilized to mark the boundary and the location was only recorded with a GNSS receiver, particularly in active agricultural areas. The GNSS data was then used to map the wetlands using ESRI ArcGIS Pro™ software.

3.0 Results and Discussion

3.1 Desktop Review

Climatic Conditions

According to the APT analysis using the previous 90 days of precipitation data, conditions encountered at the time of the fieldwork were expected to be wetter than normal for the time of year (Appendix B). The Palmer Drought Severity Index was checked as part of the APT analysis, and the long-term conditions at the time of the fieldwork were in the moderate wetness range. Fieldwork was completed outside the dry-season based on long-term regional hydrology data utilized in the WebWIMP Climatic Water Balance and computed as part of the APT analysis.

General Topography and Land Use

The topography within the Study Area is a level plain positioned between two (2) drumlins located offsite to the northeast and northwest. A topographic high of approximately 877 feet above mean sea level (msl) is present in the northeast corner of the Study Area, and a topographic low of approximately 869 feet above msl near the western boundary (Figures 2, 6, and 7 Appendix A). Land uses within the Study Area and surrounding areas are primarily agricultural row cropping with residential, pasture, and woodland areas also present. General drainage is to the south and west towards agricultural ditches located offsite to the south.

Soil Mapping

Soils mapped by the NRCS Soil Survey within the Study Area and their hydric status are summarized in Table 1. Wetlands identified during the field investigation are located primarily within areas mapped as hydric or partially hydric soils including wetland indicator soils (Figures 3 and 4, Appendix A).

Table 1. Summary of NRCS Mapped Soils within the Study Area

Soil Symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
BbB: Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	Batavia-Gravelly substratum	100	Outwash plains	No
Ho: Houghton muck	Houghton	100	Depressions on stream terraces	Yes
Pa: Palms muck, 0 to 2 percent slopes	Palms-Muck	75-95	Interdrumlins	Yes
	Houghton-Muck	3-15	Depressions	Yes
	Adrian	2-10	Interdrumlins	Yes
SaA: Sable silty clay loam, 0 to 2 percent slopes	Sable	85-100	Swales	Yes
	Muscatune	0-6	Ground moraines	No
	Ipava	0-7	Ground moraines	No
	Buckhart	0-4	Knolls	No
	Elburn	0-3	Outwash plains	No
Wa: Wacousta silty clay loam, 0 to 2 percent slopes	Wacousta	80-90	Interdrumlins	Yes
	Sable	5-10	Interdrumlins	Yes
	Sebewa	5-10	Interdrumlins	Yes

Wetland Mapping

The Wisconsin Wetlands Inventory (WWI) mapping (Figure 5, Appendix A) depicts one (1) wetland complex partially within the Study Area. The emergent/wet meadow/forested wetland complex, with portions that are grazed, (E1Ha, E1Ka, E2Kg, T3K) is mapped in the western portion of the Study Area. This wetland complex continues offsite to the west and north.

Waterway Mapping

The WDNR's Rivers and Streams data layer (Figure 5, Appendix A) depicts one (1) intermittent waterway within the western portion of the Study Area. No waterbodies are present on WDNR's River and Streams data layer within the Study Area.

Off-Site Analysis

Agricultural fields within the Study Area have significant mapped hydric or potentially hydric soils and were the focus of the off-site aerial imagery analysis (OSA) (Appendix F). From the aerial imagery, in two (2) subtle toeslope areas, the secondary wetland hydrology indicators "Saturation Visible on Aerial Imagery" (C9) and "Stunted or Stressed Plants" (D1) were noted.

A total of 21 aerial images were selected and reviewed based on availability and quality of the imagery. Of these images, nine (9) were taken under normal antecedent precipitation conditions. Signatures were noted in two (2) areas within the Study Area within landscape positions described by the NRCS to support hydric soil components and were the focus of the OSA. At least one (1) of the seven (7) described wetland signatures per the July 2016 Guidance were consistently noted in two (2) of these areas on imagery taken under normal antecedent precipitation conditions. In imagery taken under wet antecedent precipitation conditions, such wetland signatures were noted in seven (7) of the seven (7) images. In imagery taken under dry antecedent precipitation conditions, there were wetland signatures noted in two (2) of the five (5) images.

Based on the off-site analysis, two (2) actively row cropped areas were likely to be wetland prior to the fieldwork.

3.2 Field Review

One (1) wetland was identified and delineated within the Study Area. Wetland determination data sheets (Appendix C) were completed at five (5) sample points that were representative of the wetland and upland conditions near the boundary and where potential wetlands may be present based on the desktop review and field reconnaissance. Appendix D provides photographs, typically at the sample point locations of the wetlands and adjacent uplands. The wetland boundary and sample point locations are shown on Figure 7 (Appendix A) and the wetlands are summarized in Table 2 and detailed in the following sections.

Table 2. Summary of Wetlands Identified within the Study Area

Wetland ID	Wetland Description	*Surface Water Connections	*NR151 Protective Area	Acreage (on-site)
W-1	Wet Meadow/ Farmed Wet Meadow	Contiguous to unnamed tributary to Saunders Creek	Less susceptible, 30 feet	6.49
*Classification based on Heartland's professional opinion. Jurisdictional authority of wetland and waterway protective areas under NR 151 lies with the WDNR. Local zoning authorities may have additional restrictions. USACE has authority for determining federal jurisdiction of wetlands and waterways.				6.49

Wetland 1 (W-1)

Wetland 1 (W-1) is a 6.49-acre complex of wet meadow and farmed wet meadow located in the western and central portions of the Study Area.

Dominant vegetation observed in W-1 included field horsetail (*Equisetum arvense*, FAC), reed canary grass (*Phalaris arundinacea*, FACW), and green bullrush (Scirpus atrovirens, OBL). Therefore the wetland vegetation parameter was met.

Depleted Dark Surface (A11) hydric soil indicator was met in W-1, which is consistent with the mapped Wacousta silty clay loam soil type. Thus, the hydric soil parameter was met.

The secondary wetland hydrology indicators of Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2) and a positive FAC-Neutral Test (D5) were identified. An offsite analysis (OSA) was completed to determine cropping history and presence of wetland signatures. The farmed wetland portion of W-1 consistently presented wetland signatures based on the OSA. Therefore the wetland hydrology parameter was met.

The boundary of W-1 generally followed OSA signatures present within the OSA analysis in agricultural areas. The eastern boundary was delineated based on the presence of these signatures. Overall, the boundaries of W-1 had subtly defined topographic breaks.

Waterways

No waterways were observed during the wetland delineation fieldwork. WDNR's River and Streams Data layer depicts an intermittent waterway in the western portion of the Study Area.

3.3 Other Considerations

This report is limited to the identification and delineation of wetlands within the Study Area. Other regulated environmental resources that result in land use restrictions may be present within the Study Area that were not evaluated by Heartland (e.g. navigable waterways, floodplains, cultural resources, and threatened or endangered species).

Wisconsin Act 183 provides exemptions to permitting requirements for certain nonfederal wetlands. Nonfederal wetlands are wetlands that are not subject to federal jurisdiction. Exemptions apply to projects in urban areas with wetland impacts up to 1-acre per parcel. An urban area is defined as an incorporated area; an area within ½ mile of an incorporated area; or an area served by a sewerage system. Exemptions for nonfederal wetlands also apply to projects in rural areas with wetland impacts up to three (3) acres per parcel. Exemptions in rural areas only apply to structures with an agricultural purpose such as buildings, roads, and driveways. The determination of federal and nonfederal wetlands MUST be made by the USACE through an Approved Jurisdictional Determination (AJD). This report may be submitted to the USACE to assist with their determination.

Wis. Adm. Code NR 151 ("NR 151") requires that a "protective area" (buffer) be determined from the Ordinary High-Water Mark (OHWM) of lakes, streams and rivers, or at the delineated boundary of wetlands. Per NR 151.12, the protective area width for "less susceptible" wetlands is determined by using 10% of the average wetland width, no less than 10 feet or more than 30 feet. "Moderately susceptible" wetlands, lakes, and perennial and intermittent streams identified on recent mapping require a protective area width of 50 feet; while "highly susceptible wetlands" are associated with outstanding or exceptional resource waters in areas of special natural resource interest and require protective area width of 75 feet. Table 2 above lists the potential wetland buffers per NR 151 for each wetland identified based on Heartland's professional opinion. Please note that jurisdictional authority on wetland and waterway protective areas under NR 151 lies with the WDNR. Local zoning authorities and regional planning organizations may have additional land use restrictions within or adjacent to wetlands.

4.0 Conclusion

Heartland completed an assured wetland determination and delineation within the Dane County Parcel 0512-064-9660-3 site on May 14, 2024 at the request of JE Acres, LLC. Fieldwork was completed by Jeff Kraemer, an assured delineator qualified via the WDNR's Wetland Delineation Assurance Program (Appendix E). The Study Area lies in Section 6, T5N, R11E, Town of Albion, Dane County, WI (Figure 1, Appendix A).

One (1) wetland area was delineated and mapped within the 9.69-acre Study Area (Figure 7, Appendix A). The wetland, which may be classified as farmed wet meadow and wet meadow, totals approximately 6.49 acres within the Study Area.

Wetlands, waterways, and water bodies discussed in this report may be subject to federal regulation under the jurisdiction of the USACE, state regulation under the jurisdiction of the WDNR, and the local zoning authority. Heartland recommends this report be submitted to the USACE and WDNR for final jurisdictional review and concurrence. Review by local authorities may be necessary for determination of any applicable zoning and setback restrictions.

Heartland recommends that all applicable regulatory agency reviews and permits are obtained prior to beginning work within the Study Area or within or adjacent to wetlands or waterways. Heartland can assist with evaluating the need for additional environmental reviews, surveys, or regulatory agency coordination in consideration of the proposed activity and land use as requested but is outside of the scope of the wetland delineation.

