Heartland
ECOLOGICAL GROUP INC

Assured Wetland Delineation Report

Voit Farm Property

Town of Blooming Grove & City of Madison, Dane County, Wisconsin

August 3, 2022

Project Number: 20220700

Voit Farm Property

Town of Blooming Grove & City of Madison, Dane County, Wisconsin

August 3, 2022

Prepared for:

Ms. Jillian B. Hayes

Starkweather, LLC

1010 E. Washington Ave., Suite 101

Madison, WI 53707

Prepared by:

Heartland Ecological Group, Inc.

506 Springdale Street

Mount Horeb, WI 53572

608-490-2450

www.heartlandecological.com

_____   _____

Keith Phelps, Environmental Technician   Jeff Kraemer, Principal

Solutions for people, projects, and ecological resources.

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1.0   Introduction

Heartland Ecological Group, Inc. ("**Heartland**") completed an assured wetland determination and delineation on the Voit Farm Property on May 12, 2022 at the request of Starkweather, 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 65.31-acre site (the "Study Area") is southwest of the intersection of US Highway (US) 51 and State Highway (STH) 30, in the northeast ¼ of Section 5 and northwest ¼ of Section 4, T7N, R10E, Town of Blooming Grove and City of Madison, 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.

Five (5) wetland areas totaling approximately 4.28 acres were delineated and mapped within the Study Area (Figure 6, Appendix A). Two (2) waterway tributaries to Starkweather Creek were also identified and mapped within the Study Area, and Starkweather Creek was present along the western and northern boundaries. A historically excavated quarry pond was also observed in the north-central portion of the Study Area, and its Ordinary High Water Mark (OHWM) was delineated. 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 Wetlands 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 **Natural Resource Conservation Service's (NRCS)** Soil Survey Geographic Database (SSURGO), **U.S. Department of Agriculture's (USDA)** *Web Soil Survey* (Figure 3, Appendix A), the **WDNR's** *Wetland Indicator* GIS data **layer (Figure 4, Appendix A), the WDNR's** *Wisconsin Wetland Inventory* GIS data layer (Figure 5, Appendix A), and aerial imagery available through the **USDA Farm Service Agency's (FSA)** National Agriculture Imagery Program (NAIP). The USGS *National Hydrography Dataset* is included on Figures 2 and 5, Appendix A.

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™ 2.9.3 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 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 drought range.

General Topography and Land Use

The topography within the Study Area was rolling, with various hills, depressions, and slopes due to historic filling, quarrying, and concrete disposal activities within the Study Area boundaries. A topographic high of approximately 885 feet above mean sea level (msl) occurs near the northeastern side, and a topographic low of approximately 846 feet above msl occurs in the north-central portions along the quarry pond (Figures 2 and 6, Appendix A). Land uses within the Study Area are primarily abandoned quarrying and concrete operations with various old fields, unmanaged vegetative areas, and access roads. A large actively farmed agriculture field is present in the southeastern portions of the Study Area. The surrounding areas are primarily devoted to warehouse and commercial space, residential properties, and park greenspace with a wetland complex to the northeast of the

Study Area. General drainage is to the south and west toward Starkweather Creek, which comprised the western and northern boundaries of the Study Area.

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
Ad: Adrian muck, 0 to 2 percent slopes	Adrian-Muck	75-90	Depressions	Yes
	Houghton-Muck	10-20	Depressions	Yes
	Kingsville	3-10	Depressions	Yes
Co: Colwood silt loam, 0 to 2 percent slopes	Colwood	80-90	Lakebeds (relict)	Yes
	Pella	5-10	Drainageways	Yes
	Palms	5-10	Depressions	Yes
DsC2: Dresden silt loam, 6 to 12 percent slopes, eroded	Dresden-Eroded	85-95	Plains	No
	Casco-Eroded	3-8	Moraines	No
	Kegonsa	2-7	Plains	No
GP: Gravel pit	Pits-Gravel	99	—	Unranked
	Aquents	1	Depressions	Yes
GsC2: Grays silt loam, 6 to 12 percent slopes, eroded	Grays	100	Lake plains	No
Ho: Houghton muck	Houghton	100	Depressions on stream terraces	Yes
KeB: Kegonsa silt loam, 2 to 6 percent slopes	Kegonsa	100	Outwash plains	No
W: Water	Water greater than 40 acres	100	—	Unranked

Wetland Mapping

The Wisconsin Wetlands Inventory (WWI) mapping (Figure 5, Appendix A) depicts three (3) wetland areas within the Study Area. One (1) emergent marsh/wet meadow wetland (E1K) is depicted in the northwestern portion of the Study Area, while the other two (2) emergent marsh/wet meadow wetlands (E1K) are depicted in the northeast and central-east portions of the Study Area. The emergent/wet meadow wetland in the central-east portion of the Study Area appears to be isolated in the map extent, while the other two (2) WWI wetlands were contiguous to Starkweather Creek.

Waterway Mapping

The National Hydrography Dataset 24k (NHD) mapping (Figure 5, Appendix A) depicts two (2) waterbodies and one (1) waterway, Starkweather Creek, within the Study Area. Starkweather Creek is mapped along the western Study Area boundary whereas the two (2) water bodies are present in the central and central-east portions of the Study Area.

Off-Site Analysis

A formal Off-Site Analysis was completed in the agricultural field within the southeast portion of the Study Area. This agricultural field was noted to have an absence of mapped hydric or potentially hydric soils and a depression in the northeast portion of the agricultural field was the focus of the off-site aerial imagery analysis (OSA) (Appendix F). From the aerial imagery, the primary wetland hydrology indicator of "Inundation Visible on Aerial **Imagery"** (B7) was not noted in the depression. In that same location, the secondary wetland hydrology indicator of **"Stunted or Stressed Plants" (**D1) was also not observed consistently.

A total of 21 aerial images were selected and reviewed based on availability and quality of the imagery. Of these images, eight (8) were taken under normal antecedent precipitation conditions. Marginal signatures were noted in one (1) area within the Study Area within landscape positions described by the NRCS to support hydric soil components and were the focus of the OSA. The seven (7) described wetland signatures per the July 2016 Guidance were inconsistently noted (2 of 8 years) in the depression assessed on imagery taken under normal antecedent precipitation conditions. In imagery taken under wet antecedent precipitation conditions, such wetland signatures were noted in four (1) of the nine (9)

images. In imagery taken under dry antecedent precipitation conditions, there were wetland signatures noted in one (0) of the four (4) images.

Based on the off-site analysis, no (0) areas within the agricultural field were likely to be wetland prior to the fieldwork.

3.2   Field Review

Five (5) wetlands were identified and delineated within the Study Area. Wetland determination data sheets (Appendix C) were completed at 29 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 6 (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/ Emergent Marsh	Contiguous to Starkweather Creek	Less susceptible, 10-30 feet	3.56
W-2	Wet Meadow/ Excavated Ditchway	Contiguous to Starkweather Creek	Less susceptible, 10-30 feet	0.18
W-3	Wet Meadow	Contiguous to Quarry Pond/Starkweather Creek	Less susceptible, 10-30 feet	0.13
W-4	Wet Meadow	Contiguous to Starkweather Creek	Less susceptible, 10-30 feet	0.05
W-5	Wet Meadow/ Shrub-carr	Contiguous to Starkweather Creek	Less susceptible, 10-30 feet	0.36
*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.				4.28

Wetland 1, 3, and 4 (W-1, W-3, W-4)

Wetlands 1, 3, and 4 (W-1, W-3, W-4) are wet meadows located in the western and northern (W-1), central (W-3), and eastern (W-4) portions of the Study Area.

Dominant vegetation observed in W-1, W-3, and W-4 included hybrid cattail (*Typha x glauca*, OBL), wooly sedge (*Carex pellita*, OBL), duckweed (*Lemna minor*, OBL), common reed (*Phragmites australis*, FACW) and reed canary grass (*Phalaris arundinacea*, FACW). Therefore, the wetland vegetation parameter was met in these wetlands.

The Black Histic (A3), Depleted Below Dark Surface (A11), Thick Dark Surface (A12), Loamy Mucky Mineral (F1), Loamy Gleyed Matrix (F2), Depleted Matrix (F3), Redox Dark Surface (F6) and Redox Depressions (F8) hydric soil indicators were noted in W-1. The F6 hydric soil indicator was noted in W-3 while the A11 and F1 hydric soil indicators were noted in W-4. These hydric soil indicators are consistent with the mapped Colwood silt loam and Adrian Muck soil types. Thus, the hydric soil parameter was met in these wetlands.

The primary wetland hydrology indicators of Surface Water (A1), High Water Table (A2), and Saturation (A3) were noted within W-1, while secondary indicators included Drainage Patterns (B2), Geomorphic Position (D2) and a positive FAC-Neutral Test (D5). In W-3 and W-4, the primary hydrology indicators of A3 were noted while secondary indicators included D2 and D5. Therefore the wetland hydrology parameter was satisfied for all wetlands.

Wetland W-1 is contiguous with Starkweather Creek, which comprises the Study Area's western boundary. W-1 was also contiguous to two (2) unnamed waterways present in excavated ditches, themselves contiguous to Starkweather Creek. W-2 was contiguous with WW-1, an unnamed waterway present in the central-west portion of the Study Area. Lastly, W-3 was contiguous to a quarry pond while W-4 extended offsite to the east and likely is also connected to Starkweather Creek. The boundary of these wetlands generally followed moderately-defined topographic breaks.

Wetland 2 (W-2)

Wetland W-2 is a wet meadow positioned in an excavated ditch that leads to Starkweather Creek. This ditch was lined with concrete blocks in its eastern portions.

Dominant vegetation observed in W-2 included reed canary grass- thus the wetland vegetation parameter was met.

The A11, F2, and F6 hydric soil indicators were noted in W-2 and are consistent with the Colwood silt loam soil type.

The primary wetland hydrology indicators of A2 and A3 were noted in W-2, while secondary indicators included D2 and D5. Therefore, the wetland hydrology parameter was met.

The boundaries of W-2 correlated with a well-defined topographic break due to its position in an excavated ditchway.

Wetland 5 (W-5)

Wetland W-5 is a wet meadow positioned in a depression with fill present. W-5 was connected to W-1 on its western side via a culvert which ran beneath an access road.

Dominant vegetation observed in W-5 included common reed, sandbar willow (*Salix interior*, FACW), peach-leaved willow (*Salix amygdaloides*, FACW)- thus the wetland vegetation parameter was met.

Depleted Matrix (F3) hydric soil indicator was noted in W-5 which is consistent with hydric inclusions of the Colwood silt loam soil type.

The primary wetland hydrology indicators of A2 and A3 were noted in W-5, while secondary indicators included D2 and D5. Therefore, the wetland hydrology parameter was met.

The boundaries of W-5 correlated with a well-defined topographic break.

Waterways and Waterbodies

Starkweather Creek was observed along the western and northern portion of the Study Area. One (1) **unnamed waterway's centerline**, WW-1, was mapped in the central portion of the Study Area and one (1) **waterway's centerline**, WW-2, was mapped in the northern portion of the Study Area. Lastly, the approximate OHWM of a quarry pond was recorded in the field and mapped. All discussed waterways and waterbodies are depicted on Figure 6, Appendix A.

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 Voit Farm Property on May 12, 2022 at the request of Starkweather, LLC. Fieldwork was completed by Jeff Kraemer, an assured delineator qualified via the WDNR Wetland Delineation Assurance Program (Appendix E). The Study Area lies in the northeast ¼ of Section 5 and northwest ¼ of Section 4, T7N, R10E, Town of Blooming Grove and City of Madison, Dane County, WI (Figure 1, Appendix A).

