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Madison Springs

Professionally Assured Wetland Delineation Report

Project Number: DAN25-020-01

Property Address: County Highway V & Patton Road, Town of Vienna,
Dane County, Wisconsin

Parcel IDs: 090916495100 and 090921180003

October 17, 2025



Report Request by



100 Camelot Drive

Fond du Lac, Wisconsin 54935



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Field Work Certification:

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Introduction

Evergreen was retained by Excel Engineering to perform a professionally assured wetland delineation. The property is located on County Highway V & Patton Road in the Town of Vienna, Wisconsin. The study area is approximately 72.93 acres in size and is in part of the Northeast ¼ of the Northeast ¼ of Section 21 and part of the Southeast ¼ of the Southeast ¼ of Section 16, Township 9 North, Range 9 East, Town of Vienna, Dane County, Wisconsin. Site Maps can be found in Appendix A.

The wetland delineation was conducted on September 7th and October 17, 2025, by Chad Fradette, a Wisconsin Department of Natural Resources (WDNR) Professionally Assured Wetland Delineator with assistance from Shyann Banker and Ashley Poehls. The delineation was conducted for developmental planning purposes. The study area consists of cornfield, meadow, wet meadow, and cattail marsh. The study area is adjacent to the Vienna Pothole Wildlife Area.

Three wetlands were delineated during the site visit. The Wetland Data Sheets classify the wetland according to the Cowardin classification system¹.

Wetland ID	Wetland Description ²	Cowardin Classification ³	*Surface Water Connections	*NR151 Protective Area	Acreage On-site
Wetland 1	Ruderal Wet Meadow and Ruderal Marsh	PEM1J	Isolated	Less susceptible, 20 feet	164,819 sf 3.784 acres
Wetland 2	Ruderal Wet Meadow and Emergent Marsh	PEM1BJ	Isolated	Less susceptible, 30 feet and moderately susceptible, 50 feet	1,073,205 sf 24.637 acres
Wetland 3	Ruderal Wet Meadow	PEM1B	Isolated	Less susceptible, 10 feet	1,095 sf 0.025 acres
*These are based on professional opinion. Local zoning ordinances may have additional restrictions. US Army Corps of Engineers has authority for determining federal jurisdiction of wetlands and waterways.					28.446 ac

The WDNR Wisconsin Wetland Inventory (WWI) Map was reviewed and indicates the presence of emergent wetlands in the middle and southwest portions of the study area. The WWI wetland indicator soils layer was also reviewed and indicates the presence of indicator soils throughout the south half of the

¹ Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.

² WI Department of Natural Resources, *Natural Heritage Conservation Key to Wetland Natural Communities*, Version 1.3, 4/8/2022

³ Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.



study area except for the area of higher elevation in the southeast corner. The study area is mapped as having Predominantly Hydric, Predominantly Non-Hydric, and Non-Hydric soils. Indicator soils are soils which are commonly found in wetlands or have inclusions of soils that are commonly found in wetlands. The WDNR Surface Water Data Viewer (SWDV) was also reviewed and indicates the absence of waterways within or immediately adjacent to the study area.

An antecedent precipitation evaluation was conducted for three months prior to each of the site visits. It was determined climatic conditions were normal at the time of the September site visit during the wet season and drier than normal at the time of the October site visit during the wet season. The antecedent precipitation evaluation, WETS data and Palmer Drought Index reports for the area at the time of the site visits are included in Appendix F.

The areas identified as wetland were identified based on transitions from wetland to upland vegetation, hydrology indicators and hydric soil indicators, or lack thereof, in wetland areas versus upland areas, topographical position and best professional judgment. See Appendix A for the Wetland Determination Map. Wetland data sheets are included in Appendix G.

Personnel

Mr. Fradette is an Environmental Professional, Analytical Chemist, WDNR Professionally Assured Wetland Delineator and has over twenty years of experience working on public and private infrastructure, community development, and industrial projects throughout the entire Midwest and Northeast, including Wisconsin. His expertise is in completing wetland delineations, reports, permit applications, exemptions, compliance cases, compensatory wetland mitigation plans, endangered species assessments, and floristic habitat assessments. Mr. Fradette is professionally trained and experienced in the practice of wetland delineation.

Mrs. Shyann Banker, Environmental Scientist and WDNR Professionally Assured Wetland Delineator and has nine years of experience conducting wetland delineations for utility, municipal, residential, and industrial projects in Wisconsin. Her expertise is in completing wetland delineations, reports, and exemption applications.

Ms. Ashley Poehls, Biologist, has two years of professional experience in working on utility, municipal, residential, and industrial projects in Wisconsin.



Methodology

Available topographic maps, survey maps, WWI and NWI maps, County Soil Survey maps, wetland indicator and hydric soil maps and all available aerial photos were reviewed prior to visiting the property to identify potential wetland areas. These figures are included in Appendix A.

Antecedent precipitation information was evaluated through use of available local WETS data for the three months prior to the delineation to determine if conditions were within normal, wetter than normal or drier than normal at the time of the site visit. The Antecedent Precipitation Evaluation, WETS Data and the Palmer Drought Index reports are included in Appendix F.

Aerial images on cultivated or previously cultivated sites were reviewed for wet signatures following the Minnesota Board of Water and Soil Resources (BWSR) and St Paul District Corps of Engineers *Guidance for Offsite Hydrology/Wetland Determinations*.⁴

Examination of vegetation, soils, and hydrology, as outlined in the Corps of Engineers Wetlands Delineation Manual⁵ and the Northcentral and Northeast Regional Supplement⁶, were used to characterize, and determine wetland boundaries. The Natural Resources Conservation Service (NRCS) Field Indicators of Hydric Soils in the United States Guide⁷ was also utilized to help identify hydric soils at the site and the Wetland Training Institute field guide⁸. All available information including transitions in vegetation, soils and hydrology, review of aerial photos, antecedent precipitation analysis, topographic position, along with best professional judgment was applied.

Sample transects were established in a representative wetland to upland transition zone. The transects were comprised of two or more sample points located along a line running perpendicular to the wetland edge, with at least one point in obvious wetland and one point in obvious upland. A field data form was completed for each of the upland and wetland sample points. The sample locations were also located with a GPS and are indicated on Wetland Delineation Map within Appendix A. Field data forms are included in Appendix G.

Wetland classification was performed according to Cowardin Classification. Vegetation was identified using suitable keys (Eggers⁹; Chadde¹⁰) and a plant's hydrophytic status was determined using the most recent Northcentral and Northeast Region – National Wetland Plant List¹¹. Wetland boundaries were

⁴ USACE, MN Board of Water & Soil Resources, *Guidance for Offsite Hydrology/Wetland Determinations*, 2016

⁵ USACE, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1

⁶ *Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regions*, 2012

⁷ USDA, Natural Resources Conservation Service (NRCS), *Field Indicators of Hydric Soils in the United States, Guide for Identifying and Delineating Hydric Soils*, Version 9.0, 2024

⁸ Wetland Training Institute, Inc., *2013 Pocket Guide to Hydric Soil Field Indicators*, Wetland Training Institute, Inc., Glenwood, NM, 2013

⁹ Eggers, Steve D., and Reed, Donald M., *U.S. Army Corps of Engineers, St. Paul District, Wetland Plants and Plant Communities of Minnesota & Wisconsin*, Version 3.2, July 2015

¹⁰ Chadde, Steve W., *Wetland Plants of Wisconsin, Second Edition*, Steve Chadde, United States, 2013

¹¹ U.S. Army Corps of Engineers. (2023). 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. <http://wetland-plants.usace.army.mil/>



determined based on the comprehensive wetland delineation method as defined in the Corps of Engineers Wetlands Delineation Manual and the Northcentral and Northeast Regional Supplement.

Mapping

The Wetland boundaries and Wetland edges were flagged with pink “Wetland Delineation” flags and/or ribbon. Boundary and sample plot locations were located with a Leica Zeno GG04 Global Positioning System (GPS) with sub-inch accuracy and are shown on the Wetland Delineation Map, located in Appendix A, Site Maps.

Results

Off Site Analysis

Land Use

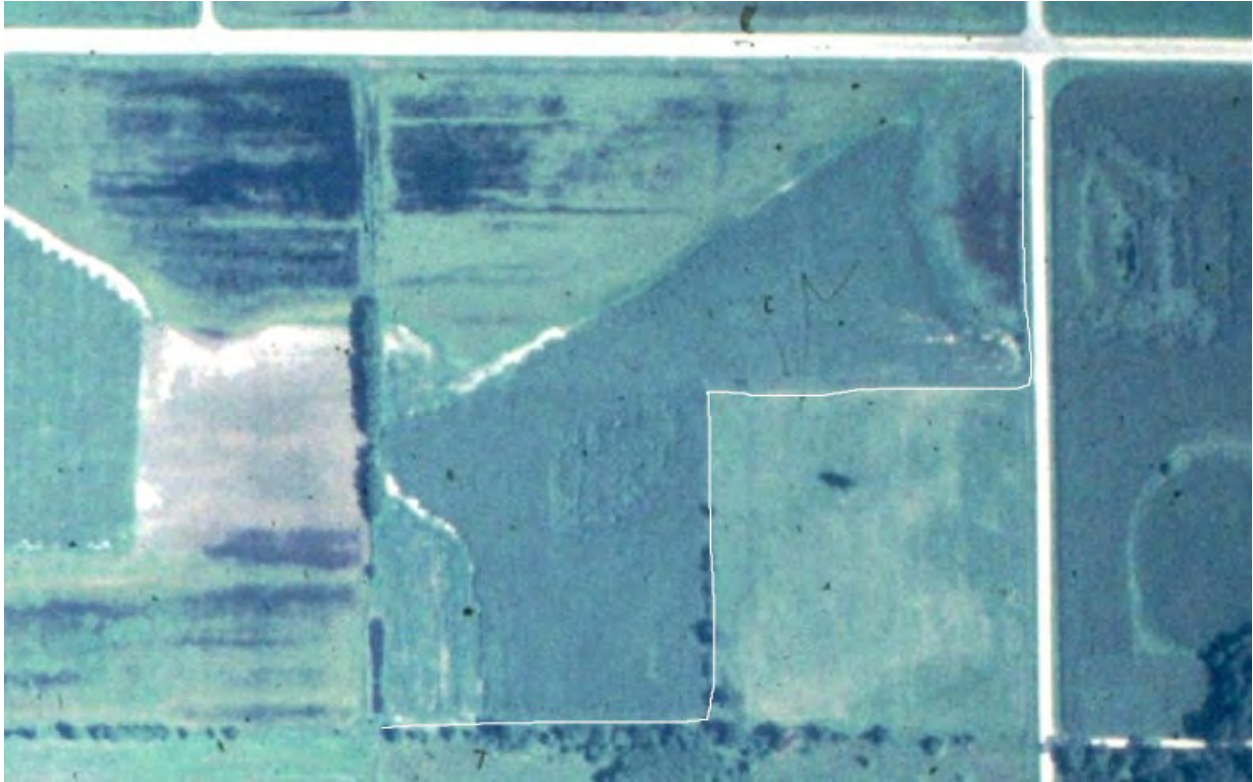
Aerial photographs from 1937 through 2024 were reviewed. The study area was cropland with stump pasture in the south half and a road running through the middle of the site. Between 1962 and 1974 the road was re-positioned to create a straight road.

Due to historic cropping, a hydrology assessment was conducted. Two review areas were chosen based on topography, soil type, and visible areas of wet signature, Areas A and B. All available aerial images were reviewed for the presence and absence of wet signatures. The complete review of the Historic Aerial Photographs and Hydrology Assessment is in Appendix D.



Hydrology assessment review areas and Site boundary

Based on the review, no areas were required to be reviewed in the field. Based on review in the field, test plots were installed in Areas A and B. Wetland were found within review Area B.^{12 13 14}



View of the area in 1985, wetland signatures are visible.

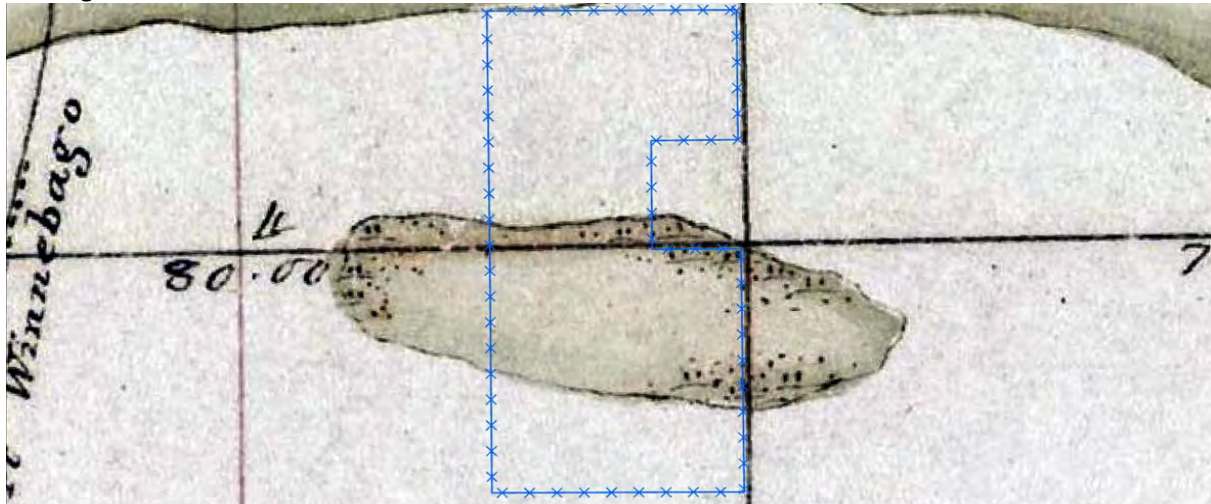
¹² Dane County, GIS, *aerial photographs, topography*, Dane County, WI

¹³ USDA, FSA, Service Center, *FSA Slides for years 1981 through 2002*. Dane County, WI

¹⁴ University of Wisconsin, *Wisconsin Historic Aerial Image Finder*, 2025

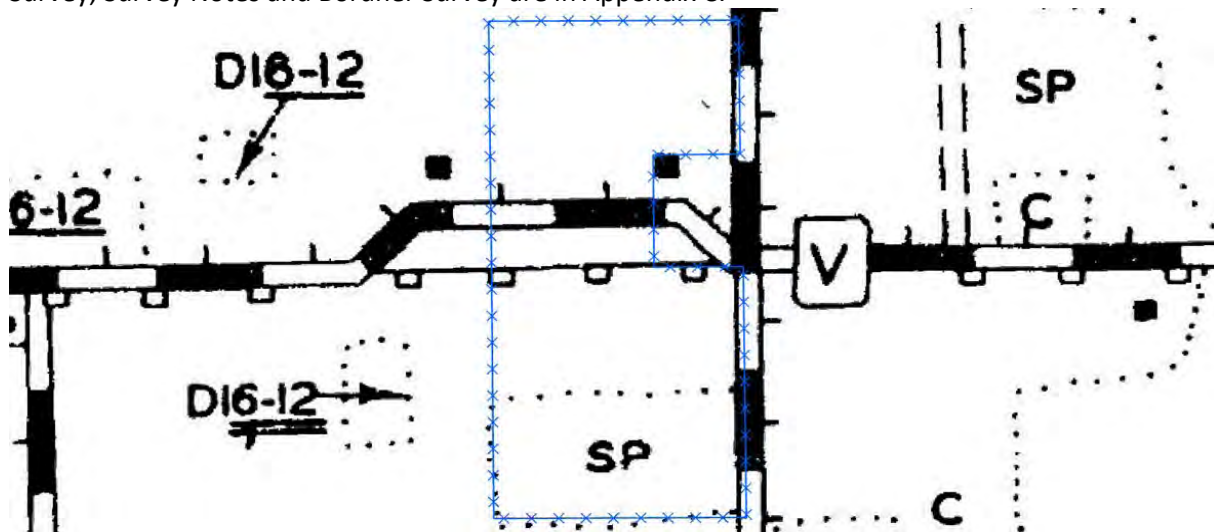
Original Land and Bordner Surveys

The Original Survey shows a swamp in the middle of the study area. The Original Survey Notes describe the vegetation in this area as burr oak.¹⁵



Original Survey

The Bordner Survey shows the Site as cleared cropland with stump pasture in the south¹⁶. The Original Survey, Survey Notes and Bordner Survey are in Appendix C.