Experienced and qualified professionals completed the wetland determination and delineation using standard practices and professional judgment. Wetland boundaries may be affected by conditions present within the Study Area at the time of the fieldwork. All final decisions on wetlands and their boundaries are made by the USACE, the WDNR, and/or sometimes a local unit of government. Wetland determination and boundary reviews by regulatory agencies may result in modifications to the findings presented to the Client. These modifications may result from varying conditions between the time the wetland delineation was completed and the time of the review. Factors that may influence the findings may include but not limited to precipitation patterns, drainage modifications, changes or modification to vegetation, and the time of year.

5.0 References

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JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
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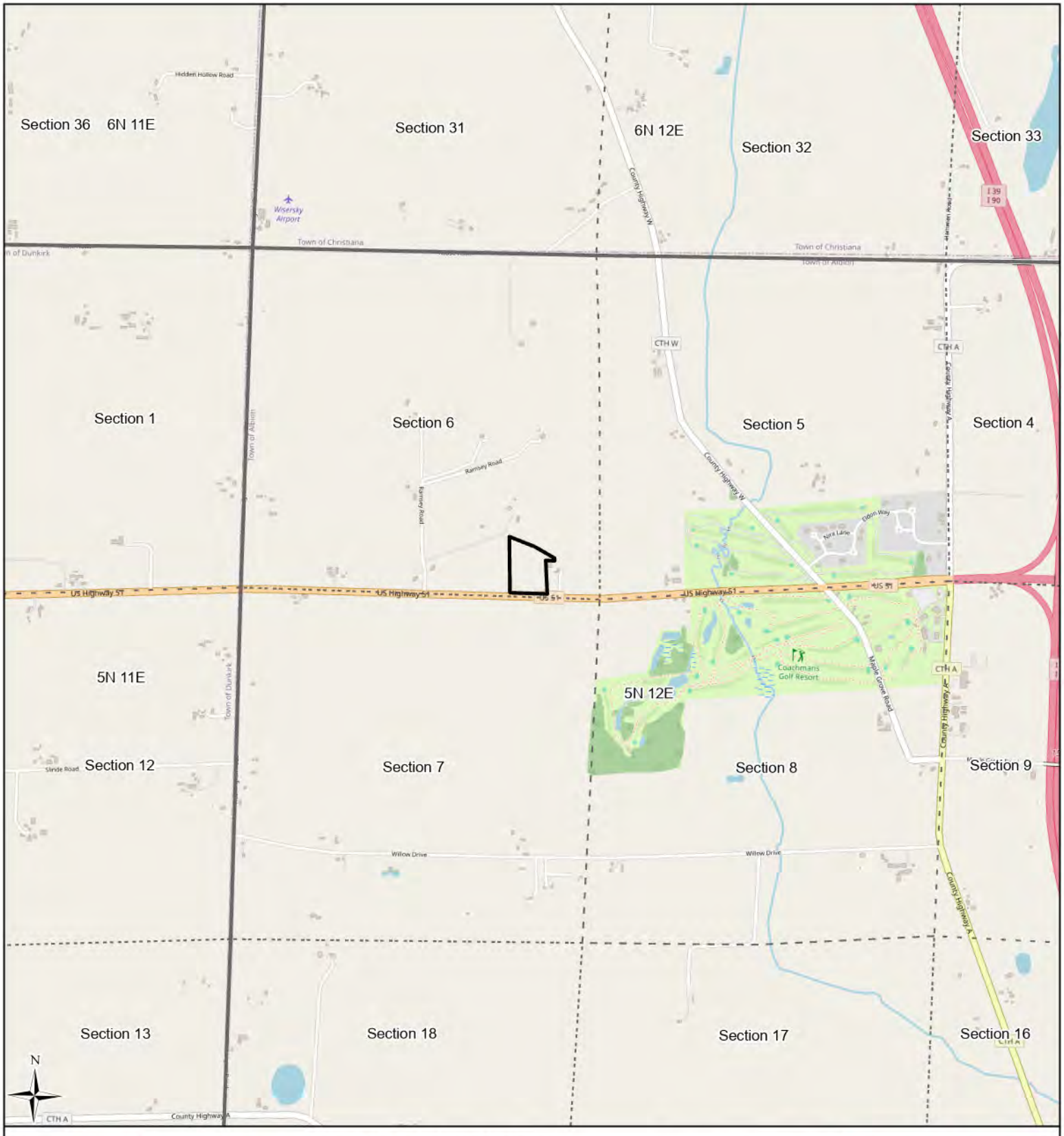
June 21, 2024

Appendix A | Figures



Study Area (9.69 ac)

Township

Section

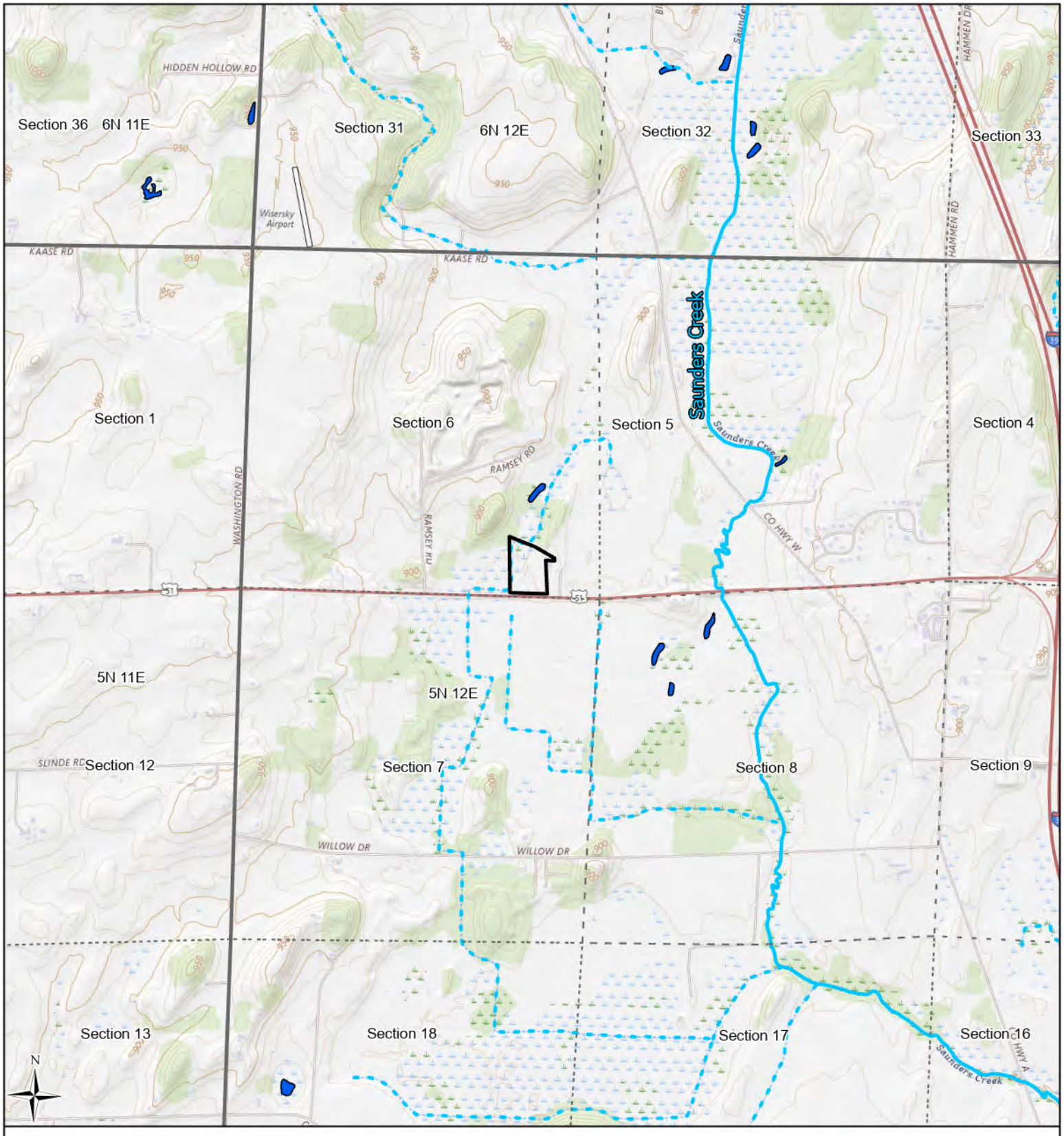
Heartland ECOLOGICAL GROUP INC

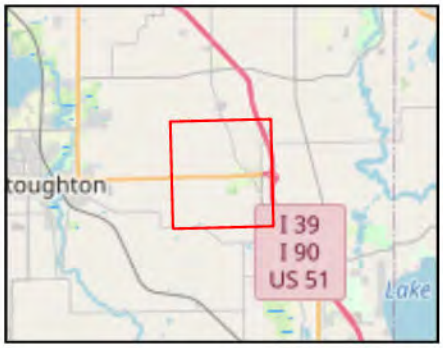
Figure 1. Project Location

Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

OpenStreetMap
ESRI
LRR: NCNE

Figure Created: 5/7/2024





Study Area (9.69 ac)
Township
Section
Waterbodies
Perennial Streams
Intermittent Streams