Five (5) wetland areas were delineated and mapped within the 65.31-acre Study Area (Figure 6, Appendix A). The wetlands, which may be classified as wet meadow, shrub carr, and emergent marsh, total approximately 4.28 acres within the Study Area. Two (2) unnamed tributaries to Starkweather Creek and an excavated quarry pond were also observed 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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Appendix A | Figures

Legend
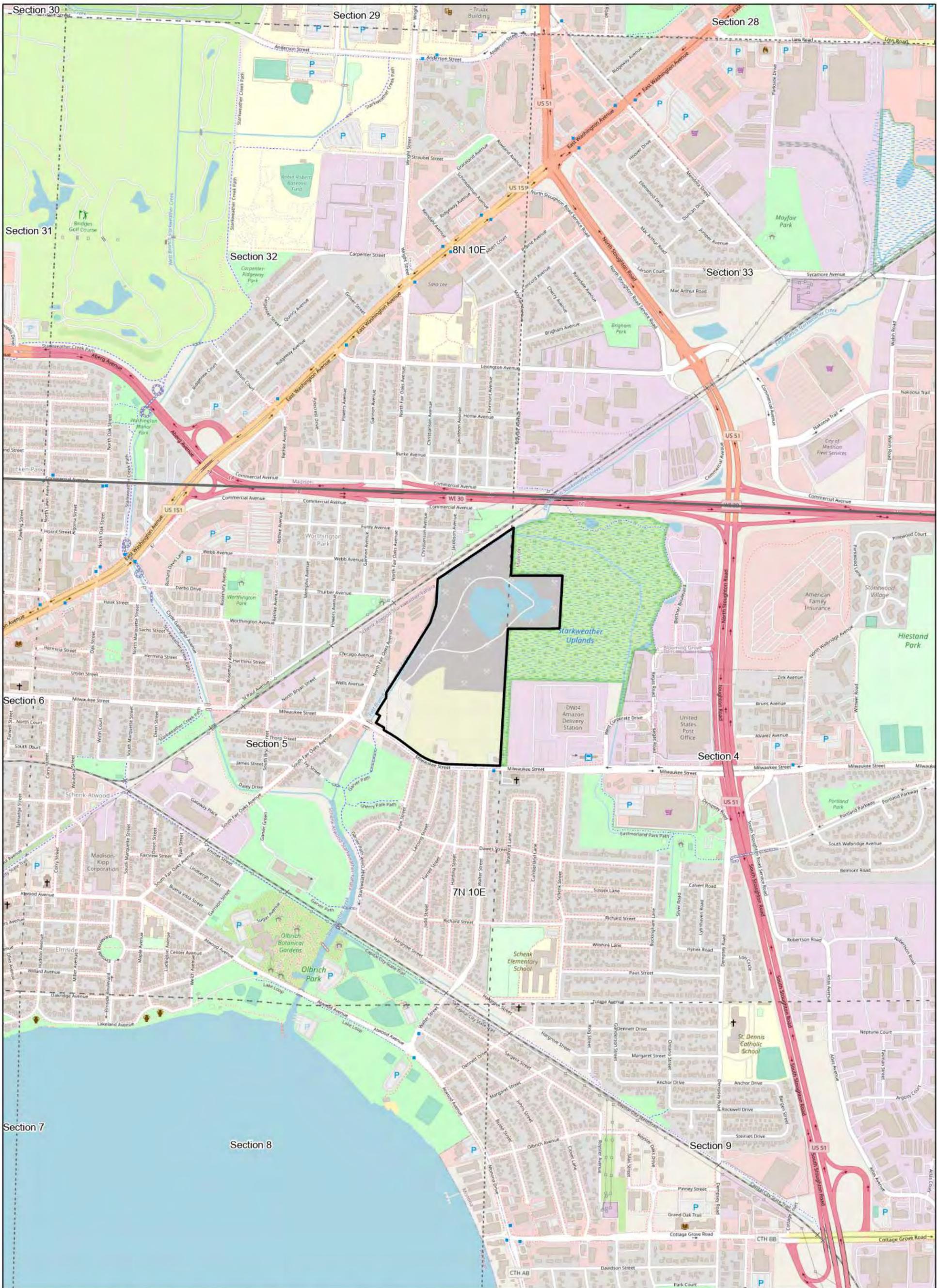
Study Area (65.31 ac)
Township
Section

0   500   1,000
Ft

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Figure 1. Project Location
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

OpenStreetMap
ESRI
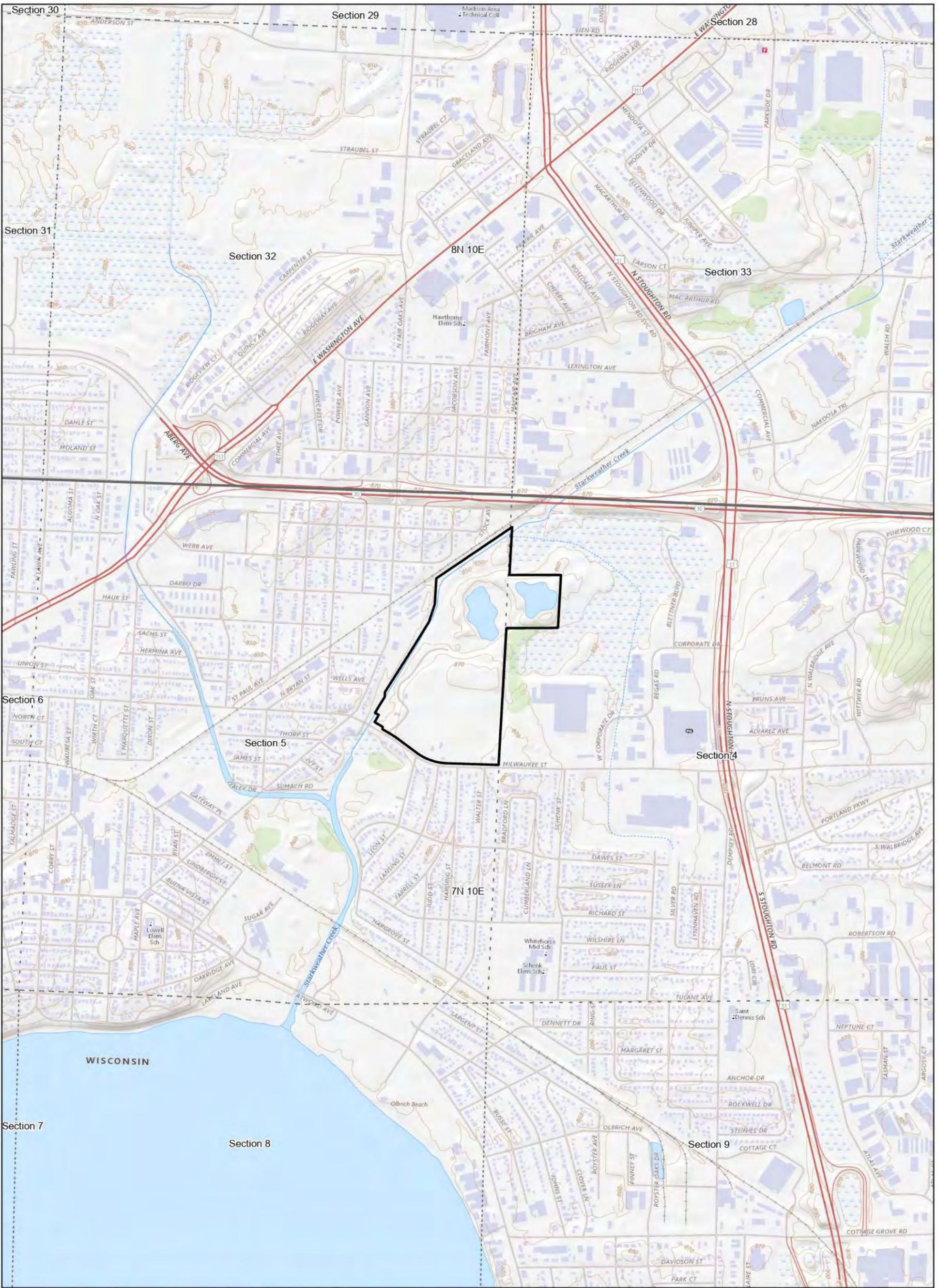
Study Area (65.31 ac)
Township
Section

0   500   1,000
Ft

Heartland
ECOLOGICAL GROUP INC

Figure 2. USGS Topography
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

USGSTopo
USGS

Study Area (65.31 ac)

NRCS Soil Survey Data

Hydric (100%)

Predominantly Hydric (85-99%)

Partially Hydric (16-84%)

Predominantly Non-Hydric (1-15%)

Non-Hydric (0%)
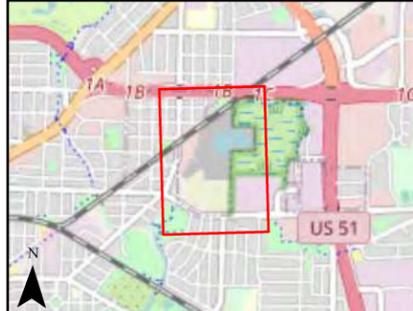
0   250
Ft

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Figure 3. NRCS
Hydric Soils
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2020 NAIP
NRCS

State Hwy 30

Commercial Ave

State Hwy 30

Commercial Ave

Stock Ave

Jacobson Ave

Furey Ave

Christianson Ave

Webb Ave

Gannon Ave

N Fair Oaks Ave

Thurber Ave

Ho

GP

GP

Ad

Gannon Ave

Chicago Ave

Co

Wells Ave

Co

Leon St

Wayne St

Lansing St

Harding St

Walter St

Bradford Ln

Milwaukee St

Schenk St

US 51

N

☐ Study Area (65.31 ac)

⬭ SWDV Wetland Indicators

0   250
         Ft

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Figure 4. SWDV
Wetland Indicators
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2020 NAIP
WDNR

Figure 5. Wisconsin Wetland Inventory

Map labels visible:

State Hwy 30 / Commercial Ave / Commercial Ave / State Hwy 30

Stock Ave

Furey Ave · Jacobson Ave · Christianson Ave · Gannon Ave · Webb Ave · N Fair Oaks Ave · Thurber Ave · Chicago Ave · Cannon Ave · Wells Ave · Starkweather Creek

Leon St · Lansing St · Harding St · Walter St · Wayne St · Bradford Ln · Milwaukee St · Schenk St

Wetland codes: E1K · T3/S3K · E1K · E1K · E2H · T3/E2K
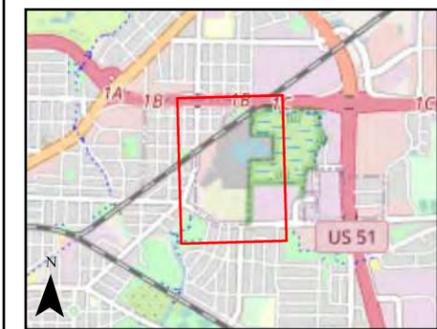
Legend
- Study Area (65.31 ac)
- WWI Wetland Polygons
- WWI Wetland Points
- NHD Waterway
- NHD Waterbody

0   250 Ft

Heartland
ECOLOGICAL GROUP INC

Figure 5. Wisconsin
Wetland Inventory
Voit Farm Property
Project #20220700
T7N, R10E, S4 & 5
T Blooming Grove, C Madison
Dane Co

2020 NAIP
WDNR, USGS

Figure 6. Field Delineated Wetlands
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2020 NAIP
Dane Co, HEG