Bordner Survey

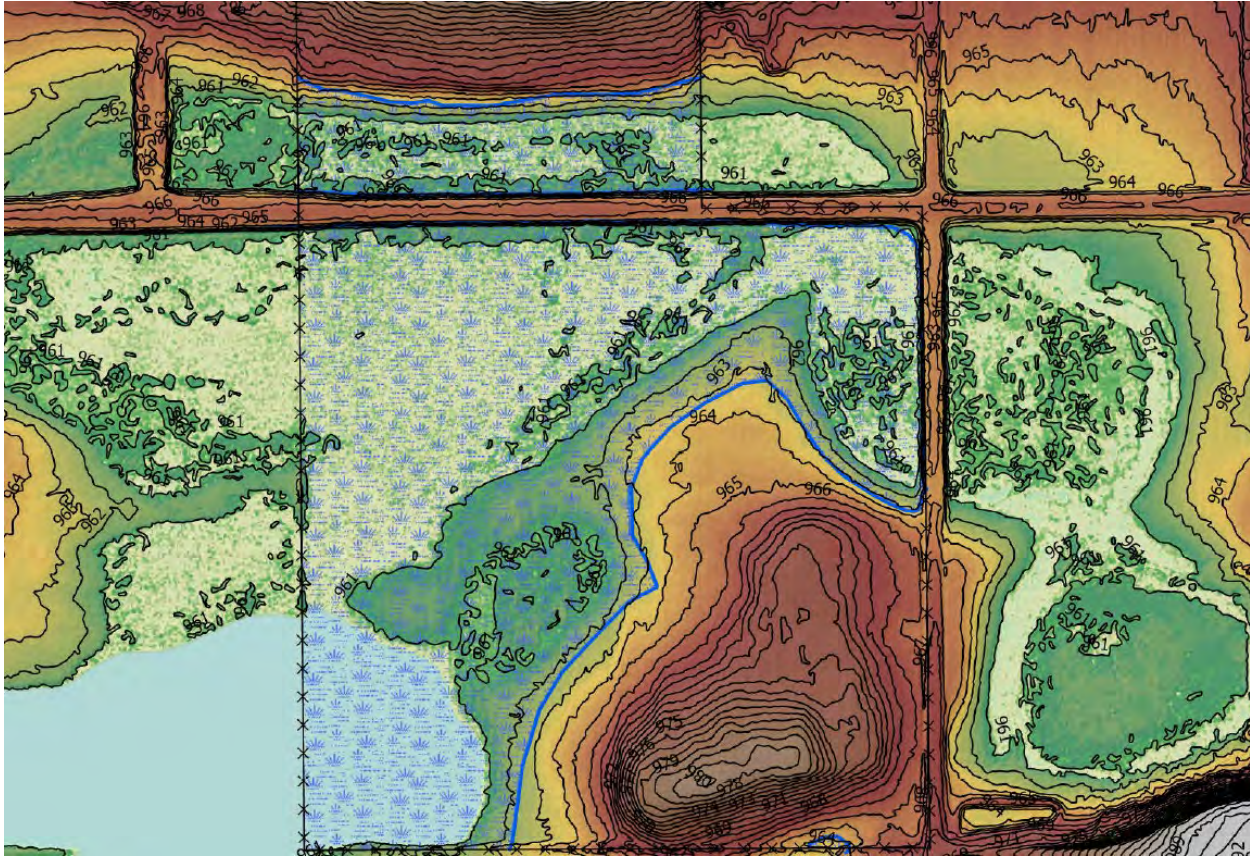
Topography

The topography at the Site ranges from an elevation of 999 feet down to 961 feet. The topography of the Site slopes down towards the south half of the study area with an area of higher elevation in the southeast corner.¹⁷ The Topographic Map is in Appendix A.

¹⁵ Board of Commissioners of Public Lands, *Wisconsin Public Land Survey Records: Original Field Notes and Plat Maps*, Madison, Wisconsin, 2025

¹⁶ University of Wisconsin Digital Collections Center, *Wisconsin Land Economic Inventory Maps (Bordner Survey)*, Madison, WI, 2025

¹⁷ Dane County GIS



WDNR LiDAR Viewer Map

Precipitation

An antecedent precipitation evaluation was conducted for three months prior to each of the site visits. Precipitation data from the Arlington WETS station indicates climatic conditions were normal at the time of the September site visit and drier than normal at the time of the October site visit during the wet season. The drought index recorded mild wetness during both visits. The Palmer Drought Index also indicates conditions were wetter than normal (Moderately Moist, +2.00 to +2.99) at the September site visit and normal (Mid-Range, -1.99 to +1.99) for this location at the time of the October site visit. Based on evaluation of both sources of data, it was determined climatic conditions were normal at the September site visit and drier than normal at the time of the October site visit. The antecedent precipitation evaluation, WETS data and Palmer Drought Index reports for the area at the time of the site visits are included in Appendix F.

Wetland Mapping

The WDNR Wisconsin Wetland Inventory (WWI) Map was reviewed and indicates the presence of emergent wetlands in the middle and southwest portions of the study area.¹⁸ The WWI wetland indicator soils layer was also reviewed and indicates the presence of indicator soils throughout the south half of the study area except for the area of higher elevation in the southeast corner. The study area is mapped as having Predominantly Hydric, Predominantly Non-Hydric, and Non-Hydric soils. Indicator soils are soils

¹⁸ WDNR, *Surface Water Data LiDAR Viewer*, 2025



which are commonly found in wetlands or have inclusions of soils that are commonly found in wetlands. The WDNR Surface Water Data Viewer (SWDV) was also reviewed and indicates the absence of waterways within or immediately adjacent to the study area.

The NWI Map was reviewed and indicates the presence of emergent, unconsolidated bottom, and farmed wetlands in the middle and southwest portions of the study area.¹⁹ The WWI, SWDV, and NWI Maps are in Appendix A.

Mapped Soils

The NRCS Web Soil Survey indicates the presence of the following soil types²⁰:

Report—Hydric Rating by Map Unit (WI)

Hydric Rating by Map Unit (WI)—Dane County, Wisconsin				
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category	Landform Hydric Minor Components
489A	Marshan silt loam	97	WI Predominantly Hydric	Depressions
7105B	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	0	WI Nonhydric	—
7139A	Sable silty clay loam, 0 to 2 percent slopes	85	WI Predominantly Hydric	—
7199A	Plano silt loam, till substratum, 0 to 2 percent slopes	0	WI Nonhydric	—
7297B	Ringwood silt loam, 2 to 6 percent slopes	0	WI Nonhydric	—
7325C2	Dresden silt loam, 6 to 12 percent slopes, eroded	0	WI Nonhydric	—
7327B	Kegonsa silt loam, 2 to 6 percent slopes	0	WI Nonhydric	—
7425D2	Dresden loam, 12 to 20 percent slopes, eroded	0	WI Nonhydric	—
7699A	Salter sandy loam, wet variant, 0 to 3 percent slopes	5	WI Predominantly Nonhydric	Lakebeds (relict)
7748B	Plano silt loam, gravelly substratum, 2 to 6 percent slopes	0	WI Nonhydric	—
7771A	Hayfield silt loam, 0 to 3 percent slopes	2	WI Predominantly Nonhydric	Stream terraces
7898A	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	10	WI Predominantly Nonhydric	Drainageways

NRCS County Soil Survey Report is in Appendix E.

¹⁹ U.S. Fish and Wildlife Service, National Wetlands Inventory, Wetlands Mapper, 2025

²⁰ USDA, NRCS, *Web Soil Survey*, 2025



Field Investigation

Three wetlands were identified and delineated within the Study Area. Wetland determination data sheets (Appendix G) were completed at 16 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 B provides photographs, typically at the sample point locations of the wetlands and adjacent uplands. The wetland boundary and sample point locations are shown on the Wetland Delineation Map within Appendix A and the wetlands are summarized in Table 1 and detailed in the following section.

Wetland 1

Wetland 1 is 3.784-acres of wet meadow and cattail marsh within a closed depression. The wetland continues beyond the study area to the east and west.

The wetland boundary was set at the point where the F6 hydric soil indicator dropped out in the adjacent corn field. This was approximately where the slope percentage dropped from 2-3% to 1-2% toeslope. The boundary was probed at regular intervals to make this determination. Flags were not left in the corn to prevent them from entering cattle feed. The boundary was continuously surveyed. All three wetland parameters were met within this wetland.

Dominant vegetation observed included reed canary grass (*Phalaris arundinacea*, FACW), common duckweed (*Lemna minor*, OBL), and hybrid cattail (*Typha x glauca*, OBL).

Redox Dark Surface (F6) and Redox Depressions (F8) hydric soil indicators were observed.

The primary wetland hydrology indicators that were observed included Surface Water (A1, High Water Table (A2), Saturation (A3), Inundation Visible on Aerial Imagery (B7), and Oxidized Rhizospheres on Living Roots (C3). The secondary indicators that were observed include Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), Shallow Aquitard (D3), Microtopographic Relief (D4), and a Positive FAC-Neutral Test (D5). Surface water was present with a depth of 0-12 inches. The water table was observed at 8 inches in depth from the soil surface and the soil was saturated at 6 inches in depth from the soil surface.



View of cattail marsh and wet meadow within Wetland 1.



View of the wetland-upland boundary. Wetlands are on the left.



Wetland 2

Wetland 2 is 24.637-acres of shallow marsh and ruderal wet meadow within a depression that is occasionally cropped. The wetland continues beyond the study area to the south and west and through a culvert to the east.

The wetland boundary was set at the point where the F6 hydric soil indicator dropped out in the adjacent corn field which coincided with the edge of algal mat in some areas. The boundary was probed at regular intervals to make this determination. Flags were in the field since this area was harvested. The boundary was continuously surveyed. All three wetland parameters were met within this wetland.

Dominant vegetation observed included American water plantain (*Alisma subcordatum*, OBL), softstem bulrush (*Schoenoplectus tabernaemontani*, OBL), reed canary grass (*Phalaris arundinacea*, FACW), creeping thistle (*Cirsium arvense*, FACU), fall panic grass (*Panicum dichotomiflorum*, FACW), yellow dock (*Rumex crispus*, FAC), nodding beggarticks (*Bidens cernua*, OBL), barnyard grass (*Echinochloa crus-galli*, FAC), ditch stonecrop (*Penthorum sedoides*, OBL),

Thick Dark Surface (A12), Depleted Below Dark Surface (A11), and Redox Dark Surface (F6) hydric soil indicators were observed.

The primary wetland hydrology indicators that were observed included Algal Mat or Crust (B4) and Inundation Visible on Aerial Imagery (B7). The secondary indicators that were observed include Surface Soil Cracks (B6), Saturation Visible on Aerial Imagery (C9), Stunted or Stressed Plants (D1), Geomorphic Position (D2), Shallow Aquitard (D3), and a Positive FAC-Neutral Test (D5).



View of ruderal wet meadow within Wetland 2.



View of the wetland-upland boundary. Wetlands are on the left.



Wetland 3

Wetland 3 is 0.025-acres of ruderal wet meadow at the edge of a cropped field. The wetland continues beyond the study area to the south.

The wetland boundary was marked by a distinct change in vegetation from reed canary grass to brome grass at the field edge. The corresponding elevation was followed around the depression. All three wetland parameters were met within this wetland.

Dominant vegetation observed was reed canary grass (*Phalaris arundinacea*, FACW).

The Thick Dark Surface (A12) hydric soil indicator was observed. A silty clay restrictive layer was observed at a depth of 22 inches from the soil surface. Layers 2 and 3 were combined to meet a depleted layer of more than 6 inches.

No primary wetland hydrology indicators were observed. The secondary indicators that were observed include Geomorphic Position (D2), Shallow Aquitard (D3), and a Positive FAC-Neutral Test (D5).



View of reed canary grass infested wet meadow within Wetland 3.



View of the wetland-upland boundary. Wetland extends into the field.

Uplands

Uplands within the study area consist of cropped field and meadow. Upland areas lacked two or more wetland indicators. Some areas of drained hydric soil were encountered.



View of cropped field adjacent to Wetland 1.



View of upland meadow.



Conclusion

This report is limited to the identification and delineation of wetlands within the Delineation Area as shown on Figure 1, Appendix A. Other regulated environmental resources that result in land use restrictions may be present (e.g. navigable waterways, floodplains, cultural resources, and threatened or endangered species).

Wetlands

Investigation of the area determined that wetlands exist as shown on the attached figures and Wetland Delineation Map.

Table 1. Summary of Wetlands Identified within the Study Area

Wetland ID	Wetland Description ²¹	Cowardin Classification ²²	*Surface Water Connections	*NR151 Protective Area	Acreage On-site
Wetland 1	Ruderal Wet Meadow and Ruderal Marsh	PEM1J	Isolated	Less susceptible, 20 feet	164,819 sf 3.784 acres
Wetland 2	Ruderal Wet Meadow and Emergent Marsh	PEM1BJ	Isolated	Less susceptible, 30 feet and moderately susceptible, 50 feet	1,073,205 sf 24.637 acres
Wetland 3	Ruderal Wet Meadow	PEM1B	Isolated	Less susceptible, 10 feet	1,095 sf 0.025 acres
*These are based on professional opinion. Local zoning ordinances may have additional restrictions. US Army Corps of Engineers has authority for determining federal jurisdiction of wetlands and waterways.					28.446 ac

The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers, state regulation under the jurisdiction of Wisconsin DNR, and local jurisdiction under Dane County, and the Town of Vienna.

²¹ WI Department of Natural Resources, *Natural Heritage Conservation Key to Wetland Natural Communities*, Version 1.3, 4/8/2022

²² Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.



Protective Areas

WI Admin. Code²³ requires that impervious surfaces shall be kept out of the “protective area” to the maximum extent practicable. Protective area is an area of land that commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands, and that is the greatest of the following widths, as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface.

Protective area does not include any area of land adjacent to any stream enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this location.

- a. For outstanding resource waters and exceptional resource waters, and for wetlands in areas of special natural resource interest as specified in s. [NR 103.04](#), 75 feet.
- b. For perennial and intermittent streams identified on a United States geological survey 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50 feet.
- c. For lakes, 50 feet.
- d. For highly susceptible wetlands, 50 feet. Highly susceptible wetlands include the following types: fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded basins.
- e. For less susceptible wetlands, 10% of the average wetland width, but no less than 10 feet nor more than 30 feet. Less susceptible wetlands include degraded wetlands dominated by invasive species such as reed canary grass.

Protective Areas do not apply to the following:

- 1. Redevelopment post-construction sites.
- 2. In-fill development areas less than 5 acres.
- 3. Structures that cross or access surface waters such as boat landings, bridges and culverts.
- 4. Structures constructed in accordance with s. [59.692 \(1v\)](#), Stats.
- 5. Post-construction sites from which runoff does not enter the surface water, except to the extent that vegetative ground cover is necessary to maintain bank stability.
- 6. Wetlands that have been completely filled in accordance with all applicable state and federal regulations.

Authority to apply wetland and waterway protective areas under NR 151 lies with the WDNR. Some local zoning authorities and regional planning organizations may have adopted protective areas as setbacks as part of their zoning codes or may have additional land use restrictions within or adjacent to wetlands.

Concurrence and Certification

If wetlands are proposed to be impacted a Section 404 Letter of Permission Authorization will need to be obtained from USACE and according to Section 281.36, Wisconsin Statutes and NR 299 and NR 103, Wisconsin Administrative Code a permit from the WDNR would be necessary.

For wetlands to be confirmed as exempt from state regulatory authority an exemption determination application must be submitted to the DNR Wetland ID Program whose staff makes the final decision.

Chad M Fradette is a WDNR Professionally Assured Wetland Delineator and WDNR concurrence is granted for five years unless site conditions are significantly altered.

²³ Wisconsin Administrative Code, NR 151.245



Plant Identification References

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Tekila, Stan, *Trees of Wisconsin, Field Guide*, Adventure Publications, Inc., Cambridge, MN, 2002

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Vascular Plants of Northeastern United States and Adjacent Canada, The New York Botanical Garden, 1998



April 1, 2025

Chad M Fradette, EP
Evergreen Consultants LLC
1138 State Highway 32
P.O. Box 680
Pulaski, WI 54162

Subject: 2025 Assured Wetland Delineator Confirmation

Dear Chad Fradette:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2025 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: <http://dnr.wi.gov/topic/wetlands/assurance.html>.

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

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

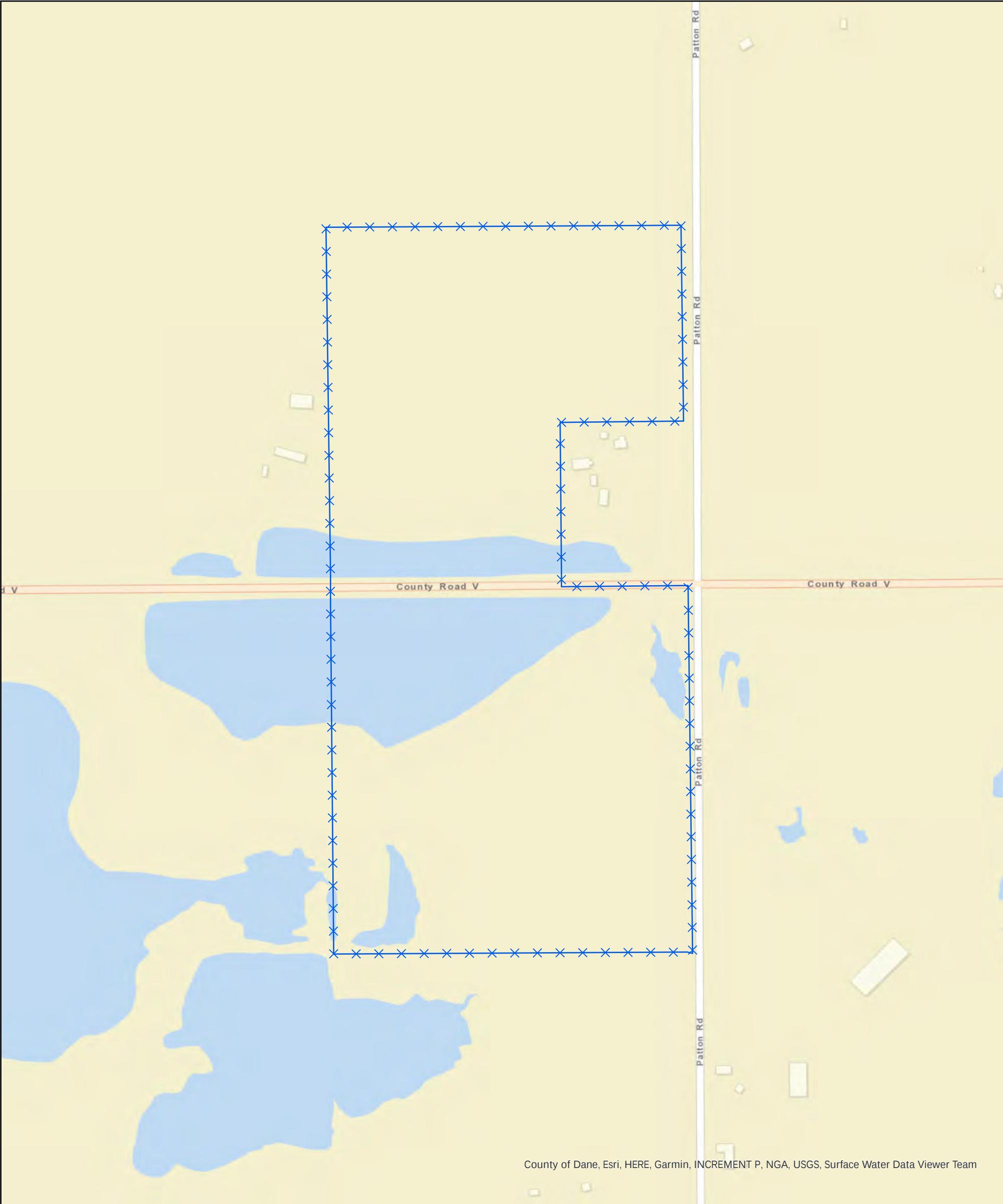
If you or any client has a question regarding your status in the Wetland Delineation Professional Assurance Program, contact me by email at kara.brooks@wisconsin.gov or phone at 414-308-6780. Thank you for all your hard work and best wishes for the upcoming field season.