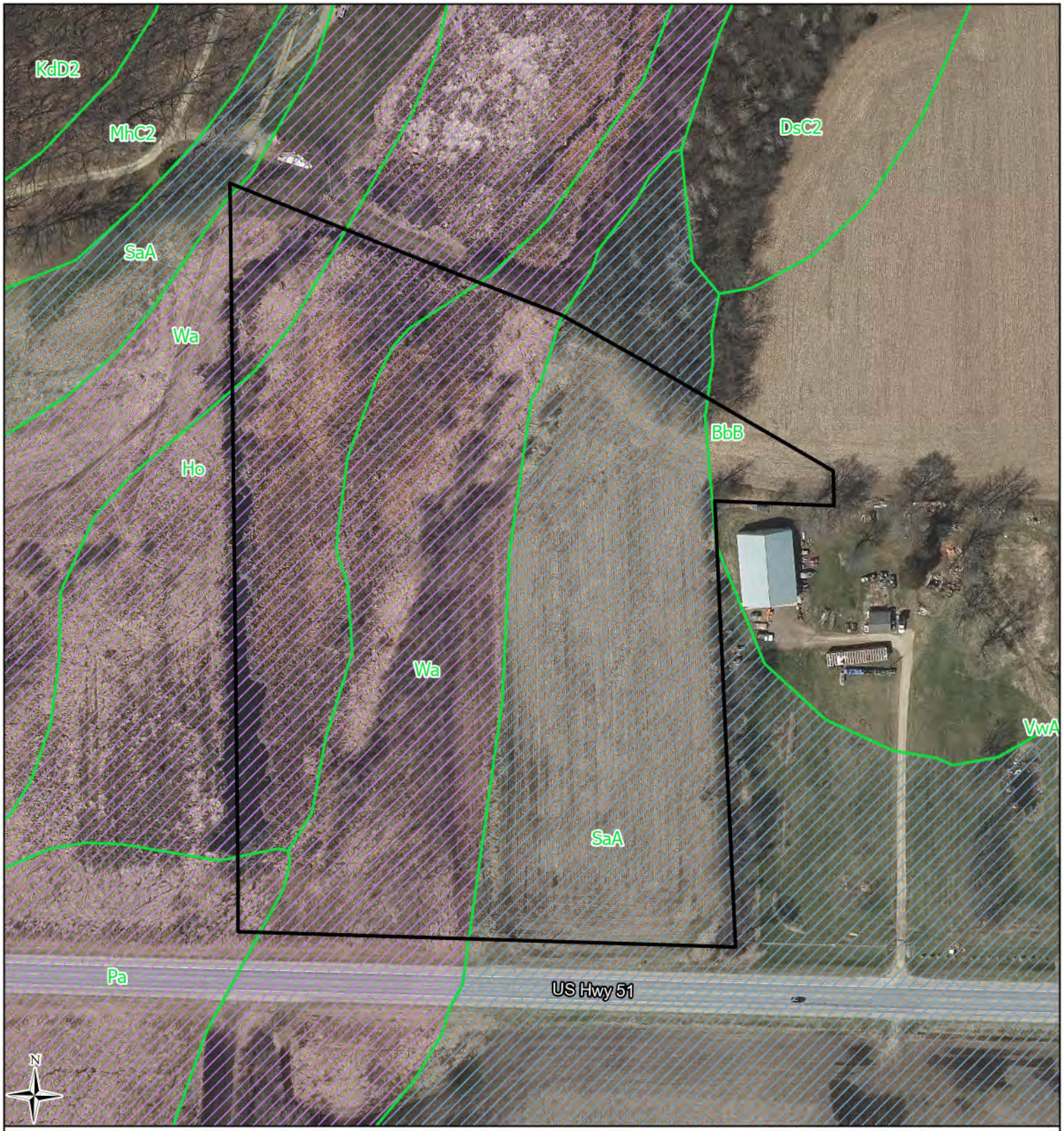
0 1,000 2,000 Ft

Heartland ECOLOGICAL GROUP INC

Figure 2. USGS Topography
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

USGSTopo
USGS, WDNR
LRR: NCNE

Figure Created: 5/7/2024



Study Area (9.69 ac)

NRCS Soil Survey Data

- Hydric (100%)
- Predominantly Hydric (85-99%)
- Partially Hydric (16-84%)
- Predominantly Non-Hydric (1-15%)
- Non-Hydric (0%)

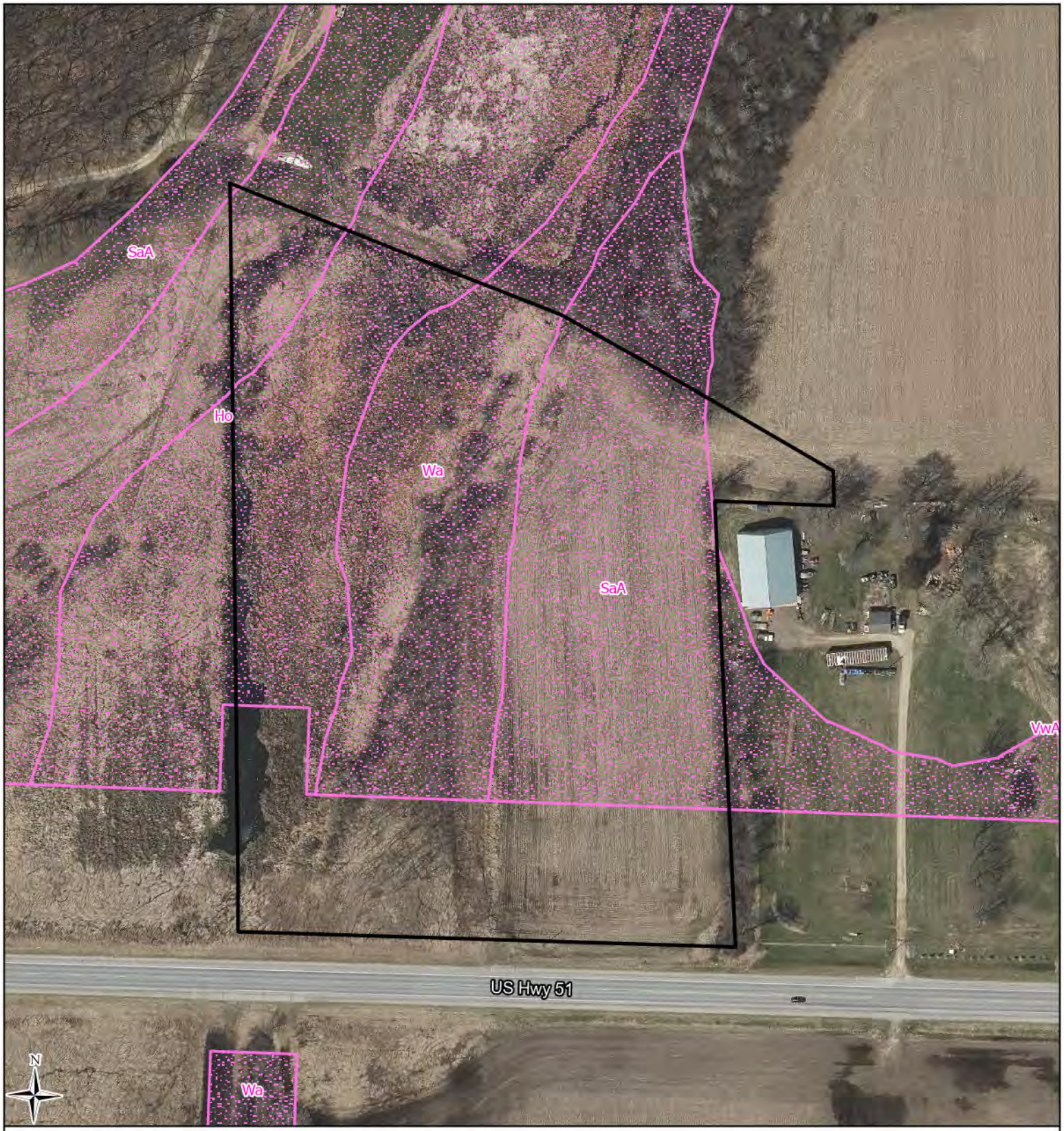
0 150 Ft

Heartland ECOLOGICAL GROUP INC

Figure 3. NRCS Hydric Soils
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2022 Orthophoto
NRCS LRR: NCNE

Figure Created: 5/7/2024



Study Area (9.69 ac)

SWDV Wetland Indicators

0 150 Ft

Heartland
ECOLOGICAL GROUP INC

Figure 4. SWDV Wetland Indicators
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2022 Orthophoto
WDNR LRR: NCNE

Figure Created: 5/7/2024

Study Area (9.69 ac)
WWI Polygons
WWI Points
Waterbodies (None in Map Extent)
Perennial Streams (None in Map Extent)
Intermittent Streams

