Dane County Rezone & Conditional Use Permit

Application Date	Petition Number
12/08/2017	DCPREZ-2017-11244
Public Hearing Date	**C.U.P. Number**
02/27/2018	

OWNER INFORMATION		AGENT INFORMATION	
OWNER NAME PETE ANDRINGA	PHONE (with Area Code) (608) 839-5446	AGENT NAME JUSTIN LESSNER	PHONE (with Area Code) (608) 692-6912
BILLING ADDRESS (Number & Street) 2424 NORA RD		ADDRESS (Number & Street) 4532 SCENIC VIEW RD	
(City, State, Zip) COTTAGE GROVE, WI 53527		(City, State, Zip) WINDSOR, WI 53598	
E-MAIL ADDRESS		E-MAIL ADDRESS LESSNERJ@GMAIL.COM	

ADDRESS/LOCATION 1		ADDRESS/LOCATION 2		ADDRESS/LOCATION 3	
ADDRESS OR LOCATION OF REZONE/CUP		**ADDRESS OR LOCATION OF REZONE/CUP**		**ADDRESS OR LOCATION OF REZONE/CUP**	
RIDGE RD					
TOWNSHIP COTTAGE GROVE	SECTION 23	TOWNSHIP	SECTION	TOWNSHIP	SECTION
PARCEL NUMBERS INVOLVED		**PARCEL NUMBERS INVOLVED**		**PARCEL NUMBERS INVOLVED**	
0711-231-8500-3					

REASON FOR REZONE	CUP DESCRIPTION
CREATING ONE RESIDENTIAL LOT	

FROM DISTRICT:	TO DISTRICT:	ACRES	DANE COUNTY CODE OF ORDINANCE SECTION	ACRES
A-1Ex Exclusive Ag District	A-2 (4) Agriculture District	4.56		

C.S.M REQUIRED?	PLAT REQUIRED?	DEED RESTRICTION REQUIRED?	INSPECTOR'S INITIALS
☑ Yes ☐ No	☐ Yes ☑ No	☐ Yes ☑ No	HJH3
Applicant Initials JL	Applicant Initials JL	Applicant Initials JL	

SIGNATURE: (Owner or Agent)

PRINT NAME: Justin Lessner

DATE: 12/6/17

Form Version 03.00.03

DANE COUNTY
PLANNING DEVELOPMENT

Zoning Change Application

Zoning Division
Room 116, City-County Building
210 Martin Luther King Jr. Blvd.
Madison, Wisconsin 53703-3342
Phone: (608) 266-4266
Fax: (608) 267-1540

Items that must be submitted with your application:

- **Written Legal Description of the proposed Zoning Boundaries**
  Legal description of the land that is proposed to be changed. The description may be a lot in a plat, Certified Survey Map, or an exact metes and bounds description. A separate legal description is required for each zoning district proposed. The description shall include the area in acres or square feet.

- **Scaled Drawing of the location of the proposed Zoning Boundaries**
  The drawing shall include the existing and proposed zoning boundaries of the property. All existing buildings shall be shown on the drawing. The drawing shall include the area in acres or square feet.

Owner's Name: Peter Andringa
Address: 2424 Nora Rd. Cottage Grove WI, 53527
Phone: 608-839-5446
Email:

Agent's Name: Justin & Sara Lessner
Address: 4532 Scenic View Rd. Windsor, WI 53598
Phone: 608-692-6912 / 608-444-3301
Email: Lessnerj@gmail.com
Sarajean87@gmail.com

Town: Cottage Grove Parcel numbers affected: 0711-231-8500-3

Section: 01 Property address or location: 1943 Ridge Rd. Cottage Grove

Zoning District change: (To / From / # of acres) From A1 EX TO A2 / 4 acres

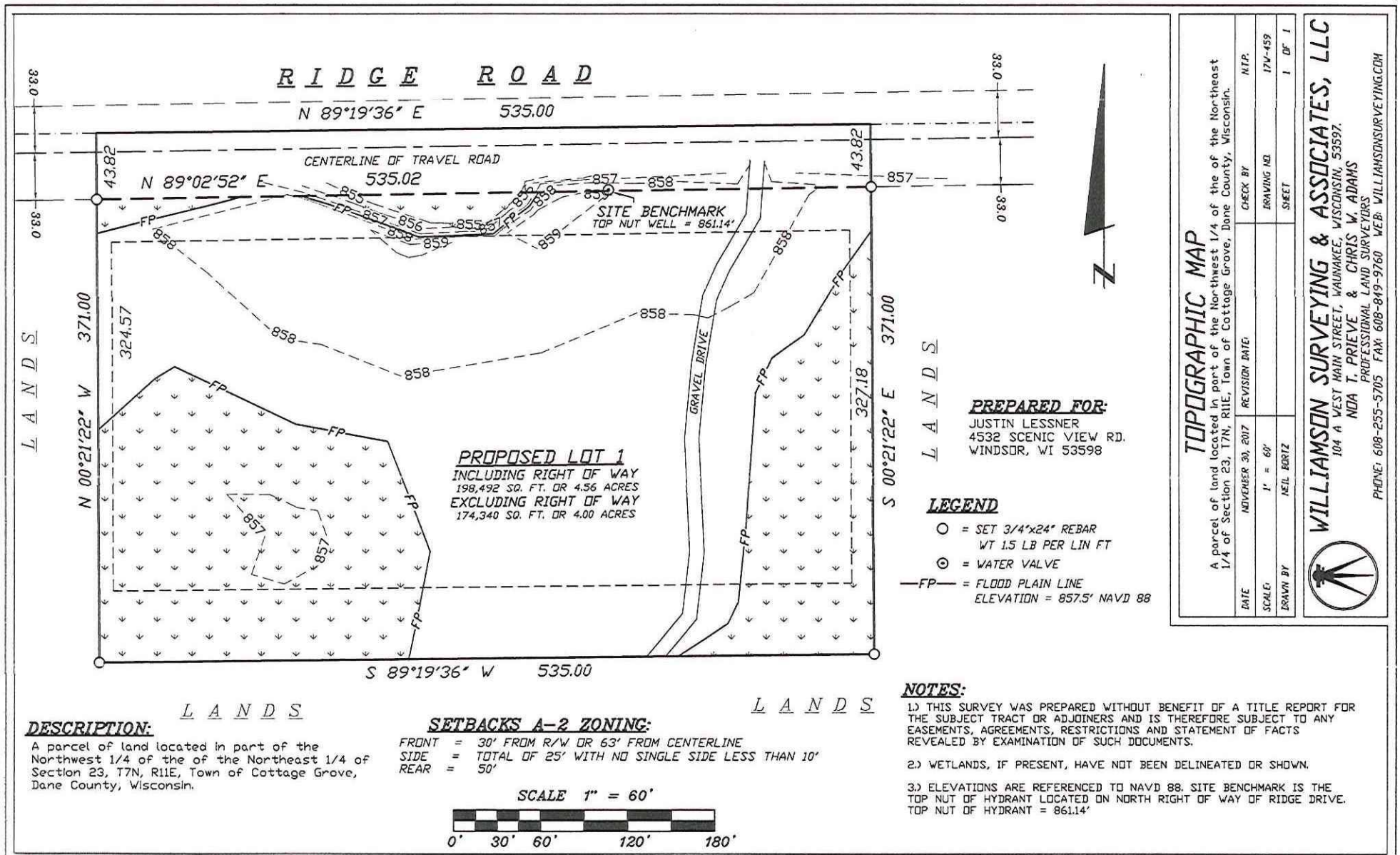
Soil classifications of area (percentages) Class I soils: ____% Class II soils: ____% Other: ____ %

Narrative: (reason for change, intended land use, size of farm, time schedule)

- ○ Separation of buildings from farmland
- ○ Creation of a residential lot
- ○ Compliance for existing structures and/or land uses
- ⊙ Other:

Land use: Home and out building

I authorize that I am the owner or have permission to act on behalf of the owner of the property.
Submitted By: _____ Date: 12/8/17



TOPOGRAPHIC MAP

A parcel of land located in part of the Northwest 1/4 of the of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin.

DATE	NOVEMBER 30, 2017	CHECK BY	N.T.P.
SCALE:	1" = 60'	DRAWING NO	17V-459
DRAWN BY	NEIL BORTZ	SHEET	1 OF 1

WILLIAMSON SURVEYING & ASSOCIATES, LLC
104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597.
NOA T. PRIEVE & CHRIS W. ADAMS
PROFESSIONAL LAND SURVEYORS
PHONE: 608-255-5705 FAX: 608-849-9760 WEB: WILLIAMSONSURVEYING.COM

PREPARED FOR:
JUSTIN LESSNER
4532 SCENIC VIEW RD.
WINDSOR, WI 53598

LEGEND

- ○ = SET 3/4"x24" REBAR WT 1.5 LB PER LIN FT
- ⊙ = WATER VALVE
- —FP— = FLOOD PLAIN LINE ELEVATION = 857.5' NAVD 88

DESCRIPTION:

A parcel of land located in part of the Northwest 1/4 of the of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin.

SETBACKS A-2 ZONING:

FRONT = 30' FROM R/W OR 63' FROM CENTERLINE
SIDE = TOTAL OF 25' WITH NO SINGLE SIDE LESS THAN 10'
REAR = 50'

SCALE 1" = 60'

0' 30' 60' 120' 180'

NOTES:

1.) THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT FOR THE SUBJECT TRACT OR ADJOINERS AND IS THEREFORE SUBJECT TO ANY EASEMENTS, AGREEMENTS, RESTRICTIONS AND STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS.

2.) WETLANDS, IF PRESENT, HAVE NOT BEEN DELINEATED OR SHOWN.

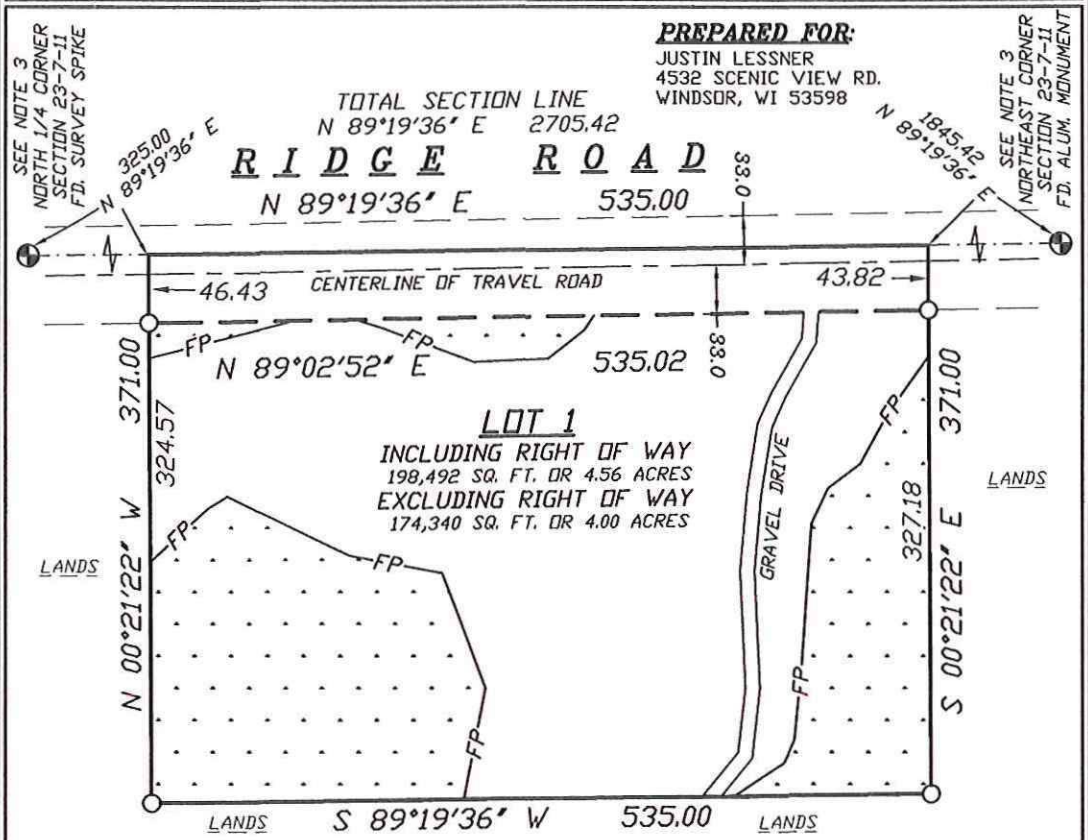
3.) ELEVATIONS ARE REFERENCED TO NAVD 88. SITE BENCHMARK IS THE TOP NUT OF HYDRANT LOCATED ON NORTH RIGHT OF WAY OF RIDGE DRIVE. TOP NUT OF HYDRANT = 861.14'

CERTIFIED SURVEY MAP

WILLIAMSON SURVEYING AND ASSOCIATES, LLC
NOA T. PRIEVE & CHRIS W. ADAMS, PROFESSIONAL LAND SURVEYORS
104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597 PHONE: 608-255-5705

Located In part of the Northwest 1/4 of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin.

PREPARED FOR:
JUSTIN LESSNER
4532 SCENIC VIEW RD.
WINDSOR, WI 53598



NOTES:

1.) THIS SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT FOR THE SUBJECT TRACT OR ADJOINERS AND IS THEREFORE SUBJECT TO ANY EASEMENTS, AGREEMENTS, RESTRICTIONS AND STATEMENT OF FACTS REVEALED BY EXAMINATION OF SUCH DOCUMENTS.

2.) WETLANDS, IF PRESENT, HAVE NOT BEEN DELINEATED OR SHOWN.

3.) ALL SECTION CORNER TIES WERE VERIFIED FOR THE NORTH 1/4 CORNER AND THE NORTHWEST CORNER OF SECTION 23, T7N, R11E.