Sincerely,

Kara Brooks
Wetland Identification Coordinator
Bureau of Watershed Management

Appendix A:

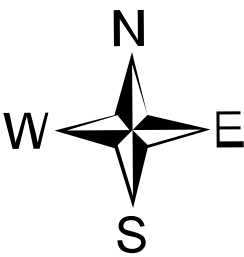
Figures and Site Maps



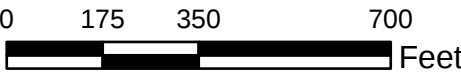
County of Dane, Esri, HERE, Garmin, INCREMENT P, NGA, USGS, Surface Water Data Viewer Team

Madison Springs
Site Location Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI

Legend
✕✕ Site Boundary



Project: DAN25-020-01





Legend

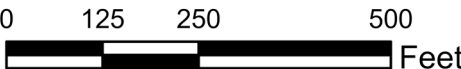
- Site Boundary
- Sample Point
- Picture Location
- Wetland Line
- Wetland
- Culvert

Madison Springs
Wetland Delineation Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI



Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Scientist
WDNR Professionally Assured Wetland Delineator

Project: DAN25-020-01





Legend

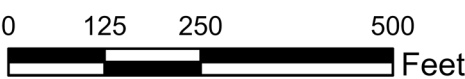
- Site Boundary
- Picture Location
- WDNR Protective Area
- Wetland Line
- Wetland
- Parcels
- Culvert

Madison Springs
Wetland Delineation Map with
WDNR Protective Areas
County Highway V & Patton Road
Town of Vienna
Dane County, WI



Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Scientist
WDNR Professionally Assured Wetland Delineator

Project: DAN25-020-01

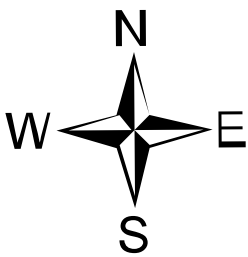




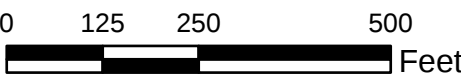
Legend

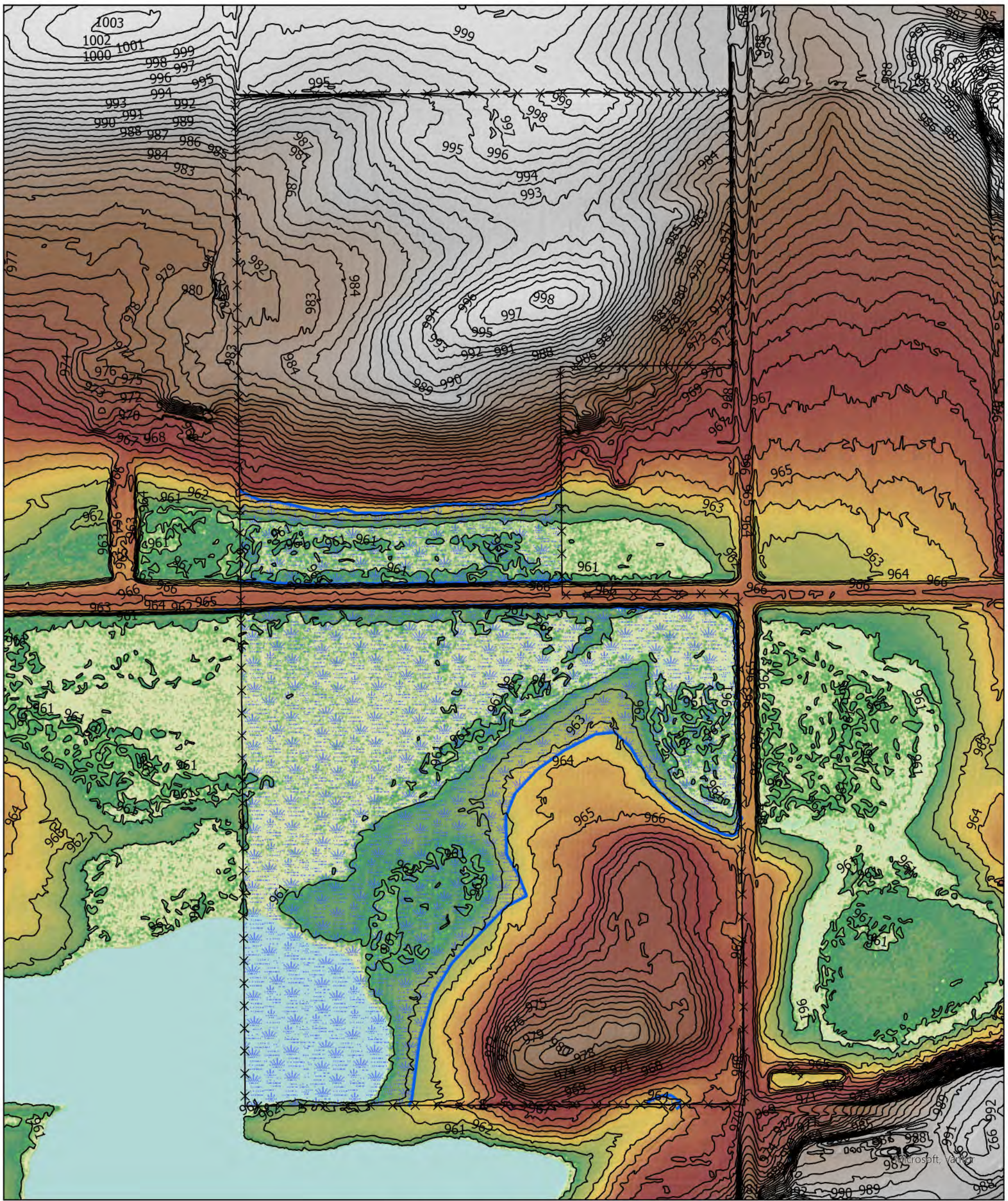
- Site Boundary
- Contours

Madison Springs
Topographic Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI



Project: DAN25-020-01





Legend

- Site Boundary
- Wetland Line
- Wetland
- Contours

Madison Springs WDNR LiDAR Viewer Map County Highway V & Patton Road Town of Vienna Dane County, WI



Wetland Delineation was conducted by
Chad Fradette, EP, Chem,
WDNR Professionally Assured Wetland Delineator
with assistance from
Shyann Banker, Environmental Scientist,
WDNR Professionally Assured Wetland Delineator

Project: DAN25-020-01

0 125 250 500
Feet



Phone: 920.615.0019 • Website: www.evergreenwis.com

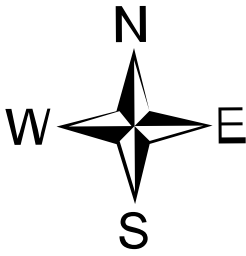
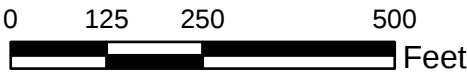


Madison Springs
Wisconsin Wetland Inventory Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI

Legend

- Site Boundary
- Wisconsin Wetland Inventory
- Wetland Points
- USDA Wetspots
- Maximum Extent Wetland Indicators

Project: DAN25-020-01

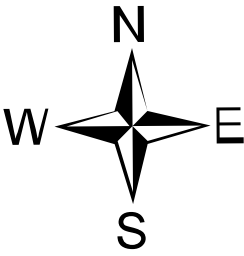




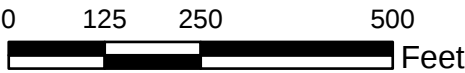
Microsoft, Vantion, Surface Water Data Viewer Team

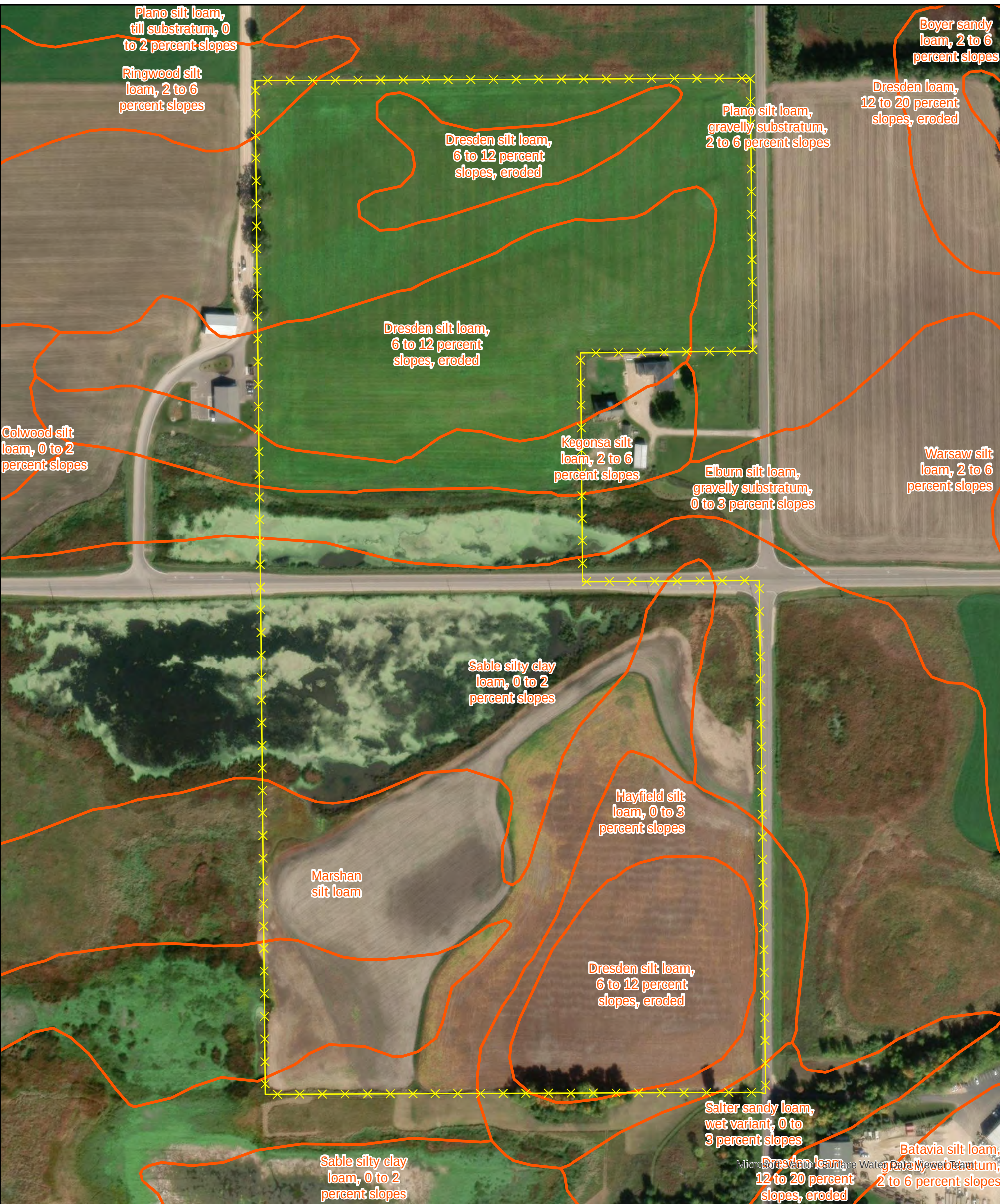
Legend
✕✕ Site Boundary
■ NWI Wetlands

Madison Springs
National Wetland Inventory Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI



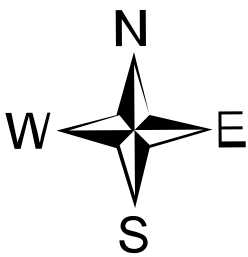
Project: DAN25-020-01



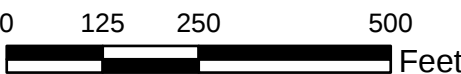


Madison Springs
NRCS Soil Survey Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI

- Legend
- Site Boundary
 - USA Soils Map Units



Project: DAN25-020-01



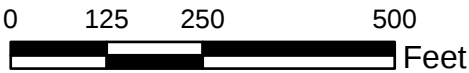


Madison Springs
NRCS Soil Hydric Ratings Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI

Legend

- Site Boundary
- NRCS Soil Hydric Ratings
 - Hydric
 - Predominantly Hydric
 - Partially Hydric
 - Predominantly Non-Hydric

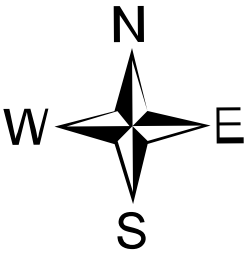
Project: DAN25-020-01



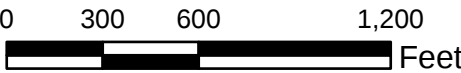


Legend
✕✕ Site Boundary

Madison Springs
USGS Topographic Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI



Project: DAN25-020-01



Appendix B:

Site Pictures



Standing at the wetland boundary of Wetland 1 facing west on the boundary.



Standing near T1A.



Standing near T2A.



Standing near T2B facing east within Wetland 1.



Standing near T3A facing west.



Standing near T3A facing south towards Wetland 1.



Standing near T3B facing south within Wetland 1.



Standing near T4A facing west towards Wetland 3.



Facing southwest towards Wetland 3.



Standing near T4B within Wetland 3.



Standing near T5A within Wetland 2.



Standing near T5B facing north within Wetland 2.



Standing near T5C facing east.



Standing near T6A facing east within Wetland 2.



Standing near T6B.



Standing near T7A facing north within Wetland 2.



Standing near T7B facing south.



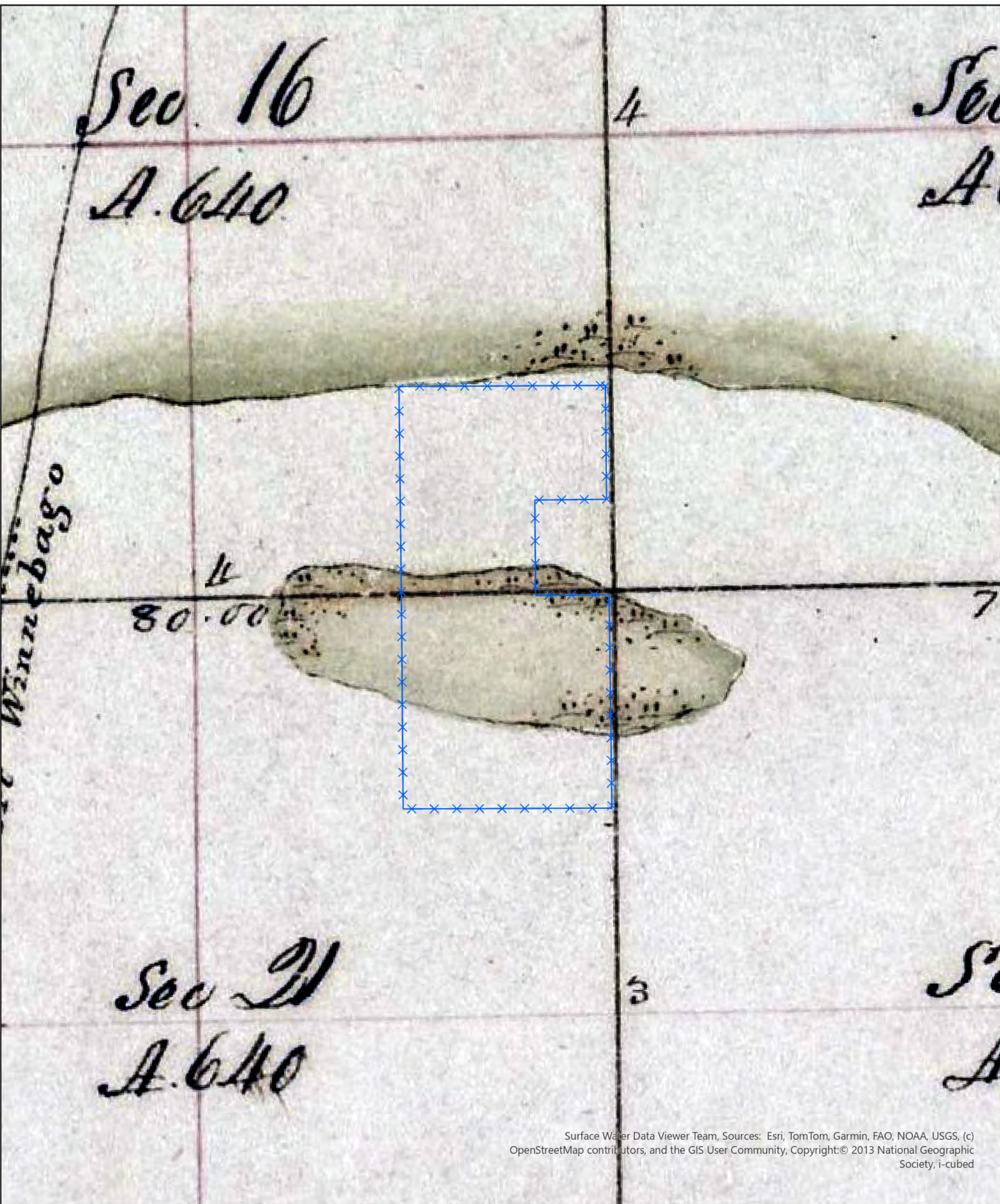
Standing near T8A facing east adjacent to the wetland boundary of Wetland 2.