0 150 Ft

Heartland
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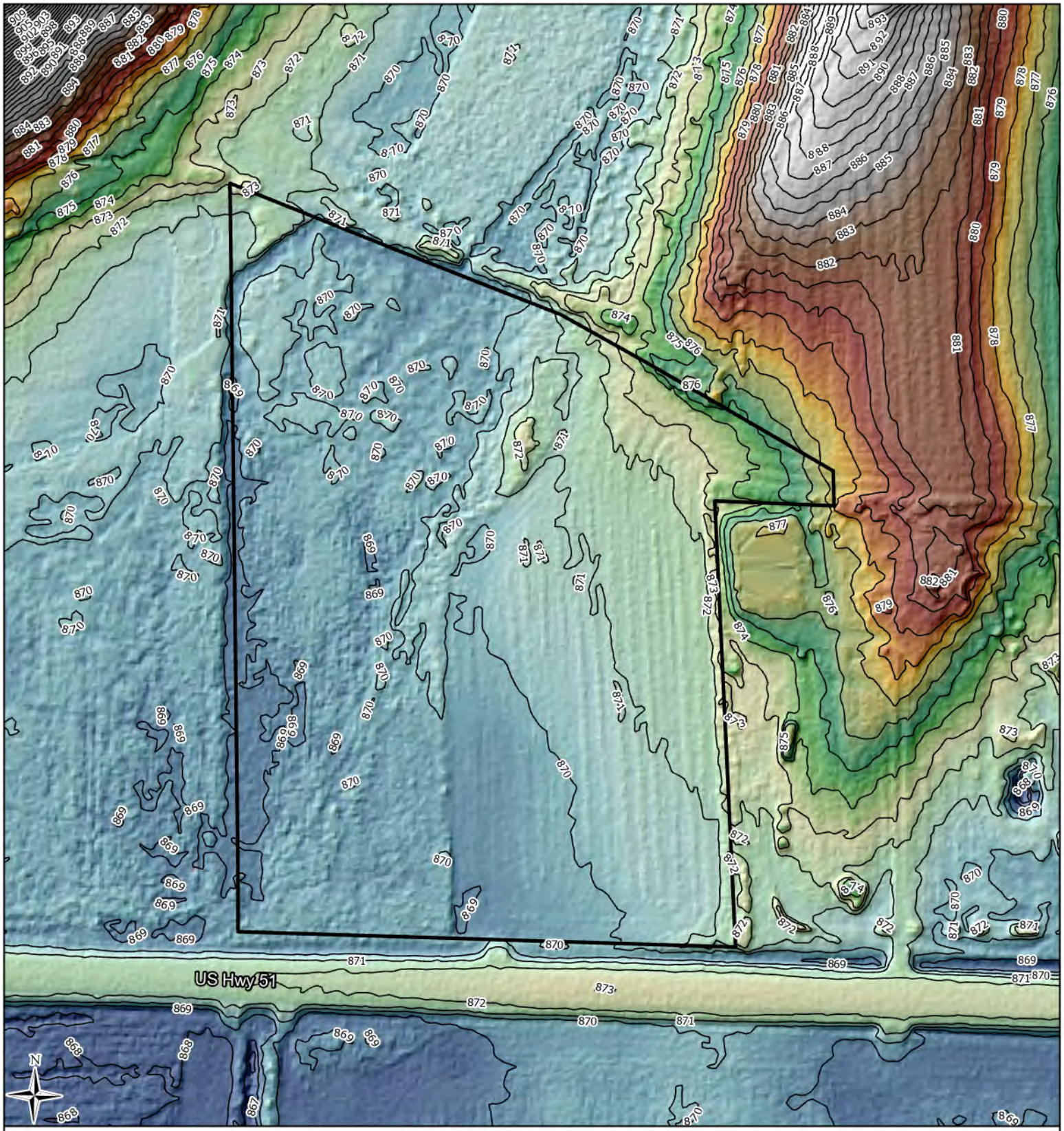
Figure 5. Wisconsin Wetland Inventory
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2022 Orthophoto
WDNR, USGS
LRR: NCNE

Figure Created: 5/7/2024



Study Area (9.69 ac)

Dane Co 1' Contours

0 150 Ft

Heartland
ECOLOGICAL GROUP INC

Figure 6. Color-Stretch Digital Elevation Model
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

DNR Lidar Service
WDNR LRR: NCNE

Figure Created: 5/15/2024

Study Area (9.69 ac)

Dane Co 1' Contours

Field Delineated Wetlands (6.49 ac)

Sample Points

- Upland
- Wetland

0 150 Ft

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Figure 7. Field Delineated Wetlands

Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2022 Orthophoto
Dane Co, HEG

LRR: NCNE

Figure Created: 5/15/2024

JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
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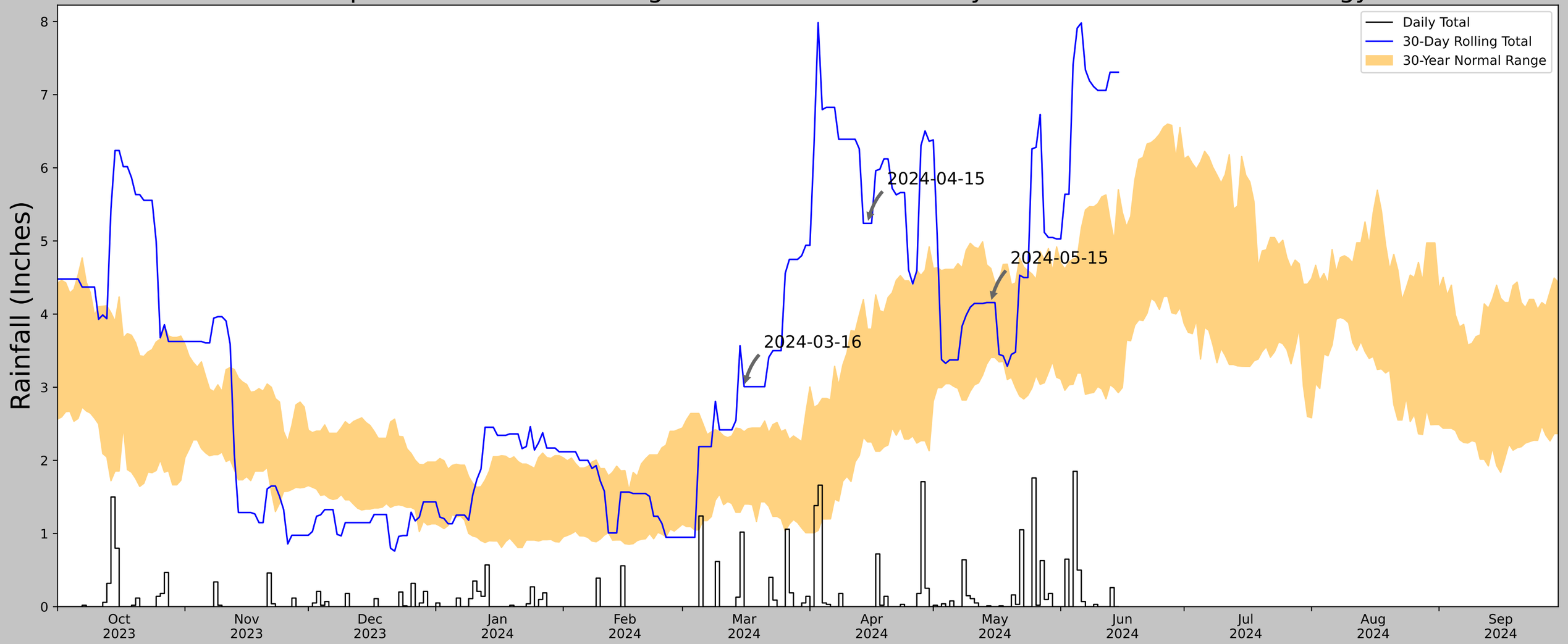
Appendix B | APT Analysis

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



Coordinates	42.920988, -89.115658
Observation Date	2024-05-15
Elevation (ft)	870.062
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
2024-05-15	3.406299	4.62441	4.15748	Normal	2	3	6
2024-04-15	2.252756	3.794882	5.240158	Wet	3	2	6
2024-03-16	1.402756	2.390945	3.007874	Wet	3	1	3
Result							Wetter than Normal - 15

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
STOUGHTON WWTP	42.9111, -89.2131	835.958	4.978	34.104	2.41	10413	89
DUNKIRK 0.1 NW	42.8836, -89.2106	849.081	1.904	13.123	0.882	6	0
EDGERTON 5.9 N	42.9222, -89.0925	905.84	6.15	69.882	3.197	2	0
MCFARLAND 0.8 E	43.0186, -89.2785	890.092	8.13	54.134	4.099	47	0
COTTAGE GROVE 3.6 SSW	43.0352, -89.2208	893.045	8.583	57.087	4.352	0	1
MCFARLAND 1.3 NE	43.0324, -89.2767	883.858	8.977	47.9	4.47	4	0
OREGON 0.7 SE	42.918, -89.3739	941.929	8.151	105.971	4.532	3	0
OREGON 0.4 SSW	42.9208, -89.3854	976.05	8.744	140.092	5.16	3	0
COTTAGE GROVE	43.0769, -89.1911	866.142	11.51	30.184	5.527	3	0
UW ARBORETUM - MADISON	43.0411, -89.4286	870.079	14.119	34.121	6.835	839	0
MADISON DANE CO RGNL AP	43.1406, -89.3453	858.924	17.206	22.966	8.138	32	0

JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
Project #: 20241262
June 21, 2024

Appendix C | Wetland Determination Data Sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Dane County Parcel 0512-064-9660-3 City/County: Albion, Dane Sampling Date: 5/14/2024

Applicant/Owner: JE Acres LLC State: WI Sampling Point: P1

Investigator(s): Jeff Kraemer, Heartland Section, Township, Range: Sect. 6, T5N, R11E

Landform (hillside, terrace, etc.): low terrace Local relief (concave, convex, none): linear Slope %: 1-3

Subregion (LRR or MLRA): LRR K Lat: Long: Datum:

Soil Map Unit Name: Sable 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
APT analysis indicates climatic conditions are wetter than normal for the time of year. Not normal circumstances due to row cropping.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

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:
OSA review area consistently row cropped without consistent wetland signatures.

VEGETATION – Use scientific names of plants. Sampling Point: P1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Setaria italica*	60	Yes	FACU
2. *Sonchus arvensis*	1	No	FACU
3. *Taraxacum officinale*	1	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	62 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	62	x 4 =	248
UPL species	0	x 5 =	0
Column Totals:	62 (A)		248 (B)

Prevalence Index = B/A = 4.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Crop field, not yet disked or planted. Corn stubble from 2023 crop present and no idications of crop stress based on stubble remains.

SOIL

Sampling Point P1

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
0-12	10YR 2/2	100					Loamy/Clayey	SiCL
12-24	10YR 4/2	65	10YR 5/8	10	C	M	Loamy/Clayey	SiC
	10YR 5/3	25						

[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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Dane County Parcel 0512-064-9660-3 City/County: Albion, Dane Sampling Date: 5/14/2024

Applicant/Owner: JE Acres LLC State: WI Sampling Point: P2

Investigator(s): Jeff Kraemer, Heartland Section, Township, Range: Sect. 6, T5N, R11E

Landform (hillside, terrace, etc.): low terrace Local relief (concave, convex, none): linear Slope %: 1-3

Subregion (LRR or MLRA): LRR K Lat: Long: Datum:

Soil Map Unit Name: Wacousta silty clay (Wa) NWI classification: E1Ka

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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
APT analysis indicates climatic conditions are wetter than normal for the time of year. Not normal circumstances due to row cropping. Farmed wetland.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X 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:
Consistent wetland signatures identified on OSA. No crop stress observed based on last seasons corn stubble.