Legend
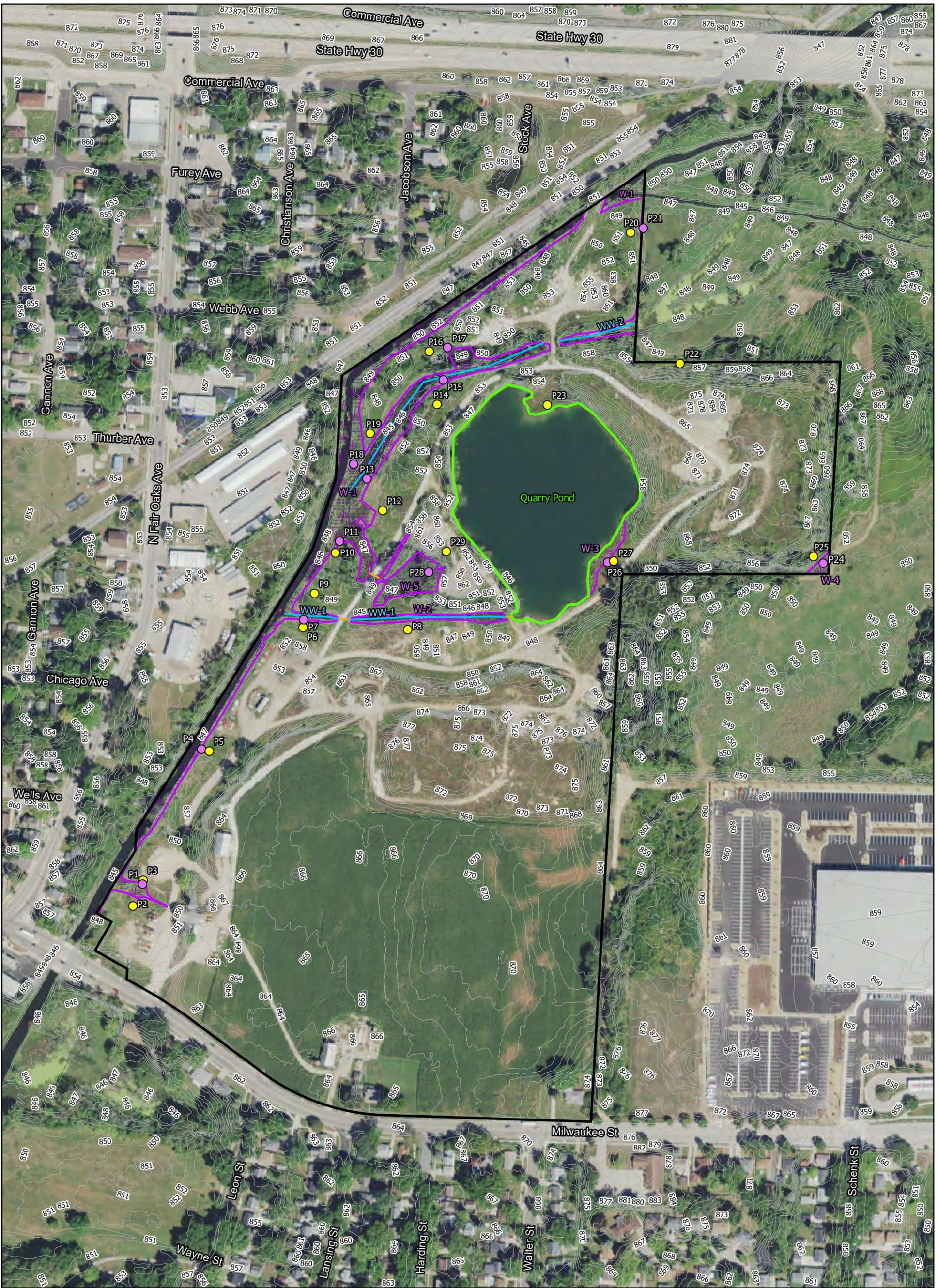
- Study Area (65.31 ac)
- Dane Co 1' Contours
- Field Delineated Wetlands (4.28 ac)
- Quarry Pond Approx. OHWM (5.39 ac)
- Waterways
- Culverts

Sample Points
- ○ Upland
- ○ Wetland

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Appendix B | APT Analysis

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

Legend:
- Daily Total
- 30-Day Rolling Total
- 30-Year Normal Range

Annotations on chart: 2022-04-12, 2022-05-12, 2022-03-13
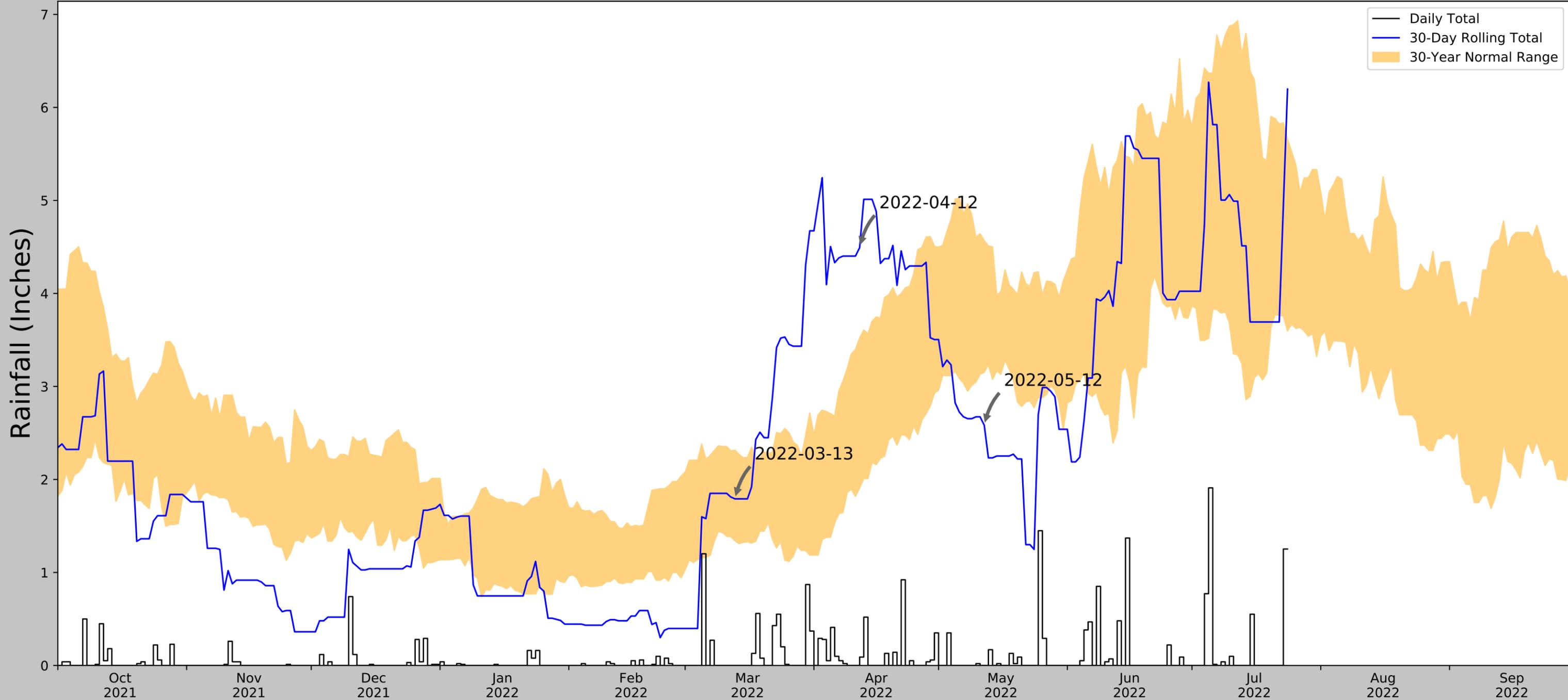
Coordinates	43.100661, -89.328045
Observation Date	2022-05-12
Elevation (ft)	858.03
Drought Index (PDSI)	Moderate drought
WebWIMP H₂O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-05-12	3.152362	4.567717	2.582677	Dry	1	3	3
2022-04-12	1.910236	3.520866	4.492126	Wet	3	2	6
2022-03-13	1.341732	2.316142	1.791339	Normal	2	1	2
Result							Normal Conditions - 11

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
MADISON DANE RGNL AP	43.1406, -89.3453	866.142	2.893	8.112	1.326	11353	90

Appendix C | Wetland Determination Data Sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P1

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): swale   Local relief (concave, convex, none): concave   Slope %: 2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: none (WWI)

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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Site consists of abandoned quarry and concrete mixing option. Significant piles of rock, soil, gravel and other debriss throughout site. Gravel access roads present throughout site and Starkweather Creek along western edge of property. Several excavated ditches transition to Starkweather Creek with a large excavated quarry pond in the center of the site. Active ag. field also present in SE corner. Plot was in a wet meadow swale associated with concrete mixing discharge.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15)	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	
____ Sparsely Vegetated Concave Surface (B8)		

Secondary Indicators (minimum of two required)

____ Surface Soil Cracks (B6)
X 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)
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?	Yes ____	No X	Depth (inches): ____	**Wetland Hydrology Present?** **Yes** X **No** ____
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

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. *Salix interior*	3	No	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	3 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Phalaris arundinacea*	75	Yes	FACW
2. *Typha X glauca*	10	No	OBL
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	85 =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: 1   (A)

Total Number of Dominant
Species Across All Strata: 1   (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	10	x 1 =	10
FACW species	78	x 2 =	156
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	88 (A)		166 (B)
	Prevalence Index = B/A =	1.89	

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.)

SOIL   Sampling Point   P1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	100					Loamy/Clayey	SiL
6-12	10YR 5/1	85	10YR 5/8	15	C	M	Loamy/Clayey	SiCL, contains 5% gravel
12-24	10YR 2/1	90	10YR 5/8	10	C	M	Loamy/Clayey	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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	X Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]: *(column 3 above)*

[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: __Voit Farm Property__ City/County: __T Blooming Grove & C Madison/Dane Co.__ Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__ State: __WI__ Sampling Point: __P2__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__ Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __level plain__ Local relief (concave, convex, none): __none__ Slope %: __1-3__

Subregion (LRR or MLRA): __LRR K__ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__ NWI classification: __none (WWI)__

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

Are Vegetation _____, Soil __X__, 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 _____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland old field that was roughly mowed. Gravel fill was present.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes _____	No __X__	Depth (inches): _____	**Wetland Hydrology Present?**	**Yes** _____ **No** __X__
(includes capillary fringe)					

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

Remarks:

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. *Salix interior*	3	No	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	3 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Phalaris arundinacea*	30	Yes	FACW
2. *Poa pratensis*	20	Yes	FACU
3. *Bromus inermis*	20	Yes	UPL
4. *Solidago canadensis*	12	No	FACU
5. *Erigeron strigosus*	3	No	FACU
6. *Taraxacum officinale*	3	No	FACU
7. *Scirpus atrovirens*	3	No	OBL
8. *Verbascum thapsus*	3	No	UPL
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	94 =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: 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	3	x 1 =	3
FACW species	33	x 2 =	66
FAC species	0	x 3 =	0
FACU species	38	x 4 =	152
UPL species	23	x 5 =	115
Column Totals:	97 (A)		336 (B)

Prevalence Index = B/A =   3.46

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.)

US Army Corps of Engineers   Northcentral and Northeast Region – Version 2.0

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/4	65					Loamy/Clayey	SiL, contains 10% gravel, mixed fill
	10YR 5/3	20						
	10YR 6/4	10						
	10YR 3/2	5						
13-24	10YR 2/1	90	10YR 5/8	10	C	M	Loamy/Clayey	SiCL, 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)
- 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:
Mixed soil profile with fill observed in 0-13 layer.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P3

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): level plain   Local relief (concave, convex, none): none   Slope %: 0-2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: none (WWI)

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

Are Vegetation ____ , Soil X , 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 ____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in an upland gravel fill in an old field.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Surface Soil Cracks (B6)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Drainage Patterns (B10)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Moss Trim Lines (B16)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Dry-Season Water Table (C2)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Crayfish Burrows (C8)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Saturation Visible on Aerial Imagery (C9)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Stunted or Stressed Plants (D1)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Geomorphic Position (D2)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes ____	No _X_	Depth (inches): ____	**Wetland Hydrology Present? Yes ____ No _X_**
(includes capillary fringe)				

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

Remarks:

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. *Lotus corniculatus*	30	Yes	FACU
2. *Trifolium hybridum*	10	Yes	FACU
3. *Solidago canadensis*	5	No	FACU
4. *Daucus carota*	10	Yes	UPL
5. *Phalaris arundinacea*	5	No	FACW
6. *Elymus repens*	10	Yes	FACU
7. *Bromus inermis*	5	No	UPL
8. *Poa pratensis*	5	No	FACU
9. *Taraxacum officinale*	1	No	FACU
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	81 =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: 4   (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	5	x 2 = 10
FAC species	0	x 3 = 0
FACU species	61	x 4 = 244
UPL species	15	x 5 = 75
Column Totals: 81 (A)		329 (B)
Prevalence Index = B/A =		4.06

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   P3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/4	95					Loamy/Clayey	SiL, contains 50% gravel
	10YR 3/3	5						
6-24	10YR 5/3	100					Loamy/Clayey	SiL, contains 50% gravel

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

Hydric Soil Indicators: **Indicators for Problematic Hydric Soils[3]:**

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)		___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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:
Mixed soil profile observed in the 0-6 layer and fill present in all layers.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: __Voit Farm Property__ City/County: __T Blooming Grove & C Madison/Dane Co.__ Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__ State: __WI__ Sampling Point: __P4__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__ Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __Lower bank of terrace__ Local relief (concave, convex, none): __convex__ Slope %: __2__

Subregion (LRR or MLRA): __LRR K__ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__ NWI classification: __none (WWI)__

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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located along a lower bank stream terrace of Starkweather Creek and was 6 inches above the water. Steep embankment projecting from lower terrace to upland.