Standing near T8B within Wetland 2.

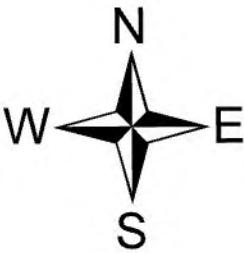
Appendix C:

Original Survey, Notes, and Bordner Map



Legend
✕✕ Site Boundary

Madison Springs
Original Survey Map
County Highway V & Patton Road
Town of Vienna
Dane County, WI



Project: DAN25-020-01



evergreen
consultants LLC
PO Box 680 Pulaski, WI 54162
Phone: 920.615.0019 • Website: www.evergreenwis.com

RANGE 9 EAST

East Between sections 16 & 21

5.00 Leave prairie

21.13 Road to Fort Winnebago

23

Set Oak post between sec 16 & 21

Burr Oak 7 S 61 W .22

Do 14 S 86 E .33

Land rolling second rate

Timber Oak

UPLAND FOREST
NUMERALS 1-2

LOWLAND FOREST
ALL NUMERALS 3

NON-TILLABLE
A-PP-OPP-SP-E-A4-C4-E4-A

INFERIOR FOREST
POORLY STOCKED WOODLAND
B-CI-D3-D5

OPEN SWAMP
ALL NUMERALS 4

TILLABLE LAND
C-CS-P

ALL SWAMP LAND
NUMERALS 3-4

FOREST PLANTING RECOMMENDED

LAND COVER

ROADS

IMPROVEMENTS

MISCELLANEOUS SYMBOLS

WOODED AREAS

DENSITY OF STAND

DIAMETER CLASSES

INDICATES NO. OF HOUSES IN A GROUP

INDICATES THE NUMBER OF FEET

BUILDING IS LOCATED FROM CENTER OF ROAD

WISCONSIN LAND ECONOMIC INVENTORY DIVISION—411 W. WING - STATE CAPITOL—MADISON WISCONSIN

Appendix D:

Historic Aerial Photographs and Hydrology Assessment



Hydrology Assessment Review Areas

Hydrology Assessment with Aerial Imagery - Recording Form										
Project Name: DAN25-020-01			Date: September 2025			County: Dane				
Investigator: Chad Fradette			Legal Description (Sec, T, R): Sections 16 & 21, T09N, R09E							
Year	Image Source	Climate Condition (wet, dry, normal)	Interpretation (List hydrology indicators observed, e.g. crop stress, drowned out, standing water, etc.)							
			A	B	C	D	E	F	G	H
1937	Dane County	#N/A	SS	AP						
1949	WHAIF	N	NSS	NSS						
1955	WHAIF	N	NSS	NSS						
1962	WHAIF	D	NSS	NSS						
1974	Dane County	W	CS	WS/CS						
1976	Dane County	N	NV	AP/WS						
1979	FSA	N	NV	AP/SS						
1980	FSA	N	NV	NC/WS						
1982	FSA	N	NV	NC/WS						
1983	FSA	N	SS	NC/WS						
1984	FSA	W	NSS	WS/SW						
1985	FSA	N	NV	AP/WS/SW						
1987	FSA	N	NV	AP/WS/SW						
1988	FSA	D	NV	WS/SW						
1989	FSA	D	NV	WS						
1990	FSA	N	NV	AP/WS/SS						
1991	FSA	N	No Image	WS						
1993	FSA	W	WS	AP/WS/SS/SW						
1994	FSA	N	NV	NC/WS/SW/SS						
1995	Dane County	N	NV	NC/WS/SW/SS						
1996	FSA	W	NSS	WS/SW						
1997	FSA	N	NV	NC/WS/SW						
1998	FSA	W	NV	NC/WS/SW						
1999	FSA	W	NV	NC/WS/SW						
2000	Dane County	W	NSS	NC/WS/SW						
2005	Google Earth	D	NSS	NC/WS/SW						
2006	USDA	N	WS	NC/WS/SS						
2008	USDA	W	NSS	NC/WS/SW/SS						
2010	USDA	W	NV	NC/WS/SW						
2012	Maxar Tech	D	NV	AP/WS/DO/SW						
2013	WHAIF	W	WS	NC/WS						
2014	Google Earth	W	NSS	NC/WS/SW						
2017	WHAIF	W	WS	NC/WS/SS/SW						
2018	Google Earth	W	NSS	NC/WS/SW						
2020	Google Earth	N	NV	NC/WS/SW						
2021	Google Earth	N	NV	NC/WS/SW						
2022	Google Earth	N	NSS	NC/WS/SW/SS						
2024	Airbus	W	WS	NC/WS/SS/SW						
Summary Table			A	B	C	D	E	F	G	H
# Normal Yrs.			17	18						
# Normal Yrs. With wet signature			2	16						
% Normal Yrs. With wet signature			12%	89%						

*Use key below to label photo interpretations. It is imperative that the reviewer read and understand the guidance associated with the use of these labels if alternate labels are used, indicate in box below.

Key	
WS - Wetland Signatures	AP - altered pattern
CS - Vegetation Stress	NV - normal vegetative cover
DO - drowned out	SW - standing water
NC - not cropped	SS/NSS - Soil Signature/No Soil Signature

Field data sheet reference (if applicable):

Wetland Determination from Aerial Imagery – Recording Form

Project Name:	DAN25-020-01
Investigator:	Chad Fradette
County:	Dane

Date:	Sep-25
Legal Description (S, T, R):	Sections 16 & 21, T09N, R09E

Use the Decision Matrix below to complete Table 1.

Hydric Soils Present (*1)	Identified on NWI or other wetland map (*2)	Percent with wet signatures from Exhibit 1	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 present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators 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 present
No	No	30-50%	Yes	Yes, if other hydrology indicators 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 1

Area	Hydric Soils Present	Identified on NWI or other wetland map	Percent with wet signatures from Exhibit 1	Other hydrology indicators present (*1)	Wetland?
A	No	No	12%	N/A	No
B	Yes	Yes	89%	N/A	Yes

***1** Answer “N/A” if field verification is not required.



1937 Dane County



1949 WHAIF



1955 WHAIF



1962 WHAIF



1974 Dane County



1976 Dane County



1979 North FSA



1979 South FSA



1980 North FSA



1980 South FSA



1982 North FSA



1982 South FSA



1983 North FSA



1983 South FSA



1984 North FSA



1984 South FSA



1985 North FSA



1985 South FSA



1987 North FSA



1987 South FSA



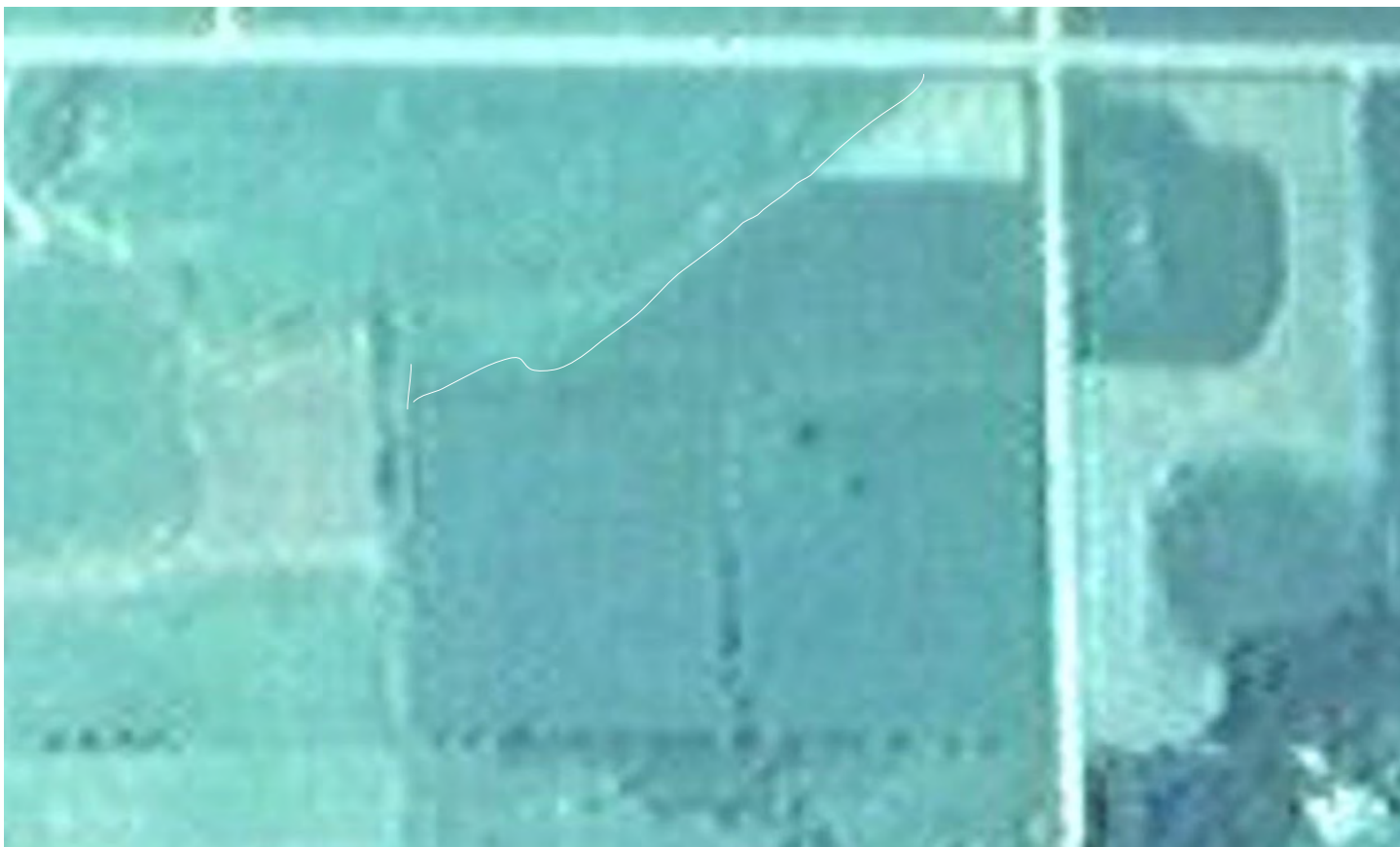
1988 North FSA



1988 South FSA



1989 North FSA



1989 South FSA



1990 North FSA



1990 South FSA



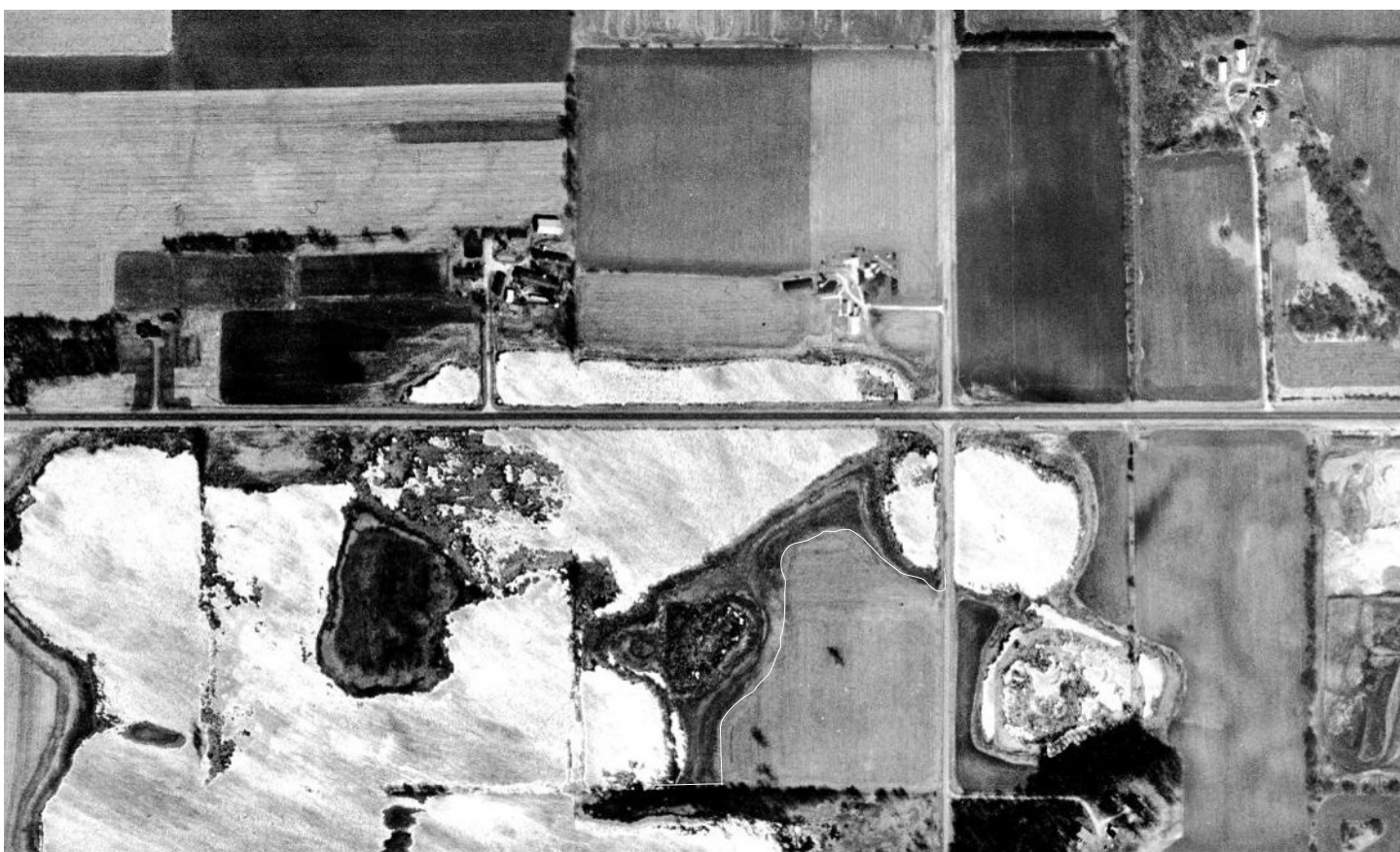
1991 FSA



1993 FSA



1994 FSA



1995 Dane County



1996 FSA



1997 FSA



1998 FSA



1999 FSA



2000 Dane County



2005 Google Earth



2006 USDA



2008 USDA



2010 USDA



2012 Maxar Technologies



2013 WHAIF



2014 Google Earth



2017 WHAIF



2018 Google Earth



2020 Google Earth



2021 Google Earth



2022 Google Earth

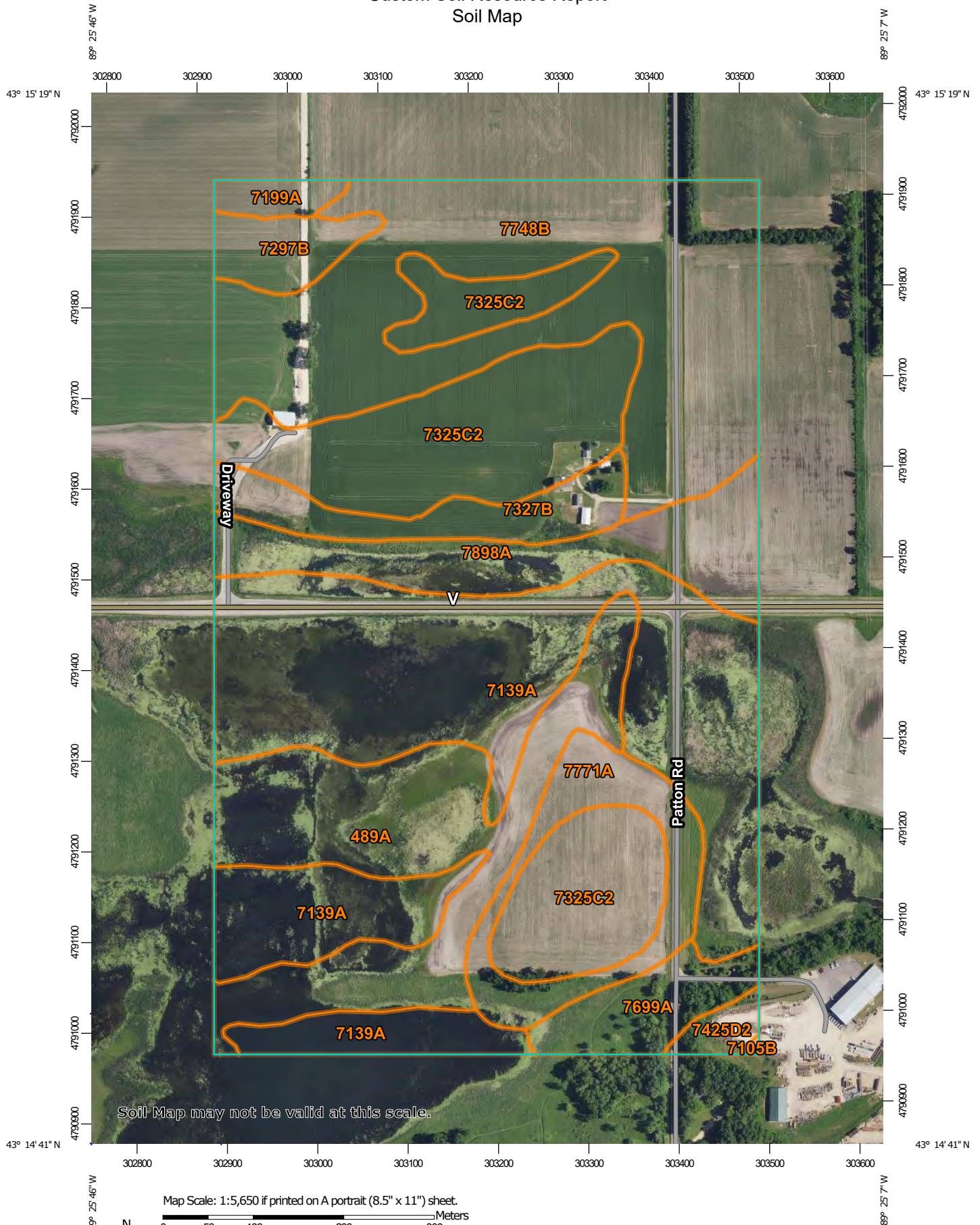


2024 Airbus

Appendix E:

NRCS County Soil Survey Report

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 24, Sep 10, 2025

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

Date(s) aerial images were photographed: Jun 13, 2020—Jul 31, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
489A	Marshan silt loam	19.1	13.3%
7105B	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	0.1	0.0%
7139A	Sable silty clay loam, 0 to 2 percent slopes	39.4	27.3%
7199A	Plano silt loam, till substratum, 0 to 2 percent slopes	1.3	0.9%
7297B	Ringwood silt loam, 2 to 6 percent slopes	2.9	2.0%
7325C2	Dresden silt loam, 6 to 12 percent slopes, eroded	24.0	16.6%
7327B	Kegonsa silt loam, 2 to 6 percent slopes	5.3	3.7%
7425D2	Dresden loam, 12 to 20 percent slopes, eroded	1.1	0.8%
7699A	Salter sandy loam, wet variant, 0 to 3 percent slopes	4.3	3.0%
7748B	Plano silt loam, gravelly substratum, 2 to 6 percent slopes	30.5	21.1%
7771A	Hayfield silt loam, 0 to 3 percent slopes	6.6	4.6%
7898A	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	9.7	6.7%
Totals for Area of Interest		144.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made

up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

Custom Soil Resource Report

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dane County, Wisconsin

489A—Marshan silt loam

Map Unit Setting

National map unit symbol: t93l
Elevation: 340 to 1,700 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 45 to 52 degrees F
Frost-free period: 100 to 160 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Marshan and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marshan

Setting

Landform: Depressions on stream terraces
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Silty or loamy alluvium over sandy outwash

Typical profile

H1 - 0 to 13 inches: silt loam
H2 - 13 to 24 inches: silty clay loam
H3 - 24 to 60 inches: coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Rare
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: F095XB002WI - Wet Floodplain
Forage suitability group: Mod AWC, high water table (G095BY004WI)
Other vegetative classification: Mod AWC, high water table (G095BY004WI)
Hydric soil rating: Yes

Minor Components

Sable

Percent of map unit: 5 percent
Landform: Depressions on stream terraces

Custom Soil Resource Report

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R108XB008IL - Wet Loess Upland Prairie

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: Yes

Hayfield

Percent of map unit: 3 percent

Landform: Outwash plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland

Other vegetative classification: Mod AWC, high water table (G095BY004WI)

Hydric soil rating: No

Palms

Percent of map unit: 2 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB001WI - Mucky Swamp

Other vegetative classification: Not suited, flooded or organics (G095BY010WI)

Hydric soil rating: Yes

7105B—Batavia silt loam, gravelly substratum, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: t919

Elevation: 340 to 1,200 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 135 to 160 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Batavia, gravelly substratum, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Batavia, Gravelly Substratum

Setting

Landform: Outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Deep loess over loamy outwash

Typical profile

H1 - 0 to 10 inches: silt loam

Custom Soil Resource Report

H2 - 10 to 44 inches: silty clay loam
H3 - 44 to 50 inches: gravelly clay loam
H4 - 50 to 60 inches: gravelly coarse sand

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: High AWC, adequately drained (G095BY008WI)
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Minor Components

Kegonsa

Percent of map unit: 5 percent
Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Virgil, gravelly substratum

Percent of map unit: 3 percent
Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Other vegetative classification: High AWC, high water table (G095BY007WI)
Hydric soil rating: No

Port byron, moderately well drained

Percent of map unit: 2 percent
Landform: Valley sides
Landform position (two-dimensional): Toeslope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R105XY014WI - Mollic Clayey Upland
Other vegetative classification: High AWC, adequately drained (G105XY008WI)
Hydric soil rating: No

7139A—Sable silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tjpl
Elevation: 640 to 1,130 feet
Mean annual precipitation: 30 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 140 to 185 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Sable and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sable

Setting

Landform: Swales
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loess

Typical profile

Ap - 0 to 23 inches: silty clay loam
Btg1 - 23 to 38 inches: silty clay loam
Btg2 - 38 to 47 inches: silt loam
Cg - 47 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R108XB008IL - Wet Loess Upland Prairie
Forage suitability group: High AWC, high water table (G095BY007WI)
Other vegetative classification: High AWC, high water table (G095BY007WI)

Custom Soil Resource Report

Hydric soil rating: Yes

Minor Components

Ipava

Percent of map unit: 5 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R108XB008IL - Wet Loess Upland Prairie

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Muscatune

Percent of map unit: 5 percent

Landform: Ground moraines

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

Buckhart

Percent of map unit: 3 percent

Landform: Knolls

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Rise

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: R108XB005IL - Loess Upland Prairie

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Elburn

Percent of map unit: 2 percent

Landform: Outwash plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB002WI - Wet Floodplain

Other vegetative classification: High AWC, high water table (G095BY007WI)

Hydric soil rating: No

7199A—Plano silt loam, till substratum, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tjwr
Elevation: 640 to 1,070 feet
Mean annual precipitation: 31 to 37 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 127 to 178 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Plano, till substratum, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Plano, Till Substratum

Setting

Landform: Till plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over glacial loamy till

Typical profile

Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 41 inches: silty clay loam
2Bt2 - 41 to 46 inches: loam
2C - 46 to 79 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 40 to 45 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: High AWC, adequately drained (G095BY008WI)
Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Elburn

Percent of map unit: 10 percent
Landform: Till plains
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F095XB002WI - Wet Floodplain
Hydric soil rating: No

7297B—Ringwood silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2wsr1
Elevation: 770 to 1,180 feet
Mean annual precipitation: 31 to 35 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 172 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Ringwood and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ringwood

Setting

Landform: Moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loess over loamy till

Typical profile

Ap - 0 to 12 inches: silt loam
Bt - 12 to 22 inches: silty clay loam
2Bt - 22 to 36 inches: sandy clay loam
2C - 36 to 79 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches

Custom Soil Resource Report

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: High AWC, adequately drained (G095BY008WI)
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Minor Components

Elburn

Percent of map unit: 4 percent
Landform: Drainageways
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F095XB002WI - Wet Floodplain
Other vegetative classification: High AWC, high water table (G095BY007WI)
Hydric soil rating: No

Plano, till substratum

Percent of map unit: 3 percent
Landform: Moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Griswold

Percent of map unit: 3 percent
Landform: Moraines
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

7325C2—Dresden silt loam, 6 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2wspw

Elevation: 750 to 1,180 feet

Mean annual precipitation: 31 to 35 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 132 to 185 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Dresden, eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dresden, Eroded

Setting

Landform: Plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy glaciofluvial deposits over calcareous sandy and gravelly outwash

Typical profile

Ap - 0 to 8 inches: silt loam

Bt1 - 8 to 25 inches: clay loam

2Bt2 - 25 to 30 inches: gravelly sandy clay loam

2C - 30 to 79 inches: very gravelly coarse sand

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: 29 to 40 inches to strongly contrasting textural stratification

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Ecological site: F095XB007WI - Loamy Upland with Carbonates

Custom Soil Resource Report

Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Minor Components

Casco, eroded

Percent of map unit: 5 percent
Landform: Moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

Kegonsa

Percent of map unit: 5 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

7327B—Kegonsa silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: t93f
Elevation: 400 to 1,200 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Kegonsa and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kegonsa

Setting

Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over sandy and gravelly outwash

Typical profile

H1 - 0 to 12 inches: silt loam

Custom Soil Resource Report

H2 - 12 to 29 inches: silt loam
H3 - 29 to 33 inches: sandy clay loam
H4 - 33 to 60 inches: gravelly coarse sand

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: High AWC, adequately drained (G095BY008WI)
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Minor Components

Batavia, gravelly substratum

Percent of map unit: 5 percent
Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Dresden, silt loam

Percent of map unit: 3 percent
Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Warsaw

Percent of map unit: 2 percent
Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

7425D2—Dresden loam, 12 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2wspx
Elevation: 790 to 1,120 feet
Mean annual precipitation: 31 to 35 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 172 days
Farmland classification: Not prime farmland

Map Unit Composition

Dresden, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dresden, Eroded

Setting

Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy drift over calcareous sandy and gravelly outwash

Typical profile

Ap - 0 to 6 inches: loam
Bt1 - 6 to 22 inches: sandy clay loam
2Bt2 - 22 to 26 inches: very gravelly sandy clay loam
2C - 26 to 79 inches: stratified very gravelly coarse sand

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: 24 to 40 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F095XB007WI - Loamy Upland with Carbonates

Custom Soil Resource Report

Forage suitability group: Mod AWC, adequately drained with limitations
(G095BY006WI)

Other vegetative classification: Mod AWC, adequately drained with limitations
(G095BY006WI)

Hydric soil rating: No

Minor Components

Casco, eroded

Percent of map unit: 6 percent

Landform: Moraines

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Concave

Ecological site: F095XB007WI - Loamy Upland with Carbonates

Hydric soil rating: No

Lorenzo, eroded

Percent of map unit: 4 percent

Landform: Plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB007WI - Loamy Upland with Carbonates

Hydric soil rating: No

7699A—Salter sandy loam, wet variant, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: t951

Elevation: 600 to 1,500 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 135 to 160 days

Farmland classification: Prime farmland if drained

Map Unit Composition

Salter variant, somewhat poorly drained, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Salter Variant, Somewhat Poorly Drained

Setting

Landform: Drainageways

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Loamy alluvium over stratified silt and fine sand lacustrine deposits

Typical profile

H1 - 0 to 10 inches: sandy loam
H2 - 10 to 26 inches: loam
H3 - 26 to 39 inches: loamy sand
H4 - 39 to 60 inches: stratified loamy sand to silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 0.57 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Forage suitability group: Mod AWC, high water table (G095BY004WI)
Other vegetative classification: Mod AWC, high water table (G095BY004WI)
Hydric soil rating: No

Minor Components

Salter, mwd, silt mantle

Percent of map unit: 5 percent
Landform: Lake plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Wacousta

Percent of map unit: 3 percent
Landform: Depressions on glacial lakes
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland
Other vegetative classification: High AWC, high water table (G095BY007WI)
Hydric soil rating: Yes

Colwood

Percent of map unit: 2 percent
Landform: Depressions on lakebeds (relict)
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland

Custom Soil Resource Report

Other vegetative classification: High AWC, high water table (G095BY007WI)
Hydric soil rating: Yes

7748B—Plano silt loam, gravelly substratum, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2tjwz
Elevation: 720 to 1,120 feet
Mean annual precipitation: 33 to 37 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 174 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Plano, gravelly substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Plano, Gravelly Substratum

Setting

Landform: Outwash plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over loamy outwash over sandy and gravelly outwash

Typical profile

Ap - 0 to 14 inches: silt loam
Bt1 - 14 to 46 inches: silty clay loam
2Bt2 - 46 to 57 inches: loam
2C - 57 to 79 inches: stratified gravelly sand

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland

Custom Soil Resource Report

Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Minor Components

Warsaw

Percent of map unit: 8 percent

Landform: Outwash plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

Plano, moderately wet, gravelly substratum

Percent of map unit: 7 percent

Landform: Outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Hydric soil rating: No

7771A—Hayfield silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: t931

Elevation: 680 to 1,400 feet

Mean annual precipitation: 28 to 33 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 135 to 160 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hayfield and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hayfield

Setting

Landform: Outwash plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Silty alluvium over sandy outwash

Typical profile

H1 - 0 to 11 inches: silt loam

H2 - 11 to 29 inches: loam

Custom Soil Resource Report

H3 - 29 to 60 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 30 to 60 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: B

Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland

Forage suitability group: Mod AWC, high water table (G095BY004WI)

Other vegetative classification: Mod AWC, high water table (G095BY004WI)

Hydric soil rating: No

Minor Components

Dresden, silt loam

Percent of map unit: 5 percent

Landform: Outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB007WI - Loamy Upland with Carbonates

Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)

Hydric soil rating: No

Kegonsa

Percent of map unit: 3 percent

Landform: Outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: F095XB010WI - Loamy and Clayey Upland

Other vegetative classification: High AWC, adequately drained (G095BY008WI)

Hydric soil rating: No

Marshan

Percent of map unit: 2 percent

Landform: Depressions on stream terraces

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB002WI - Wet Floodplain

Other vegetative classification: Mod AWC, high water table (G095BY004WI)

Hydric soil rating: Yes

7898A—Elburn silt loam, gravelly substratum, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wsqt
Elevation: 740 to 1,000 feet
Mean annual precipitation: 33 to 37 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 110 to 185 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Elburn, gravelly substratum, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elburn, Gravelly Substratum

Setting

Landform: Till plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loess over sandy and gravelly outwash

Typical profile

Ap - 0 to 16 inches: silt loam
Bt - 16 to 36 inches: silty clay loam
2BC - 36 to 44 inches: sandy loam
2C - 44 to 79 inches: very gravelly coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Forage suitability group: High AWC, high water table (G095BY007WI)
Other vegetative classification: High AWC, high water table (G095BY007WI)

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Hydric soil rating: No

Minor Components

Drummer

Percent of map unit: 4 percent

Landform: Drainageways

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland

Hydric soil rating: Yes

Sable

Percent of map unit: 4 percent

Landform: Drainageways

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland

Hydric soil rating: Yes

Mahalasville

Percent of map unit: 2 percent

Landform: Drainageways

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F095XB002WI - Wet Floodplain

Hydric soil rating: Yes

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit (WI)

This Hydric Soil Category rating indicates the components of map units that meet the criteria for hydric soils. Map units are composed of one or more major soil components or soil types that generally make up 20 percent or more of the map unit and are listed in the map unit name, and they may also have one or more minor contrasting soil components that generally make up less than 20 percent of the map unit. Each major and minor map unit component that meets the hydric criteria is rated **hydric**. The map unit class ratings based on the hydric components present are: WI Hydric, WI Predominantly Hydric, WI Partially Hydric, WI Predominantly Nonhydric, and WI Nonhydric. The report also shows the total representative percentage of each map unit that the hydric components comprise.

"WI Hydric" means that all major and minor components listed for a given map unit are rated as being hydric. *"WI Predominantly Hydric"* means that all major components listed for a given map unit are rated as hydric, and at least one contrasting minor component is not rated hydric. *"WI Partially Hydric"* means that at least one major component listed for a given map unit is rated as hydric, and at

least one other major component is not rated hydric. *"WI Predominantly Nonhydric"* means that no major component listed for a given map unit is rated as hydric, and at least one contrasting minor component is rated hydric. *"WI Nonhydric"* means no major or minor components for the map unit are rated hydric. The assumption is that the map unit is nonhydric even if none of the components within the map unit have been rated.

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

If soils are wet enough for a long enough period of time to be considered hydric, they typically exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and Noble, 2010).