VEGETATION – Use scientific names of plants. Sampling Point: P2

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Scirpus atrovirens*	7	Yes	OBL
2. *Equisetum arvense*	8	Yes	FAC
3. *Typha X glauca*	1	No	OBL
4. *Setaria italica*	1	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	17 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	8	x 1 =	8
FACW species	0	x 2 =	0
FAC species	8	x 3 =	24
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	17 (A)		36 (B)

Prevalence Index = B/A = 2.12

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
farmed wetland, corn stubble present from 2023, not yet planted.

SOIL

Sampling Point P2

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
0-11	10YR 2/1	100					Loamy/Clayey	SiCL
11-24	10YR 5/1	85	10YR 5/8	15	C	M	Loamy/Clayey	SiC

[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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Dane County Parcel 0512-064-9660-3 City/County: Albion, Dane Sampling Date: 5/14/2024

Applicant/Owner: JE Acres LLC State: WI Sampling Point: P3

Investigator(s): Jeff Kraemer, Heartland Section, Township, Range: Sect. 6, T5N, R11E

Landform (hillside, terrace, etc.): low terrace Local relief (concave, convex, none): linear Slope %: 1-3

Subregion (LRR or MLRA): LRR K Lat: Long: Datum:

Soil Map Unit Name: Wacousta silty clay (Wa) 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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
APT analysis indicates climatic conditions are wetter than normal for the time of year. Not normal circumstances due to row cropping. Farmed wetland.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X 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:
Consistent wetland signatures identified on OSA. No crop stress observed based on last seasons corn stubble.

VEGETATION – Use scientific names of plants. Sampling Point: P3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Scirpus atrovirens*	3	No	OBL
2. *Equisetum arvense*	8	Yes	FAC
3. *Typha X glauca*	1	No	OBL
4. *Veronica peregrina*	1	No	FAC
5. *Phalaris arundinacea*	12	Yes	FACW
6. *Trifolium hybridum*	1	No	FACU
7. *Salix interior*	2	No	FACW
8.			
9.			
10.			
11.			
12.			
	28 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	4	x 1 =	4
FACW species	14	x 2 =	28
FAC species	9	x 3 =	27
FACU species	1	x 4 =	4
UPL species	0	x 5 =	0
Column Totals:	28 (A)		63 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
farmed wetland, corn stubble present from 2023, not yet planted.

SOIL

Sampling Point P3

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
0-10	10YR 2/1	100					Loamy/Clayey	SiCL
10-24	10YR 5/1	85	10YR 5/8	15	C	M	Loamy/Clayey	SiC

[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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Dane County Parcel 0512-064-9660-3 City/County: Albion, Dane Sampling Date: 5/14/2024

Applicant/Owner: JE Acres LLC State: WI Sampling Point: P4

Investigator(s): Jeff Kraemer, Heartland Section, Township, Range: Sect. 6, T5N, R11E

Landform (hillside, terrace, etc.): low terrace Local relief (concave, convex, none): linear Slope %: 1-3

Subregion (LRR or MLRA): LRR K Lat: Long: Datum:

Soil Map Unit Name: Sable 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 X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
APT analysis indicates climatic conditions are wetter than normal for the time of year. Not normal circumstances due to row cropping.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

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:
OSA review area consistently row cropped without consistent wetland signatures.

VEGETATION – Use scientific names of plants. Sampling Point: P4

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Setaria italica*	20	Yes	FACU
2.			
3. *Taraxacum officinale*	1	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	21 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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	21	x 4 =	84
UPL species	0	x 5 =	0
Column Totals:	21 (A)		84 (B)

Prevalence Index = B/A = 4.00

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Crop field, not yet disked or planted. Corn stubble from 2023 crop present and no idications of crop stress based on stubble remains.

SOIL

Sampling Point P4

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
0-12	10YR 2/2	100					Loamy/Clayey	SiCL
12-20	10YR 4/3	72	10YR 5/8	8	C	M	Loamy/Clayey	SiC
	10YR 4/2	15						
20-24	10YR 4/2	70	10YR 5/6	10	C	M	Loamy/Clayey	SiC
	10YR 4/3	20						

[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)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Dane County Parcel 0512-064-9660-3 City/County: Albion, Dane Sampling Date: 5/14/2024

Applicant/Owner: JE Acres LLC State: WI Sampling Point: P5

Investigator(s): Jeff Kraemer, Heartland Section, Township, Range: Sect. 6, T5N, R11E

Landform (hillside, terrace, etc.): swale Local relief (concave, convex, none): concave Slope %: 1-3

Subregion (LRR or MLRA): LRR K Lat: Long: Datum:

Soil Map Unit Name: Sable 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 ____, 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**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
APT analysis indicates climatic conditions are wetter than normal for the time of year. Sample point within roadside swale, not farmed.
Representative of naturalized vegetation in non-farmed location within similar landscape position near wetland boundary.

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)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

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:

VEGETATION – Use scientific names of plants. Sampling Point: P5

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Bromus inermis*	40	Yes	UPL
2. *Poa pratensis*	40	Yes	FACU
3. *Taraxacum officinale*	1	No	FACU
4. *Pastinaca sativa*	10	No	UPL
5. *Dactylis glomerata*	5	No	FACU
6. *Equisetum arvense*	2	No	FAC
7. *Phalaris arundinacea*	3	No	FACW
8. *Sonchus arvensis*	1	No	FACU
9. *Daucus carota*	1	No	UPL
10.			
11.			
12.			
	103 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=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: 2 (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	3	x 2 =	6
FAC species	2	x 3 =	6
FACU species	47	x 4 =	188
UPL species	51	x 5 =	255
Column Totals:	103 (A)		455 (B)

Prevalence Index = B/A = 4.42

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.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point P5

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
0-12	10YR 2/2	100					Loamy/Clayey	SiCL
12-24	10YR 4/2	65	10YR 5/8	10	C	M	Loamy/Clayey	SiCL
	10YR 5/3	25						

[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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

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

JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
Project #: 20241262
June 21, 2024