LEGEND

○ = SET 3/4"x24" REBAR WT 1.5 LB PER LIN FT

⊕ = FOUND DANE COUNTY SECTION CORNER (AS NOTED)

—FP— = FLOOD PLAIN LINE ELEVATION = 857.5' NAVD 88

SCALE 1" = 100'

0' 50' 100' 200' 300'

BEARINGS ARE REFERENCED TO THE NORTH LINE OF THE NE 1/4 OF SECTION 23-7-11 LINE TO BEAR N N 89°19'36" E

N

DOCUMENT NO._____

CERTIFIED SURVEY MAP NO._____

SURVEYORS SEAL

PRELIMINARY ONLY FOR REVIEW

17W-459

CERTIFIED SURVEY MAP

WILLIAMSON SURVEYING AND ASSOCIATES, LLC
NOA T. PRIEVE & CHRIS W. ADAMS, PROFESSIONAL LAND SURVEYORS
104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597 PHONE: 608-255-5705

Located In part of the Northwest 1/4 of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin.

SURVEYOR'S CERTIFICATE

I, Noa T. Prieve, Professional Land Surveyor hereby certify that this survey is correct to the best of the professional surveyor's knowledge and belief and is in full compliance with the provisions of Chapter A-E 7 and Chapter 236.34 Wisconsin Statutes, the subdivision regulations of Dane County, and by the direction of the owners listed below, I have surveyed, divided, and mapped a correct representation of the exterior boundaries of the land surveyed and the division of that land, being part of the Northwest 1/4 of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin, more particularly described as follows:

Commencing at the North 1/4 corner of said Section 23; thence N 89°19'36' E along the North line of the Northeast 1/4, 325.00 feet to the point of beginning.

thence continue N 89°19'36' E along said North line, 535.00 feet; thence S 00°21'22' E, 371.00 feet; thence S 89°19'36' W, 535.00 feet; thence N 00°21'22' W, 371.00 feet to the point of beginning. This parcel contains 198,482 sq. ft. or 4.56 acres and is subject to a road right of way over the northerly side thereof.

Williamson Surveying and Associates, LLC
by Noa T. Prieve & Chris W. Adams

Date_____

_____
Noa T. Prieve S-2499
Professional Land Surveyor

OWNERS' CERTIFICATE:

As owner, We hereby certify that we caused the land described on this certified survey map to be surveyed, divided and mapped as represented on the certified survey map. We also certify that this certified survey map is required by sec. 75.17(1)(a), Dane County Code of Ordinances, to be submitted to the Dane County Zoning and Land Regulation Committee for approval.

WITNESS the hand seal of said owners this _____day of_____,20___.

_____ _____
Justin R. Lessner Sara J. Lessner

STATE OF WISCONSIN)
DANE COUNTY)

Personally came before me this _____ day of _____, 20___ the above named Justin R. Lessner and Sara J. Lessner to me known to be the person who executed the foregoing instrument and acknowledge the same.

_____County, Wisconsin.

My commission expires _____

_____
Notary Public

_____
Print Name

SURVEYORS SEAL

PRELIMINARY ONLY FOR REVIEW

17W-459

CERTIFIED SURVEY MAP

WILLIAMSON SURVEYING AND ASSOCIATES, LLC
NOA T. PRIEVE & CHRIS W. ADAMS, PROFESSIONAL LAND SURVEYORS
104 A WEST MAIN STREET, WAUNAKEE, WISCONSIN, 53597 PHONE: 608-255-5705

Located In part of the Northwest 1/4 of the Northeast 1/4 of Section 23, T7N, R11E, Town of Cottage Grove, Dane County, Wisconsin.

TOWN BOARD RESOLUTION

Resolved that this certified survey map is hereby acknowledged and approved by the Town of Cottage Grove on this _____day of _____, 20___.

_____
Kim Banigan
Town Clerk

NOTE:

REFER TO BUILDING SITE INFORMATION CONTAINED IN THE DANE COUNTY SOIL SURVEY.

DANE COUNTY APPROVAL

Approved for recording per Dane County Zoning and Land Regulation Committee action on _____.

_____
Daniel Everson
Assistant Zoning Administrator

REGISTER OF DEEDS:

Received for recording this ___ day of _____, 20___ at ___ o'clock ___.M. and recorded In Volume _____ of Dane County Certified Surveys on pages _____ through _____.

_____
Kristi Chlebowski
Register of Deeds

*DOCUMENT NO.*_____

*CERTIFIED SURVEY MAP NO.*_____

Sheet 3 of 3

SURVEYORS SEAL

PRELIMINARY ONLY FOR REVIEW

17W-459

Assured Wetland Delineation Report

Ridge Road
Town of Cottage Grove,
Dane County, Wisconsin
Stantec Project #: 193705554
Lead Delineator: Jeff Kraemer

Stantec

Prepared for:
Justin and Sara Lessner
4532 Scenic View Road
Windsor, WI 53598

Prepared by:
Stantec Consulting Services Inc.
209 Commerce Parkway,
PO Box 128
Cottage Grove, Wisconsin 53527
Phone: (608) 839-1998
Fax: (608) 839-1995

November 27, 2017

Sign-off Sheet

This document entitled Assured Wetland Delineation Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Justin and Sara Lessner (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by Kate Remus
(signature)

Kate Remus, Environmental Scientist, WPIT

Reviewed by
(signature)

Joshua Sulman, Environmental Scientist

Reviewed by
(signature)

Jeff Kraemer, Principal

Table of Contents

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) performed a wetland determination and delineation of a 40-acre parcel on Ridge Road (the "Study Area") on behalf of Justin and Sara Lessner. A preliminary wetland determination was completed for the Study Area in April 2017 by Joshua Sulman of Stantec. The wetland delineation was led by Jeff Kraemer of Stantec, an assured delineator qualified via the Wisconsin Department of Natural Resources (WDNR) Wetland Delineation Assurance Program, on September 20, 2017 (see Appendix E for Delineator Qualifications).

The Study Area is located in Section 23, Township 7 North, Range 11 East, Town of Cottage Grove, Dane County, Wisconsin. Specifically, the Study Area is located south of Ridge Road, southeast of the intersection of Ridge Road and Savage Court. The purpose and objective of the wetland determination and delineation was to identify the extent and spatial arrangement of wetlands within the Study Area. Three wetland areas were identified within the Study Area.

Wetlands and waterways may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of the Wisconsin DNR, and local regulation under jurisdiction of the local county, town, city, or village. Stantec recommends this report be submitted to local authorities, the WDNR, and USACE for final jurisdictional review and concurrence. Delineations completed by a WDNR Assured Delineator do not need to obtain WDNR concurrence.

2.0 METHODS

2.1 WETLANDS

Wetland determinations were based on the criteria and methods outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (1987) and subsequent guidance documents, and applicable Regional Supplements to the *Corps of Engineers Wetland Delineation Manual*.

The wetland determination involved the use of available resources to assist in the assessment such as U.S. Geological Survey (USGS) topographic maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, WDNR Wisconsin Wetland Inventory (WWI) mapping, and aerial photography.

On-site wetland determinations were made using the three criteria (vegetation, soil, and hydrology) and technical approach defined in the USACE 1987 Manual and applicable Regional Supplement. According to procedures described in the 1987 Manual and applicable Regional Supplement, areas that under normal circumstances reflect a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands.

As recent weather patterns influence the visibility and presence of some wetland hydrology indicators, the antecedent precipitation in the three months leading up to the field investigation was reviewed. The current year's precipitation data were compared to long-term (30-year) precipitation averages and standard deviation to determine if precipitation was normal, wet, or dry for the area using a WETS analysis as developed by the NRCS.

3.0 RESULTS

3.1 SITE DESCRIPTION

The Study Area is comprised of upland woodland, wooded wetland, and wet meadow wetland. The Study Area is relatively flat, sloping to the southeast from topographic highs of approximately 860 feet mean sea level (msl) in the northwest corner of the site to approximately 854 feet msl in the southeast corner. The Study Area is bordered by Ridge Road to the north; additional wetland to the east and south; and an active agricultural field to the west.

Soils present within the Study Area and their hydric status are summarized in Table 1. Wetlands identified during the field investigation are located primarily within areas mapped as hydric, very poorly drained and partially hydric, somewhat poorly drained soils (Appendix A, Figures 2 and 3).

Table 1. Summary of Soils Identified within the Study Area

Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
Ad: Adrian muck	Adrian	100	Depressions on stream terraces	Yes
HaA: Hayfield silt loam, 0 to 3 percent slopes	Hayfield	100	Outwash plains	No
	Marshan		Depressions	Yes
Ho: Houghton muck	Houghton	100	Depressions on stream terraces	Yes

The WWI map identifies one wetland area within the approximate southeast half of the Study Area; the WWI wetland extends beyond the Study Area to the south and east (Appendix A, Figure 4). The field delineated southeastern wetland (W-1) is located within the same vicinity as the wetland area identified on the WWI map. The field delineated northwestern wetland (W-2) and north wetland (W-3) are not identified on the WWI map (Appendix A, Figure 5).

Average precipitation for the investigation area was obtained from the Dane County Regional Airport weather station and used for the WETS analysis. A total of 17.10 inches of precipitation occurred from June 1 – August 31, 2017 compared to the long-term average of 12.73. Based on the WETS analysis, conditions were wetter than normal from June – August 2017(Appendix D). However, only 0.16 inch of precipitation was received from September 1 – September 19 prior to the field investigation on September 20, 2017. Climatic conditions were drier than normal in the first half of September, likely affecting hydrologic conditions on site during the field investigation.

3.2 WETLANDS

Three wetlands were identified and delineated within the Study Area. Wetland determination data forms were completed for eight sample points along transects through the wetlands and adjacent uplands and are contained in Appendix B. Photographs of the wetlands and

adjacent lands are contained in Appendix C. The wetland boundary and sample point locations are shown on Figure 5 (Appendix A). The wetlands are summarized in Table 2 below and described in detail in the following sections.

Table 2. Summary of Wetlands Identified within the Study Area

Wetland	Wetland Type (WWI Class)	Adjacent Surface Waters	Acreage (on-site)
Wetland 1 (W-1)	Wet meadow, shrub-carr (E1K, E1H, E1K, T3K)	Unnamed tributary that connects to Koshkonong Creek	26.58 acres
Wetland 2 (W-2)	Wooded wetland	No direct inlets or outlets observed.	2.22 acres
Wetland 3 (W-3)	Wet meadow	Connected via culvert to wetland north of Ridge Road.	0.03 acre

3.2.1 Wetland 1

Wetland 1 (W-1) is part of an extensive wetland complex that continues beyond the Study Area to the southwest, south, and east and includes wet meadow, sedge meadow, shrub-carr, and hardwood swamp communities. W-1 is directly connected to an unnamed ditched perennial tributary that flows north and connects to Koshkonong Creek. The perennial tributary is located along the entire eastern boundary and east half of the southern boundary of the Study Area and is identified on the 24k hydro layer mapped by USGS (Appendix A, Figure 1) and visible in the WDNR 24k hydrography layer (Appendix A, Figure 4).

Vegetation

Dominant plant species identified at sample points completed within W-1 consist of reed canary grass (*Phalaris arundinacea*, FACW), big bluestem (*Andropogon gerardii*, FACU), prairie cordgrass (*Spartina pectinata*, FACW), Canadian clearweed (*Pilea pumila*, FACW), gray dogwood (*Cornus racemosa*, FAC), and box elder (*Acer negundo*, FAC). Other common species identified in the wetland are listed on the data forms contained in Appendix B. The dominant species within the wetland are comprised mostly of hydrophytic vegetation (OBL, FACW, and/or FAC) and meet the hydrophytic vegetation criterion.

Hydrology

The wetland appears to have a seasonally saturated hydroperiod along the outer margin and a seasonally inundated/perennially saturated hydroperiod within the central part of the wetland. Primary indicators of hydrology were not observed during the field investigation; however, secondary indicators of wetland hydrology observed included Geomorphic Position (D2) and a positive FAC-Neutral Test (D5). Therefore, the wetland hydrology criterion was met.

Soils

Soils within the wetland are mapped by the NRCS as Adrian muck (Ad), Houghton muck (Ho), and Hayfield silt loam (HaA) (Appendix A, Figure 2). The soils observed at the sample points were generally consistent with the Hayfield series characteristics as silty clay loam textures were observed. Field indicators of hydric soil identified at sample points within W-1 consisted of NRCS

field Indicators A11-Depleted Below Dark Surface and F3-Depleted Matrix. Therefore, the hydric soil criterion was satisfied.

Wetland Boundary
The wetland boundary was determined based on distinct differences in vegetation, hydrology, soils, and topography consisting of the following: 1) Transition from a wet meadow wetland community or shrub-carr community dominated by hydrophytes to a mesic woodland upland community generally dominated by non-hydrophytes including bur oak (*Quercus macrocarpa*, FACU), black cherry (*Prunus serotina*, FACU), invasive honeysuckle (*Lonicera x bella*, FACU), common buckthorn (*Rhamnus cathartica*, FAC), and timothy (*Phleum pretense*, FACU); 2) Transition from an area exhibiting wetland hydrology indicators within the wetland to a lack of wetland hydrology indicators within the adjacent upland; and 3) Transition from soils exhibiting hydric soil indicators to soils lacking indicators of hydric soil conditions. Sample point P-1 did meet NRCS hydric soil indicator A11-Depleted Below Dark Surface, but the higher topography, lack of wetland hydrology, and lack of dominance by hydrophytic vegetation supports the upland determination. The transition from wetland to upland characteristics generally correlated with a subtle topographic break.