HYDROLOGY

Wetland Hydrology Indicators:

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

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
__X__ High Water Table (A2)	_____ Aquatic Fauna (B13)	
__X__ Saturation (A3)	_____ Marl Deposits (B15)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	
_____ Sparsely Vegetated Concave Surface (B8)		

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)
__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 __X__	No _____	Depth (inches): __8__	
Saturation Present?	Yes __X__	No _____	Depth (inches): __3__	**Wetland Hydrology Present?** Yes __X__ No _____
(includes capillary fringe)				

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

Remarks:

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. *Phalaris arundinacea*	95	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95 =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: 1   (A)

Total Number of Dominant
Species Across All Strata: 1   (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	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		190 (B)

Prevalence Index = B/A =   2.00

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.)

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				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-8	10YR 3/1	97	10YR 5/6	3	C	M	Loamy/Clayey	SiL, prominent redox concentrations
8-24	N 2.5/	100					Mucky Loam/Clay	Mucky SiL

[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)	___ Polyvalue Below Surface (S8) (**LRR R,**	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)	**MLRA 149B**)	___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	_X_ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P5

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): upland swale   Local relief (concave, convex, none): concave   Slope %: 0-2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: none (WWI)

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

Are Vegetation _____ , Soil X , 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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland subtle swale feature within upper terrace uplands consisting of fill material.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

Primary Indicators		Secondary Indicators
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ 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?	Yes _____	No X	Depth (inches): _____	**Wetland Hydrology Present?** Yes _____ No X
(includes capillary fringe)				

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. *Phalaris arundinacea*	60	Yes	FACW
2. *Bromus inermis*	20	No	UPL
3. *Euphorbia esula*	15	No	UPL
4. *Solidago canadensis*	5	No	FACU
5. *Cirsium vulgare*	3	No	FACU
6. *Glechoma hederacea*	5	No	FACU
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	108 =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: ___1___ (A)

Total Number of Dominant
Species Across All Strata: ___1___ (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	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	13	x 4 =	52
UPL species	35	x 5 =	175
Column Totals:	108 (A)		347 (B)

Prevalence Index = B/A = ___3.21___

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.

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.)

SOIL   Sampling Point   P5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	2.5Y 3/2	100					Loamy/Clayey	SiCL
11-18	10YR 5/3	75					Loamy/Clayey	Sil, contains 30% gravel, mixed matrix
	10YR 5/4	20						
	10YR 3/2	5						
18-24	10YR 2/1	100					Loamy/Clayey	SiCL

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]: *(column header above)*

[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:
Mixed matrix present in 11-18 layer along with fill material.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P6

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): terrace (filled)   Local relief (concave, convex, none): none   Slope %: 0-2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation ____, Soil X , 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 ____	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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal precipitation range. Plot was located in a filled terrace adjacent to an excavated ditch.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15)	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	
____ Sparsely Vegetated Concave Surface (B8)		

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?	Yes ____	No X	Depth (inches): ____	**Wetland Hydrology Present? Yes ____ No X**
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

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. *Phalaris arundinacea*	10	No	FACW
2. *Bromus inermis*	40	Yes	UPL
3. *Poa pratensis*	10	No	FACU
4. *Solidago canadensis*	20	Yes	FACU
5. *Galium aparine*	10	No	FACU
6. *Monarda fistulosa*	3	No	FACU
7. *Alliaria petiolata*	1	No	FACU
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	94 =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	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	44	x 4 =	176
UPL species	40	x 5 =	200
Column Totals:	94 (A)		396 (B)

Prevalence Index = B/A = 4.21

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   P6

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

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-24	10YR 4/4	90					Loamy/Clayey	SiCL, contains 10% gravel
	10YR 5/4	10						

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

Hydric Soil Indicators: **Indicators for Problematic Hydric Soils[3]:**

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R,**	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)	**MLRA 149B**)	___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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:
Some fill material present.

US Army Corps of Engineers   Northcentral and Northeast Region – Version 2.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P7

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): terrace (within ditch)   Local relief (concave, convex, none): none   Slope %: 1

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located within the lower terrace of a ditch.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
X High Water Table (A2)	____ Aquatic Fauna (B13)	
X Saturation (A3)	____ Marl Deposits (B15)	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	
____ Sparsely Vegetated Concave Surface (B8)		

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)
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 X	No ____	Depth (inches): 4	
Saturation Present?	Yes X	No ____	Depth (inches): 1	**Wetland Hydrology Present?** Yes X No ____
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: P7

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. *Phalaris arundinacea*	70	Yes	FACW
2. *Carex vulpinoidea*	2	No	OBL
3. *Geum canadense*	3	No	FAC
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	75 =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: 1 (A)

Total Number of Dominant
Species Across All Strata: 1 (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	2	x 1 =	2
FACW species	70	x 2 =	140
FAC species	3	x 3 =	9
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		151 (B)

Prevalence Index = B/A = 2.01

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.)

SOIL   Sampling Point   P7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	95	10YR 5/8	5	C	M	Loamy/Clayey	Prominent redox concentrations
3-7	10YR 2/1	92	10YR 5/8	8	C	M	Loamy/Clayey	Prominent redox concentrations
7-24	5GY 5/1	85	5YR 5/8	15	C	M	Loamy/Clayey	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)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	**Indicators for Problematic Hydric Soils[3]:**
___ Histic Epipedon (A2)		___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
X Depleted Below Dark Surface (A11)	X Loamy Gleyed Matrix (F2)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Sandy Mucky Mineral (S1)	X Redox Dark Surface (F6)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Red Parent Material (F21)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Very Shallow Dark Surface (F22)
___ Dark Surface (S7)		___ 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:

US Army Corps of Engineers   Northcentral and Northeast Region – Version 2.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P8

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): terrace (filled)   Local relief (concave, convex, none): convex   Slope %: 2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation ___, Soil X, 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 ___	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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in an upland old field within a filled terrace near an excavated ditch. Bank of ditch was lined with concrete blocks.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary Indicators		Secondary Indicators
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ 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?	Yes ___	No X	Depth (inches): ___	**Wetland Hydrology Present?** **Yes** ___ **No** X
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: P8

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. *Salix interior*	30	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	30 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Phalaris arundinacea*	30	Yes	FACW
2. *Bromus inermis*	15	Yes	UPL
3. *Daucus carota*	10	Yes	UPL
4. *Solidago canadensis*	10	Yes	FACU
5. *Erigeron strigosus*	8	No	FACU
6. *Cirsium arvense*	3	No	FACU
7. *Taraxacum officinale*	3	No	FACU
8. *Galium aparine*	3	No	FACU
9. *Viola bicolor*	2	No	FACU
10. *Achillea millefolium*	3	No	FACU
11. *Equisetum arvense*	3	No	FAC
12. _____	_____	_____	_____
	90 =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: 5   (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0%   (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	3	x 3 =	9
FACU species	32	x 4 =	128
UPL species	25	x 5 =	125
Column Totals:	120 (A)		382 (B)

Prevalence Index = B/A = 3.18

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.)
No wetlands above OHWM of adjacent ditch

SOIL   Sampling Point   P8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/6	90					Loamy/Clayey	SiL, contains 25% gravel
	10YR 4/3	10						
8-12	2.5Y 6/3	90					Loamy/Clayey	SiL, contains 5% gravel
	2.5Y 5/4	10						
12-24	10YR 4/4	70					Loamy/Clayey	SiCL, contains 30% gravel, mixed fill
	10YR 3/2	20						
	10YR 4/4	10						

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P9

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): level plain   Local relief (concave, convex, none): none   Slope %: 0-2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation ____ , Soil _X_ , 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 ____	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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland filled area.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary		Secondary
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes ____	No _X_	Depth (inches): ____	**Wetland Hydrology Present?** **Yes** ____ **No** _X_
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: P9

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus pumila*	5	Yes	FACU
2. *Populus deltoides*	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Salix interior*	10	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Solidago canadensis*	30	Yes	FACU
2. *Taraxacum officinale*	5	No	FACU
3. *Viola bicolor*	5	No	FACU
4. *Poa pratensis*	20	Yes	FACU
5. *Bromus inermis*	5	No	UPL
6. *Phalaris arundinacea*	3	No	FACW
7. *Arctium minus*	1	No	FACU
8. *Glechoma hederacea*	3	No	FACU
9.			
10.			
11.			
12.			
	72	=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: 5 (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	13	x 2 =	26
FAC species	5	x 3 =	15
FACU species	69	x 4 =	276
UPL species	5	x 5 =	25
Column Totals:	92	(A)	342 (B)

Prevalence Index = B/A = 3.72

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

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Loamy/Clayey	SiCL
6-13	10YR 5/4	100					Loamy/Clayey	SiCL
13-24	10YR 4/4	90					Loamy/Clayey	SiCL, contains 25% gravel, mixed fill
	10YR 5/4	10						

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P10

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): level plain   Local relief (concave, convex, none): none   Slope %: 0-2

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation _____ , Soil X , 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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland fill area.

HYDROLOGY

Wetland Hydrology Indicators:

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

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	
_____ Saturation (A3)	_____ Marl Deposits (B15)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	
_____ Sparsely Vegetated Concave Surface (B8)		

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?	Yes _____	No X	Depth (inches): _____	**Wetland Hydrology Present?** Yes _____ No X
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	8	Yes	FACW
2. *Ulmus pumila*	3	Yes	FACU
3. *Populus deltoides*	3	Yes	FAC
4.			
5.			
6.			
7.			
	14	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Salix interior*	35	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	35	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Poa pratensis*	25	Yes	FACU
2. *Solidago gigantea*	10	Yes	FACW
3. *Solidago canadensis*	10	Yes	FACU
4. *Cirsium arvense*	3	No	FACU
5. *Cirsium vulgare*	3	No	FACU
6. *Euphorbia esula*	3	No	UPL
7. *Taraxacum officinale*	1	No	FACU
8. *Glechoma hederacea*	5	No	FACU
9. *Arctium minus*	2	No	FACU
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: 4   (A)

Total Number of Dominant
Species Across All Strata: 7   (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: 57.1%   (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	53	x 2 =	106
FAC species	3	x 3 =	9
FACU species	52	x 4 =	208
UPL species	3	x 5 =	15
Column Totals:	111	(A)	338 (B)

Prevalence Index = B/A =   3.05

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.

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.)

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					Loamy/Clayey	SiCL
8-24	10YR 4/4	67					Loamy/Clayey	SiCL, 20% gravel, mixed fill
	10YR 5/4	20						
	10YR 4/6	10						
	10YR 3/2	3						

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P11

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): toe of fill slope   Local relief (concave, convex, none): none   Slope %: 0-1

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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 ___	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in a shallow marsh at the toe of fill.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary		Secondary
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
X High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
X Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	X Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ Microtopographic Relief (D4)
		X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___		
Water Table Present?	Yes X	No ___	Depth (inches): 9		
Saturation Present?	Yes X	No ___	Depth (inches): 2	**Wetland Hydrology Present?**	**Yes** X **No** ___
(includes capillary fringe)					

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

Remarks:

VEGETATION– Use scientific names of plants.   Sampling Point: ___P11___

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. *Salix interior*	5	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	5 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Typha X glauca*	85	Yes	OBL
2. *Phalaris arundinacea*	15	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	100 =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	85	x 1 =	85
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		125 (B)

Prevalence Index = B/A = ____1.19____

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.)

SOIL

Sampling Point   P11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					Mucky Loam/Clay	Mucky SiL

[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**)
- X 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:

US Army Corps of Engineers   Northcentral and Northeast Region – Version 2.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: __Voit Farm Property__   City/County: __T Blooming Grove & C Madison/Dane Co.__   Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__   State: __WI__   Sampling Point: __P12__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__   Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __Level plain__   Local relief (concave, convex, none): __none__   Slope %: __0-1__

Subregion (LRR or MLRA): __LRR K__   Lat: _____   Long: _____   Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__   NWI classification: __E1K (WWI)__

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

Are Vegetation _____, Soil __X__, 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 _____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland old field fill area.