Appendix D | Site Photographs

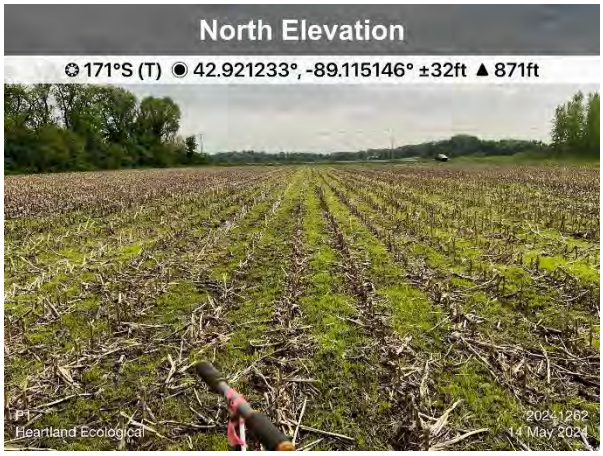


Photo #1 Sample point P1

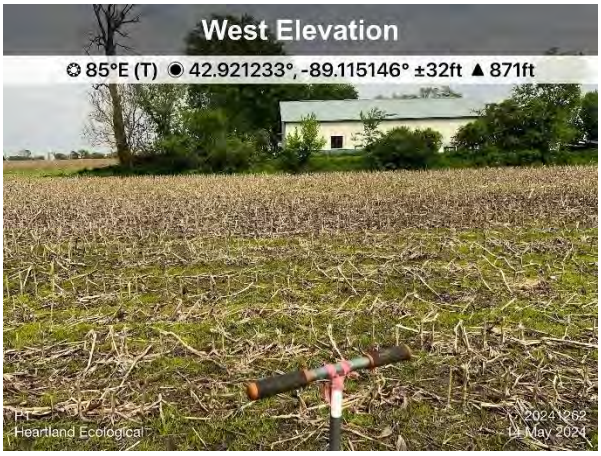


Photo #2 Sample point P1

Photo #3 Sample point P1

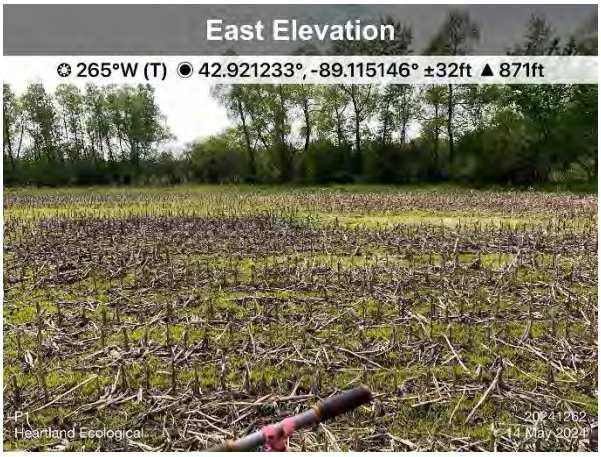


Photo #4 Sample point P1

Photo #5 Sample point P2

Photo #6 Sample point P2

Photo #7 Sample point P2

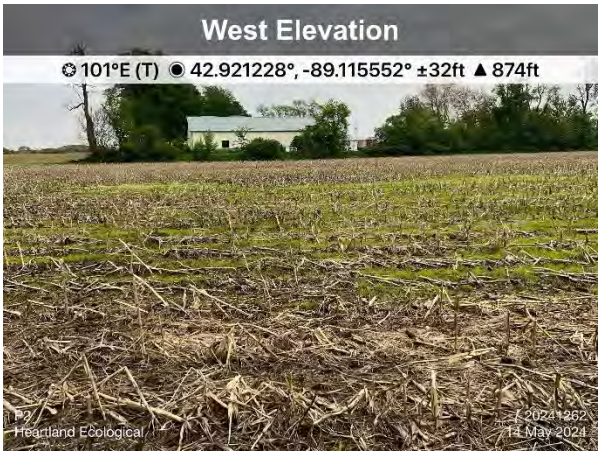


Photo #8 Sample point P2

Photo #9 Sample point P2

Photo #10 Sample point P3

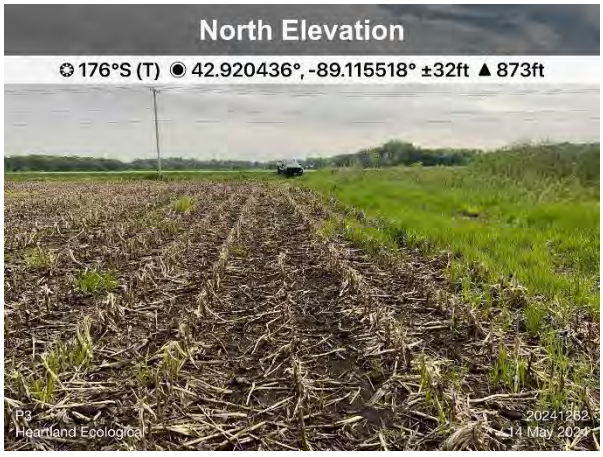


Photo #11 Sample point P3

Photo #12 Sample point P3

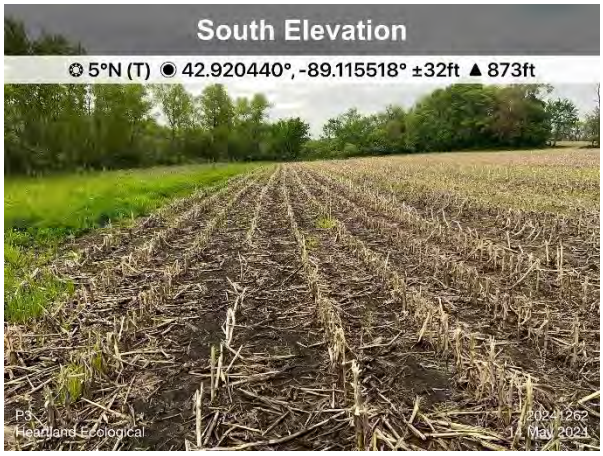


Photo #13 Sample point P3

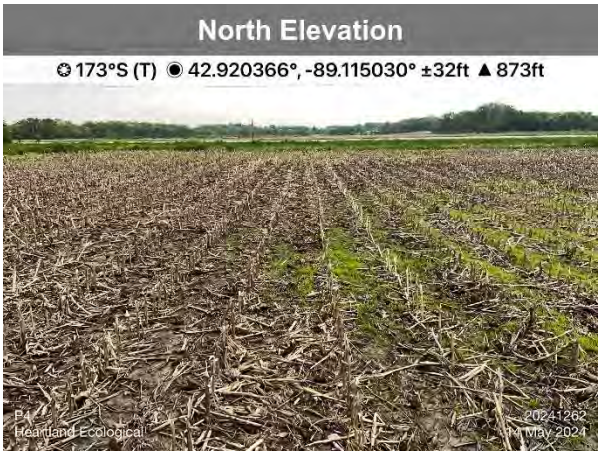


Photo #14 Sample point P4

Photo #15 Sample point P4

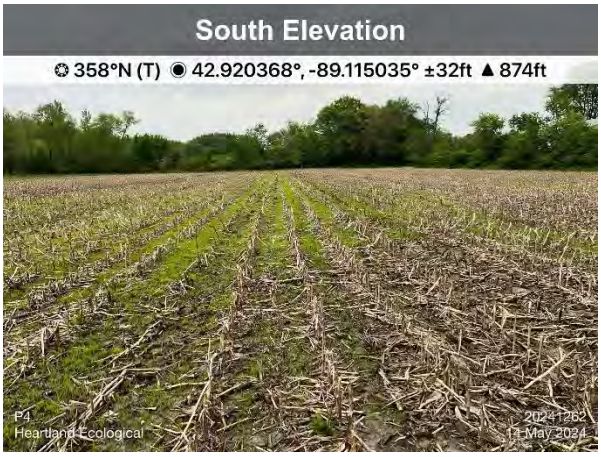


Photo #16 Sample point P4

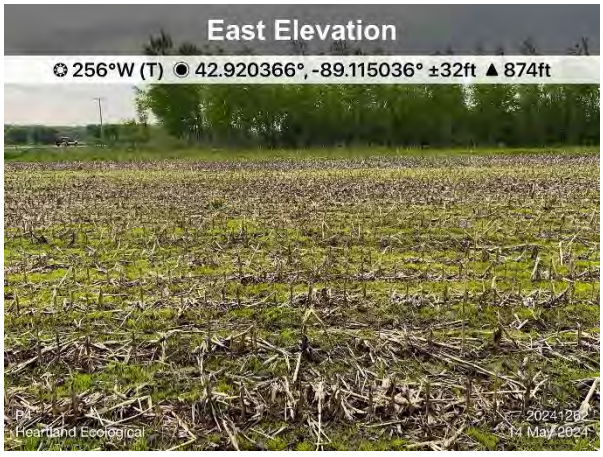


Photo #17 Sample point P4

Photo #18 Sample point P5

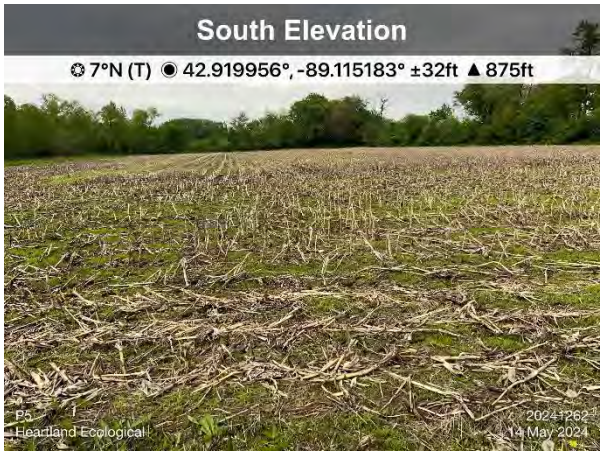


Photo #19 Sample point P5

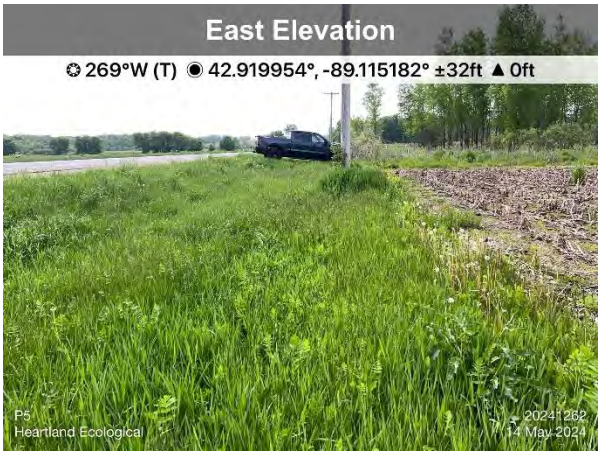


Photo #20 Sample point P5

JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
Project #: 20241262
June 21, 2024

Appendix E | Delineator Qualifications

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1027 W St Paul Ave
Milwaukee WI, WI, 53233

Tony Evers, Governor
Adam N. Payne, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

March 22, 2024

Jeff Kraemer
Heartland Ecological Group, Inc.
506 Springdale Street
Mt. Horeb, WI 53572

Subject: 2024 Assured Wetland Delineator Confirmation

Dear Mr. Kraemer:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2024 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: http://dnr.wi.gov/topic/wetlands/assurance.html.

In the instance where a municipality may require a letter of confirmation for your work prior to moving forward in the local regulatory process, this letter shall serve as that confirmation. Although your wetland delineations do not require WDNR field review, inclusion of a Wetland Delineation Report is required for projects needing State authorized wetland, waterway and/or storm water permit approvals.

To comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate in which system the data are projected. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756 or email at calvin.lawrence@wisconsin.gov).

If you or any client has a question regarding your status in the Wetland Delineation Professional Assurance Program, contact me by email at kara.brooks@wisconsin.gov or phone at 414-308-6780. Thank you for all your hard work and best wishes for the upcoming field season.