3.2.2 Wetland 2

Wetland 2 (W-2) is a seasonally inundated shallow depression within the wooded portion of the Study Area. W-2 appears to be isolated and no direct surface water connections were observed in the field and none are identified on the 24k hydro layer mapped by USGS (Appendix A, Figure 1) or the WDNR 24k hydrography layer (Appendix A, Figure 4).

Vegetation
Dominant plant species identified at sample points completed within W-2 consist of quaking aspen (*Populus tremuloides*, FAC), common buckthorn (FAC), and white avens (*Geum canadense*, FAC). Other common species identified in the wetland are listed on the data forms contained in Appendix B. The dominant species within the wetland are comprised mostly of hydrophytic vegetation (OBL, FACW, and/or FAC) and meet the hydrophytic vegetation criterion.

Hydrology
The wetland appears to have a seasonally saturated hydroperiod at the margin with seasonal inundation in the central portion of the wetland. No primary indicators of wetland hydrology were observed during the September 2017 field investigation, but during the wetland determination field visit completed in April 2017, Surface Water (A1), High Water Table (A2) and Saturation (A2) within the upper 12 inches of the soil surface were observed. Only one secondary indicator of wetland hydrology, Geomorphic Position (D2), was observed in September 2017. W-2 is located within a shallow depression and a distinct difference between the vegetation within the wetland and adjacent upland woodland was observed, primarily the lack of oak species within the wetland area. With supporting evidence provided from hydrophytic vegetation and hydric soil indicators, and considering the ephemeral hydrology, it was determined that the wetland hydrology criterion was met.

Soils
Soils within the wetland are mapped by the NRCS as Hayfield silt loam (HaA) (Appendix A, Figure 2). The soils observed at the sample points were generally consistent with the Hayfield series

characteristics. Field indicators of hydric soil identified within W-2 consisted of NRCS field Indicators A11-Depleted Below Dark Surface and F3-Depleted Matrix. Therefore, the hydric soil criterion was satisfied.

Wetland Boundary
The wetland boundary was determined based on distinct differences in vegetation, hydrology, soils, and topography consisting of the following: 1) Transition from a wooded wetland community dominated by hydrophytic species to a mesic woodland upland community dominated by black cherry (FACU) and bur oak (FACU) with common disturbance driven species within the understory; 2) Transition from an area exhibiting wetland hydrology indicators within the wetland to a lack of wetland hydrology indicators within the adjacent upland; and 3) Transition from soils exhibiting hydric soil indicators to soils lacking indicators of hydric soil conditions. The transition from wetland to upland characteristics generally correlated with a subtle topographic break.

3.2.3 Wetland 3

Wetland 3 (W-3) is a wet meadow community adjacent to Ridge Road at the northern boundary of the Study Area. The wetland appears to be connected via a culvert to WWI mapped wetland north of Ridge Road. No surface waterbodies as identified on the 24k hydro layer mapped by USGS (Appendix A, Figure 1) or the WDNR 24k hydrography layer (Appendix A, Figure 4) are immediately adjacent to W-3. However, the wetland area north of Ridge Road is directly adjacent to Koshkonong Creek.

Vegetation
Dominant plant species identified at sample points completed within W-3 consist of reed canary grass (FACW). Other species identified in the wetland are listed on the data forms contained in Appendix B. The dominant species within the wetland are comprised mostly of hydrophytic vegetation (OBL, FACW, and/or FAC) and meet the hydrophytic vegetation criterion.

Hydrology
The wetland appears to have a seasonally inundated/saturated hydroperiod within the central portion and a seasonally saturated hydroperiod along the outer margin. Saturation within the upper 12 inches (A3) was observed as a primary indicator of wetland hydrology. Secondary indicators of wetland hydrology observed included Dry-Season Water Table (C2), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5). Therefore, the wetland hydrology criterion was met.

Soils
Soils within the wetland are mapped by the NRCS as Hayfield silt loam (HaA) (Appendix A, Figure 2). The soils observed at the sample points were generally consistent with the Hayfield series characteristics. Field indicators of hydric soil identified within W-3 included NRCS field Indicators A11-Depleted Below Dark Surface and F3-Depleted Matrix. Therefore, the hydric soil criterion was satisfied.

Wetland Boundary
The wetland boundary was determined based on distinct differences in vegetation, hydrology, soils, and topography consisting of the following: 1) Transition from a wet meadow wetland

community dominated by hydrophytes to a mesic woodland upland community dominated by black cherry (FACU), bur oak (FACU), invasive honeysuckle (FACU), and common buckthorn (FAC); 2) Transition from an area exhibiting wetland hydrology indicators within the wetland to a lack of wetland hydrology indicators within the adjacent upland; and 3) Transition from soils exhibiting hydric soil indicators to soils lacking indicators of hydric soil conditions. The transition from wetland to upland characteristics generally correlated with a moderate to well-defined topographic break.

3.3 UPLANDS

Upland within the Study Area consisted of disturbed mesic woodland dominated by oaks and black cherry in the canopy with an understory dominated by invasive shrubs including invasive honeysuckle and common buckthorn. Herbaceous coverage was minimal to absent at sample points P-3, P-6, and P-7, likely due to the abundance of honeysuckle and common buckthorn in the shrub layer. Where present, groundlayer species included white avens (FAC), common blue violet (*Viola sororia,* FAC), common buckthorn (FAC) seedlings, and motherwort (*Leonurus cardiaca,* UPL). While FAC species were commonly seen, these are typical species of a range of wetland and upland disturbed sites, and are not necessarily indicative of wetland conditions. Sample point P-1 was placed within a small upland meadow, adjacent to an old shed. Common species within the opening included timothy (*Phleum pretense*, FACU), red fescue (*Festuca rubra,* FACU), and common milkweed (*Asclepias syriaca,* UPL) present in the herbaceous layer. The majority of the disturbed mesic woodland in the Study Area was determined to be non-wetland based on the lack of wetland hydrology, hydric soils, and/or hydrophytic vegetation.

3.4 OTHER ENVIRONMENTAL CONSIDERATIONS

This report is limited to the identification of state and/or federally regulated wetlands within the Study Area. However, there may be other regulated environmental features within the Study Area, including, but not limited to, historical or archeological features, endangered or threatened species, navigable waters, and/or floodplains, etc. Federal, state, and local units of government and regional planning organizations may have regulatory authority to control or restrict land uses within or in close proximity to these features. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

Specifically, in the state of Wisconsin, Wis. Adm. Code NR 151.12 requires that a "protective area" or buffer be determined from the top of the channel of lakes, streams and rivers, or at the delineated boundary of wetlands. In accordance with NR 151.12, the width of the "protective area" for less susceptible wetlands is determined by using 10% of the average wetland width, no less than 10 feet or more than 30 feet. Moderately susceptible wetlands, lakes, and perennial and intermittent streams identified on USGS topographic maps or NRCS county soil survey maps (whichever is more current) require a protective buffer of 50 feet, and outstanding or exceptional resource waters, highly susceptible wetlands, and wetlands in areas of special natural resource interest require protective buffers of 75 feet. The wetlands identified within the Study Area are dominated by invasive plant species including reed canary grass and common buckthorn. Therefore, based on the "protective buffer" standards provided by NR 151.12, it is

Stantec's professional opinion that wetlands meet the criteria for less susceptible wetlands and the buffer from the wetland boundary would be 10 to 30 feet. However, the jurisdictional authority on wetland buffers rests with the WDNR. Local zoning authorities and/or a regional planning organization may have more restrictive buffers from wetlands than that imposed under NR 151. For example, Dane County typically enforces a 75-foot wetland setback.

4.0 CONCLUSION

Stantec performed a wetland determination and delineation of an approximately 40-acre parcel on Ridge Road on behalf of Justin and Sara Lessner. The Study Area is located in Section 23, Township 7 North, Range 11 East, Town of Cottage Grove, Dane County, Wisconsin. The purpose and objective of the wetland determination and delineation was to identify the extent and spatial arrangement of wetlands within the Study Area.

Three wetlands were identified and delineated within the Study Area in accordance with state and federal guidelines and were subsequently surveyed with GPS and mapped using GIS software. There was a combined total of 28.8 acres of wetlands within the Study Area. Wetlands were mostly composed of wet meadow, shrub-carr, and wooded wetland. Adjacent uplands were composed of agricultural lands and mesic woods.

The wetlands identified for this report may be subject to federal regulation under the jurisdiction of USACE, state regulation under the jurisdiction of the WDNR, and local regulation under jurisdiction of the local county, town, city, or village. Stantec recommends this report be submitted to local authorities, the WDNR, and USACE for final jurisdictional review and concurrence.

Prior to beginning work at this site or disturbing or altering wetlands, waterways, or adjacent lands in any way, Stantec recommends that the owner obtain the necessary permits or other agency regulatory review and concurrence with regard to the proposed work to comply with applicable regulations. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

The information provided by Stantec regarding wetland boundaries is a scientific-based analysis of the wetland and upland conditions present within the Study Area at the time of the fieldwork. The delineation was performed by experienced and qualified professionals using standard practices and sound professional judgment. The ultimate decision on wetland boundaries rests with the USACE and, in some cases, the WDNR or a local unit of government. As a result, there may be adjustments to boundaries based upon review by a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to recent precipitation patterns and the season of the year. In addition, the physical characteristics of the Study Area can change over time, depending on the weather, vegetation patterns, drainage activities on adjacent parcels, or other events. Any of these factors can change the nature and extent of wetlands within the Study Area.

5.0 REFERENCES

Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Lichvar, R.W., D. L. Banks, W. N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List:* 2016 wetland ratings. Phytonueron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X. http://www.phytoneuron.net/.

Midwestern Regional Climate Center. (2017). *cli-MATE* [climate data access tool]. Retrieved from http://mrcc.isws.illinois.edu/CLIMATE/.

National Oceanic and Atmospheric Administration. (2017). Regional Climate Centers Applied Climate Information System. *WETS table*. Retrieved from http://agacis.rcc-acis.org.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database. Available online at http://websoilsurvey.nrcs.usda.gov/ or http://datagateway.nrcs.usda.gov/. Accessed [8/2/2017].

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed [8/2/2017].

U.S. Army Corps of Engineers (USACE) and Wisconsin Department of Natural Resources (WDNR). *"Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources"*, Issued March 4, 2015. Available online at http://dnr.wi.gov/topic/wetlands/documents/FinalWisconsinDelineationGuidance.pdf.

USACE. 2016. National Wetland Plant List, version 3.2. USACE Engineer Research and Development Center, Cold Water Regions Research and Engineering Laboratory, Hanover, N.H. Retrieved from http://wetland_plants.usace.army.mil/.

USACE. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*, ed. J.S. Wakely, R.W. Lichvar, C.V. Nobel, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Department of Agriculture, Natural Resource Conservation Service (USDA, NRCS). 2016. *Field Indicators of Hydric Soils in the United States*, Version 8.0. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.

United States Geological Survey (USGS). *Wisconsin 7.5 Minute Series (Topographic) Maps.* 1:24,000. Reston, VA: United States Department of the Interior, USGS.

Wisconsin Department of Natural Resources (WDNR), Bureau of Watershed Management. (2010). [Digital inventory of Wisconsin wetlands]. *Wisconsin Wetland Inventory.*

WDNR, Division of Water. (2010). [24k hydrography geospatial data layer]. Available online: ftp://dnrftp01.wi.gov/geodata/hydro_24k/.

Appendix A – Figures

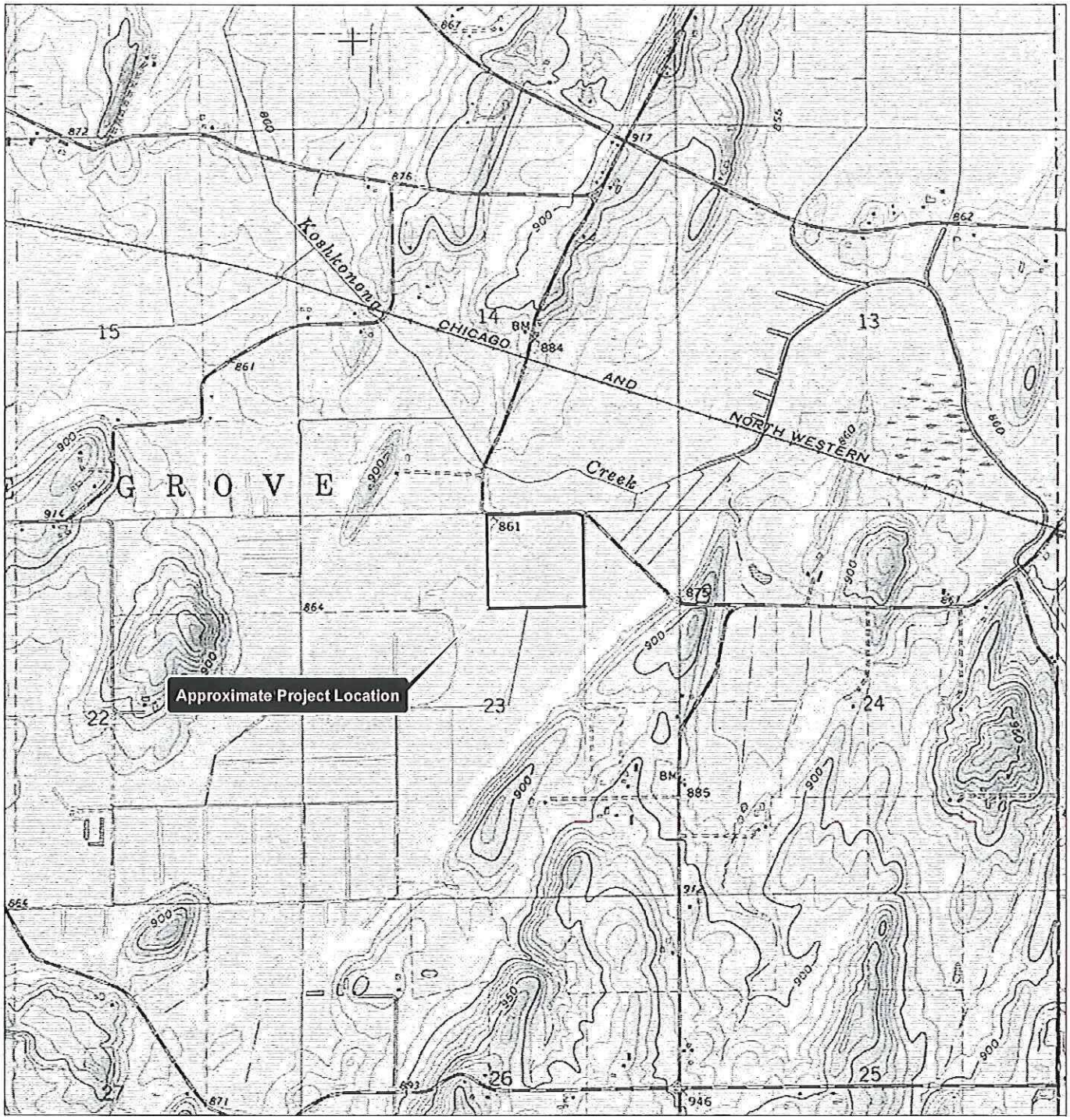
Figure 1. Project Location and Topography