HYDROLOGY

Wetland Hydrology Indicators:

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

_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)
_____ Saturation (A3)	_____ Marl Deposits (B15)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)
_____ Sparsely Vegetated Concave Surface (B8)	

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?	Yes _____	No __X__	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** _____ **No** __X__	
(includes capillary fringe)					

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

Remarks:

VEGETATION – Use scientific names of plants.   Sampling Point: P12

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. *Ulmus pumila*	5	Yes	FACU
2. _____	____	____	____
3. _____	____	____	____
4. _____	____	____	____
5. _____	____	____	____
6. _____	____	____	____
7. _____	____	____	____
	5 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Solidago gigantea*	10	No	FACW
2. *Solidago canadensis*	20	Yes	FACU
3. *Lotus corniculatus*	20	Yes	FACU
4. *Poa pratensis*	25	Yes	FACU
5. *Bromus inermis*	5	No	UPL
6. *Taraxacum officinale*	2	No	FACU
7. _____	____	____	____
8. _____	____	____	____
9. _____	____	____	____
10. _____	____	____	____
11. _____	____	____	____
12. _____	____	____	____
	82 =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: 4   (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	72	x 4 =	288
UPL species	5	x 5 =	25
Column Totals:	87 (A)		333 (B)
Prevalence Index = B/A =			3.83

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   P12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 5/4	90					Loamy/Clayey	SiL, contains 50% gravel, mixed fill
	10YR 3/2	10						

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	**Indicators for Problematic Hydric Soils[3]:**
Histic Epipedon (A2)		2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	Coast Prairie Redox (A16) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Thin Dark Surface (S9) (**LRR K, L**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Redox (S5)	Redox Depressions (F8)	Red Parent Material (F21)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Very Shallow Dark Surface (F22)
Dark Surface (S7)		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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P13

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): ditch   Local relief (concave, convex, none): concave   Slope %: 2-4

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located within a lower bank of excavated ditch.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
X High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
X Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	X Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ Microtopographic Relief (D4)
		X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____	
Water Table Present?	Yes X	No ____	Depth (inches): 2	
Saturation Present?	Yes X	No ____	Depth (inches): 1	**Wetland Hydrology Present?** **Yes** X **No** ____
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.

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. *Typha X glauca*	75	Yes	OBL
2. *Phalaris arundinacea*	5	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	80 =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: 1   (A)

Total Number of Dominant
Species Across All Strata: 1   (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	75	x 1 =	75
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		85 (B)

Prevalence Index = B/A =   1.06

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.)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/1	82	10YR 5/8	8	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 2/1	10						
11-24	10YR 5/1	70					Loamy/Clayey	SiL, mixed profile
	10YR 3/1	20	10YR 5/8	10	C	M		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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	High Chroma Sands (S11) (**LRR K, L**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Thin Dark Surface (S9) (**LRR K, L**)
X Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	X Redox Dark Surface (F6)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Red Parent Material (F21)
Sandy Redox (S5)	Marl (F10) (**LRR K, L**)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)		Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P14

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): level plain   Local relief (concave, convex, none): none   Slope %: 0-2

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

Soil Map Unit Name: Gravel Pit (Gp)   NWI classification: E1K (WWI)

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

Are Vegetation _____, Soil X , 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 _____	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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland old field fill area.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary Indicators		Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)		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?	Yes _____	No X	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** _____	**No** X
(includes capillary fringe)					

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Populus deltoides*	12	Yes	FAC
2. *Ulmus pumila*	1	No	FACU
3. *Lonicera X bella*	8	Yes	FACU
4.			
5.			
6.			
7.			
	21	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Phalaris arundinacea*	5	No	FACW
2. *Poa pratensis*	20	Yes	FACU
3. *Euphorbia esula*	10	No	UPL
4. *Solidago canadensis*	15	Yes	FACU
5. *Taraxacum officinale*	5	No	FACU
6. *Daucus carota*	5	No	UPL
7. *Anthriscus sylvestris*	2	No	UPL
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: 2   (A)

Total Number of Dominant
Species Across All Strata: 5   (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: 40.0%   (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	22	x 3 =	66
FACU species	49	x 4 =	196
UPL species	17	x 5 =	85
Column Totals:	93	(A)	357 (B)

Prevalence Index = B/A =   3.84

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.)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/2	80					Loamy/Clayey	SiCL, mixed profile
	10YR 5/4	20						
9-24	10YR 5/4	85					Loamy/Clayey	SiCL, contains 20% gravel, mixed fill
	10YR 3/2	5						
	10YR 4/4	10						

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P15

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): ditch bed   Local relief (concave, convex, none): none   Slope %: 0-1

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

Soil Map Unit Name: Gravel Pit (Gp)   NWI classification: E1K (WWI)

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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an excavated ditch bed.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
X Surface Water (A1)	Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
X High Water Table (A2)	Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
X Saturation (A3)	Marl Deposits (B15)	_____ Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X No _____	Depth (inches): 1		
Water Table Present?	Yes X No _____	Depth (inches): 0	**Wetland Hydrology Present? Yes** X **No** _____	
Saturation Present?	Yes X No _____	Depth (inches): 0		
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.   Sampling Point: ___P15___

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. *Typha X glauca*	25	Yes	OBL
2. *Lemna minor*	10	Yes	OBL
3. *Phalaris arundinacea*	5	No	FACW
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	40 =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	35	x 1 =	35
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	40 (A)		45 (B)

Prevalence Index = B/A = ___1.13___

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.)
Vegetation characteristic of mudflat.

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	50					Mucky Loam/Clay	Mucky SiL
	10YR 3/1	20						
	10YR 4/2	20	10YR 5/6	10	C	M		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)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	
___ Histic Epipedon (A2)		
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	
___ Stratified Layers (A5)	_X_ Loamy Mucky Mineral (F1) (**LRR K, L**)	
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	
___ Sandy Mucky Mineral (S1)	_X_ Redox Dark Surface (F6)	
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	
___ Sandy Redox (S5)	___ Redox Depressions (F8)	
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	
___ Dark Surface (S7)		

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:
Sediment present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P16

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): level plain   Local relief (concave, convex, none): none   Slope %: 1

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation _____ , Soil __X__ , 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 _____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an old field within a filled upland.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)		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?	Yes _____	No _X_	Depth (inches): _____	**Wetland Hydrology Present?**	**Yes** _____ **No** _X_
(includes capillary fringe)					

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

Remarks:

VEGETATION– Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus pumila*	25	Yes	FACU
2. _____	____	____	____
3. _____	____	____	____
4. _____	____	____	____
5. _____	____	____	____
6. _____	____	____	____
7. _____	____	____	____
	25	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Lonicera X bella*	5	Yes	FACU
2. *Populus deltoides*	3	Yes	FAC
3. _____	____	____	____
4. _____	____	____	____
5. _____	____	____	____
6. _____	____	____	____
7. _____	____	____	____
	8	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Solidago canadensis*	40	Yes	FACU
2. *Poa pratensis*	20	Yes	FACU
3. *Phalaris arundinacea*	10	No	FACW
4. *Bromus inermis*	5	No	UPL
5. *Erigeron strigosus*	5	No	FACU
6. *Arctium minus*	8	No	FACU
7. *Glechoma hederacea*	12	No	FACU
8. *Daucus carota*	3	No	UPL
9. *Euphorbia esula*	3	No	UPL
10. *Taraxacum officinale*	2	No	FACU
11. _____	____	____	____
12. _____	____	____	____
	108	=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: 1   (A)

Total Number of Dominant
Species Across All Strata: 5   (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: 20.0%   (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	3	x 3 =	9
FACU species	117	x 4 =	468
UPL species	11	x 5 =	55
Column Totals:	141 (A)		552 (B)

Prevalence Index = B/A =   3.91

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

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 5/4	100					Loamy/Clayey	L
9-18	10YR 5/3	75					Loamy/Clayey	L, mixed fill
	10YR 5/4	20						
	10YR 3/2	5						

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P17

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): depression   Local relief (concave, convex, none): concave   Slope %: 0-3

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: none (WWI)

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

Are Vegetation ____, Soil X , 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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was a phrag pocket within a depression in fill.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	X Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ 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?	Yes ____	No X	Depth (inches): ____	**Wetland Hydrology Present?** **Yes** X **No** ____
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.   Sampling Point: P17

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. *Acer negundo*	5	Yes	FAC
2. *Fraxinus pennsylvanica*	2	Yes	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	7 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Phragmites australis*	100	Yes	FACW
2. *Phalaris arundinacea*	2	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	102 =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: 3   (A)

Total Number of Dominant
Species Across All Strata: 3   (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	0	x 1 =	0
FACW species	104	x 2 =	208
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	109 (A)		223 (B)

Prevalence Index = B/A =   2.05

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.)

SOIL

Sampling Point   P17

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Loamy/Clayey	SiCL
3-8	10YR 5/3	90	10YR 5/6	10	C	M	Loamy/Clayey	Distinct redox concentrations
8-24	10YR 5/2	65	10YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations, contains 10% gravel, mixed fill
	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)
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:

US Army Corps of Engineers

Northcentral and Northeast Region – Version 2.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property City/County: T Blooming Grove & C Madison/Dane Co. Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC. State: WI Sampling Point: P18

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): low ridge Local relief (concave, convex, none): convex Slope %: 3-4

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

Soil Map Unit Name: Colwood silt loam (Co) NWI classification: E1K (WWI)

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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was characteristic of a wet meadow and was positioned in a low ridge between creek and ditch.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	X Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes ____	No X	Depth (inches): _____
(includes capillary fringe)			

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

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

Remarks:

VEGETATION– Use scientific names of plants.

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. *Phalaris arundinacea*	100	Yes	FACW
2. *Urtica dioica*	5	No	FAC
3. _____	____	____	____
4. _____	____	____	____
5. _____	____	____	____
6. _____	____	____	____
7. _____	____	____	____
8. _____	____	____	____
9. _____	____	____	____
10. _____	____	____	____
11. _____	____	____	____
12. _____	____	____	____
	105 =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: 1 (A)

Total Number of Dominant
Species Across All Strata: 1 (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	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		215 (B)
Prevalence Index = B/A =			2.05

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.)

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/1	100					Loamy/Clayey	SiL
16-24	10YR 4/2	92	10YR 5/8	8	C	M	Loamy/Clayey	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)
- Depleted Below Dark Surface (A11)
- X 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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P19

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): Upland Ridge   Local relief (concave, convex, none): convex   Slope %: 4

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

Soil Map Unit Name: Colwood silt loam (Co)   NWI classification: E1K (WWI)

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

Are Vegetation ____, Soil X , 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 ____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was an upland ridge between stream and ditch.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)	
____ High Water Table (A2)	____ Aquatic Fauna (B13)	
____ Saturation (A3)	____ Marl Deposits (B15)	
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	
____ Sparsely Vegetated Concave Surface (B8)		

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?	Yes ____	No X	Depth (inches): ____	**Wetland Hydrology Present? Yes ____ No X**
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.   Sampling Point: ___P19___

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*	50	Yes	UPL
2. *Phalaris arundinacea*	20	Yes	FACW
3. *Solidago canadensis*	20	Yes	FACU
4. *Euphorbia esula*	5	No	UPL
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95 =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: ____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	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	55	x 5 =	275
Column Totals:	95 (A)		395 (B)

Prevalence Index = B/A = ____4.16____

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

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 4/3	65					Loamy/Clayey	SiL, mixed fill
	10YR 5/4	25						
	10YR 2/1	10						

[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: __Voit Farm Property__   City/County: __T Blooming Grove & C Madison/Dane Co.__   Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__   State: __WI__   Sampling Point: __P20__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__   Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __upland gentle slope__   Local relief (concave, convex, none): __convex__   Slope %: __3__

Subregion (LRR or MLRA): __LRR K__   Lat: _____   Long: _____   Datum: _____

Soil Map Unit Name: __Colwood silt loam__   NWI classification: __none (WWI)__

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

Are Vegetation _____ , Soil __X__ , 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 _____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in an upland old field within a filled area.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

Primary Indicators		Secondary Indicators
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ 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?	Yes _____	No __X__	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** _____ **No** __X__
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.

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. *Lonicera X bella*	8	Yes	FACU
2. _____	___	___	___
3. _____	___	___	___
4. _____	___	___	___
5. _____	___	___	___
6. _____	___	___	___
7. _____	___	___	___
	8 =Total Cover		

Herb Stratum (Plot size:_____)			
1. *Poa pratensis*	40	Yes	FACU
2. *Solidago canadensis*	50	Yes	FACU
3. *Phalaris arundinacea*	5	No	FACW
4. *Equisetum arvense*	10	No	FAC
5. *Euphorbia esula*	15	No	UPL
6. *Taraxacum officinale*	3	No	FACU
7. *Bromus inermis*	5	No	UPL
8. _____	___	___	___
9. _____	___	___	___
10. _____	___	___	___
11. _____	___	___	___
12. _____	___	___	___
	128 =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: 3   (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	5	x 2 =	10
FAC species	10	x 3 =	30
FACU species	101	x 4 =	404
UPL species	20	x 5 =	100
Column Totals:	136 (A)		544 (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.)