The NTCHS has developed criteria to identify those soil properties unique to hydric soils (Federal Register, 2012). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria use selected soil properties that are described in "Field Indicators of Hydric Soils in the United States" (Vasilas, Hurt, and Noble, 2010), "Soil Taxonomy" (Soil Survey Staff, 1999), "Keys to Soil Taxonomy" (Soil Survey Staff, 2010), and the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

The criteria for hydric soils are represented by codes, for example, 2 or 3. Definitions for the codes are as follows:

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

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

References:

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

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Federal Register. February, 28, 2012. Hydric soils of the United States.
 Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
 Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
 Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
 Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Rating by Map Unit (WI)

Hydric Rating by Map Unit (WI)—Dane County, Wisconsin				
Map Unit Symbol	Map Unit Name	Hydric Percent of Map Unit	Hydric Category	Landform Hydric Minor Components
489A	Marshan silt loam	97	WI Predominantly Hydric	Depressions
7105B	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	0	WI Nonhydric	—
7139A	Sable silty clay loam, 0 to 2 percent slopes	85	WI Predominantly Hydric	—
7199A	Plano silt loam, till substratum, 0 to 2 percent slopes	0	WI Nonhydric	—
7297B	Ringwood silt loam, 2 to 6 percent slopes	0	WI Nonhydric	—
7325C2	Dresden silt loam, 6 to 12 percent slopes, eroded	0	WI Nonhydric	—
7327B	Kegonsa silt loam, 2 to 6 percent slopes	0	WI Nonhydric	—
7425D2	Dresden loam, 12 to 20 percent slopes, eroded	0	WI Nonhydric	—
7699A	Salter sandy loam, wet variant, 0 to 3 percent slopes	5	WI Predominantly Nonhydric	Lakebeds (relict)
7748B	Plano silt loam, gravelly substratum, 2 to 6 percent slopes	0	WI Nonhydric	—
7771A	Hayfield silt loam, 0 to 3 percent slopes	2	WI Predominantly Nonhydric	Stream terraces
7898A	Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	10	WI Predominantly Nonhydric	Drainageways

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is

recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

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

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

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

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

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

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

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

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:

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- A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
- A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
- A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

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

References:

- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components—WI025-Dane County, Wisconsin					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
489A: Marshan silt loam	Marshan	90	Depressions on stream terraces	Yes	2,3
	Sable	5	Depressions on stream terraces	Yes	2,3
	Hayfield	3	Outwash plains	No	—
	Palms	2	Depressions	Yes	1,3
7105B: Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	Batavia-Gravelly substratum	90	Outwash plains	No	—
	Kegonsa	5	Outwash plains	No	—
	Virgil-Gravelly substratum	3	Outwash plains	No	—
	Port Byron-Moderately well drained	2	Valley sides	No	—
7139A: Sable silty clay loam, 0 to 2 percent slopes	Sable	85-100	Swales	Yes	2
	Ipava	0-7	Ground moraines	No	—
	Muscatune	0-6	Ground moraines	No	—
	Buckhart	0-4	Knolls	No	—
	Elburn	0-3	Outwash plains	No	—
7199A: Plano silt loam, till substratum, 0 to 2 percent slopes	Plano-Till substratum	85-95	Till plains	No	—
	Elburn	5-15	Till plains	No	—
7297B: Ringwood silt loam, 2 to 6 percent slopes	Ringwood	85-95	Moraines	No	—
	Elburn	2-6	Drainageways	No	—
	Plano-Till substratum	1-4	Moraines	No	—
	Griswold	2-5	Moraines	No	—
7325C2: 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	—
7327B: Kegonsa silt loam, 2 to 6 percent slopes	Kegonsa	90	Outwash plains	No	—
	Batavia-Gravelly substratum	5	Outwash plains	No	—
	Dresden-Silt loam	3	Outwash plains	No	—
	Warsaw	2	Outwash plains	No	—

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Hydric Soil List - All Components–WI025-Dane County, Wisconsin					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
7425D2: Dresden loam, 12 to 20 percent slopes, eroded	Dresden-Eroded	85-95	Plains	No	—
	Casco-Eroded	3-8	Moraines	No	—
	Lorenzo-Eroded	2-7	Plains	No	—
7699A: Salter sandy loam, wet variant, 0 to 3 percent slopes	Salter variant-Somewhat poorly drained	90	Drainageways	No	—
	Salter-Mwd, silt mantle	5	Lake plains	No	—
	Wacousta	3	Depressions on glacial lakes	Yes	2,3
	Colwood	2	Depressions on lakebeds (relict)	Yes	2,3
7748B: Plano silt loam, gravelly substratum, 2 to 6 percent slopes	Plano-Gravelly substratum	80-90	Outwash plains	No	—
	Warsaw	5-10	Outwash plains	No	—
	Plano-Moderately wet, gravelly substratum	5-10	Outwash plains	No	—
7771A: Hayfield silt loam, 0 to 3 percent slopes	Hayfield	90	Outwash plains	No	—
	Dresden-Silt loam	5	Outwash plains	No	—
	Kegonsa	3	Outwash plains	No	—
	Marshan	2	Depressions on stream terraces	Yes	2,3
	Elburn-Gravelly substratum	85-95	Till plains	No	—
7898A: Elburn silt loam, gravelly substratum, 0 to 3 percent slopes	Drummer	2-5	Drainageways	Yes	2,3
	Sable	2-5	Drainageways	Yes	2,3
	Mahalasville	1-5	Drainageways	Yes	2,3

Hydric Soils

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

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

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

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

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

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

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

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

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

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- A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
- B. Show evidence that the soil meets the definition of a hydric soil;

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

References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

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

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

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

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service.

U.S. Department of Agriculture Handbook 18.

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

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

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

Report—Hydric Soils

Hydric Soils—Dane County, Wisconsin				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
489A—Marshan silt loam				
	Marshan	90	Depressions on stream terraces	2, 3
	Sable	5	Depressions on stream terraces	2, 3
	Palms	2	Depressions	1, 3
7139A—Sable silty clay loam, 0 to 2 percent slopes				
	Sable	85	Swales	2
7699A—Salter sandy loam, wet variant, 0 to 3 percent slopes				
	Wacousta	3	Depressions on glacial lakes	2, 3
	Colwood	2	Depressions on lakebeds (relict)	2, 3

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Hydric Soils—Dane County, Wisconsin				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
7771A—Hayfield silt loam, 0 to 3 percent slopes				
	Marshan	2	Depressions on stream terraces	2, 3
7898A—Elburn silt loam, gravelly substratum, 0 to 3 percent slopes				
	Drummer	4	Drainageways	2, 3
	Sable	4	Drainageways	2, 3
	Mahalasville	2	Drainageways	2, 3

Taxonomic Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. This table shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisols.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalfs (*Ud*, meaning humid, plus *alfs*, from Alfisols).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-

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size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

References:

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

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. (The soils in a given survey area may have been classified according to earlier editions of this publication.)

Report—Taxonomic Classification of the Soils

[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils—Dane County, Wisconsin	
Soil name	Family or higher taxonomic classification
Batavia	Fine-silty, mixed, superactive, mesic Mollic Hapludalfs
Buckhart	
Casco	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Inceptic Hapludalfs
Colwood	Fine-loamy, mixed, active, mesic Typic Endoaquolls
Dresden	Fine-loamy over sandy or sandy-skeletal, mixed, active, mesic Mollic Hapludalfs
Drummer	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Elburn	
Elburn	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Elburn	Fine-silty, mixed, superactive, mesic Aquic Argiudolls
Griswold	Fine-loamy, mixed, superactive, mesic Typic Argiudolls
Hayfield	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Aquollic Hapludalfs
Ipava	Fine, smectitic, mesic Aquic Argiudolls
Kegonsa	Fine-silty over sandy or sandy-skeletal, mixed, superactive, mesic Mollic Hapludalfs
Lorenzo	Fine-loamy over sandy or sandy-skeletal, active, mesic Typic Argiudolls
Mahalasville	Fine-silty, mixed, superactive, mesic Typic Argiaquolls
Marshan	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Endoaquolls
Muscatune	
Palms	Loamy, mixed, euic, mesic Terric Haplosaprists
Plano	
Plano	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Plano	Fine-silty, mixed, superactive, mesic Typic Argiudolls
Port Byron*	Fine-silty, mixed, superactive, mesic Oxyaquic Hapludolls
Ringwood	Fine-loamy, mixed, superactive, mesic Typic Argiudolls

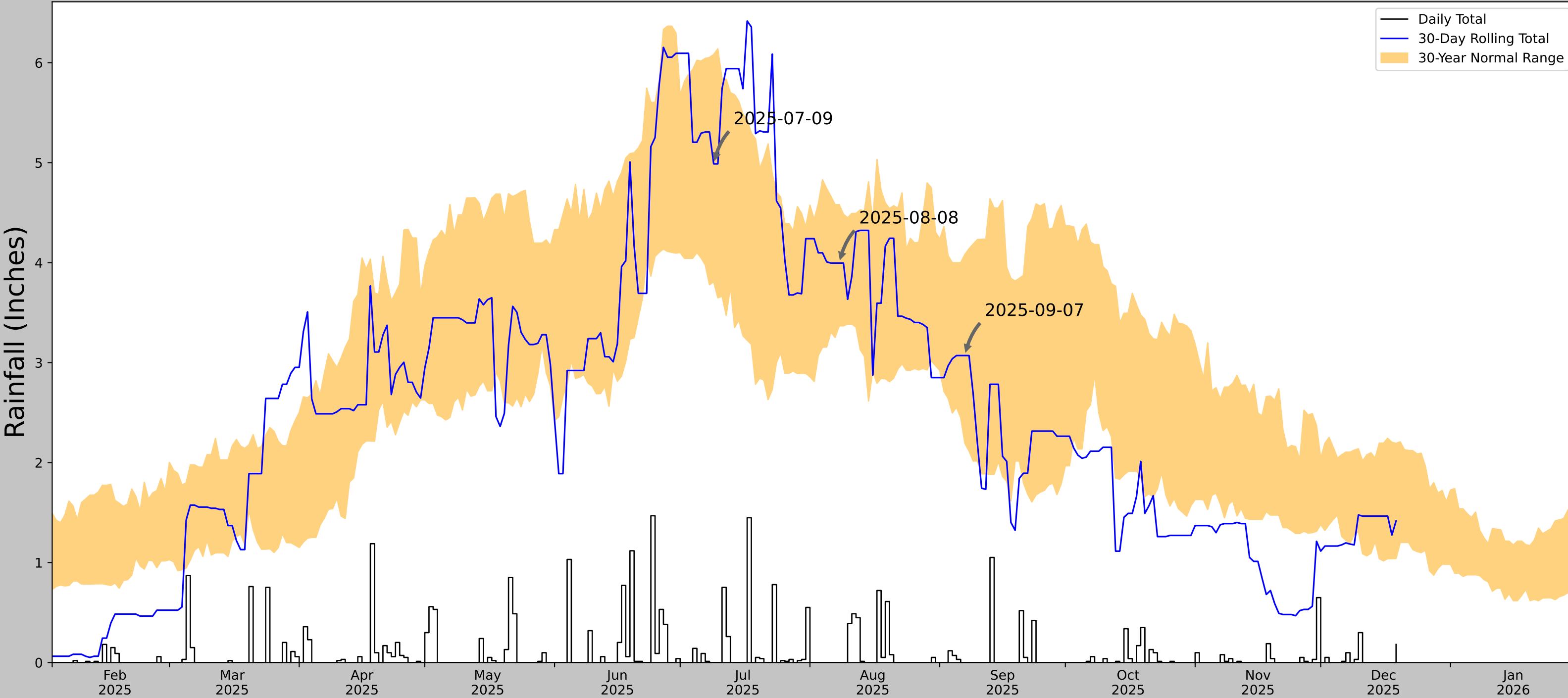
Custom Soil Resource Report

Taxonomic Classification of the Soils—Dane County, Wisconsin	
Soil name	Family or higher taxonomic classification
Sable	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Salter*	Coarse-loamy, mixed, superactive, mesic Oxyaquic Eutrudepts
Salter variant	Coarse-loamy, mixed, mesic Aeris Haplaquents
Virgil	Fine-silty, mixed, superactive, mesic Udollic Endoaquolls
Wacousta	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Warsaw	
Warsaw	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Argiudolls

Appendix F:

Precipitation Information

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



Coordinates	43.25298, -89.42211
Observation Date	2025-09-07
Elevation (ft)	985.417
Drought Index (PDSI)	Mild wetness
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-07	2.194095	4.08189	3.070866	Normal	2	3	6
2025-08-08	3.36811	4.580709	3.996063	Normal	2	2	4
2025-07-09	3.809055	6.082677	4.988189	Normal	2	1	2
Result							Normal Conditions - 12



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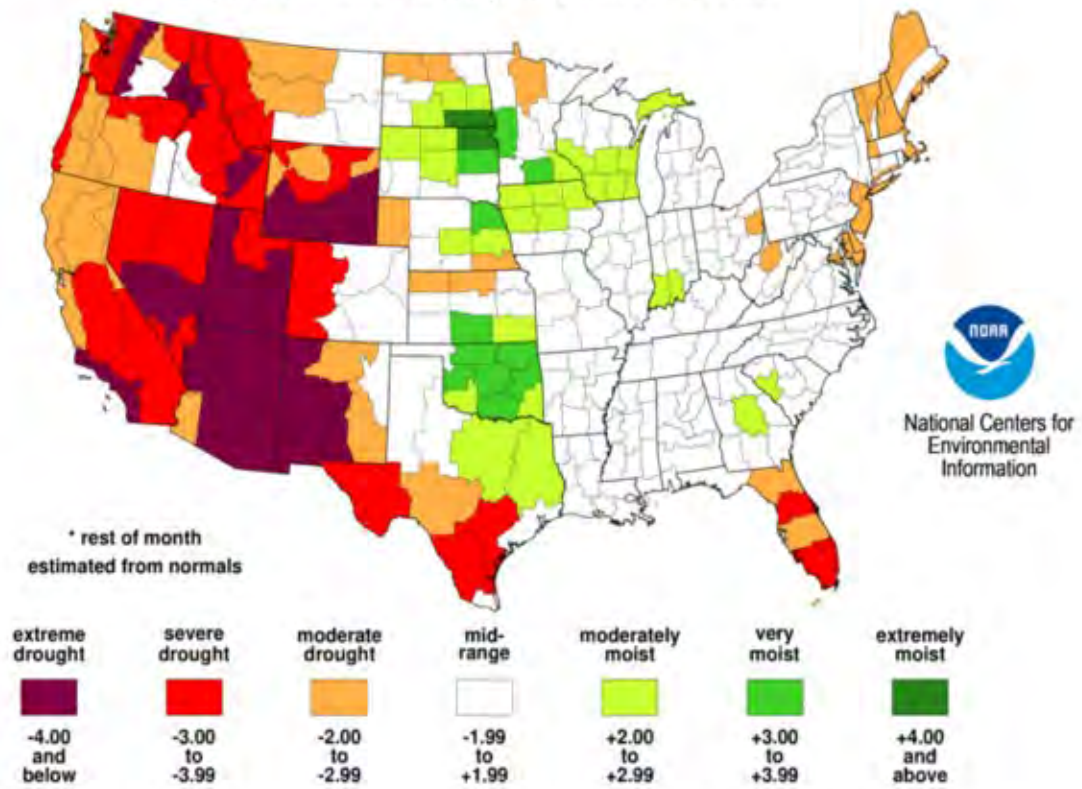
Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ARLINGTON	43.3042, -89.3453	1051.837	5.24	66.42	2.706	10902	90
SUN PRAIRIE 3 W	43.1936, -89.2822	950.131	8.275	101.706	4.565	7	0
LODI WWTP	43.3217, -89.5311	803.15	9.419	248.687	6.581	127	0
MADISON DANE CO RGNL AP	43.1406, -89.3453	858.924	11.304	192.913	7.267	317	0

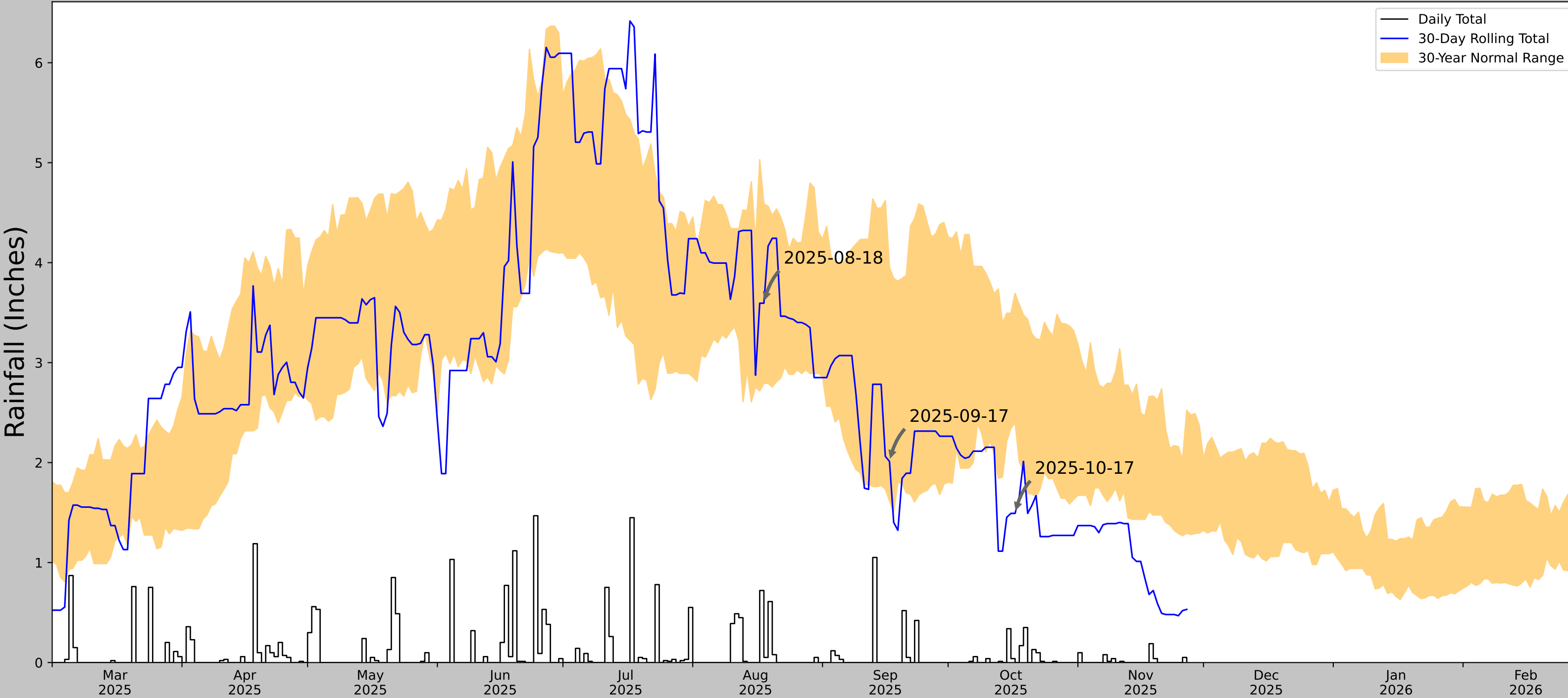
Palmer Hydrological Drought Index Long-Term (Hydrological) Conditions

September 2025: through September 6 2025*



Sources: National Oceanic & Atmospheric Administration, Palmer Hydrological Drought Index

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



Coordinates	43.25299, -89.42215
Observation Date	2025-10-17
Elevation (ft)	986.076
Drought Index (PDSI)	Mild wetness
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-10-17	2.395669	3.694095	1.492126	Dry	1	3	3
2025-09-17	1.616535	3.952362	2.011811	Normal	2	2	4
2025-08-18	2.79252	4.587402	3.594488	Normal	2	1	2
Result							Drier than Normal - 9