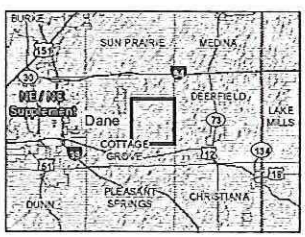
Figure 2. NRCS Soil Survey Data – Hydric Ratings

Figure 3. NRCS Soil Survey Data – Wetland Indicator Soils

Figure 4. Wisconsin Wetland Inventory

Figure 5. Field Collected Data





Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WDOT, WDNR
3. Background: USGS 7.5 Topographic Quadrangles

Legend

Approximate Project Boundary

Figure No.
1

Title
Project Location and Topography

Client/Project
Sara Lessner
Ridge Road
Assured Wetland Delineation

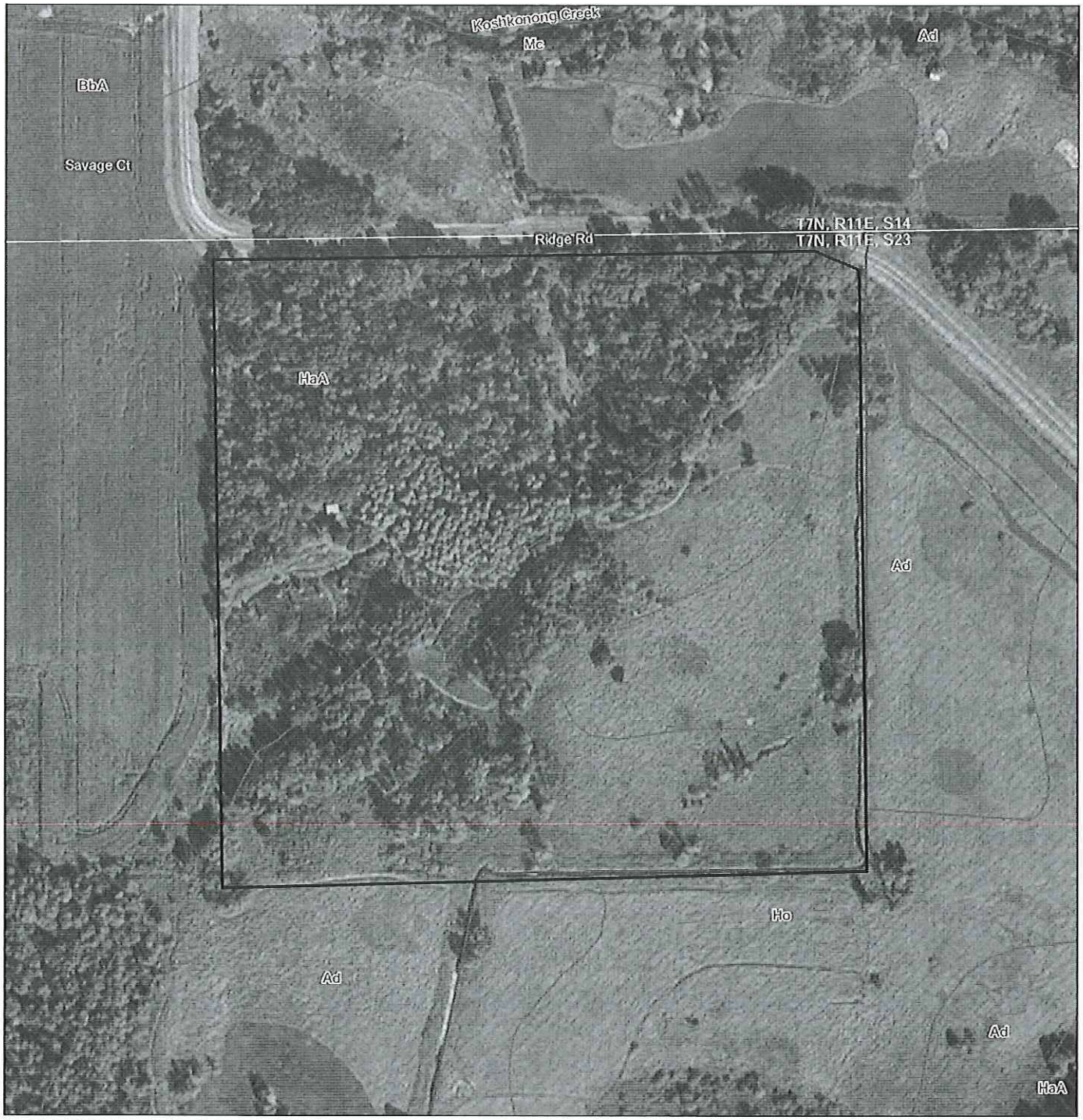
Project Location
T7N, R11E, S23,
T. of Cottage Grove,
Dane Co., WI

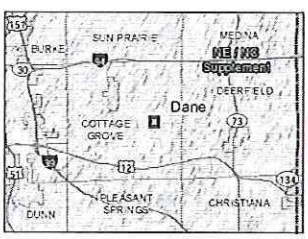
193705554
Prepared by JM on 2017-08-02
Technical Review by CP on 2017-08-02
Independent Review by KR on 2017-10-19

0 1,000 2,000 Feet
1:24,000 (at original document size of 8.5x11)

N

Stantec





Notes:
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WDOT, WDNR, NRCS
3. Orthophotography: 2015 NAIP

Legend

- Approximate Project Boundary
- NRCS Soil Survey Data
- Hydric Ratings
  - Predominantly Hydric
  - Partially Hydric
  - Non-Hydric
- DNR 24k Hydrography
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

Figure No.
2

Title
NRCS Soil Survey Data
Hydric Ratings

Client/Project
Sara Lessner
Ridge Road
Assured Wetland Delineation

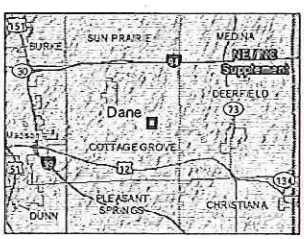
Project Location
T7N, R11E, S23,
T. of Cottage Grove,
Dane Co., WI

193705554
Prepared by JM on 2017-08-02
Technical Review by CP on 2017-08-02
Independent Review by KR on 2017-10-19

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec



Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WDOT, WDNR, NRCS
3. Orthophotography: 2015 NAIP

Legend

- Approximate Project Boundary
- NRCS Soil Survey Data
- Wetland Indicator Soils
  - Very Poorly Drained
  - Poorly Drained
  - Somewhat Poorly Drained
- DNR 24k Hydrography
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

Figure No.
3

Title
NRCS Soil Survey Data
Wetland Indicator Soils

Client/Project
Sara Lessner
Ridge Road
Assured Wetland Delineation

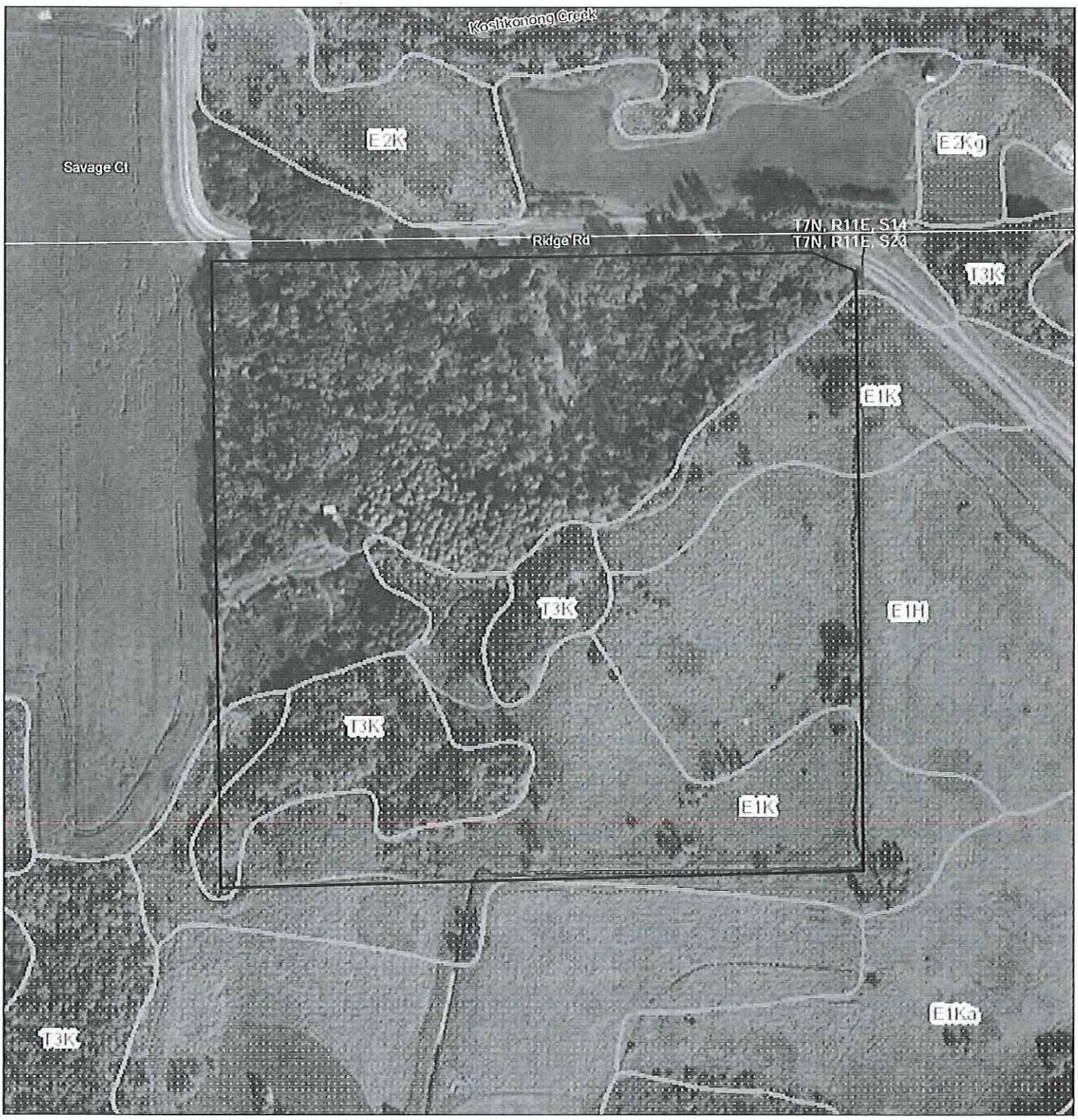
Project Location
T7N, R11E, S23,
T. of Cottage Grove,
Dane Co., WI

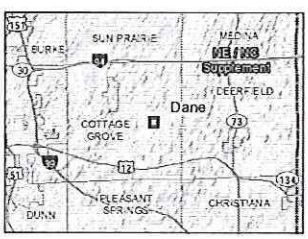
193705554
Prepared by JM on 2017-08-02
Technical Review by CP on 2017-08-02
Independent Review by KR on 2017-10-19

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec





Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WDOT, WDNR
3. Orthophotography: 2015 NAIP

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Legend

- Approximate Project Boundary
- WWI Wetland Class Areas
  - Wetland
- DNR 24k Hydrography
  - Perennial Stream
  - Intermittent Stream
  - Waterbody

Figure No.
4

Title
Wisconsin Wetland Inventory

Client/Project
Sara Lessner
Ridge Road
Assured Wetland Defineation

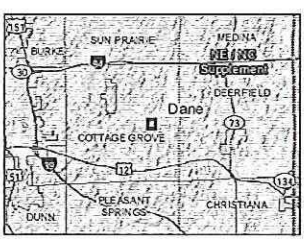
Project Location
T7N, R11E, S23,
T. of Cottage Grove,
Dane Co., WI

193705554
Prepared by JM on 2017-08-02
Technical Review by CP on 2017-08-02
Independent Review by KR on 2017-10-19

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec



Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: 2015 NAIP

Legend

- Approximate Project Boundary
- 2ft Elevation Contour
- Sample Point
- Field Delineated Wetland

DNR 24k Hydrography

- Perennial Stream
- Intermittent Stream
- Waterbody

Figure No.
5

Title
Field Collected Data

Client/Project
Sara Lessner
Ridge Road
Assured Wetland Delineation

Project Location
T7N, R11E, S23,
T. of Cottage Grove,
Dane Co., WI

193705554
Prepared by JM on 2017-08-02
Technical Review by CP on 2017-08-02
Independent Review by KR on 2017-10-19

0 150 300 Feet
1:3,600 (at original document size of 8.5x11)

N

Stantec

Appendix B – Wetland Determination Data Forms

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site:	Ridge Road	Stantec Project #:	193705554	Date:	09/20/17
Applicant:	Justin and Sara Lessner			County:	Dane
Investigator #1:	J. Kraemer	Investigator #2:	---	State:	Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification:	N/A	Wetland ID:	W-1
Landform:	Rise	Local Relief:	Linear	Sample Point:	P-1
Slope (%):	2-3	Latitude: N/A	Longitude: N/A	Datum: N/A	Community ID: Upland Woodlan
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)				☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present?			Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?		☒ Yes ☐ No			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☐ Yes ☒ No — Hydric Soils Present? ☒ Yes ☐

Wetland Hydrology Present? ☐ Yes ☒ No — Is This Sampling Point Within A Wetland? ☐ Yes ☒

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☒):

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

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

Field Observations:

Surface Water Present? ☐ Yes ☒ No Depth: (in.)

