Hey and Associates, Inc.

Assured Wetland Delineation Report
Center Road Quarry Expansion Project
Town of Rutland, Dane County, Wisconsin

Project No. 23-0084

Prepared For:
Mendota Consulting, LLC
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Madison, Wisconsin 53703

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Staff licensed to practice in Illinois, Wisconsin, Indiana, Michigan and Oregon
IDOT and WisDOT Prequalified

April 24, 2023

Table of Contents

INTRODUCTION

The investigated project area (45.7-acres) is located at 427 Center Road (Parcel ID Numbers: 051028480010 and 051028198504) within the Town of Rutland, Wisconsin (Exhibit 1). For the purposes of this investigation the entirety of the project area was investigated. The project area is further located in the southeast quarter of Section 28, Township 5 North, Range 10 East in Dane County. The project area consists of an active agricultural field (soybeans in 2022), an existing quarry (K&D Stone, LLC), and a former Wisconsin Department of Transportation (WisDOT) borrow pit with access road to Center Road. The former WisDOT borrow pit is now an active sand mining pit. The topography within the project area slopes from the northeast to the south/southwest with an elevation range from 993' to 954'.

A wetland delineation of the project area was conducted at the request of Mendota Consulting, LLC. The purpose of the wetland delineation was to identify any existing wetlands within the project area for a planned quarry expansion project in 2023.

The field work for the wetland delineation was performed by Bob Kerpec of Hey and Associates, Inc on April 14, 2023. Bob Kerpec was the lead investigator for the wetland delineation and is a Wisconsin Department of Natural Resources (WDNR) Assured Delineator. Bob Kerpec has over 18 years of experience delineating wetlands in southeast Wisconsin and northeast Illinois. He received his 40-hour U. S. Army Corps of Engineers (USACE) wetland delineation and management training certificate in Chicago, Illinois in 2000. Bob is a certified wetland specialist in Lake and McHenry Counties in Illinois, has been a project manager and designer for a variety of native restoration projects in northeast Illinois, and served as a Resident Engineer overseeing two wetland mitigation projects in Lake County, Illinois since 2014. Bob has also attended the annual Critical Methods in Wetland Delineation training since 2013.

Site History

Hey and Associates, Inc. (Hey) was able to obtain several documents online related to the Center Road project area all of which can be found in Appendix A and are briefly summarized below.

- Parcel Number 051028198504 is a 9.0-acre existing quarry on the far north side of the project area. This parcel has been used as a quarry since the 1950's.
- Parcel Number 051028480010 is 36.7-acres and has historically been in agricultural use. Though in 2022, the far northwest portion of this parcel was used as a borrow pit for two WisDOT projects associated with US Highway 14 improvements: Project Numbers 5155-04-81 and 5155-00-79. An access road was also constructed to gain entree to the borrow/sand pit from Center Road

Table 1: Historic Aerial/Map Review Summery	
Year	**Notes**
1906	This USGS map illustrates no wetland or water features within the project area limits.
1937	This aerial illustrates the project area as vacant and in agricultural use.
1939	The Bordner survey map indicated the project area as pasture and cleared crop land.
1955	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
1968	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
1976	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
1987	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
1995	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
2000	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
2010	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
2020	This aerial illustrated mining in the northern portion of the project area and the remaining portion in agricultural use.
2022	This aerial illustrated two mining locations (northern and northwest portions of the project area), an access road, and the remaining portion in agricultural use.

Wetland Delineation Methods

The Center Road project area was delineated by using procedures outlined in the 1987 USACE Wetland Delineation Manual and the 2012 Regional Supplement: Northcentral Northeast Region (Version 2.0), Guidance for Submittal of Delineation Reports to the St. Paul District USACE and the WDNR (2015), and Guidance for Offsite Hydrology/Wetland Determinations to USACE St. Paul District (July 1, 2016). A majority of the project area was considered atypical and significantly disturbed due to the following active activity: cropping and mining. Procedures in Chapter 5 of the Regional Supplement were used in the area of the active agricultural field.

As a result of a modification to a Memorandum of Agreement between the USACE and the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS), farmed wetland delineations are no longer conducted by USDA-NRCS for purposes other than the implementation of the Farm Bill. Therefore, Hey and Associates Inc. conducts farmed wetland determinations using the methodology outlined by the USDA-NRCS for USACE permitting purposes. Initially Farm Service Agency (FSA) aerial photography is reviewed, including slides known to have been taken during normal years of precipitation, based upon the WETS (Wetland Climate Analysis) climate data tables. From the differing signatures on this photography, areas that may be prone to ponding or seasonal flooding, and crop failure or lack of planting can be determined. These photographic signatures must be present in the majority of years reviewed to be considered.