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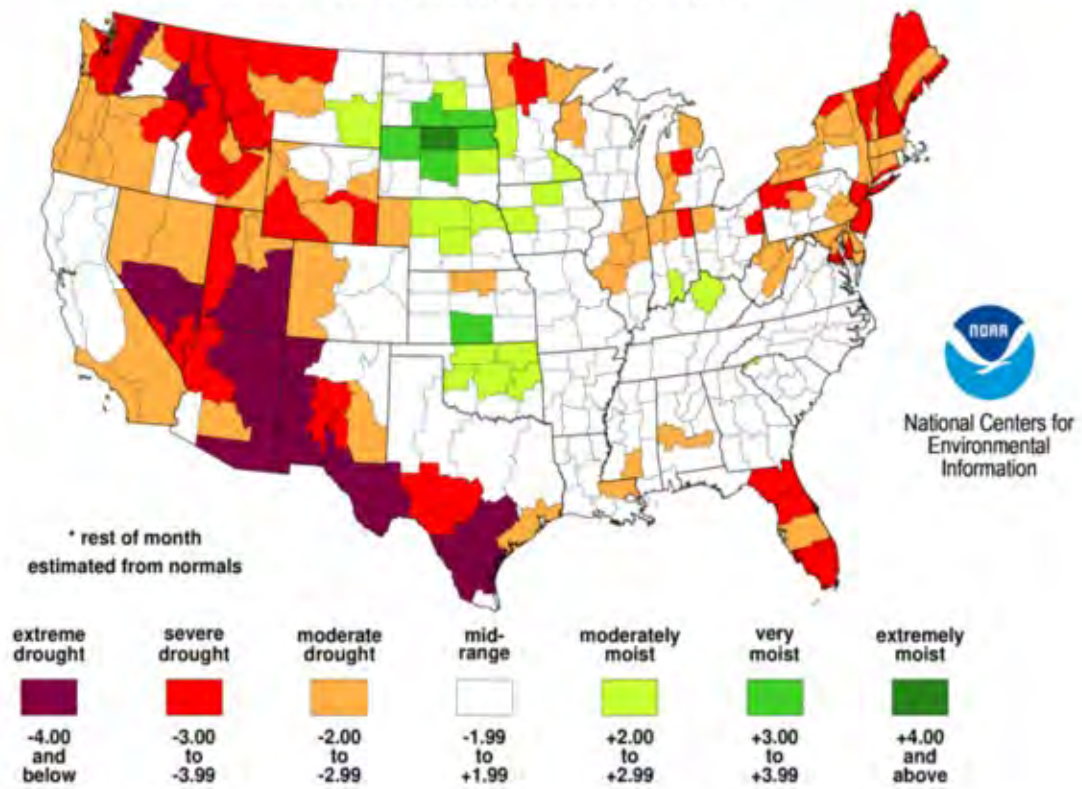
Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
ARLINGTON	43.3042, -89.3453	1051.837	5.241	65.761	2.703	10902	90
SUN PRAIRIE 3 W	43.1936, -89.2822	950.131	8.275	101.706	4.565	7	0
LODI WWTP	43.3217, -89.5311	803.15	9.419	248.687	6.581	127	0
MADISON DANE CO RGNL AP	43.1406, -89.3453	858.924	11.304	192.913	7.267	317	0

Palmer Hydrological Drought Index Long-Term (Hydrological) Conditions

October 2025: through October 18 2025*



Sources: National Oceanic & Atmospheric Administration, Palmer Hydrological Drought Index

Appendix G:

Wetland Determination Data Forms

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: DAN25-020-01 Madison Spring City/County: Town of Vienna, Dane County Sampling Date: 2025-09-07
Applicant/Owner: Excel/Keller State: Wisconsin Sampling Point: T1A
Investigator(s): Chad M Fradette Section, Township, Range: S16 T9N R9E
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 2-4
Subregion (LRR or MLRA): L 95 Lat: 43.252987 Long: -89.422147 Datum: WGS 84
Soil Map Unit Name: PoB - Plano silt loam, gravelly substratum, 2 to 6 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is in a corn field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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 ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Antecedent precipitation has been normal during the wet season. The drought index indicates mild wetness.

Remarks:
No wetland hydrology indicators observed.

Sampling Point: **T1A**

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

ENG FORM 6116-8, SEP 2024

SOIL

Sampling Point T1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 3/2	100					Silt Loam	
20 - 24	7.5YR 4/3	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
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 Soils³:	
☐ Histosol (A1)			☐ Dark Surface (S7)				☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
☐ Histic Epipedon (A2)			☐ Polyvalue Below Surface (S8) (LRR R,				☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
☐ Black Histic (A3)			☐ MLRA 149B)				☐ Polyvalue Below Surface (S8) (LRR K, L) Thin	
☐ Hydrogen Sulfide (A4)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)				☐ Dark Surface (S9) (LRR K, L)	
☐ Stratified Layers (A5)			☐ High Chroma Sands (S11) (LRR K, L)				☐ Iron-Manganese Masses (F12) (LRR K, L, R)	
☐ Depleted Below Dark Surface (A11)			☐ Loamy Mucky Mineral (F1) (LRR K, L)				☐ Piedmont Floodplain Soils (F19) (MLRA 149B)	
☐ Thick Dark Surface (A12)			☐ Loamy Gleyed Matrix (F2)				☐ Red Parent Material (F21) (outside MLRA 145)	
☐ Iron Monosulfide (A18)			☐ Depleted Matrix (F3)				☐ Very Shallow Dark Surface (F22)	
☐ Mesic Spodic (A17)			☐ Redox Dark Surface (F6)				☐ Other (Explain in Remarks)	
☐ (MLRA 144A, 145, 149B)			☐ Depleted Dark Surface (F7)					
☐ Sandy Mucky Mineral (S1)			☐ Redox Depressions (F8)					
☐ Sandy Gleyed Matrix (S4)			☐ Marl (F10) (LRR K, L)					
☐ Sandy Redox (S5)			☐ Red Parent Material (F21) (MLRA 145)					
☐ Stripped Matrix (S6)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes _____ No ☒	
Remarks: No hydric soil indicators observed.								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: DAN25-020-01 Madison Spring City/County: Town of Vienna, Dane County Sampling Date: 2025-09-07
Applicant/Owner: Excel/Keller State: Wisconsin Sampling Point: T2A
Investigator(s): Chad M Fradette Section, Township, Range: S16 T9N R9E
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 2-3
Subregion (LRR or MLRA): L 95 Lat: 43.25095 Long: -89.4239451 Datum: WGS 84
Soil Map Unit Name: KeB - Kegonsa silt loam, 2 to 6 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)
Sample plot is in a corn field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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 ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Antecedent precipitation has been normal during the wet season. The drought index indicates mild wetness. Remarks: No wetland hydrology indicators observed.	

VEGETATION – Use scientific names of plants.

 Sampling Point: **T2A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>50</u></td> <td>x 5 = <u>250</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>395</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.59</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>50</u>	x 5 = <u>250</u>	Column Totals: <u>110</u> (A)	<u>395</u> (B)	Prevalence Index = B/A = <u>3.59</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>50</u>	x 5 = <u>250</u>																			
Column Totals: <u>110</u> (A)	<u>395</u> (B)																			
Prevalence Index = B/A = <u>3.59</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Morus rubra</u>	<u>5</u>	<u>✓</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Anemone canadensis</u>	<u>40</u>	<u>✓</u>	<u>FACW</u>																	
2. <u>Bromus inermis</u>	<u>30</u>	<u>✓</u>	<u>UPL</u>																	
3. <u>Setaria viridis</u>	<u>20</u>		<u>UPL</u>																	
4. <u>Panicum virgatum</u>	<u>10</u>		<u>FAC</u>																	
5. <u>Ambrosia trifida</u>	<u>5</u>		<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

Hydrophytic Vegetation Indicators:
 _____ 1 - Rapid Test for Hydrophytic Vegetation
 _____ 2 - Dominance Test is >50%
 _____ 3 - Prevalence Index is ≤3.0¹
 _____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 _____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators 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 ✓

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

Disturbed vegetation protocol used, reviewed undisturbed vegetation in a similar landscape position. No hydrophytic vegetation indicators observed.

SOIL

Sampling Point T2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 24	10YR 2/2	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)

☐ 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)

☐ Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)

☐ 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)

☐ Red Parent Material (F21) (outside MLRA 145)

☐ Very Shallow Dark Surface (F22)

☐ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

No hydric soil indicators observed.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: DAN25-020-01 Madison Spring City/County: Town of Vienna, Dane County Sampling Date: 2025-09-07
Applicant/Owner: Excel/Keller State: Wisconsin Sampling Point: T2B
Investigator(s): Chad M Fradette Section, Township, Range: S16 T9N R9E
Landform (hillside, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave Slope %: 0-2
Subregion (LRR or MLRA): L 95 Lat: 43.2507778 Long: -89.4239206 Datum: WGS 84
Soil Map Unit Name: EqA - Elburn silt loam, gravelly substratum, 0 to 3 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐ If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

Sample plot is in a wet meadow that surrounds a shallow cattail marsh. The wetland boundary was set at the point where the F6 hydric soil indicator dropped out in the adjacent corn field. This was approximately where the slope percentage dropped from 2-3% to 1-2%, toeslope. The boundary was probed at regular intervals to make this determination. Flags were not left in the corn to prevent them from entering cattle feed. The boundary was continuously surveyed.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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)
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Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): <u>8</u> Saturation Present? Yes ☒ No ☐ Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Antecedent precipitation has been normal during the wet season. The drought index indicates mild wetness.

Remarks:

Wetland hydrology is met with three primary and four secondary indicators present.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T2B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.81</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>1.81</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>200</u> (B)																			
Prevalence Index = B/A = <u>1.81</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>✓</u>	<u>FACW</u>	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.																
2. <u>Typha X glauca</u>	<u>20</u>		<u>OBL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
110 =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

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 _____

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

Three hydrophytic vegetation indicators observed.

SOIL

Sampling Point T2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 2/2	100					Silt Loam	
4 - 12	10YR 2/2	93	7.5YR 4/6	7	C	PL/M	Silt Loam	
12 - 24	10YR 2/2	95	7.5YR 4/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)
(MLRA 144A, 145, 149B)

☐ 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)**

☐ Red Parent Material (F21) **(MLRA 145)**

²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**

☐ 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)**

☐ Red Parent Material (F21) **(outside MLRA 145)**

☐ Very Shallow Dark Surface (F22)

☐ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

Hydric soil indicators F6 and F8 observed.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: DAN25-020-01 Madison Spring City/County: Town of Vienna, Dane County Sampling Date: 2025-09-07
Applicant/Owner: Excel/Keller State: Wisconsin Sampling Point: T3A
Investigator(s): Chad M Fradette Section, Township, Range: S16 T9N R9E
Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 2-3
Subregion (LRR or MLRA): L 95 Lat: 43.2508612 Long: -89.4253063 Datum: WGS 84
Soil Map Unit Name: Eqa - Elburn silt loam, gravelly substratum, 0 to 3 percent slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)

Sample plot is in a fallow area between a corn field and a wetland.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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)
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Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Antecedent precipitation has been normal during the wet season. The drought index indicates mild wetness.

Remarks:

No wetland hydrology indicators observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T3A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>415</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.60</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>415</u> (B)	Prevalence Index = B/A = <u>3.60</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>90</u>	x 4 = <u>360</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>115</u> (A)	<u>415</u> (B)																			
Prevalence Index = B/A = <u>3.60</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Sonchus arvensis</u>	<u>50</u>	<u>✓</u>	<u>FACU</u>																	
2. <u>Cirsium arvense</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>																	
3. <u>Phalaris arundinacea</u>	<u>20</u>	<u>✓</u>	<u>FACW</u>																	
4. <u>Symphyotrichum pilosum</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>																	
5. <u>Rumex crispus</u>	<u>5</u>		<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>115</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) No hydrophytic vegetation indicators observed.				Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																

SOIL

Sampling Point T3A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 2/2	100					Silt Loam	
10 - 18	10YR 2/2	95	7.5YR 4/6	5	C	M	Silt Loam	
18 - 24	7.5YR 4/4	90	7.5YR 4/6	10	C	M	Loamy Sand	gravelly
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)	☐ Dark Surface (S7)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)			
☐ Histic Epipedon (A2)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
☐ Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Polyvalue Below Surface (S8) (LRR K, L) Thin			
☐ Hydrogen Sulfide (A4)	☐ High Chroma Sands (S11) (LRR K, L)	☐ Dark Surface (S9) (LRR K, L)			
☐ Stratified Layers (A5)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)			
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)	☐ Red Parent Material (F21) (outside MLRA 145)			
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)			
☐ Mesic Spodic (A17) (MLRA 144A, 145, 149B)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)				
☐ Sandy Gleyed Matrix (S4)	☐ Marl (F10) (LRR K, L)				
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 145)				
☐ Stripped Matrix (S6)					

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

No hydric soil indicators observed.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: DAN25-020-01 Madison Spring City/County: Town of Vienna, Dane County Sampling Date: 2025-09-07
Applicant/Owner: Excel/Keller State: Wisconsin Sampling Point: T3B
Investigator(s): Chad M Fradette Section, Township, Range: S16 T9N R9E
Landform (hillside, terrace, etc.): Closed Depression Local relief (concave, convex, none): Concave Slope %: 0-2
Subregion (LRR or MLRA): L 95 Lat: 43.2506601 Long: -89.4252297 Datum: WGS 84
Soil Map Unit Name: EqA - Elburn silt loam, gravelly substratum, 0 to 3 percent slopes NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐ If yes, optional Wetland Site ID: _____
---	---

Remarks: (Explain alternative procedures here or in a separate report.)

Sample plot is in a shallow cattail marsh. The wetland boundary was set at the point where the F6 hydric soil indicator dropped out in the adjacent corn field. This was approximately where the slope percentage dropped from 2-3% to 1-2%, toeslope. The boundary was probed at regular intervals to make this determination. Flags were not left in the corn to prevent them from entering cattle feed. The boundary was continuously surveyed.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☒ 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)	<u>Secondary Indicators (minimum of two required)</u> ☐ 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 ☐ Depth (inches): <u>0-12</u> Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
--	---

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

Antecedent precipitation has been normal during the wet season. The drought index indicates mild wetness.

Remarks:

Wetland hydrology is met with four primary and four secondary indicators observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T3B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>100</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>100</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>100</u>	x 1 = <u>100</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>100</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ =Total Cover				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.																
_____ =Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Lemna minor</u>	<u>60</u>	☒	<u>OBL</u>																	
2. <u>Typha X glauca</u>	<u>40</u>	☒	<u>OBL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ =Total Cover				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.																
_____ =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				
_____ =Total Cover																				

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

Three hydrophytic vegetation indicators observed.

SOIL

Sampling Point T3B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 2/2	93	5YR 3/4	7	RM	M	Silt Loam	
12 - 18	10YR 4/4	95	7.5YR 4/6	5	C	M	Sandy Clay	
18 - 24	10YR 4/2	95	7.5YR 4/6	5	C	M	Loamy Sand	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
 ²Location: 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)
☐ Iron Monosulfide (A18)
☐ Mesic Spodic (A17)
 (MLRA 144A, 145, 149B)
☐ 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)**
☐ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:
☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
☐ 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)**
☐ Red Parent Material (F21) **(outside MLRA 145)**
☐ 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 ☒ No ☐

Remarks:

Hydric soil indicators F6 and F8 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T4A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>20</u>	☒	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>139</u> (A)</td> <td><u>592</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>139</u> (A)	<u>592</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>139</u> (A)	<u>592</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Cornus racemosa</u>	<u>1</u>		FAC																	
2. <u>Rhamnus cathartica</u>	<u>1</u>		FAC																	
3. <u>Rubus idaeus</u>	<u>1</u>		FAC																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>3</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bromus inermis</u>	<u>80</u>	☒	UPL	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>20</u>		FACW																	
3. <u>Solidago altissima</u>	<u>10</u>		FACU																	
4. <u>Solanum carolinense</u>	<u>5</u>		FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>115</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Smilax herbacea</u>	<u>1</u>		FAC	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>1</u>	=Total Cover																		

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

No hydrophytic vegetation indicators observed.

SOIL

Sampling Point T4A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 2/1	100					Silt Loam	
12 - 24	10YR 4/2	98	7.5YR 3/4	2	C	M	Silt	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)
(MLRA 144A, 145, 149B)

☐ 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)**

☐ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**

☐ 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)**

☐ Red Parent Material (F21) **(outside MLRA 145)**

☐ Very Shallow Dark Surface (F22)

☐ Other (Explain in Remarks)

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

Hydric soil indicator A12 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T4B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>110</u></td> <td>x 2 = <u>220</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>220</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>110</u>	x 2 = <u>220</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>220</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>110</u>	x 2 = <u>220</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>220</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>90</u>	☒	<u>FACW</u>																	
2. <u>Panicum dichotomiflorum</u>	<u>20</u>		<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>110</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				
=Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐																

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

Three hydrophytic vegetation indicators observed.

SOIL

Sampling Point **T4B****Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 17	10YR 2/1	100					Silt Loam	
17 - 22	10YR 4/1	97	7.5YR 3/4	3	C	M	Silt Loam	
22 - 28	10YR 4/2	98	7.5YR 3/4	2	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: 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)
☐ Iron Monosulfide (A18)
☐ Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
☐ 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**)
☐ Red Parent Material (F21) (**MLRA 145**)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ 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**)
☐ Red Parent Material (F21) (**outside MLRA 145**)
☐ 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: SiCDepth (inches): 22Hydric Soil Present? Yes ☒ No ☐

Remarks:

Layer 2 and 3 were combined to meet a depleted layer of more than 6 inches. Hydric soil indicator A12 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T5A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>85</u></td> <td>x 1 = <u>85</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>85</u></td> <td>(A) <u>85</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>85</u>	x 1 = <u>85</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>85</u>	(A) <u>85</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>85</u>	x 1 = <u>85</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>85</u>	(A) <u>85</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				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.																
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Alisma subcordatum</u>	<u>60</u>	☒	<u>OBL</u>																	
2. <u>Schoenoplectus tabernaemontani</u>	<u>20</u>	☒	<u>OBL</u>																	
3. <u>Ranunculus sceleratus</u>	<u>5</u>		<u>OBL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>85</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

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 ☐

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

Three hydrophytic vegetation indicators observed.