Water Table Present? ☐ Yes ☒ No Depth: (in.)

Saturation Present? ☐ Yes ☒ No Depth: (in.)

Wetland Hydrology Present? ☐ Yes ☒ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		%	Redox Features Color (Moist)		%	Type	Location	Texture (e.g. clay, sand,
0	12	1	10YR	2/2	100	--	--	--	--	--	silty clay loa
12	24	2	10YR	4/1	95	10YR	4/6	5	C	M	silty clay loa
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☒ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, u disturbed or problematic

Restrictive Layer (If Observed) Type: N/A Depth: N/A — **Hydric Soil Present?** ☒ Yes ☐ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Pag

Project/Site: Ridge Road | Wetland ID: W-1 | Sample Point: P-

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	*Quercus macrocarpa*	30	Y	FACU
2.	*Prunus serotina*	2	N	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	32		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*LONICERA X BELLA*	12	Y	FACU
2.	*RHAMNUS CATHARTICA*	10	Y	FAC
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	22		

Herb Stratum (Plot size: 2 meter radius)

1.	*PHLEUM PRATENSE*	30	Y	FACU
2.	*FESTUCA RUBRA*	20	Y	FACU
3.	*Asclepias syriaca*	15	Y	UPL
4.	*Persicaria pensylvanica*	5	N	FACW
5.	*Solidago canadensis*	5	N	FACU
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	75		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: *17%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	5	x 2 =	10
FAC spp.	10	x 3 =	30
FACU spp.	99	x 4 =	396
UPL spp.	15	x 5 =	75
Total	129 (A)		511 (B)

Prevalence Index = B/A = *3.961*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☒ No Dominance Test is > 50%
- ☐ Yes ☒ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Pag

Project/Site:	Ridge Road	Stantec Project #:	193705554	Date:	09/20/17
Applicant:	Justin and Sara Lessner			County:	Dane
Investigator #1:	J. Kraemer	Investigator #2:	---	State:	Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification:	N/A	Wetland ID:	W-1
Landform:	Dip	Local Relief:	Concave	Sample Point:	P-2
Slope (%):	0-2	Latitude: N/A	Longitude: N/A	Datum: N/A	Community ID: Wet Meadow
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)				☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present?			Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?		☒ Yes ☐ No			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☒ Yes ☐ No — Hydric Soils Present? ☒ Yes ☐

Wetland Hydrology Present? ☒ Yes ☐ No — Is This Sampling Point Within A Wetland? ☒ Yes ☐

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

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

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

Field Observations:

Surface Water Present?	☐ Yes	☒ No	Depth:	(in.)
Water Table Present?	☐ Yes	☒ No	Depth:	(in.)
Saturation Present?	☐ Yes	☒ No	Depth:	(in.)

Wetland Hydrology Present? ☒ Yes ☐ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Redox Features Color (Moist)		Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand, lo
0	8	1	10YR	2/2	100	--	--	--	--	--	silty clay loam
8	24	2	10YR	4/1	90	10YR	4/6	10	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☒ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A — **Hydric Soil Present?** ☒ Yes ☐ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-1 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Cornus racemosa*	15	Y	FAC
2.	*RHAMNUS CATHARTICA*	5	Y	FAC
3.	*Hamamelis virginiana*	2	N	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	22		

Herb Stratum (Plot size: 2 meter radius)

1.	*PHALARIS ARUNDINACEA*	40	Y	FACW
2.	*Andropogon gerardii*	30	Y	FACU
3.	*Spartina pectinata*	20	Y	FACW
4.	*Ambrosia artemisiifolia*	3	N	FACU
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	93		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks: Wet meadow transitions to shrub-carr to the south.

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: *80%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	60	x 2 =	120
FAC spp.	20	x 3 =	60
FACU spp.	35	x 4 =	140
UPL spp.	0	x 5 =	0
Total	115 (A)		320 (B)

Prevalence Index = B/A = *2.783*

Hydrophytic Vegetation Indicators:

- [ ] Yes [x] No Rapid Test for Hydrophytic Vegetation
- [x] Yes [ ] No Dominance Test is > 50%
- [x] Yes [ ] No Prevalence Index is ≤ 3.0 *
- [ ] Yes [x] No Morphological Adaptations (Explain) *
- [ ] Yes [x] No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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 [x] Yes [ ] No

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Pag

Project/Site:	Ridge Road	Stantec Project #: 193705554	Date: 09/20/17
Applicant:	Justin and Sara Lessner		County: Dane
Investigator #1:	J. Kraemer	Investigator #2: ---	State: Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification: N/A	Wetland ID: W-2
Landform:	Rise	Local Relief: Linear	Sample Point: P-3
Slope (%):	0-2	Latitude: N/A Longitude: N/A Datum: N/A	Community ID: Upland Woodland
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present?	Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?		☒ Yes ☐ No	Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☒ Yes ☐ No — Hydric Soils Present? ☐ Yes ☒ I
Wetland Hydrology Present? ☐ Yes ☒ No — Is This Sampling Point Within A Wetland? ☐ Yes ☒ I

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☒):

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

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

Field Observations:

Surface Water Present?	☐ Yes	☒ No	Depth:	(in.)
Water Table Present?	☐ Yes	☒ No	Depth:	(in.)
Saturation Present?	☐ Yes	☒ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☒ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Redox Features Color (Moist)		Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand, lo
0	14	1	10YR	3/2	100	--	--	--	--	--	silt loam
14	24	2	10YR	4/2	95	10YR	4/6	5	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☒):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat or Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A — **Hydric Soil Present?** ☐ Yes ☒ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-2 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	*Prunus serotina*	35	Y	FACU
2.	*Quercus rubra*	20	Y	FACU
3.	*Populus tremuloides*	10	N	FAC
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	65		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*RHAMNUS CATHARTICA*	50	Y	FAC
2.	*LONICERA X BELLA*	25	Y	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	75		

Herb Stratum (Plot size: 2 meter radius)

1.	*Geum canadense*	2	Y	FAC
2.	*Viola sororia*	2	Y	FAC
3.	*RHAMNUS CATHARTICA*	2	Y	FAC
4.	--	--	--	--
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	6		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: *57%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	66	x 3 =	198
FACU spp.	80	x 4 =	320
UPL spp.	0	x 5 =	0
Total	146 (A)		518 (B)

Prevalence Index = B/A = *3.548*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☒ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☒ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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: Vegetation passes the Dominance Test with FAC species in shrub and herbaceous layers. These species are typically disturbance driven and broadly distributed across upland and wetland communities.

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site:	Ridge Road	Stantec Project #: 193705554	Date: 09/20/17
Applicant:	Justin and Sara Lessner		County: Dane
Investigator #1:	J. Kraemer	Investigator #2: ---	State: Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification: N/A	Wetland ID: W-2
Landform:	Depression	Local Relief: Concave	Sample Point: P-4
Slope (%):	0-2	Latitude: N/A Longitude: N/A Datum: N/A	Community ID: Wooded Wetland
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present? ☒ Yes ☐ No	Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☒ Yes ☐ No — Hydric Soils Present? ☒ Yes ☐ I
Wetland Hydrology Present? ☒ Yes ☐ No — Is This Sampling Point Within A Wetland? ☒ Yes ☐ I

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation. The determination of wetland is supported by the presence of hydrophytic vegetation, hydric soils, and observations of wetland hydrology in April 2017.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

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

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

Field Observations:

Surface Water Present?	☐ Yes	☒ No	Depth:	(in.)
Water Table Present?	☐ Yes	☒ No	Depth:	(in.)
Saturation Present?	☐ Yes	☒ No	Depth:	(in.)

Wetland Hydrology Present? ☒ Yes ☐ No

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

Remarks: Outer portion of W-2 consists of degraded woodland with dominance by FAC species. Distinct difference observed between this wooded wetland area and adjacent upland woodland where oak species dominate canopy. Surface Water, High Water Table, and Saturation were observed durin April 2017 wetland determination field work, in central portion of W-2.

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand, lo
0	10	1	10YR 2/2	100	--	--	--	--	silty clay loam
10	24	2	10YR 4/2	92	10YR 4/6	8	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☒ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☒ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat or Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A — **Hydric Soil Present?** ☒ Yes ☐ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-2 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	*Populus tremuloides*	50	Y	FAC
2.	*Acer negundo*	10	N	FAC
3.	*Prunus serotina*	10	N	FACU
4.	*Ulmus americana*	10	N	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	80		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*RHAMNUS CATHARTICA*	40	Y	FAC
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	40		

Herb Stratum (Plot size: 2 meter radius)

1.	*Geum canadense*	10	Y	FAC
2.	*RHAMNUS CATHARTICA*	5	Y	FAC
3.	*Symphyotrichum lateriflorum*	3	N	FAC
4.	--	--	--	--
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	18		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: *100%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	10	x 2 =	20
FAC spp.	118	x 3 =	354
FACU spp.	10	x 4 =	40
UPL spp.	0	x 5 =	0
Total	138 (A)		414 (B)

Prevalence Index = B/A = *3.000*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☒ Yes ☐ No Dominance Test is > 50%
- ☒ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site:	Ridge Road	Stantec Project #: 193705554	Date: 09/20/17
Applicant:	Justin and Sara Lessner		County: Dane
Investigator #1:	J. Kraemer	Investigator #2: ---	State: Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification: N/A	Wetland ID: W-3
Landform:	Depression	Local Relief: Concave	Sample Point: P-5
Slope (%):	0-2	Latitude: N/A Longitude: N/A Datum: N/A	Community ID: Wet Meadow
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present? ☒ Yes ☐ No	Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☒ Yes ☐ No
Hydric Soils Present? ☒ Yes ☐ No
Wetland Hydrology Present? ☒ Yes ☐ No
Is This Sampling Point Within A Wetland? ☒ Yes ☐ No

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

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

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

Field Observations:

Surface Water Present?	☐ Yes	☒ No	Depth:	(in.)
Water Table Present?	☒ Yes	☐ No	Depth: 14	(in.)
Saturation Present?	☒ Yes	☐ No	Depth: 4	(in.)

Wetland Hydrology Present? ☒ Yes ☐ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		%	Redox Features Color (Moist)		%	Type	Location	Texture (e.g. clay, sand, lo
0	4	1	10YR	2/1	100	--	--	--	--	--	silty clay loam
4	18	2	10YR	5/1	90	10YR	5/6	10	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☒ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☒ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat or Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-3 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	0		

Herb Stratum (Plot size: 2 meter radius)

1.	*PHALARIS ARUNDINACEA*	80	Y	FACW
2.	*Carex stricta*	2	N	OBL
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	82		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: *100%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	2	x 1 =	2
FACW spp.	80	x 2 =	160
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0
Total	82 (A)		162 (B)

Prevalence Index = B/A = *1.976*

Hydrophytic Vegetation Indicators:

- [X] Yes [ ] No Rapid Test for Hydrophytic Vegetation
- [X] Yes [ ] No Dominance Test is > 50%
- [X] Yes [ ] No Prevalence Index is ≤ 3.0 *
- [ ] Yes [X] No Morphological Adaptations (Explain) *
- [ ] Yes [X] No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mus present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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 [X] Yes [ ] No

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site:	Ridge Road	Stantec Project #:	193705554	Date:	09/20/17
Applicant:	Justin and Sara Lessner			County:	Dane
Investigator #1:	J. Kraemer	Investigator #2: ---		State:	Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification: N/A		Wetland ID:	W-3
Landform:	Rise	Local Relief: Convex		Sample Point:	P-6
Slope (%):	3-4	Latitude: N/A	Longitude: N/A	Community ID:	Upland Shrub-Sc
Datum: N/A				Section:	23
Township:	7N				
Range:	11E				

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

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?