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/4	90					Loamy/Clayey	SiL, contains 10% gravel
	10YR 4/6	10						
10-20	10YR 4/6	80					Loamy/Clayey	SiL, ontains 20% gravel, mixed fill
	10YR 5/4	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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: __Voit Farm Property__   City/County: __T Blooming Grove & C Madison/Dane Co.__   Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__   State: __WI__   Sampling Point: __P21__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__   Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __toe of slope__   Local relief (concave, convex, none): __none__   Slope %: __1-2__

Subregion (LRR or MLRA): __LRR K__   Lat: _____   Long: _____   Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__   NWI classification: __none (WWI)__

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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in a wet meadow at the toe of fill slope. Wetland extended offsite to the east.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary		Secondary
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	_X_ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes ____	No _X_	Depth (inches): _____	**Wetland Hydrology Present? Yes** __X__ **No** _____
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.   Sampling Point: P21

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. *Phalaris arundinacea*	95	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	95 =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: 1   (A)

Total Number of Dominant
Species Across All Strata: 1   (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	0	x 1 = 0
FACW species	95	x 2 = 190
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	95 (A)	190 (B)

Prevalence Index = B/A =   2.00

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.)

SOIL   Sampling Point   P21

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	97	10YR 5/6	3	C	M	Loamy/Clayey	Prominent redox concentrations
6-20	10YR 4/2	75	10YR 5/8	15	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 3/2	10						
20-24	10YR 2/1	100					Mucky Loam/Clay	Mucky SiL

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

Hydric Soil Indicators: **Indicators for Problematic Hydric Soils[3]:**

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)		? Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
X Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	X Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P22

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): bottom slope   Local relief (concave, convex, none): convex   Slope %: 10

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

Soil Map Unit Name: Gravel Pit (Gp)   NWI classification: (WWI)

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

Are Vegetation ____, Soil X , 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 ____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in an old field near toe of slope at property line. Wetlands commence just north of property line.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
____ Surface Water (A1)	____ Water-Stained Leaves (B9)	____ Surface Soil Cracks (B6)
____ High Water Table (A2)	____ Aquatic Fauna (B13)	____ Drainage Patterns (B10)
____ Saturation (A3)	____ Marl Deposits (B15)	____ Moss Trim Lines (B16)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)	____ Dry-Season Water Table (C2)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)	____ Crayfish Burrows (C8)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)	____ Saturation Visible on Aerial Imagery (C9)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)	____ Stunted or Stressed Plants (D1)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)	____ Geomorphic Position (D2)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)	____ Shallow Aquitard (D3)
____ Sparsely Vegetated Concave Surface (B8)		____ 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?	Yes ____	No X	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** ____ **No** X
(includes capillary fringe)				

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

Remarks:

VEGETATION– Use scientific names of plants.

Sampling Point: P22

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Cornus racemosa*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Solidago canadensis*	35	Yes	FACU
2. *Solidago gigantea*	5	No	FACW
3. *Vicia sativa*	15	No	FACU
4. *Euphorbia esula*	5	No	UPL
5. *Poa pratensis*	25	Yes	FACU
6. *Erigeron strigosus*	5	No	FACU
7. *Taraxacum officinale*	3	No	FACU
8.			
9.			
10.			
11.			
12.			
	93	=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: 4 (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	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	83	x 4 =	332
UPL species	5	x 5 =	25
Column Totals:	108 (A)		412 (B)

Prevalence Index = B/A = 3.81

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   P22

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	80					Loamy/Clayey	SiCL
	10YR 3/2	10						
	10YR 5/3	10						
12-24	10YR 5/4	90					Loamy/Clayey	SiCL, contains 15% gravel
	10YR 3/2	10						

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

[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)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)		___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[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: __Voit Farm Property__ City/County: T Blooming Grove & C Madison/Dane Co. Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__ State: __WI__ Sampling Point: __P23__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__ Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __level__ Local relief (concave, convex, none): __none__ Slope %: __0-1__

Subregion (LRR or MLRA): __LRR K__ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: __Gravel Pit (Gp)__ NWI classification: __none (WWI)__

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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was within a phragmities pocket on fill material on shore of quarry pond.

HYDROLOGY

Wetland Hydrology Indicators:

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

____ Surface Water (A1)	____ Water-Stained Leaves (B9)
____ High Water Table (A2)	____ Aquatic Fauna (B13)
____ Saturation (A3)	____ Marl Deposits (B15)
____ Water Marks (B1)	____ Hydrogen Sulfide Odor (C1)
____ Sediment Deposits (B2)	____ Oxidized Rhizospheres on Living Roots (C3)
____ Drift Deposits (B3)	____ Presence of Reduced Iron (C4)
____ Algal Mat or Crust (B4)	____ Recent Iron Reduction in Tilled Soils (C6)
____ Iron Deposits (B5)	____ Thin Muck Surface (C7)
____ Inundation Visible on Aerial Imagery (B7)	____ Other (Explain in Remarks)
____ Sparsely Vegetated Concave Surface (B8)	

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)
__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?	Yes ____	No __X__	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** ____ **No** __X__
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.

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. *Phragmites australis*	100	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	100 =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: ___1___ (A)

Total Number of Dominant
Species Across All Strata: ___1___ (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	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = ___2.00___

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.

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.)

SOIL   Sampling Point   P23

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	80					Loamy/Clayey	SiCL, 10% gravel
	10YR 5/3	20						
12-16	10YR 5/3	55					Loamy/Clayey	SiCL
	10YR 2/1	30	10YR 4/6	5	C	M		Prominent redox concentrations
	10YR 4/4	10						
16-24	10YR 4/1	85	10YR 5/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 5/3	10						

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

Hydric Soil Indicators: **Indicators for Problematic Hydric Soils[3]:**

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)		___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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:
Mixed fill soil profile with no hydric soil indicators observed.
Thick layer of sediment overlies soils.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: __Voit Farm Property__ City/County: __T Blooming Grove & C Madison/Dane Co.__ Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__ State: __WI__ Sampling Point: __P24__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__ Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __toe of slope__ Local relief (concave, convex, none): __none__ Slope %: __0-1__

Subregion (LRR or MLRA): __LRR K__ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: __Adrian muck (Ad)__ NWI classification: __E1K (WWI)__

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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in a wet meadow at toe of slope of fill material. Wetland extends offsite to the east.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

Primary Indicators		Secondary Indicators
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
__X__ Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	__X__ Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ Microtopographic Relief (D4)
		__X__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No __X__	Depth (inches): _____	
Water Table Present?	Yes __X__	No _____	Depth (inches): __20__	
Saturation Present?	Yes __X__	No _____	Depth (inches): __12__	**Wetland Hydrology Present?** Yes __X__ No _____
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.　　　　　　　　　　　　　Sampling Point: ___P24___

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. *Phalaris arundinacea*	100	Yes	FACW
2. *Urtica dioica*	3	No	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
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: ___1___ (A)

Total Number of Dominant
Species Across All Strata: ___1___ (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	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	3	x 3 =	9
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	103 (A)		209 (B)

Prevalence Index = B/A = ___2.03___

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.)

SOID

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type¹	Loc²	Texture	Remarks
0-11	N 2.5/	100					Mucky Loam/Clay	Mucky SiL
11-24	10YR 5/1	90	10YR 5/8	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Histic Epipedon (A2)	
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)
___ Stratified Layers (A5)	_X_ Loamy Mucky Mineral (F1) (**LRR K, L**)
_X_ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)
___ Sandy Redox (S5)	___ Redox Depressions (F8)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)
___ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

___ 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)

³Indicators 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: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P25

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): side slope   Local relief (concave, convex, none): convex   Slope %: 12-15

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

Soil Map Unit Name: Grays silt loam (GsC2)   NWI classification: E1K (WWI)

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

Are Vegetation _____ , Soil X , 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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located on a side slope fill pile with concrete block debris. As a result of this debris, there was no soil to evaluate.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)		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?	Yes _____ No X	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** _____ **No** X
(includes capillary fringe)			

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Acer negundo*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Phalaris arundinacea*	10	Yes	FACW
2. *Arctium minus*	10	Yes	FACU
3. *Solidago gigantea*	15	Yes	FACW
4. *Solidago canadensis*	15	Yes	FACU
5. *Taraxacum officinale*	2	No	FACU
6. *Galium aparine*	3	No	FACU
7. *Glechoma hederacea*	2	No	FACU
8. *Ribes cynosbati*	2	No	FACU
9. *Daucus carota*	5	No	UPL
10. *Euphorbia esula*	3	No	UPL
11.			
12.			
	67	=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: 4   (A)

Total Number of Dominant
Species Across All Strata: 6   (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	25	x 2 =	50
FAC species	25	x 3 =	75
FACU species	34	x 4 =	136
UPL species	8	x 5 =	40
Column Totals:	92 (A)		301 (B)

Prevalence Index = B/A =   3.27

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.

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.)

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	High Chroma Sands (S11) (**LRR K, L**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	Red Parent Material (F21)
Sandy Redox (S5)	Marl (F10) (**LRR K, L**)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)		Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]:

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	
Type: ___Concrete debris___	
Depth (inches): ___0.25___	**Hydric Soil Present?** **Yes** _____ **No** _X_

Remarks:
No soil to evaluate due to the presence of various concrete blocks and other debris which made sampling the soil impossible.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P26

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): terrace   Local relief (concave, convex, none): none   Slope %: 0-1

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

Soil Map Unit Name: Gravel Pit (Gp)   NWI classification: none (WWI)

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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located in a wet meadow along a lower terrace of quarry pond shore.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary Indicators		Secondary Indicators
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
_X_ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_X_ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		_X_ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No _X_	Depth (inches): _____	
Water Table Present?	Yes _X_	No _____	Depth (inches): 18	**Wetland Hydrology Present?** **Yes** _X_ **No** _____
Saturation Present?	Yes _X_	No _____	Depth (inches): 12	
(includes capillary fringe)				

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

Remarks:

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. *Salix interior*	15	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	15 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Carex pellita*	20	Yes	OBL
2. *Phalaris arundinacea*	50	Yes	FACW
3. *Equisetum arvense*	10	No	FAC
4. *Erigeron strigosus*	3	No	FACU
5. *Poa pratensis*	10	No	FACU
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	93 =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: 3   (A)

Total Number of Dominant
Species Across All Strata: 3   (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	20	x 1 = 20
FACW species	65	x 2 = 130
FAC species	10	x 3 = 30
FACU species	13	x 4 = 52
UPL species	0	x 5 = 0
Column Totals: 108	(A)	232 (B)

Prevalence Index = B/A =   2.15

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.)

SOIL   Sampling Point   P26

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	80	10YR 5/6	10			Loamy/Clayey	SiCL, contains 5% gravel
	10YR 3/2	10						
8-12	10YR 3/2	95	10YR 5/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
12-24	10YR 5/3	65	10YR 5/2	20	D	M	Loamy/Clayey	
			10YR 5/8	15	C	M		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: **Indicators for Problematic Hydric Soils[3]:**

___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R,**	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)	**MLRA 149B**)	___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	_X_ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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:

US Army Corps of Engineers   Northcentral and Northeast Region – Version 2.0

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Voit Farm Property   City/County: T Blooming Grove & C Madison/Dane Co.   Sampling Date: 5/12/2022

Applicant/Owner: Starkweather LLC.   State: WI   Sampling Point: P27

Investigator(s): Jeff Kraemer and Keith Phelps, Heartland Ecological   Section, Township, Range: S04 & 05, T7N, R10E

Landform (hillside, terrace, etc.): slight hillside   Local relief (concave, convex, none): convex   Slope %: 2-3

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

Soil Map Unit Name: Gravel pit (Gp)   NWI classification: none (WWI)

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

Are Vegetation _____, Soil x, 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 _____ 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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was located within an upland filled area.