Sincerely,

Kara Brooks
Wetland Identification Coordinator
Bureau of Watershed Management

JE Acres, LLC.
Dane County Parcel 0512-064-9660-3
Project #: 20241262
June 21, 2024

Appendix F | Off-Site Analysis

Heartland
ECOLOGICAL GROUP INC

Field data sheet reference (if applicable): _____

TABLE A1

Wetland Hydrology from Aerial Imagery - Recording Form*

Project Name: **Dane County Parcel 0512-064-9660-3** *Date:* **6/17/2024** *County:* **Dane**

Investigator: **Jeff Kraemer** *Legal Description (T, R, S):* **T5NR12ES6**

Summary Table

Date Image Taken*	Image Source	Climate Condition (wet, dry, normal)	Image Interpretation(s)				
			See Offsite Analysis Reference Image figure for outlines of Areas 1 and 2				
			Area: 1	Area: 2			
July 1993	FSA Slide	Wet	DO/CS (image blurry)	DO/CS (image blurry)			
July 1994	FSA Slide	Dry	NV	NV			
Sept. 1995	FSA Slide	Normal	NV	NV			
Oct. 1996	FSA Slide	Dry	NSS	NSS			
July 1997	FSA Slide	Normal	AP	AP			
July 1998	FSA Slide	Wet	NSS	DO/SS			
July 1999	FSA Slide	Normal	NSS	NC (only in SW corner)			
July 2000	FSA Slide	Wet	NV	DO			
July 2001	FSA Slide	Normal	SS	SS/WS/NC			
July 2002	FSA Slide	Normal	NV (image blurry)	NV (image blurry)			
2004-06-22	NAIP	Normal	SS	SS/NC/WS			
2005-06-23	NAIP	Dry	NSS	NC/WS			
2006-07-31	NAIP	Normal	NV	NV			
2008-07-23	NAIP	Normal	CS	DO/SS			
2010-07-01	NAIP	Wet	SS	SS/WS/NC			
2013-06-19	NAIP	Wet	CS	DO			
2015-10-11	NAIP	Wet	SS	SS			
2017-09-03	NAIP	Normal	CS/DO	CS/DO			
2018-10-04	Maxar	Wet	SS	SS			
2020-08-30	NAIP	Dry	CS	CS			
2022-06-24	NAIP	Dry	NSS	NSS			
Normal Climate Condition			**Area: 1**	**Area: 2**			
Number			9	9			
Number with wet signatures			5	6			
Percent with wet signatures			56%	67%			

Key		
WS - Wetland Signature	SS - Soil Wetness Signature	CS - Crop Stress
NC - Not Cropped	AP - Altered Pattern	NV - Normal Vegetative Cover
DO - Drowned Out	SW - Standing Water	NSS - No Soil Wetness Signature
Other labels or comments:		

* Images that were taken after the 20th of their respective month were evaluated under the following month's table to account for otherwise missing preciitation data from the start of the month to the date the image was recorded.

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associated with the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

* Source: http://www.bwsr.state.mn.us/wetlands/delineation/Guidance_for_Offsite_Hydrology_and_Wetland_Determinations.pdf

Heartland
ECOLOGICAL GROUP INC

Field data sheet reference (if applicable): _____

Wetland Determination from Aerial Imagery - Recording Form*

Project Name: **Dane County Parcel 0512-064-9660-3** *Date:* **6/17/2024** *County:* **Dane**

Investigator: **Jeff Kraemer** *Legal Description (T, R, S):* **T5NR12ES6**

Use the decision matrix below to create Table A2

Hydric Soils Present?[1]	Identified on NWI or WWI?[2]	Percent with Wet Signatures from TABLE A1	Field Verification Required?[3]	Wetland?
Yes	Yes	>50%	No	**Yes**
Yes	Yes	30-50%	No	**Yes**
Yes	Yes	<30%	Yes	**Yes, if other hydrology indicators are present**
Yes	No	>50%	No	**Yes**
Yes	No	30-50%	Yes	**Yes, if other hydrology indicators are present**
Yes	No	<30%	No	**No**
No	Yes	>50%	No	**Yes**
No	Yes	30-50%	No	**Yes**
No	Yes	<30%	No	**No**
No	No	>50%	Yes	**Yes, if other hydrology indicators are present**
No	No	30-50%	Yes	**Yes, if other hydrology indicators are present**
No	No	<30%	No	**No**

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

TABLE A2

Area	Hydric Soils Present?[1]	Identified on NWI or WWI?	Percent with Wet Signatures from TABLE A1	Other Hydrology Indicators Present?[1]	Wetland?
1	Yes	No	56%	Yes	**Yes**
2	Yes	No	67%	Yes	**Yes**

[1] Answer "N/A" if field verification is not required and was not conducted.

* Source: http://www.bwsr.state.mn.us/wetlands/delineation/Guidance_for_Offsite_Hydrology_and_Wetland_Determinations.pdf

June Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	March	Weighted Precip	April	Weighted Precip	May	Weighted Precip		
2013-06-19	2.69	2	6.55	6	7.09	9	17	**Wet**
30% chance less than**	1.21		2.91		3.49			
30 Year Average**	2.23		4.05		4.58			
30% chance more than**	2.72		4.79		5.33			

WETS Station: UW ARBORETUM - MADISON, WI
30-Year Precipitation Data (1993-2022) from NOAA Website
http://agacis.rcc-acis.org/

July Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	April	Weighted Precip	May	Weighted Precip	June	Weighted Precip		
July 1993	6.15	3	4.31	4	7.49	9	16	Wet
July 1994	1.72	1	2.97	2	5.80	6	9	Dry
July 1997	1.81	1	3.85	4	5.83	6	11	Normal
July 1998	5.25	3	4.78	4	8.12	9	16	Wet
July 1999	7.85	3	4.29	4	4.67	6	13	Normal
July 2000	3.75	2	7.16	6	9.61	9	17	Wet
July 2001	3.35	2	4.63	4	5.86	6	12	Normal
July 2002	4.27	2	2.91	2	5.18	6	10	Normal
2004-06-22	1.91	1	11.13	6	4.26	6	13	Normal
2005-06-23	1.92	1	3.71	4	1.76	3	8	Dry
2010-07-01	4.52	2	4.19	4	8.64	9	15	Wet
2022-06-24	3.35	2	3.38	2	3.67	3	7	Dry
30% chance less than**	2.91		3.49		3.72			
30 Year Average**	4.05		4.58		5.87			
30% chance more than**	4.79		5.33		7.07			

WETS Station: UW ARBORETUM - MADISON, WI
30-Year Precipitation Data (1993-2022) from NOAA Website
http://agacis.rcc-acis.org/

August Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	May	Weighted Precip	June	Weighted Precip	July	Weighted Precip		
2006-07-31	5.04	2	2.16	2	4.75	6	10	**Normal**
2008-07-23	2.54	1	9.56	6	4.57	6	13	**Normal**
30% chance less than**	3.49		3.72		3.10			
30 Year Average**	4.58		5.87		4.52			
30% chance more than**	5.33		7.07		5.38			

WETS Station: UW ARBORETUM - MADISON, WI
30-Year Precipitation Data (1993-2022) from NOAA Website
http://agacis.rcc-acis.org/

September Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	June	Weighted Precip	July	Weighted Precip	August	Weighted Precip		
Sept. 1995	1.43	1	4.41	4	3.40	6	11	Normal
2017-09-03	7.92	3	10.49	6	2.70	6	15	Wet
2020-08-30	6.48	2	4.91	4	0.49	3	9	Dry
30% chance less than**	3.72		3.10		2.58			
30 Year Average**	5.87		4.52		4.22			
30% chance more than**	7.07		5.38		5.11			

WETS Station: UW ARBORETUM - MADISON, WI
30-Year Precipitation Data (1993-2022) from NOAA Website
http://agacis.rcc-acis.org/

October Analysis

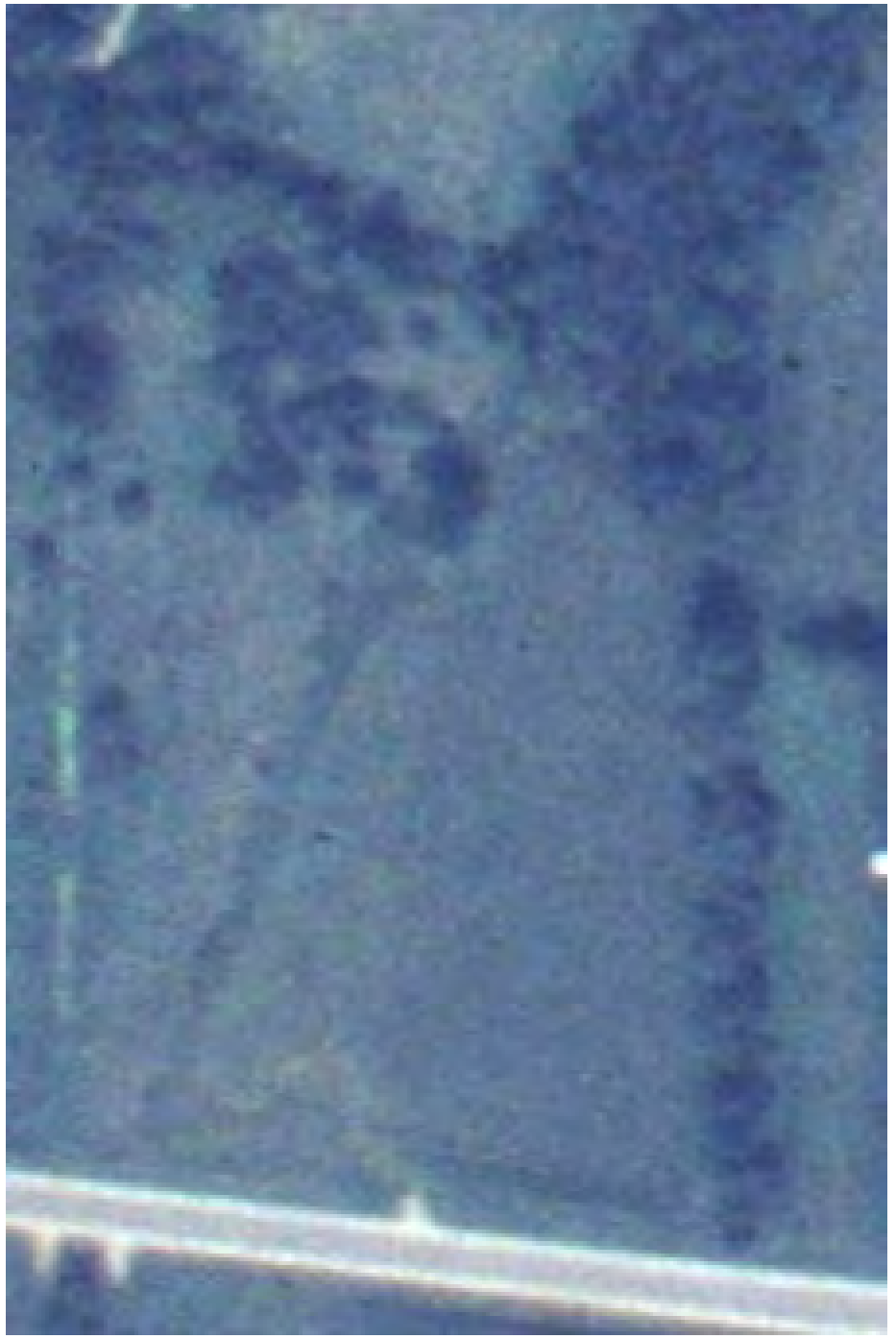
Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	July	Weighted Precip	August	Weighted Precip	September	Weighted Precip		
Oct. 1996	4.38	2	1.49	2	1.43	3	7	**Dry**
2015-10-11	4.68	2	4.30	4	6.11	9	15	**Wet**
2018-10-04	3.73	2	11.38	6	7.76	9	17	**Wet**
30% chance less than**	3.10		2.58		2.44			
30 Year Average**	4.52		4.22		3.82			
30% chance more than**	5.38		5.11		4.60			