SOIL

Sampling Point T5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10YR 2/1	100					Silty Clay Loam	
14 - 24	5GY 5/	90	5YR 4/6	10	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)

☐ 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)

☐ Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)

☐ 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)

☐ Red Parent Material (F21) (outside MLRA 145)

☐ 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 ☒ No ☐

Remarks:

Hydric soil indicator A12 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T5B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>315</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.73</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>315</u> (B)	Prevalence Index = B/A = <u>2.73</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>115</u> (A)	<u>315</u> (B)																			
Prevalence Index = B/A = <u>2.73</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>30</u>	<u>✓</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>✓</u> <u>2</u> - Dominance Test is >50% <u>✓</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Cirsium arvense</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>																	
3. <u>Panicum dichotomiflorum</u>	<u>20</u>	<u>✓</u>	<u>FACW</u>																	
4. <u>Rumex crispus</u>	<u>20</u>	<u>✓</u>	<u>FAC</u>																	
5. <u>Echinochloa crus-galli</u>	<u>10</u>		<u>FAC</u>																	
6. <u>Erechtites hieraciifolia</u>	<u>10</u>		<u>FACU</u>																	
7. <u>Ranunculus sceleratus</u>	<u>5</u>		<u>OBL</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>115</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

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

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

Two hydrophytic vegetation indicators observed.

SOIL

Sampling Point T5B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 2/2	95	7.5YR 4/6	5	C	M	Silty Clay Loam	
12 - 16	5GY 5/	90	5YR 4/6	10	C	M	Silty Clay	
16 - 24	10YR 5/1	70	7.5YR 4/6	30	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

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

Hydric Soil Indicators:

☐ Histosol (A1)
 ☐ Dark Surface (S7)

☐ Histic Epipedon (A2)
 ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)

☐ Black Histic (A3)
 ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)

☐ Hydrogen Sulfide (A4)
 ☐ High Chroma Sands (S11) (**LRR K, L**)

☐ Stratified Layers (A5)
 ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)

☒ Depleted Below Dark Surface (A11)
 ☐ Loamy Gleyed Matrix (F2)

☐ Thick Dark Surface (A12)
 ☐ Depleted Matrix (F3)

☐ Iron Monosulfide (A18)
 ☒ Redox Dark Surface (F6)

☐ Mesic Spodic (A17) (**MLRA 144A, 145, 149B**)
 ☐ Depleted Dark Surface (F7)

☐ Sandy Mucky Mineral (S1)
 ☐ Redox Depressions (F8)

☐ Sandy Gleyed Matrix (S4)
 ☐ Marl (F10) (**LRR K, L**)

☐ Sandy Redox (S5)
 ☐ Red Parent Material (F21) (**MLRA 145**)

☐ Stripped Matrix (S6)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
 ☐ 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**)
 ☐ Red Parent Material (F21) (**outside MLRA 145**)
 ☐ 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 ☒ No ☐

Remarks:

Hydric soil indicators A11 and F6 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T5C**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>20</u>	☒	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>139</u> (A)</td> <td><u>592</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>139</u> (A)	<u>592</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
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UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>139</u> (A)	<u>592</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Cornus racemosa</u>	<u>1</u>		FAC																	
2. <u>Rhamnus cathartica</u>	<u>1</u>		FAC																	
3. <u>Rubus idaeus</u>	<u>1</u>		FAC																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>3</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bromus inermis</u>	<u>80</u>	☒	UPL	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>20</u>		FACW																	
3. <u>Solidago altissima</u>	<u>10</u>		FACU																	
4. <u>Solanum carolinense</u>	<u>5</u>		FACU																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>115</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Smilax herbacea</u>	<u>1</u>		FAC	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>1</u>	=Total Cover																		

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

Disturbed vegetation protocol was used, reviewed undisturbed vegetation in a similar landscape position. No hydrophytic vegetation indicators observed.

SOIL

Sampling Point T5C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix		Redox Features				Texture	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²			
0 - 12	10YR 2/2	100					Sandy Loam		
12 - 24	10YR 4/2	95	7.5YR 3/4	5	C	M	Sandy Clay		
-									
-									
-									
-									
-									
-									
-									
-									
-									
-									
-									
-									
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) ☐ Iron Monosulfide (A18) ☐ Mesic Spodic (A17) (MLRA 144A, 145, 149B) ☐ 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) ☐ Red Parent Material (F21) (MLRA 145)								Indicators for Problematic Hydric Soils³: ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B) ☐ 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) ☐ Red Parent Material (F21) (outside MLRA 145) ☐ 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 ____			
Remarks: Hydric soil indicator A11 observed.									

VEGETATION – Use scientific names of plants.

 Sampling Point: **T6A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>55</u></td> <td>x 1 = <u>55</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>195</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.85</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>55</u>	x 1 = <u>55</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>105</u> (A)	<u>195</u> (B)	Prevalence Index = B/A = <u>1.85</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>55</u>	x 1 = <u>55</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>105</u> (A)	<u>195</u> (B)																			
Prevalence Index = B/A = <u>1.85</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bidens cernua</u>	<u>30</u>	☒	<u>OBL</u>																	
2. <u>Echinochloa crus-galli</u>	<u>20</u>	☒	<u>FAC</u>																	
3. <u>Penthorum sedoides</u>	<u>20</u>	☒	<u>OBL</u>																	
4. <u>Rumex crispus</u>	<u>20</u>	☒	<u>FAC</u>																	
5. <u>Panicum dichotomiflorum</u>	<u>10</u>		<u>FACW</u>																	
6. <u>Ranunculus sceleratus</u>	<u>5</u>		<u>OBL</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>105</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				

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

Two hydrophytic vegetation indicators observed.

SOIL

Sampling Point T6A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 2/2	95	7.5YR 3/4	5	C	M	Silt Loam	
6 - 12	10YR 2/1	100					Silt Loam	
12 - 24	10YR 4/1	97	5YR 3/4	3	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
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)			☐ Dark Surface (S7)			Indicators for Problematic Hydric Soils³:		
☐ Histic Epipedon (A2)			☐ Polyvalue Below Surface (S8) (LRR R,			☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)		
☐ Black Histic (A3)			MLRA 149B)			☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
☐ Hydrogen Sulfide (A4)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)			☐ Polyvalue Below Surface (S8) (LRR K, L) Thin		
☐ Stratified Layers (A5)			☐ High Chroma Sands (S11) (LRR K, L)			☐ Dark Surface (S9) (LRR K, L)		
☐ Depleted Below Dark Surface (A11)			☐ Loamy Mucky Mineral (F1) (LRR K, L)			☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
☒ Thick Dark Surface (A12)			☐ Loamy Gleyed Matrix (F2)			☐ Piedmont Floodplain Soils (F19) (MLRA 149B)		
☐ Iron Monosulfide (A18)			☐ Depleted Matrix (F3)			☐ Red Parent Material (F21) (outside MLRA 145)		
☐ Mesic Spodic (A17)			☒ Redox Dark Surface (F6)			☐ Very Shallow Dark Surface (F22)		
(MLRA 144A, 145, 149B)			☐ Depleted Dark Surface (F7)			☐ Other (Explain in Remarks)		
☐ Sandy Mucky Mineral (S1)			☐ Redox Depressions (F8)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
☐ Sandy Gleyed Matrix (S4)			☐ Marl (F10) (LRR K, L)					
☐ Sandy Redox (S5)			☐ Red Parent Material (F21) (MLRA 145)					
☐ Stripped Matrix (S6)								
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes ☒ No ☐		
Remarks:								
Hydric soil indicators A23 and F6 observed.								

VEGETATION – Use scientific names of plants.

 Sampling Point: **T6B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>20</u>	☒	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>139</u> (A)</td> <td><u>592</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>139</u> (A)	<u>592</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>139</u> (A)	<u>592</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Cornus racemosa</u>	<u>1</u>		<u>FAC</u>																	
2. <u>Rhamnus cathartica</u>	<u>1</u>		<u>FAC</u>																	
3. <u>Rubus idaeus</u>	<u>1</u>		<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>3</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bromus inermis</u>	<u>80</u>	☒	<u>UPL</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>20</u>		<u>FACW</u>																	
3. <u>Solidago altissima</u>	<u>10</u>		<u>FACU</u>																	
4. <u>Solanum carolinense</u>	<u>5</u>		<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>115</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Smilax herbacea</u>	<u>1</u>		<u>FAC</u>	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>1</u>	=Total Cover																		

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

Disturbed vegetation protocol was used, reviewed undisturbed vegetation in a similar landscape position. No hydrophytic vegetation indicators observed.

SOIL

Sampling Point T6B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 2/2	100					Sandy Loam	
10 - 24	10YR 4/2	93	7.5YR 3/4	7	C	M	Sandy Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)	☐ Dark Surface (S7)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)			
☐ Histic Epipedon (A2)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
☐ Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Polyvalue Below Surface (S8) (LRR K, L) Thin			
☐ Hydrogen Sulfide (A4)	☐ High Chroma Sands (S11) (LRR K, L)	☐ Dark Surface (S9) (LRR K, L)			
☐ Stratified Layers (A5)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
☒ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)			
☐ Thick Dark Surface (A12)	☒ Depleted Matrix (F3)	☐ Red Parent Material (F21) (outside MLRA 145)			
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)			
☐ Mesic Spodic (A17)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)			
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)				
☐ Sandy Gleyed Matrix (S4)	☐ Marl (F10) (LRR K, L)				
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 145)				
☐ Stripped Matrix (S6)					

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☒ No ☐

Remarks:

Hydric soil indicators A11 and F3 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T7A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>85</u></td> <td>x 3 = <u>255</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>335</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.79</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>85</u>	x 3 = <u>255</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>335</u> (B)	Prevalence Index = B/A = <u>2.79</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>30</u>	x 2 = <u>60</u>																			
FAC species <u>85</u>	x 3 = <u>255</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>120</u> (A)	<u>335</u> (B)																			
Prevalence Index = B/A = <u>2.79</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Echinochloa crus-galli</u>	<u>80</u>	☒	<u>FAC</u>																	
2. <u>Panicum dichotomiflorum</u>	<u>30</u>	☒	<u>FACW</u>																	
3. <u>Erechtites hieraciifolia</u>	<u>5</u>		<u>FACU</u>																	
4. <u>Rumex crispus</u>	<u>5</u>		<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>120</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				
Hydrophytic Vegetation Present? Yes ☒ No _____																				

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

Field is covered in weeds. Two hydrophytic vegetation indicators observed.

SOIL

Sampling Point T7A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10YR 3/1	93	7.5YR 3/4	7	C	PL/M	Silty Clay Loam	
14 - 24	10YR 5/1	90	7.5YR 4/6	10	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)	☐ Dark Surface (S7)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)			
☐ Histic Epipedon (A2)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
☐ Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Polyvalue Below Surface (S8) (LRR K, L) Thin			
☐ Hydrogen Sulfide (A4)	☐ High Chroma Sands (S11) (LRR K, L)	☐ Dark Surface (S9) (LRR K, L)			
☐ Stratified Layers (A5)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)			
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)	☐ Red Parent Material (F21) (outside MLRA 145)			
☐ Iron Monosulfide (A18)	☒ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)			
☐ Mesic Spodic (A17)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)			
☐ (MLRA 144A, 145, 149B)	☐ Redox Depressions (F8)				
☐ Sandy Mucky Mineral (S1)	☐ Marl (F10) (LRR K, L)				
☐ Sandy Gleyed Matrix (S4)	☐ Red Parent Material (F21) (MLRA 145)				
☐ Sandy Redox (S5)					
☐ Stripped Matrix (S6)					

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes ☒ No ☐

Remarks:

Hydric soil indicator F6 observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T7B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>20</u>	☒	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>139</u> (A)</td> <td><u>592</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>139</u> (A)	<u>592</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>139</u> (A)	<u>592</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Cornus racemosa</u>	<u>1</u>		<u>FAC</u>																	
2. <u>Rhamnus cathartica</u>	<u>1</u>		<u>FAC</u>																	
3. <u>Rubus idaeus</u>	<u>1</u>		<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>3</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bromus inermis</u>	<u>80</u>	☒	<u>UPL</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>20</u>		<u>FACW</u>																	
3. <u>Solidago altissima</u>	<u>10</u>		<u>FACU</u>																	
4. <u>Solanum carolinense</u>	<u>5</u>		<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>115</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Smilax herbacea</u>	<u>1</u>		<u>FAC</u>	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>1</u>	=Total Cover																		

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

Disturbed vegetation protocol was used, reviewed undisturbed vegetation in a similar landscape position. No hydrophytic vegetation indicators observed.

SOIL

Sampling Point **T7B**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 2/2	100					Sandy Loam	
12 - 18	10YR 2/2	95	7.5YR 3/4	5	C	M	Sandy Loam	
18 - 24	10YR 4/2	97	7.5YR 3/4	3	C	M	Sandy Loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

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

Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :		
☐ Histosol (A1)	☐ Dark Surface (S7)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)			
☐ Histic Epipedon (A2)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
☐ Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Polyvalue Below Surface (S8) (LRR K, L) Thin			
☐ Hydrogen Sulfide (A4)	☐ High Chroma Sands (S11) (LRR K, L)	☐ Dark Surface (S9) (LRR K, L)			
☐ Stratified Layers (A5)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
☐ Depleted Below Dark Surface (A11)	☐ Loamy Gleyed Matrix (F2)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)			
☐ Thick Dark Surface (A12)	☐ Depleted Matrix (F3)	☐ Red Parent Material (F21) (outside MLRA 145)			
☐ Iron Monosulfide (A18)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)			
☐ Mesic Spodic (A17)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)			
☐ (MLRA 144A, 145, 149B)	☐ Redox Depressions (F8)				
☐ Sandy Mucky Mineral (S1)	☐ Marl (F10) (LRR K, L)				
☐ Sandy Gleyed Matrix (S4)	☐ Red Parent Material (F21) (MLRA 145)				
☐ Sandy Redox (S5)					
☐ Stripped Matrix (S6)					

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 _____ No ☒
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Remarks:

No hydric soil indicators observed.

VEGETATION – Use scientific names of plants.

Sampling Point: **T8A**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>20</u>	☒	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>4</u></td> <td>x 3 = <u>12</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species <u>80</u></td> <td>x 5 = <u>400</u></td> </tr> <tr> <td>Column Totals: <u>139</u> (A)</td> <td><u>592</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.25</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>4</u>	x 3 = <u>12</u>	FACU species <u>35</u>	x 4 = <u>140</u>	UPL species <u>80</u>	x 5 = <u>400</u>	Column Totals: <u>139</u> (A)	<u>592</u> (B)	Prevalence Index = B/A = <u>4.25</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>20</u>	x 2 = <u>40</u>																			
FAC species <u>4</u>	x 3 = <u>12</u>																			
FACU species <u>35</u>	x 4 = <u>140</u>																			
UPL species <u>80</u>	x 5 = <u>400</u>																			
Column Totals: <u>139</u> (A)	<u>592</u> (B)																			
Prevalence Index = B/A = <u>4.25</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Cornus racemosa</u>	<u>1</u>	_____	<u>FAC</u>																	
2. <u>Rhamnus cathartica</u>	<u>1</u>	_____	<u>FAC</u>																	
3. <u>Rubus idaeus</u>	<u>1</u>	_____	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>3</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Bromus inermis</u>	<u>80</u>	☒	<u>UPL</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	<u>20</u>	_____	<u>FACW</u>																	
3. <u>Solidago altissima</u>	<u>10</u>	_____	<u>FACU</u>																	
4. <u>Solanum carolinense</u>	<u>5</u>	_____	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>115</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Smilax herbacea</u>	<u>1</u>	_____	<u>FAC</u>	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.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>1</u>	=Total Cover																		
Hydrophytic Vegetation Present?																				
Yes <u>_____</u> No ☒																				

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

Disturbed vegetation protocol was used, reviewed undisturbed vegetation in a similar landscape position. No hydrophytic vegetation indicators observed.

SOIL

Sampling Point T8A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 3/2	100					Loamy Sand	
8 - 12	10YR 3/2	95	7.5YR 3/4	5	C	M	Loamy Sand	
12 - 24	10YR 5/3	97	7.5YR 3/4	3	C	M	Loamy Sand	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)
(MLRA 144A, 145, 149B)

☐ 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)**

☐ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**

☐ 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)**

☐ Red Parent Material (F21) **(outside MLRA 145)**

☐ 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 _____ No ☒
---	--

Remarks:

No hydric soil indicators observed.

VEGETATION – Use scientific names of plants.

 Sampling Point: **T8B**

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>295</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.68</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>65</u>	x 3 = <u>195</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>295</u> (B)	Prevalence Index = B/A = <u>2.68</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>65</u>	x 3 = <u>195</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>295</u> (B)																			
Prevalence Index = B/A = <u>2.68</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
=Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Echinochloa crus-galli</u>	<u>60</u>	☒	<u>FAC</u>																	
2. <u>Panicum dichotomiflorum</u>	<u>40</u>	☒	<u>FACW</u>																	
3. <u>Erechtites hieraciifolia</u>	<u>5</u>		<u>FACU</u>																	
4. <u>Rumex crispus</u>	<u>5</u>		<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>110</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover				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.																
=Total Cover																				
=Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐																

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

Field is covered in weeds. Two hydrophytic vegetation indicators observed.

SOIL

Sampling Point T8B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 14	10YR 2/2	93	7.5YR 3/4	7	C	PL/M	Sandy Loam	
14 - 24	10YR 4/1	90	7.5YR 4/6	10	C	M	Sandy Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

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)

☐ Iron Monosulfide (A18)

☐ Mesic Spodic (A17)
(MLRA 144A, 145, 149B)

☐ 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)**

☐ Red Parent Material (F21) **(MLRA 145)**

²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**

☐ 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)**

☐ Red Parent Material (F21) **(outside MLRA 145)**

☐ 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 ☒ No _____

Remarks:

Hydric soil indicator F6 observed.