HYDROLOGY

Wetland Hydrology Indicators:

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

Primary Indicators		Secondary Indicators (minimum of two required)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ 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?	Yes _____	No X	Depth (inches): _____	**Wetland Hydrology Present?**	**Yes** _____ **No** X
(includes capillary fringe)					

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

Remarks:

VEGETATION– Use scientific names of plants.   Sampling Point: P27

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. _Salix interior_	3	No	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	3 =Total Cover		

Herb Stratum (Plot size: _____)			
1. _Phalaris arundinacea_	10	No	FACW
2. _Poa pratensis_	50	Yes	FACU
3. _Lotus corniculatus_	15	Yes	FACU
4. _Taraxacum officinale_	5	No	FACU
5. _Trifolium hybridum_	5	No	FACU
6. _Monarda fistulosa_	2	No	FACU
7. _Dactylis glomerata_	10	No	FACU
8. _Solidago canadensis_	5	No	FACU
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
	102 =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	13	x 2 =	26
FAC species	0	x 3 =	0
FACU species	92	x 4 =	368
UPL species	0	x 5 =	0
Column Totals:	105 (A)		394 (B)

Prevalence Index = B/A =   3.75

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.)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 4/4	75					Loamy/Clayey	SiL, 30% gravel, mixed profile
	10YR 4/3	20						
	10YR 3/2	5						

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

Hydric Soil Indicators:

		Indicators for Problematic Hydric Soils[3]:
___ Histosol (A1)	___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Histic Epipedon (A2)		___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ Black Histic (A3)	___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Hydrogen Sulfide (A4)	___ High Chroma Sands (S11) (**LRR K, L**)	___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Stratified Layers (A5)	___ Loamy Mucky Mineral (F1) (**LRR K, L**)	___ Thin Dark Surface (S9) (**LRR K, L**)
___ Depleted Below Dark Surface (A11)	___ Loamy Gleyed Matrix (F2)	___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Thick Dark Surface (A12)	___ Depleted Matrix (F3)	___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Sandy Mucky Mineral (S1)	___ Redox Dark Surface (F6)	___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Sandy Gleyed Matrix (S4)	___ Depleted Dark Surface (F7)	___ Red Parent Material (F21)
___ Sandy Redox (S5)	___ Redox Depressions (F8)	___ Very Shallow Dark Surface (F22)
___ Stripped Matrix (S6)	___ Marl (F10) (**LRR K, L**)	___ Other (Explain in Remarks)
___ Dark Surface (S7)		

[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: __Voit Farm Property__   City/County: __T Blooming Grove & C Madison/Dane Co.__   Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__   State: __WI__   Sampling Point: __P28__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__   Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __depression__   Local relief (concave, convex, none): __concave__   Slope %: __0-2__

Subregion (LRR or MLRA): __LRR K__   Lat: _____   Long: _____   Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__   NWI classification: __E1K (WWI)__

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

Are Vegetation _____, Soil __X__, 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 _____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in a wet meadow depression within fill.

HYDROLOGY

Wetland Hydrology Indicators:

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

		Secondary Indicators (minimum of two required)
_____ Surface Water (A1)	_____ Water-Stained Leaves (B9)	_____ Surface Soil Cracks (B6)
__X__ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)
__X__ Saturation (A3)	_____ Marl Deposits (B15)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	__X__ Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Shallow Aquitard (D3)
_____ Sparsely Vegetated Concave Surface (B8)		_____ Microtopographic Relief (D4)
		__X__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No __X__	Depth (inches): _____		
Water Table Present?	Yes __X__	No _____	Depth (inches): __12__	**Wetland Hydrology Present?** **Yes** __X__ **No** _____	
Saturation Present?	Yes __X__	No _____	Depth (inches): __8__		
(includes capillary fringe)					

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

Remarks:

VEGETATION– Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix amygdaloides*	15	Yes	FACW
2. *Ulmus pumila*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. *Salix interior*	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	

Herb Stratum (Plot size: _____)			
1. *Phragmites australis*	85	Yes	FACW
2. *Phalaris arundinacea*	10	No	FACW
3. *Arctium minus*	3	No	FACU
4. *Galium aparine*	3	No	FACU
5. *Urtica dioica*	3	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	104	=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: ___3___ (A)

Total Number of Dominant
Species Across All Strata: ___4___ (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: __75.0%__ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	125	x 2 =	250
FAC species	3	x 3 =	9
FACU species	11	x 4 =	44
UPL species	0	x 5 =	0
Column Totals:	139 (A)		303 (B)

Prevalence Index = B/A = ___2.18___

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.)

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/3	88	10YR 5/2	10	D	M	Loamy/Clayey	SiL
			10YR 5/6	12	C	M		Distinct redox concentrations
6-24	10YR 5/2	20					Loamy/Clayey	SiL
	10YR 5/3	68	10YR 5/6	12	C	M		Distinct 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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	X Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]: (right column above)

[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: __Voit Farm Property__ City/County: __T Blooming Grove & C Madison/Dane Co.__ Sampling Date: __5/12/2022__

Applicant/Owner: __Starkweather LLC.__ State: __WI__ Sampling Point: __P29__

Investigator(s): __Jeff Kraemer and Keith Phelps, Heartland Ecological__ Section, Township, Range: __S04 & 05, T7N, R10E__

Landform (hillside, terrace, etc.): __gentle slope__ Local relief (concave, convex, none): __convex__ Slope %: __3__

Subregion (LRR or MLRA): __LRR K__ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: __Colwood silt loam (Co)__ NWI classification: __E1K (WWI)__

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

Are Vegetation ____, Soil __X__, 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 ____	**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.)
Based on the USACE APT tool, conditions at the time of sampling were expected to be within the normal preceipitation range. Plot was in an upland gravel and fill site.

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

Primary Indicators		Secondary Indicators
___ Surface Water (A1)	___ Water-Stained Leaves (B9)	___ Surface Soil Cracks (B6)
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)		___ 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?	Yes ____	No __X__	Depth (inches): _____	**Wetland Hydrology Present?** **Yes** ____ **No** __X__
(includes capillary fringe)				

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

Remarks:

VEGETATION – Use scientific names of plants.

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. *Salix interior*	12	Yes	FACW
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	12 =Total Cover		

Herb Stratum (Plot size: _____)			
1. *Equisetum arvense*	15	Yes	FAC
2. *Trifolium arvense*	3	No	UPL
3. *Daucus carota*	3	No	UPL
4. *Solidago canadensis*	5	No	FACU
5. *Phragmites australis*	2	No	FACW
6. _____	_____	_____	_____
7. _____	_____	_____	_____
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	0	x 1 =	0
FACW species	14	x 2 =	28
FAC species	15	x 3 =	45
FACU species	5	x 4 =	20
UPL species	6	x 5 =	30
Column Totals:	40 (A)		123 (B)
	Prevalence Index = B/A =		3.08

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.

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.)

SOIL

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/6	95					Loamy/Clayey	L, contains 50% gravel
	10YR 3/2	5						

[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)	Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)	2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
Histic Epipedon (A2)		Coast Prairie Redox (A16) (**LRR K, L, R**)
Black Histic (A3)	Thin Dark Surface (S9) (**LRR R, MLRA 149B**)	5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
Hydrogen Sulfide (A4)	High Chroma Sands (S11) (**LRR K, L**)	Polyvalue Below Surface (S8) (**LRR K, L**)
Stratified Layers (A5)	Loamy Mucky Mineral (F1) (**LRR K, L**)	Thin Dark Surface (S9) (**LRR K, L**)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12) (**LRR K, L, R**)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19) (**MLRA 149B**)
Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)	Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7)	Red Parent Material (F21)
Sandy Redox (S5)	Redox Depressions (F8)	Very Shallow Dark Surface (F22)
Stripped Matrix (S6)	Marl (F10) (**LRR K, L**)	Other (Explain in Remarks)
Dark Surface (S7)		

Indicators for Problematic Hydric Soils[3]: (right column, as listed above)

[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:
Densely compacted gravel observed in soil profile

Appendix D | Site Photographs

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

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

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #7   Sample point P2

Photo #8   Sample point P2

Photo #9   Sample point P3

Photo #10   Sample point P3

Photo #11   Sample point P3

Photo #12   Sample point P3

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #13   Sample point P4

Photo #14   Sample point P4

Photo #15   Sample point P4

Photo #16   Sample point P4

Photo #17   Sample point P5

Photo #18   Sample point P5

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #19   Sample point P5

Photo #20   Sample point P5

Photo #21   Sample point P6

Photo #22   Sample point P6

Photo #23   Sample point P6

Photo #24   Sample point P6

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #25   Sample point P7

Photo #26   Sample point P7

Photo #27   Sample point P7

Photo #28   Sample point P7

Photo #29   Sample point P8

Photo #30   Sample point P8

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #31   Sample point P8

Photo #32   Sample point P8

Photo #33   Photo of ditch adjacent to P8 (1 of 3)

Photo #34   Photo of ditch adjacent to P8 (2 of 3)

Photo #35   Photo of ditch adjacent to P8 (3 of 3)

Photo #36   Sample point P9

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #37 Sample point P9

Photo #38 Sample point P9

Photo #39 Sample point P9

Photo #40 Sample point P10

Photo #41 Sample point P10

Photo #42 Sample point P10

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
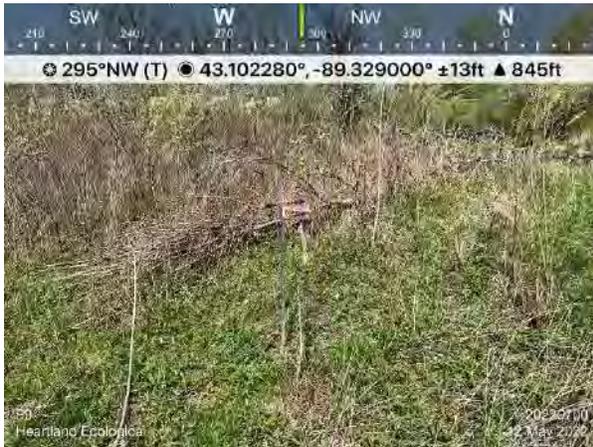Dane County, Wisconsin
Heartland Project #: 20220700

Photo #43   Sample point P10

Photo #44   Sample point P11

Photo #45   Sample point P11

Photo #46   Sample point P11

Photo #47   Sample point P11

Photo #48   Sample point P11

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #49   Wetland Boundary near P11

Photo #50   Sample point P12

Photo #51   Sample point P12

Photo #52   Sample point P12

Photo #53   Sample point P12

Photo #54   Sample point P13

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
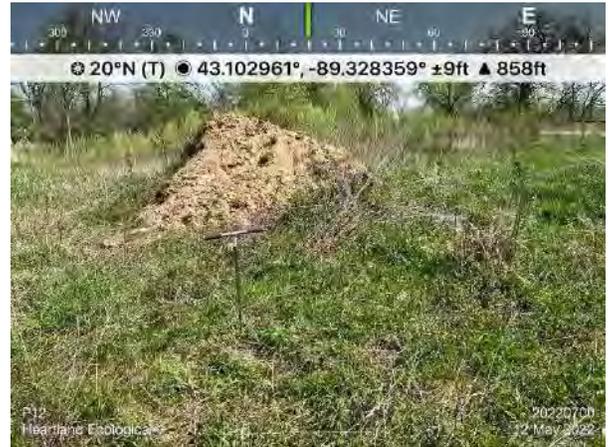Heartland Project #: 20220700

Photo #55   Sample point P13

Photo #56   Sample point P13

Photo #57   Sample point P13

Photo #58   Sample point P14

Photo #59   Sample point P14

Photo #60   Sample point P14

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #61   Sample point P14

Photo #62   Sample point P15

Photo #63   Sample point P15

Photo #64   Sample point P15

Photo #65   Sample point P15

Photo #66   Photo of quarry lake from NW corner (1 of 3)

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #67   Photo of quarry lake from NW corner (2 of 3)

Photo #68   Photo of quarry lake from NW corner (3 of 3)

Photo #69   Sample point P16

Photo #70   Sample point P16

Photo #71   Sample point P16

Photo #72   Sample point P16

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #73   Sample point P17

Photo #74   Sample point P17

Photo #75   Sample point P17

Photo #76   Sample point P17

Photo #77   Sample point P18

Photo #78   Sample point P18

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #79   Sample point P18

Photo #80   Sample point P18

Photo #81   Sample point P19

Photo #82   Sample point P19

Photo #83   Sample point P19

Photo #84   Sample point P19

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #85   Sample point P20

Photo #86   Sample point P20

Photo #87   Sample point P20

Photo #88   Sample point P20

Photo #89   Sample point P21

Photo #90   Sample point P21

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #91   Sample point P21

Photo #92   Sample point P21

Photo #93   Sample point P22

Photo #94   Sample point P22

Photo #95   Sample point P22

Photo #96   Sample point P22

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #97   Sample point P23

Photo #98   Sample point P23

Photo #99   Sample point P23

Photo #100   Sample point P23

Photo #101   Sample point P24

Photo #102   Sample point P24

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #103   Sample point P24

Photo #104   Sample point P24

Photo #105   Sample point P25

Photo #106   Sample point P25

Photo #107   Sample point P25

Photo #108   Sample point P25

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #109   Sample point P26

Photo #110   Sample point P26

Photo #111   Sample point P26

Photo #112   Sample point P26

Photo #113   Sample point P27

Photo #114   Sample point P27

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #115   Sample point P27

Photo #116   Sample point P28

Photo #117   Sample point P28

Photo #118   Sample point P28

Photo #119   Sample point P28

Photo #120   Sample point P29

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #121   Sample point P29

Photo #122   Sample point P29

Photo #123   Sample point P29

Photo #124   Quarry pond from the south (1 of 4)