Are normal circumstances present? ☒ Yes ☐ No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No
Hydric Soils Present? ☐ Yes ☒
Is This Sampling Point Within A Wetland? ☐ Yes ☒

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☒):

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

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

Field Observations:

Surface Water Present?	☐ Yes	☒ No	Depth:	(in.)
Water Table Present?	☐ Yes	☒ No	Depth:	(in.)
Saturation Present?	☐ Yes	☒ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☒ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Redox Features Color (Moist)		Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand,
0	15	1	10YR	3/2	100	--	--	--	--	--	silt loam
15	18	2	10YR	4/3	100	--	--	--	--	--	silty clay loa
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☒):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1] Indicators of hydrophytic vegetation and wetland hydrology must be present, ur disturbed or problematic

Restrictive Layer (If Observed) Type: N/A Depth: N/A

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Page

Project/Site: Ridge Road | Wetland ID: W-3 | Sample Point: P-

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	*Prunus serotina*	20	Y	FACU
2.	*Quercus macrocarpa*	20	Y	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	40		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*LONICERA X BELLA*	40	Y	FACU
2.	*RHAMNUS CATHARTICA*	30	Y	FAC
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	70		

Herb Stratum (Plot size: 2 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	0		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: *25%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	30	x 3 =	90
FACU spp.	80	x 4 =	320
UPL spp.	0	x 5 =	0
Total	110 (A)		410 (B)

Prevalence Index = B/A = *3.727*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☒ No Dominance Test is > 50%
- ☐ Yes ☒ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Project/Site:	Ridge Road	Stantec Project #: 193705554	Date: 09/20/17
Applicant:	Justin and Sara Lessner		County: Dane
Investigator #1:	J. Kraemer	Investigator #2: ---	State: Wisconsin
Soil Unit:	Hayfield silt loam	NWI/WWI Classification: N/A	Wetland ID: W-1
Landform:	Rise	Local Relief: Convex	Sample Point: P-7
Slope (%):	3-4	Latitude: N/A Longitude: N/A Datum: N/A	Community ID: Upland Woodland
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present? ☒ Yes ☐ No	Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☐ Yes ☒ No
Hydric Soils Present? ☐ Yes ☒ No
Wetland Hydrology Present? ☐ Yes ☒ No
Is This Sampling Point Within A Wetland? ☐ Yes ☒ No

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☒):

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

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

Field Observations:

Surface Water Present?	☐ Yes ☒ No	Depth:	(in.)
Water Table Present?	☐ Yes ☒ No	Depth:	(in.)
Saturation Present?	☐ Yes ☒ No	Depth:	(in.)

Wetland Hydrology Present? ☐ Yes ☒ No

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

Remarks:

SOILS

Map Unit Name: Hayfield silt loam — Series Drainage Class: somewhat poorly

Taxonomy (Subgroup): Aquollic Hapludalfs

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand, lo
0	14	1	10YR 3/2	100	--	--	--	--	silty clay loam
14	17	2	10YR 4/3	99	10YR 4/6	1	C	M	silty clay loam
17	24	3	10YR 4/2	95	10YR 4/6	5	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☒):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☐ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A

Hydric Soil Present? ☐ Yes ☒ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-1 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	*Prunus serotina*	20	Y	FACU
2.	*Quercus macrocarpa*	20	Y	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	40		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*LONICERA X BELLA*	40	Y	FACU
2.	*RHAMNUS CATHARTICA*	20	Y	FAC
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	60		

Herb Stratum (Plot size: 2 meter radius)

1.	*LEONURUS CARDIACA*	10	Y	UPL
2.	*Geum canadense*	5	Y	FAC
3.	*RHAMNUS CATHARTICA*	3	N	FAC
4.	--	--	--	--
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	18		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: *33%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	28	x 3 =	84
FACU spp.	80	x 4 =	320
UPL spp.	10	x 5 =	50
Total	118 (A)		454 (B)

Prevalence Index = B/A = *3.847*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☒ No Dominance Test is > 50%
- ☐ Yes ☒ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

Stantec

WETLAND DETERMINATION DATA FORM
Northcentral-Northeast Region

Pag

Project/Site:	Ridge Road	Stantec Project #: 193705554	Date: 09/20/17
Applicant:	Justin and Sara Lessner		County: Dane
Investigator #1:	J. Kraemer	Investigator #2: ---	State: Wisconsin
Soil Unit:	Houghton muck	NWI/WWI Classification: E1K	Wetland ID: W-1
Landform:	Depression	Local Relief: Concave	Sample Point: P-8
Slope (%):	0-2	Latitude: N/A Longitude: N/A Datum: N/A	Community ID: Shrub-carr
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐ Yes ☒ No	Section: 23
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed?		Are normal circumstances present? ☒ Yes ☐ No	Township: 7N
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic?			Range: 11E

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? ☒ Yes ☐ No — Hydric Soils Present? ☒ Yes ☐

Wetland Hydrology Present? ☒ Yes ☐ No — Is This Sampling Point Within A Wetland? ☒ Yes ☐

Remarks: Based on a WETS analysis, the climatic/hydrologic conditions were wetter than normal from June 1 - August 31. However, drier than normal conditions were experienced from September 1 - 19 prior to the field investigation.

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

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

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

Field Observations:

Surface Water Present? ☐ Yes ☒ No Depth: (in.)

Water Table Present? ☐ Yes ☒ No Depth: (in.)

Saturation Present? ☐ Yes ☒ No Depth: (in.)

Wetland Hydrology Present? ☒ Yes ☐ No

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

Remarks:

SOILS

Map Unit Name: Houghton muck — Series Drainage Class: very poorly

Taxonomy (Subgroup): Typic Haplosaprists

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix Color (Moist)		Matrix %	Redox Features Color (Moist)		Redox Features %	Redox Features Type	Redox Features Location	Texture (e.g. clay, sand, lo
0	6	1	10YR	3/2	100	--	--	--	--	--	silty clay loam
6	8	2	10YR	3/2	95	10YR	4/6	5	C	M	silty clay loam
8	24	3	10YR	4/1	90	10YR	5/6	10	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present ☐):
- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers
- ☒ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Muck Mineral
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ S7 - Dark Surface (LRR R, MLRA 149B)
- ☐ S8 - Polyvalue Below Surface (LRR R, MLRA 149B)
- ☐ S9 - Thin Dark Surface (LRR R, MLRA 149B)
- ☐ S11 - High Chroma Sands
- ☐ F1 - Loamy Mucky Mineral (LRR K, L)
- ☐ F2 - Loamy Gleyed Matrix
- ☒ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions

Indicators for Problematic Soils [1]
- ☐ A10 - 2 cm Muck (LRR K, L, MLRA 149B)
- ☐ A16 - Coast Prairie Redox (LRR K, L, R)
- ☐ S3 - 5cm Mucky Peat of Peat (LRR K, L, R)
- ☐ S7 - Dark Surface (LRR K, L, M)
- ☐ S8 - Polyvalue Below Surface (LRR K, L)
- ☐ S9 - Thin Dark Surface (LRR K, L)
- ☐ F12 - Iron-Manganese Masses (LRR K, L, R)
- ☐ F19 - Piedmont Floodplain Soils (MLRA 149B)
- ☐ F21 - Red Parent Material
- ☐ TA6 - Mesic Spodic (MLRA 144A, 145, 149B)
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (If Observed) Type: N/A Depth: N/A

Hydric Soil Present? ☒ Yes ☐ No

Remarks:

Stantec

WETLAND DETERMINATION DATA FORM

Northcentral-Northeast Region

Project/Site: Ridge Road | Wetland ID: W-1 | Sample Point: P

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 10 meter radius)

	Species Name	% Cover	Dominant	Ind Status
1.	*Acer negundo*	30	Y	FAC
2.	*Quercus macrocarpa*	3	N	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	33		

Sapling/Shrub Stratum (Plot size: 5 meter radius)

1.	*Cornus racemosa*	60	Y	FAC
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
	Total Cover =	60		

Herb Stratum (Plot size: 2 meter radius)

1.	*Pilea pumila*	30	Y	FACW
2.	*PHALARIS ARUNDINACEA*	10	Y	FACW
3.	*Geum canadense*	5	N	FAC
4.	*RHAMNUS CATHARTICA*	5	N	FAC
5.	--	--	--	--
6	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
	Total Cover =	50		

Woody Vine Stratum (Plot size: 10 meter radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
	Total Cover =	0		

Remarks: Shrub-carr transitions into wet meadow to the south.

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: *100%* (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	40	x 2 =	80
FAC spp.	100	x 3 =	300
FACU spp.	3	x 4 =	12
UPL spp.	0	x 5 =	0
Total	143 (A)		392 (B)

Prevalence Index = B/A = *2.741*

Hydrophytic Vegetation Indicators:

- ☐ Yes ☒ No Rapid Test for Hydrophytic Vegetation
- ☒ Yes ☐ No Dominance Test is > 50%
- ☒ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☒ No Morphological Adaptations (Explain) *
- ☐ Yes ☒ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. 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

Additional Remarks:

Appendix C – Site Photographs

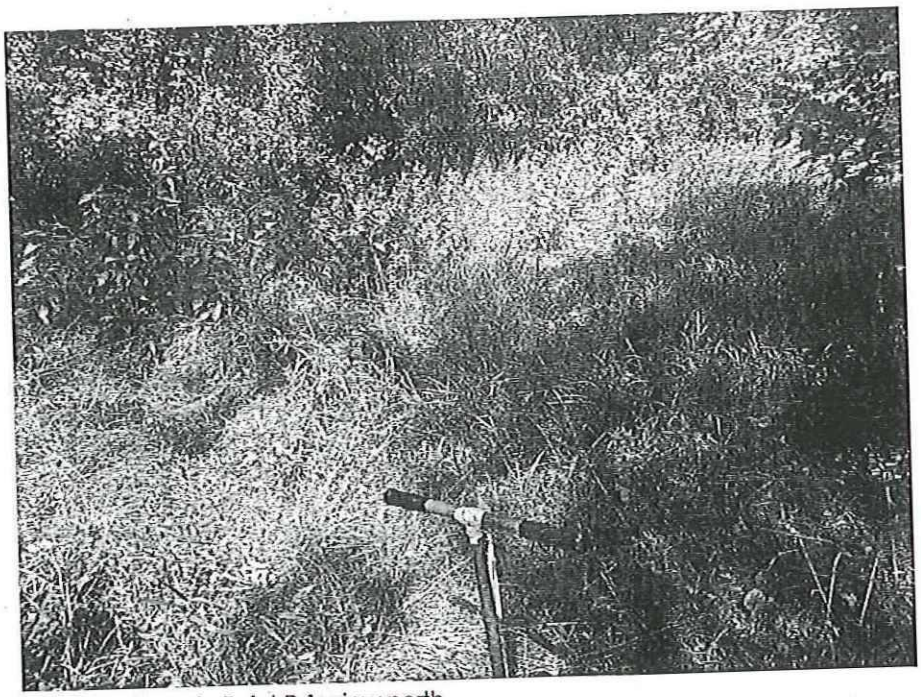


Photo 1. Sample Point P-1; view north

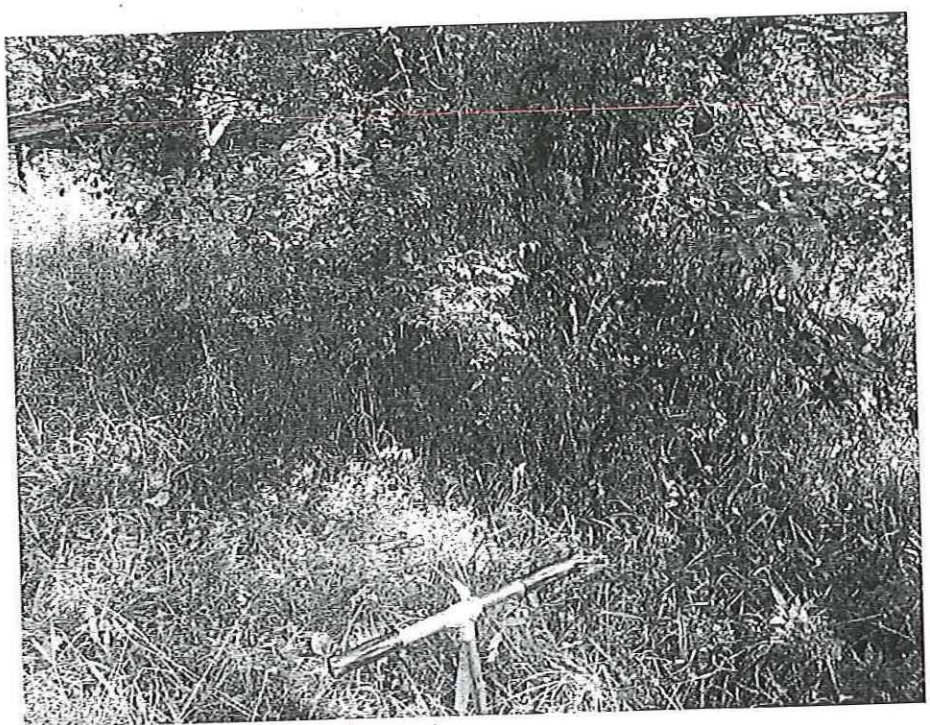


Photo 2. Sample Point P-1; view east

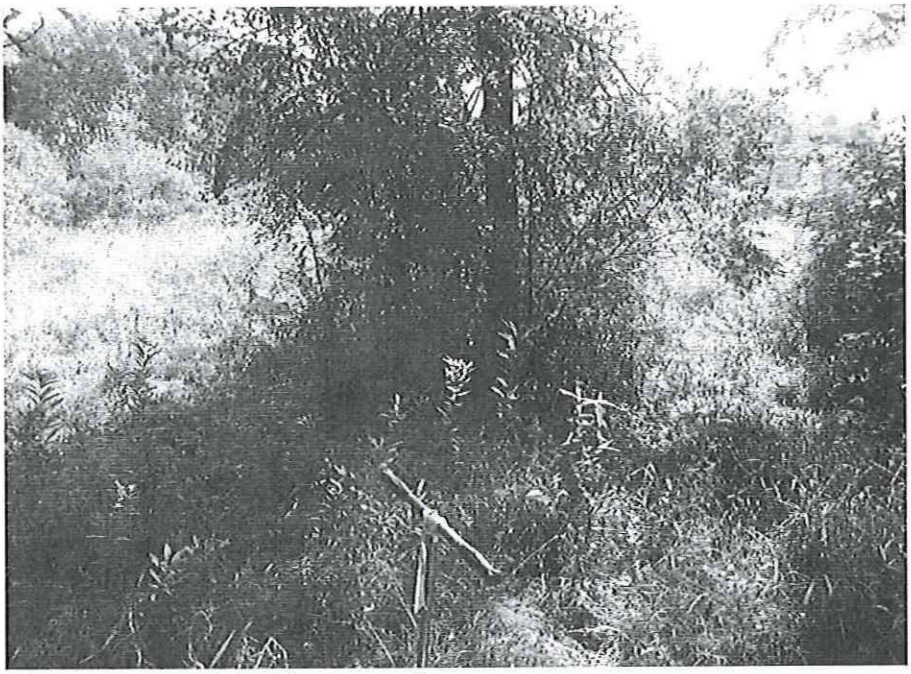


Photo 3. Sample Point P-1; view south

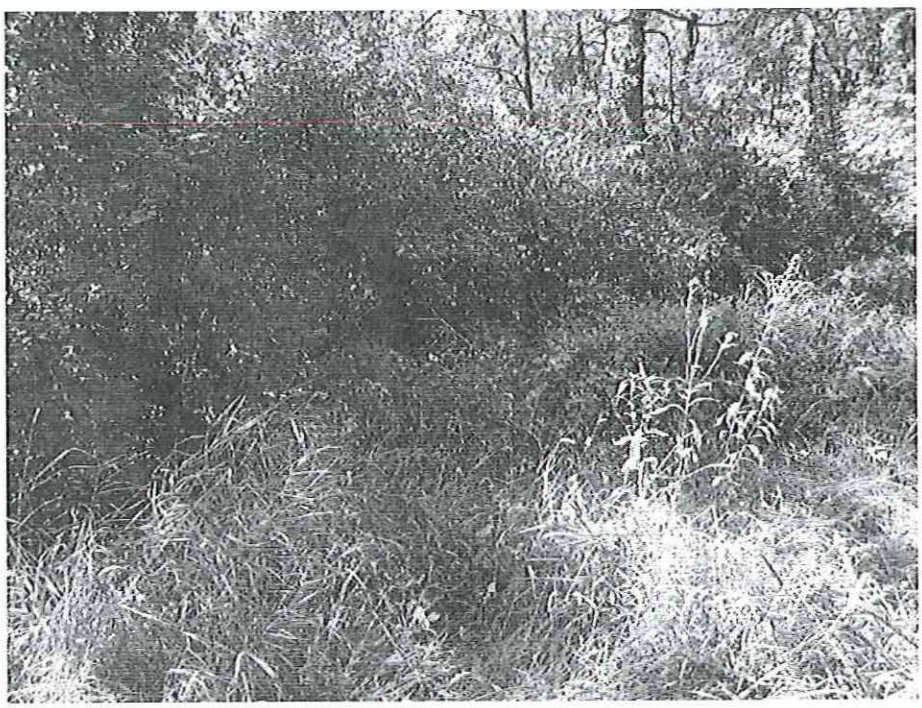


Photo 4. Sample Point P-1; view west

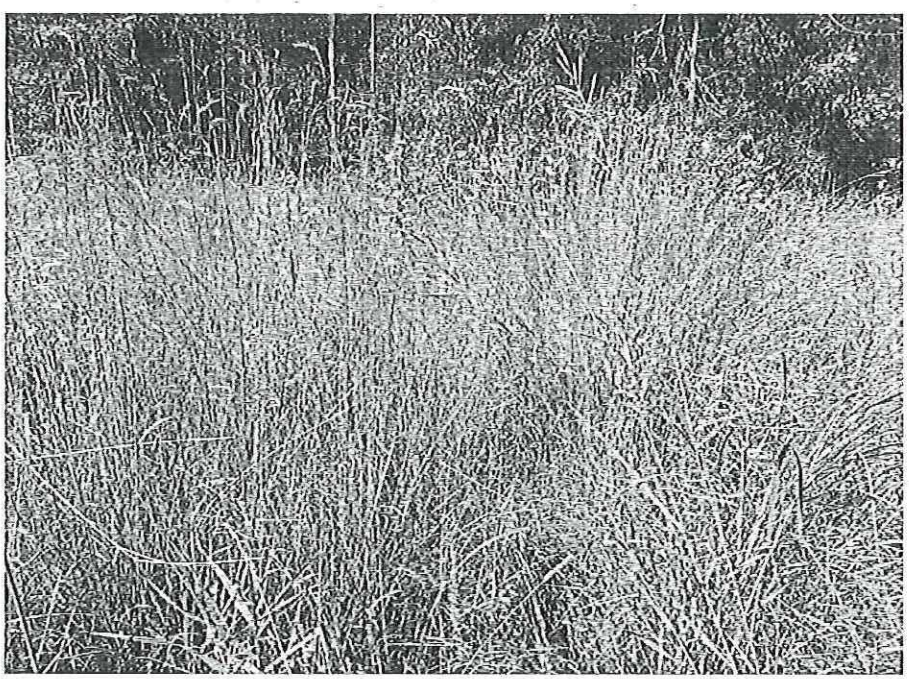


Photo 5. Sample Point P-2; view north

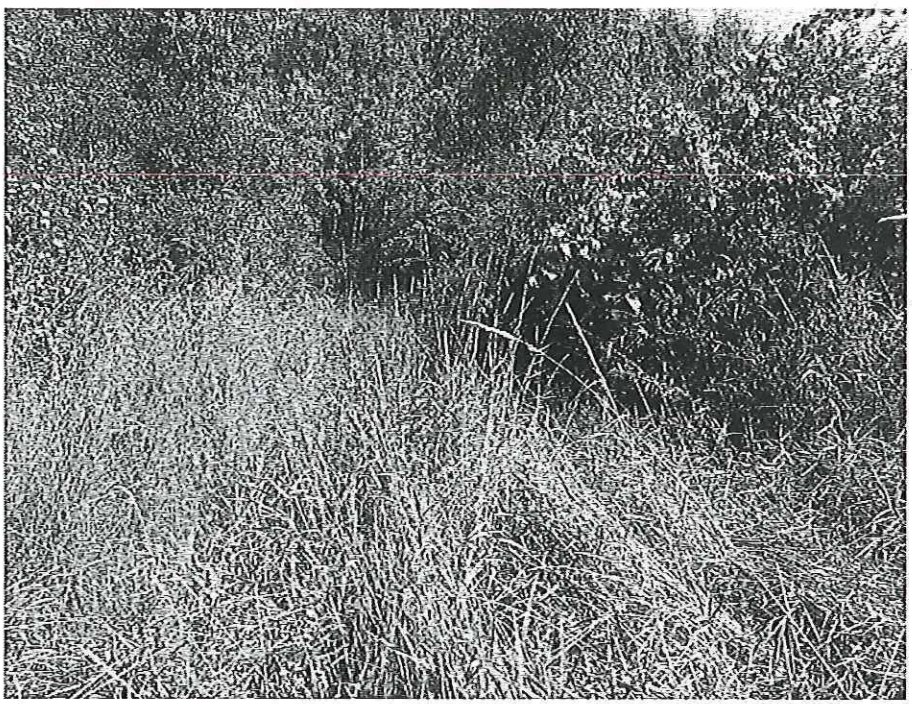


Photo 6. Sample Point P-2; view east

Photo 7. Sample Point P-2; view south

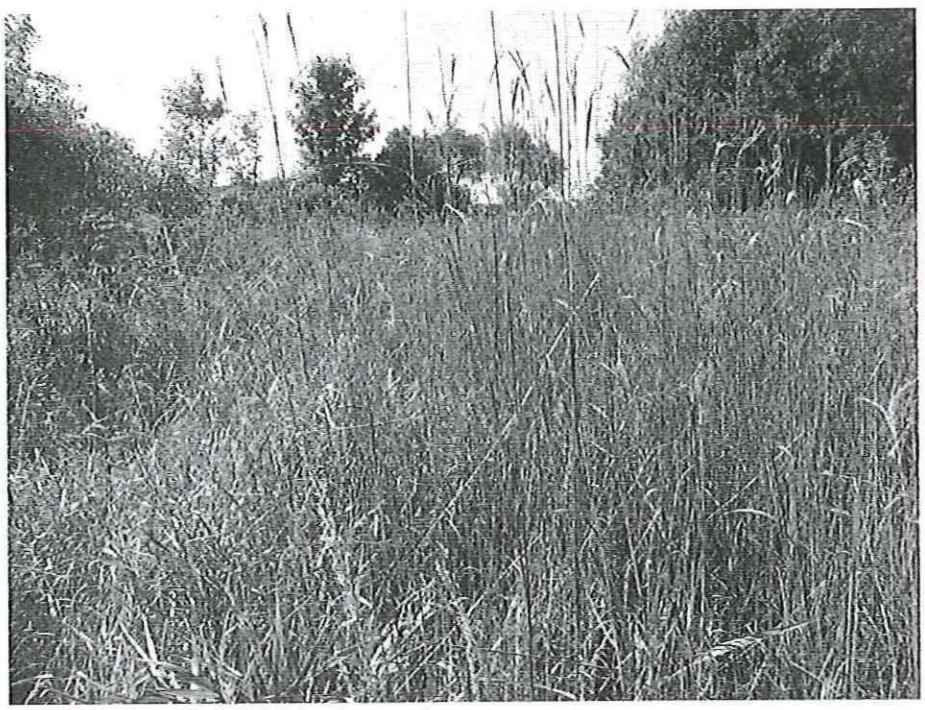


Photo 8. Sample Point P-2; view west

Photo 9. Sample Point P-3; view north

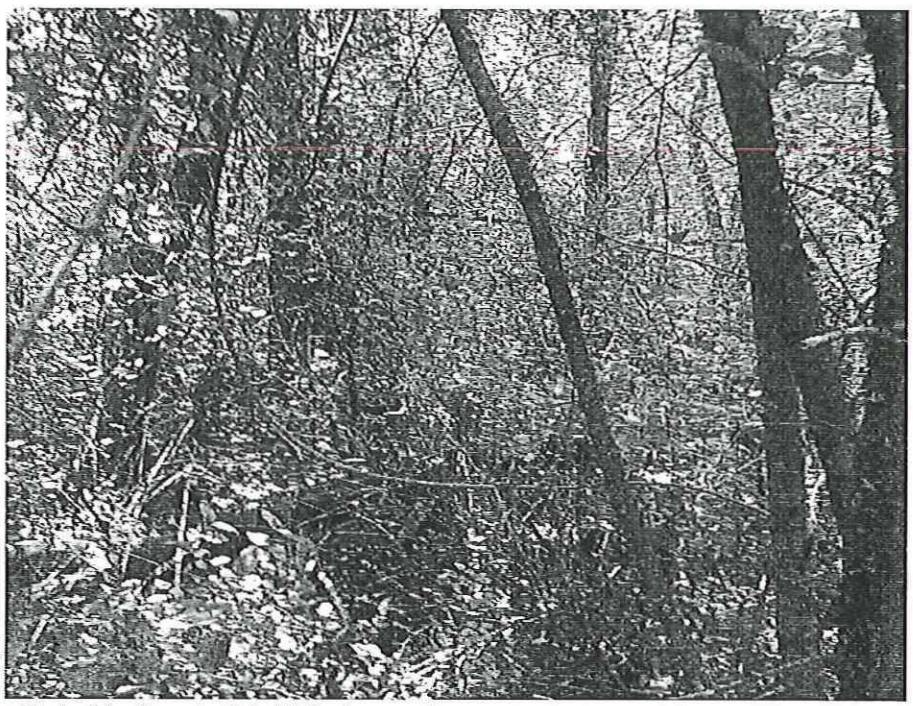


Photo 10. Sample Point P-3; view east

Photo 11. Sample Point P-3; view west

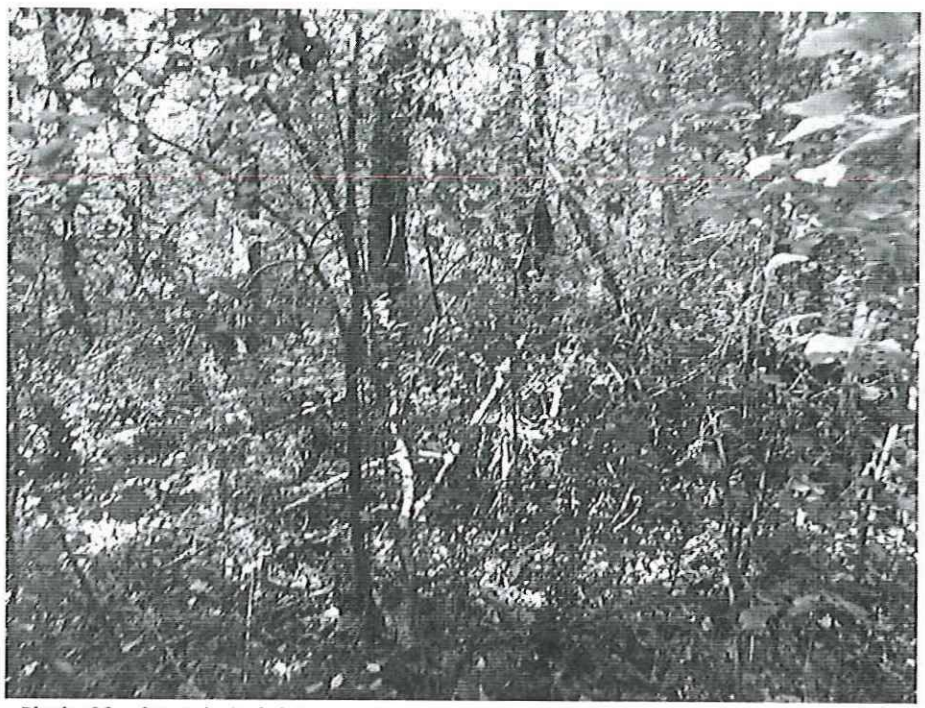


Photo 12. Sample Point P-4; view west

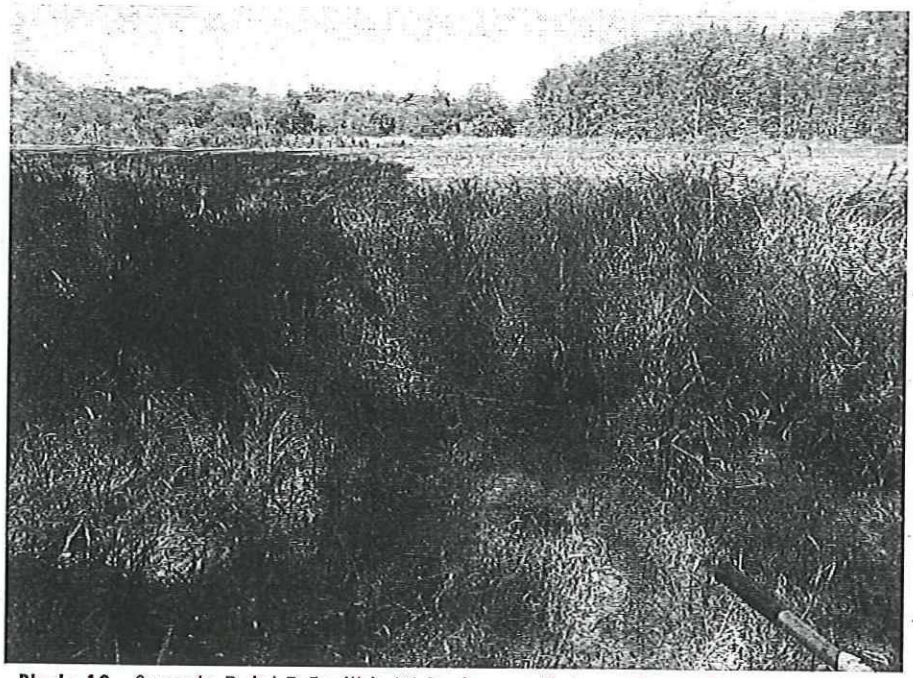


Photo 13. Sample Point P-5 within W-3; view north towards road

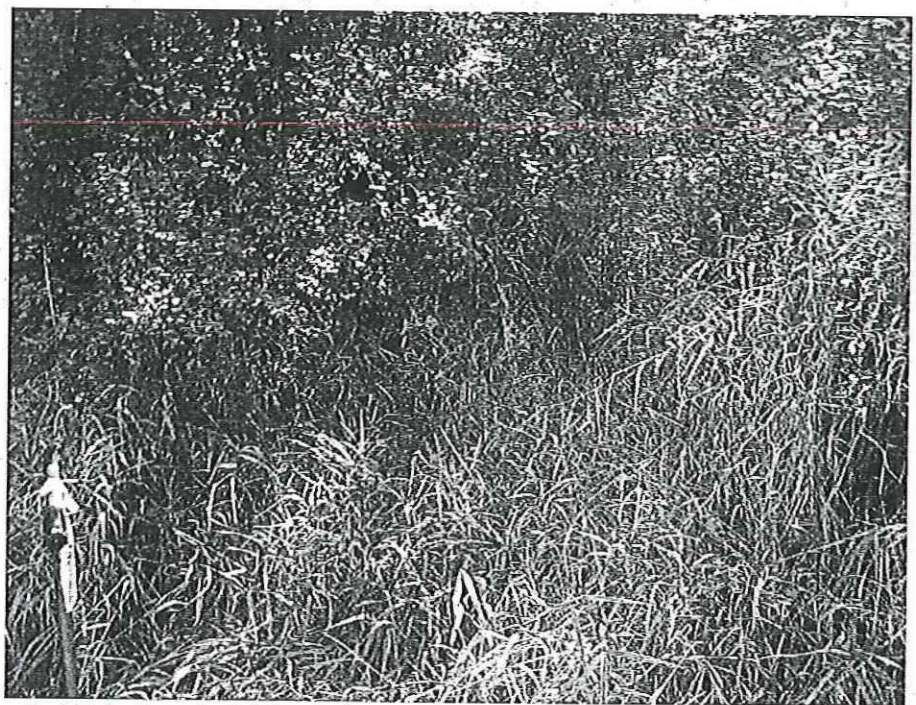


Photo 14. Sample Point P-5; view south towards P-6

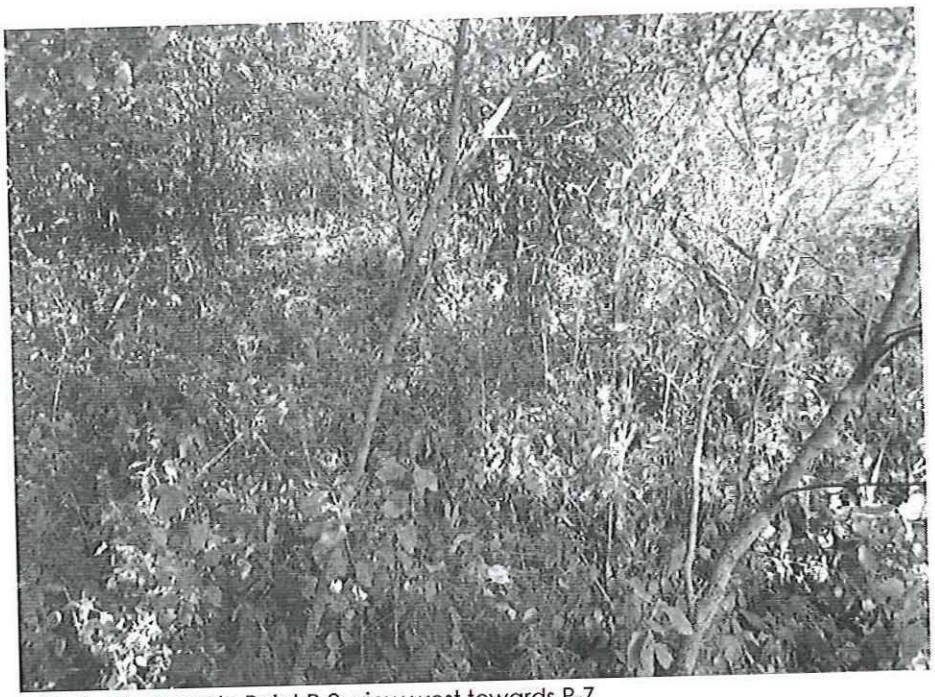


Photo 15. Sample Point P-8; view west towards P-7

Photo 16. Sample Point P-8; view east

Appendix D – WETS Analysis

WETS Analysis Worksheet

Project Name: Ridge Road
Project Number: 193705554
Period of interest: July - September
Station: Dane County Regional Airport
County: Dane County, WI

Long-term rainfall records (from WETS table)

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	August	2.81	4.31	5.18
2nd month prior:	July	2.92	3.99	4.70
3rd month prior:	June	2.59	4.43	5.39
		Sum =	**12.73**	

Site determination

Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
3.85	Normal	2	3	6
6.52	Wet	3	2	6
6.73	Wet	3	1	3
Sum = **17.10**			Sum*** =	**15**

*Normal precipitation with 30% to 70% probability of occurrence

Determination: **X** Wet
_____ Dry
_____ Normal

**Condition value:
Dry = 1
Normal = 2
Wet = 3

***If sum is:

6 to 9	then period has been drier than normal
10 to 14	then period has been normal
15 to 18	then period has been wetter than normal

NOTE: Field work completed September 20, 2017. Only 0.16 inch of precipitation received from September 1-19, 2017.

Precipitation data source: http://agacis.rcc-acis.org; http://mrcc.isws.illinois.edu/CLIMATE/

Reference: Donald E.Woodward, ed. 1997. *Hydrology Tools for Wetland Determination*, Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.

Appendix E– Delineator Qualifications

Jeffrey D. Kraemer W.P.I.T.

Senior Scientist / Project Manager

Stantec