WETS Station: UW ARBORETUM - MADISON, WI
30-Year Precipitation Data (1993-2022) from NOAA Website
http://agacis.rcc-acis.org/

July 1993 Wet

July 1994 Dry

September 1995 Normal



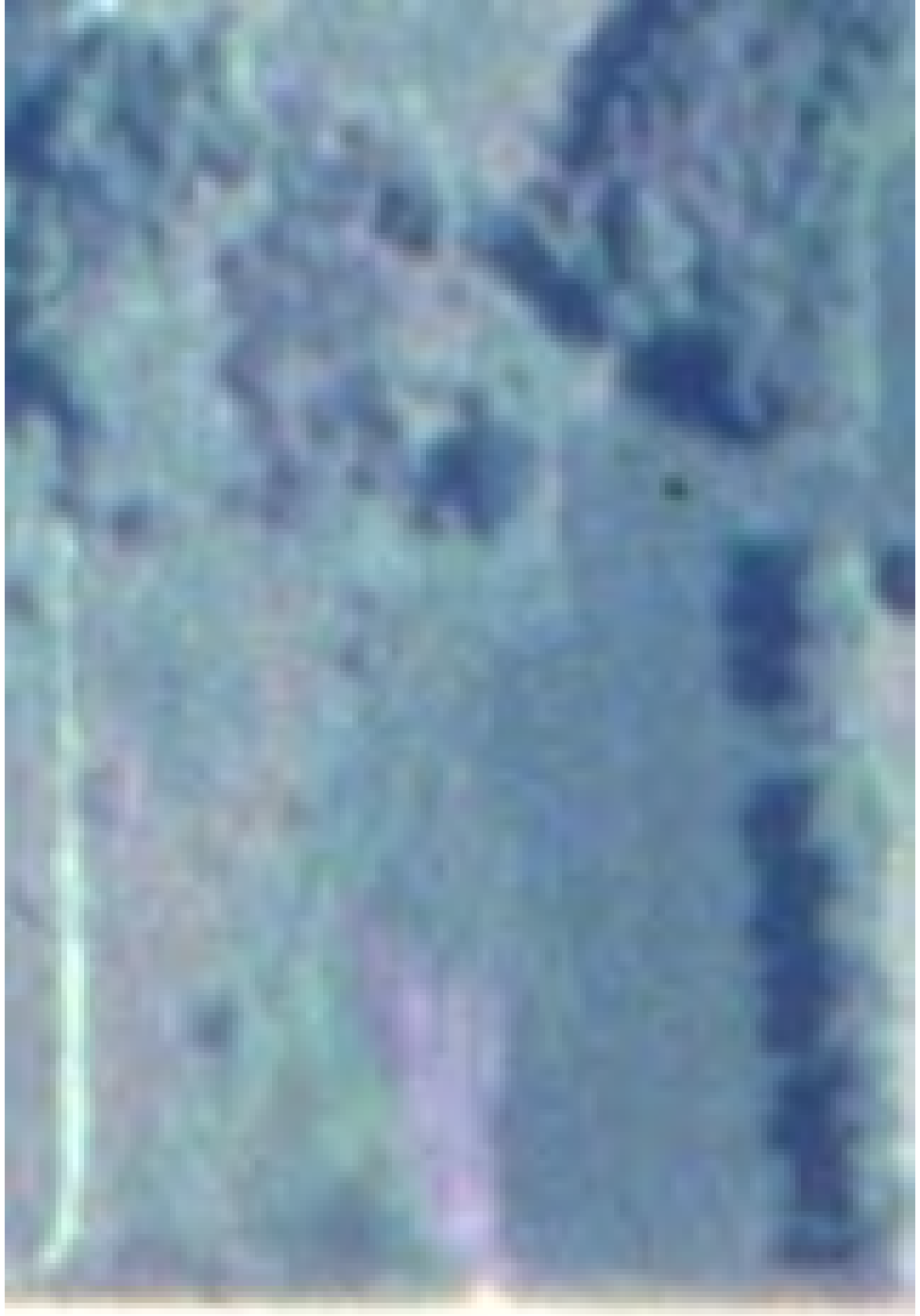
October 1996 Dry

July 1997 Normal

July 1998 Wet

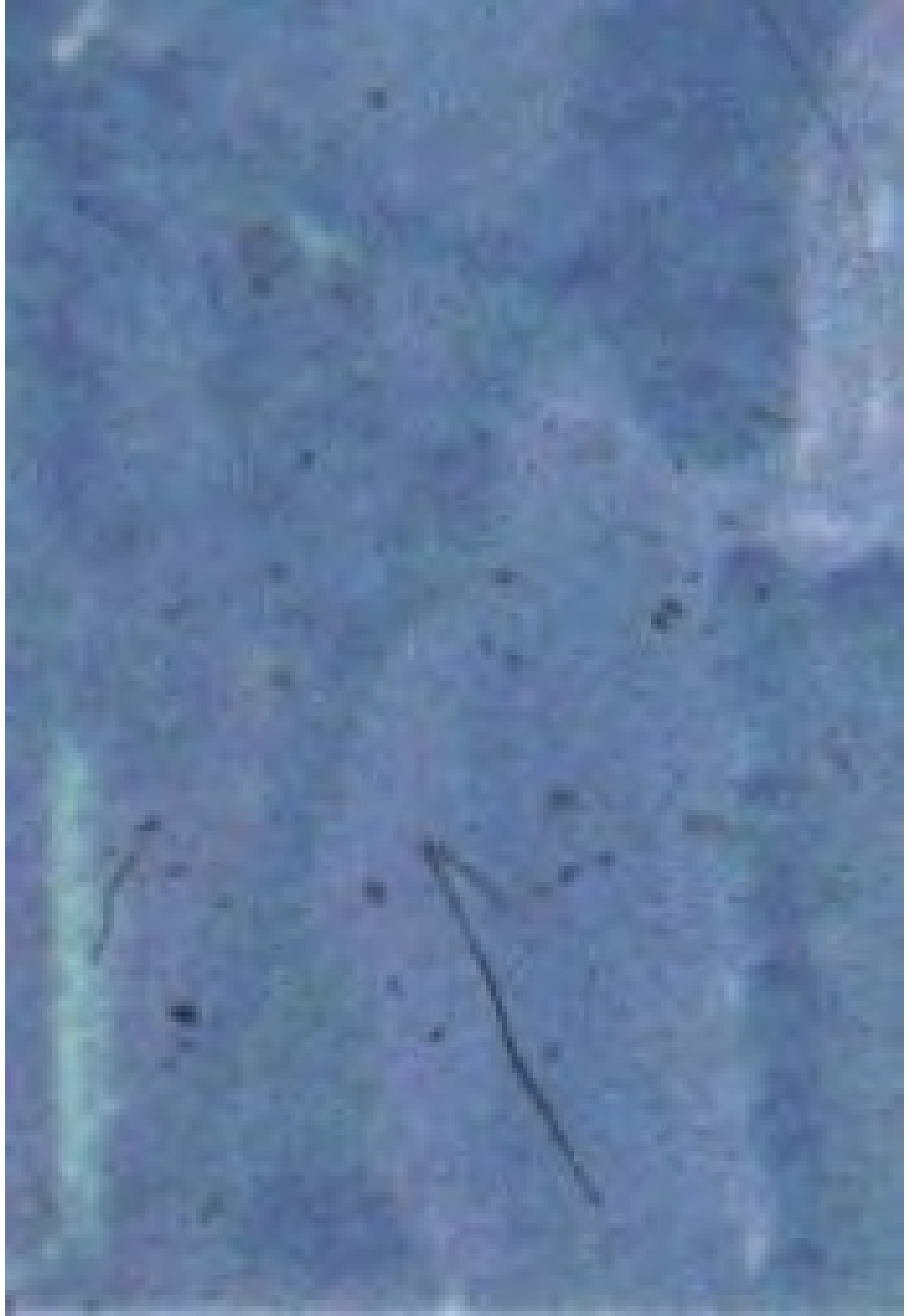
July 1999 Normal

July 2000 Wet



July 2001 Normal

July 2002 Normal



Study Area (9.69 ac)

0 150 Ft

Heartland
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Appendix: 2004-06-22
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2004 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2005-06-23
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2005 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2006-07-31
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2006 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2008-07-23
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2008 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2010-07-01
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2010 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2013-06-19
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2013 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2015-10-11
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2015 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2017-09-03
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2017 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2018-10-04
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2018 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2020-08-30
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2020 NAIP
USDA

Figure Created: 5/7/2024

Study Area (9.69 ac)

0 150 Ft

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Appendix: 2022-06-24
NAIP Aerial Imagery
Dane County
Parcel 0512-064-9660-3
Project #20241262
T5N, R12E, S06
T Albion, Dane Co

2022 NAIP
USDA

Figure Created: 5/7/2024