Photo #125   Quarry pond from south (2 of 4)

Photo #126   Quarry pond from the south (3 of 4)

Voit Farm Property
Starkweather LLC.
Date Photos Taken: 5/12/22

Assured Wetland Delineation
Dane County, Wisconsin
Heartland Project #: 20220700

Photo #127   Quarry pond from the south (4 of 4)

Photo #128   Photo of agricultural field from the southwest (1 of 4)

Photo #129   Photo of agricultural field from the southwest (2 of 4)

Photo #130   Photo of agricultural field from the southwest (3 of 4)

Photo of agricultural field from the southwest (4 of 4)

Appendix E | Delineator Qualifications

Heartland
ECOLOGICAL GROUP INC

Jeff Kraemer
Principal Scientist
506 Springdale Street
Mount Horeb, WI 53572
jeff@heartlandecological.com
(608) 490-2450

Jeff is the founder of Heartland Ecological Group, Inc. With over 18 years of experience as an environmental consultant, ecological and regulatory policy practitioner, and managing business leader, Jeff provides proven value to clients with his vast experience guiding often complex projects through environmental regulatory and technical challenges applied throughout a diversity of industry sectors. Jeff is recognized by the Wisconsin Department of Natural Resources Wetland Delineation Assurance Program and is the longest standing assured wetland delineator in the state of Wisconsin.

Jeff is a recognized expert in the field of wetland ecology and delineation; wetland restoration and mitigation banking; and regulatory policy and permitting associated with wetlands and waterways. His experience includes: Wetland Determination, Delineation & Functional Assessment; Wetland Restoration, Mitigation, Banking & Monitoring; Botanical / Biological Surveys & Natural Resource Inventories; Rare Species Surveys, Conservation Plans & Monitoring; Habitat Restoration, Wildlife Surveys, SCAT surveys, Environmental Assessments; Local, state, federal permit applications; Expert Witness testimony; and Regulatory permit compliance.

Education

MS, Biological Sciences (Emphasis in Wetland Ecology), University of Wisconsin – Milwaukee, WI, 2003

BS, Biological Sciences (Emphasis in Aquatic Biology) University of Wisconsin – La Crosse, WI, 1999

Regional Supplement Field Practicum
Wetland Training Institute (WTI)
Portage, WI, 2017

Basic and Advanced Wetland Delineation Training, Continuing Education and Extension, UW-La Crosse, WI, 2001

Identification of Sedges Workshop,
UW-Milwaukee, Saukville, WI, 2001

Vegetation of Wisconsin Workshop,
UW-Milwaukee, Saukville, WI 2000

Environmental Corridor Delineation Workshop,
Southeastern Wisconsin Regional Planning Commission (SEWRPC), 2004

Wetland Soils and Hydrology Workshop,
Wetland Training Institute, Toledo, OH, 2003

Critical Methods in Wetland Delineation
University of Wisconsin - La Crosse Continuing Education and Extension
Madison, WI, 2006 - 2018

Federal Wetland Regulatory Policy Course
Wetlands Training Institute (WTI)
Cottage Grove, WI, 2010

Registrations
Professionally Assured Wetland Delineator, Wisconsin Department of Natural Resources (2005-Present)

Wetland Professional in Training (WPIT), Society of Wetland Scientists Certification Programs

Appendix F | Off-Site Analysis

Heartland
ECOLOGICAL GROUP INC

TABLE A1

Wetland Hydrology from Aerial Imagery - Recording Form*

Project Name: **Voit Farm Property**　　　　　　*Date:* **8/2/2022**　　*County:* **Dane**

Investigator: **Keith Phelps**　　　　　　*Legal Description (T, R, S):* **T7N, R10E, S04 & 05**

Summary Table

Date Image Taken (M-Y)	Image Source	Climate Condition (wet, dry, normal)	Area: 1	Area: 2	Area 3	Area 4	Area 5
			Image Interpretation(s)				
			See **Offsite Analysis Reference** Image figure for outlines of Area **1**				
Jul-92	FSA Slide	Dry	NSS/NV				
Jul-93	FSA Slide	Wet	NSS/NV				
Jul-94	FSA Slide	Dry	NSS/NV				
Sep-95	FSA Slide	Normal	NSS/NV				
Jul-97	FSA Slide	Dry	NSS/NV				
Jul-98	FSA Slide	Wet	NSS/NV				
Jul-99	FSA Slide	Normal	NSS/NV				
Jul-00	FSA Slide	Wet	NSS/NV				
Jul-01	FSA Slide	Normal	NSS/NV				
Jul-02	FSA Slide	Normal	NSS/NV				
Jul-03	FSA Slide	Dry	NSS/NV				
Jun-04	NAIP	Normal	NSS/NV				
Jun-05	NAIP	Normal	**AP**				
Jul-06	NAIP	Normal	**AP**				
Jul-08	NAIP	Normal	NSS/NV				
Jul-10	NAIP	Wet	NSS/NV				
Jun-13	NAIP	Wet	NSS/NV				
Oct-15	NAIP	Wet	NSS/NV				
Sep-17	NAIP	Wet	AP				
Oct-18	NAIP	Wet	NSS/NV				
Aug-20	NAIP	Wet	DO				
Normal Climate Condition			Area: 1	Area: 2	Area 3	Area 4	Area 5
		Number	8				
		Number with wet signatures	2				
		Percent with wet signatures	25%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

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:		

• 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
  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

Wetland Determination from Aerial Imagery - Recording Form*

Project Name: **Voit Farm Property**   *Date:* **8/2/2022**   *County:* **Dane**

Investigator: **Keith Phelps**   *Legal Description (T, R, S):* **R10E, S04 & 05**

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	NO	NO	25%	NO	**NO**

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

June Aerial Imagery

Off-Site Aerial Imagery Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	March	Weighted Precip	April	Weighted Precip	May	Weighted Precip		
June-04	3.61	3	1.76	2	10.84	9	14	Normal
June-05	1.56	2	1.68	2	3.96	6	10	Normal
June-13	2.41	2	5.83	6	6.57	9	17	Wet
30% chance less than**	1.31		2.84		2.71			
30 Year Average**	2.23		3.70		4.04			
30% chance more than**	2.71		4.30		4.83			

Dane County Regional Airport Weather Station

30-Year Precipitation Data (1992-2021) from NOAA Website

http://agacis.rcc-acis.org/

July Aerial Imagery

Off-Site Aerial Imagery Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	April	Weighted Precip	May	Weighted Precip	June	Weighted Precip		
July-92	**3.17**	2	**1.12**	2	**1.53**	3	7	Dry
July-93	5.33	3	3.81	4	6.67	9	16	Wet
July-94	2.57	1	1.33	2	5.66	6	9	Dry
July-97	2.50	1	1.94	2	5.23	6	9	Dry
July-98	4.10	2	4.58	4	7.46	9	15	Wet
July-99	6.91	3	3.72	4	5.57	6	13	Normal
July-00	3.18	2	9.63	6	8.63	9	17	Wet
July-01	3.07	2	4.16	4	5.40	6	12	Normal
July-02	3.45	2	2.92	4	3.70	6	12	Normal
July-03	2.95	2	3.67	4	2.10	3	9	Dry
July-06	5.04	3	4.61	4	2.29	3	10	Normal
July-08	6.43	3	2.55	2	10.93	9	14	Normal
July-10	3.65	2	3.79	4	8.38	9	15	Wet
July-18	2.14	1	9.78	6	5.67	6	13	Normal
30% chance less than**	2.84		2.71		3.24			
30 Year Average**	3.70		4.04		5.25			
30% chance more than**	4.30		4.83		6.35			

Dane County Regional Airport Weather Station

30-Year Precipitation Data (1992-2021) from NOAA Website

http://agacis.rcc-acis.org/

August Aerial Imagery
Off-Site Aerial Imagery Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	May	Weighted Precip	June	Weighted Precip	July	Weighted Precip		
July-92		1		2		3	6	Dry
August-20	5.42	3	5.07	4	7.59	9	16	Wet
30% chance less than**	2.71		3.24		3.18			
30 Year Average**	4.04		5.25		4.42			
30% chance more than**	4.83		6.35		5.21			

Dane County Regional Airport Weather Station

30-Year Precipitation Data (1992-2021) from NOAA Website

http://agacis.rcc-acis.org/

September Aerial Imagery

Off-Site Aerial Imagery Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	June	Weighted Precip	July	Weighted Precip	August	Weighted Precip		
September-95	1.22	1	4.36	4	5.58	9	14	Normal
September-17	6.73	3	6.52	6	3.85	6	15	Wet
30% chance less than**	3.24		3.18		2.55			
30 Year Average**	5.25		4.42		4.13			
30% chance more than**	6.35		5.21		5.00			

Dane County Regional Airport Weather Station

30-Year Precipitation Data (1992-2021) from NOAA Website

http://agacis.rcc-acis.org/

October Aerial Imagery
Off-Site Aerial Imagery Analysis

Date	Monthly Rainfall in Inches [1]						Weighted Sum	Relative Wetness
	July	Weighted Precip	August	Weighted Precip	September	Weighted Precip		
October-96	4.08	2	1.84	2	1.07	3	7	Dry
October-15	3.15	1	5.02	6	4.10	9	16	Wet
October-18	5.67	3	3.12	4	10.40	9	16	Wet
30% chance less than**	3.18		2.55		2.16			
30 Year Average**	4.42		4.13		3.39			
30% chance more than**	5.21		5.00		4.09			

Dane County Regional Airport Weather Station

30-Year Precipitation Data (1992-2021) from NOAA Website

http://agacis.rcc-acis.org/

Signature Areas

Area 1

Study Area (65.31 ac)
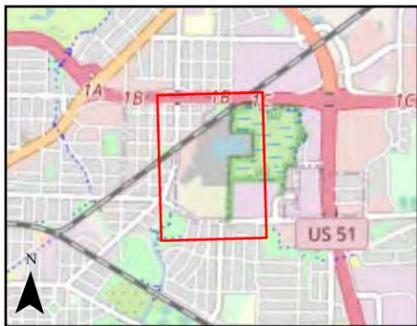
0   250
                Ft

Heartland
ECOLOGICAL GROUP INC

Appendix: 2017-09-03
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2017 NAIP
USDA

August 1992

July 1993- Wet

July 1994- Dry

September 1995- Normal

July 1997- Dry

July 1998- Wet

July 1999- Normal

August 2000- Wet

July 2001- Normal

July 2002- Normal

July 2003- Dry

Study Area (65.31 ac)

0   250
Ft

Study Area (65.31 ac)

0   250
Ft

Study Area (65.31 ac)

0   250
          Ft

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Appendix: 2006-07-15
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2006 NAIP
USDA

Study Area (65.31 ac)

0   250
Ft

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Appendix: 2008-08-10
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2008 NAIP
USDA

Study Area (65.31 ac)

0   250
Ft

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Appendix: 2010-07-02
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2010 NAIP
USDA

Study Area (65.31 ac)

0   250
         Ft

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Appendix: 2013-06-19
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2013 NAIP
USDA

Study Area (65.31 ac)

0   250
⊢——⊣ Ft

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Appendix: 2015-10-11
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2015 NAIP
USDA

Study Area (65.31 ac)

0   250
Ft

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Appendix: 2017-09-03
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2017 NAIP
USDA

Study Area (65.31 ac)

0   250
Ft

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Appendix: 2018-10-04
NAIP Aerial Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2018 NAIP
USDA

Study Area (65.31 ac)

0   250
              Ft

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Appendix: 2018-04-26
Maxar Sat. Imagery
Voit Farm Property
Project #20220700
T7N, R10E, S04 & 05
T Blooming Grove, C Madison
Dane Co

2019 Satellite Imagery
Maxar

US 51

Study Area (65.31 ac)

0 250 Ft