Mr. Kraemer specializes in environmental regulatory support and policy. He has substantial experience working with the local, state, and federal regulatory agencies on complex, often controversial projects. Mr. Kraemer has substantial experience assisting clients at the project planning level to identify and plan for environmental regulatory implications and risk across many industry sectors with particular expertise in the utility and private development industries. Mr. Kraemer has a thorough understanding of the technical and regulatory aspects of environmental projects. His experience includes: Project critical issues analysis/permitting feasibly assessments; Wetland and other natural resource investigations, mitigation planning, and permitting; Clean Water Act and Endangered Species Act studies and consultation; and National Environmental Policy Act documentation (EA/EIS).

In addition to environmental regulatory expertise, Mr. Kraemer has a strong technical background in wetland ecology and botany and manages Stantec's Midwest ecological restoration implementation group. This group is responsible for building, managing, and monitoring natural area restoration projects such as wetland mitigation. Mr. Kraemer is an assured wetland professional through the Wisconsin Department of Natural Resources Wetland Delineation Professional Assurance Initiative and has extensive environmental consulting experience as both a field ecologist and project manager.

EDUCATION

Wetland Training Institute, Training, Wetland Soils and Hydrology, 2003

Vegetation of Wisconsin Workshop, Training, UW-Milwaukee, 2000

Wetland Delineation Training Workshop, Continuing Education and Extension, UW-La Crosse, 2001

Identification of Sedges Workshop, Training, UW-Milwaukee, 2001

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

M.S. – Biological Sciences (Emphasis in Wetland Ecology), University of Wisconsin, Milwaukee, Wisconsin, 2003

B.S. – Biological Sciences (Emphasis in Aquatic Biology), University of Wisconsin, La Crosse, Wisconsin, 1999

Assured Wetland Delineator, Milwaukee, Wisconsin, 2008

REGISTRATIONS

Professionally Assured Wetland Delineator, Wisconsin Department of Natural Resources

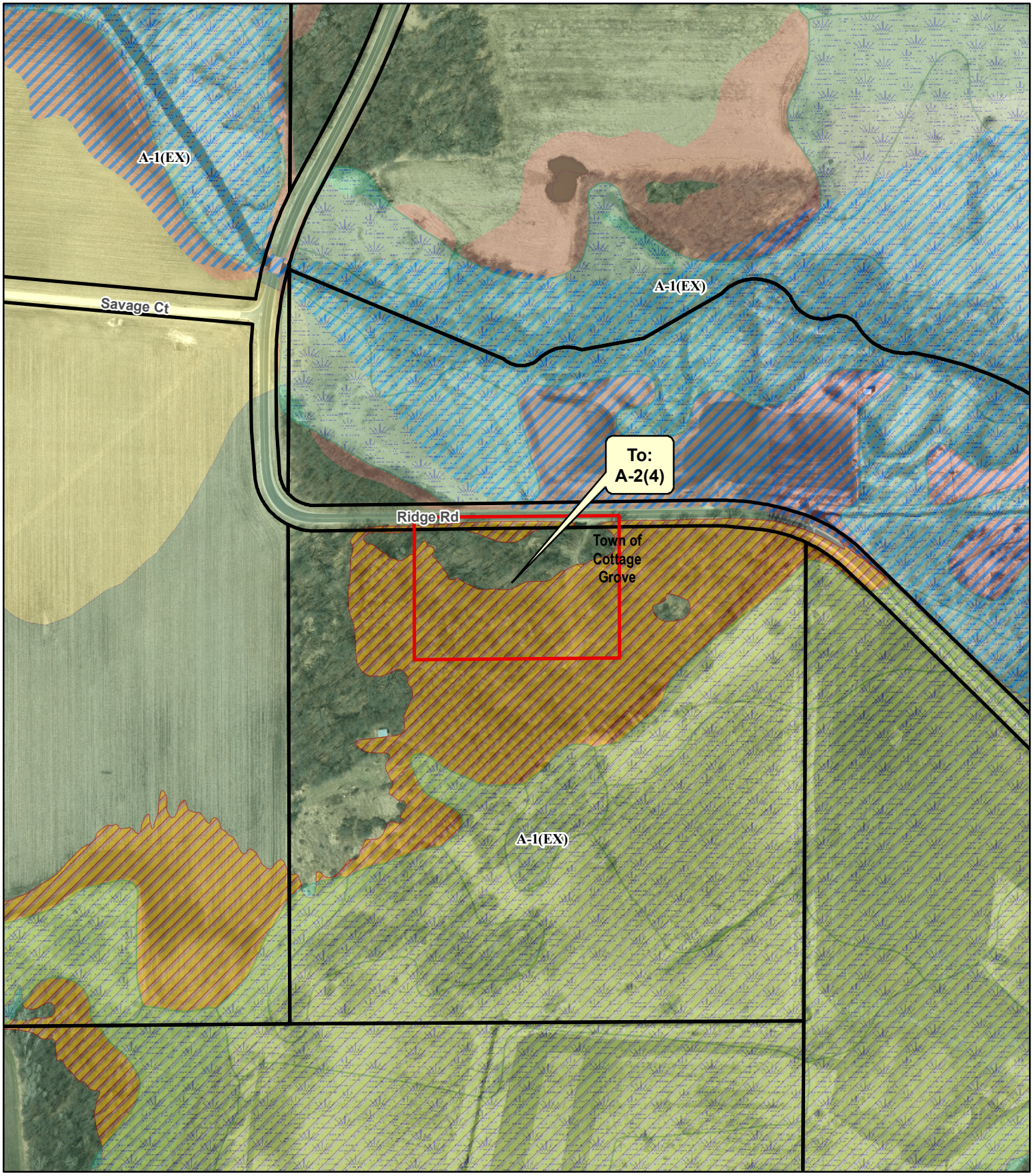
Wetland Professional in Training (WPIT), Society of Wetland Scientists Certification Program

MEMBERSHIPS

Member, Society of Wetland Scientists

Member, Wisconsin Wetlands Association

** denotes projects completed with other firms*



Legend

Significant Soils

Floodplain

Wetland

Class

Class 1

Class 2

N

0 115 230 460 Feet

Petition 11244
PETE ANDRINGA