Since the property was used as row crops within the last five years, a farmed wetland determination was performed using available crop compliance slides from the Dane County NRCS office augmented with available Google Earth aerial photographs. The WETS table provided in Exhibit 10 was used to determine normal, wet, and dry precipitation years following the NRCS method. Copies of the last available nine normal year aerials are provided in Exhibit 12.

Farmed wetland boundaries were determined through the use of several sources of existing data such as the National Wetland Inventory (NWI) map, Wisconsin Wetland Inventory (WWI) map, NRCS Soil Survey for Dane County map, and the WETS table (Madison Dane County Regional Airport).

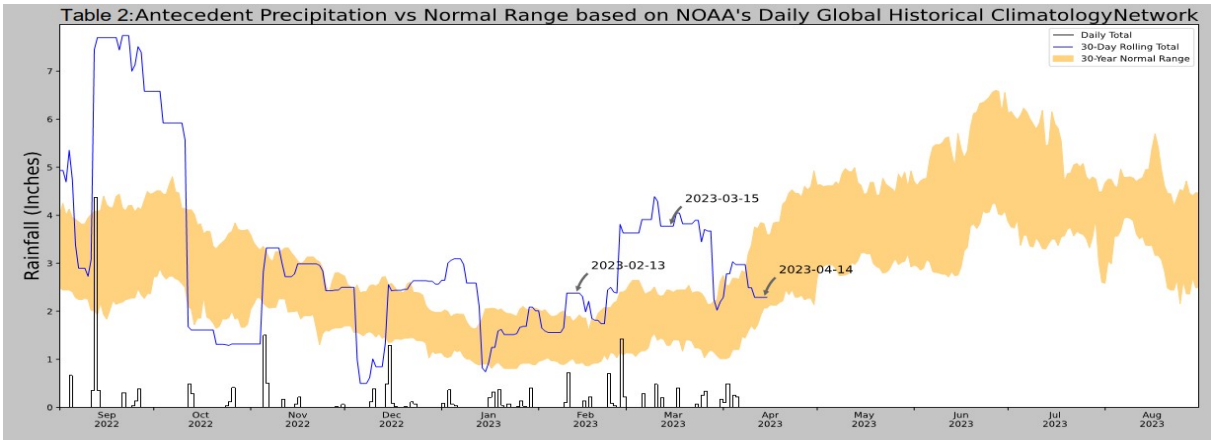
For the wetland delineation, the entirety of the project area was inspected, with areas supporting wetland plant species and areas mapped as NRCS wet spots prioritized for investigation. A percent cover was utilized to document dominant species of plants. Green growth (bud bursts) were noted in the tree (*Acer negundo*) and shrub (*Lonicera tatarica*) stratums during the April 14, 2023, field visit. For each data point location, the plot sizes had a five-foot radius for the herbaceous stratum, a fifteen-foot radius for the sapling/shrub stratum, and a thirty-foot radius for the trees/woody vine stratum. If inspection revealed that wetland plant species comprised more than 50 percent of the plant cover, the suspected wetland was further examined for field indicators of hydric soil and hydrology. The USACE-accepted field indicators of hydric soil include: gleyed and low chroma matrix and mottle colors, and iron and manganese concretions. Soil pits were dug to a minimum depth of twenty-four inches unless a refusal was encountered. Soil temperatures were also taken at 12” below the surface during the April 14, 2023, field visit. Soil temperatures were recorded at data points locations at the following degrees: 52.7F, 56.3F, and 57.2F The USACE-approved field indicators of hydrology include visual observation or photographic evidence of soil inundation or saturation during the growing season, oxidized channels associated with living roots and rhizomes, water marks, drift lines, waterborne sediment deposits, water-stained leaves, surface scoured areas and drainage patterns. The NRCS Soil Survey was also consulted for determining the presence of possible hydric soils in the area, and on-site soil investigations were conducted to validate this data. Additionally, if there are given hydrologic or vegetative indicators on-site to support or refute information gathered by other means, these are documented in final reporting.

RESULTS AND DISCUSSION

Antecedent Hydrologic Condition Analysis

Review of antecedent precipitation data was performed using the USACE Antecedent Precipitation Tool (Version 1.0.19). The results from this data determined that in the prior three months to the 2023 site visit, it was wetter than normal for precipitation. See Table 2 below for the calculations. Hey also reviewed the precipitation records for the two weeks prior to the site visit. The two weeks prior to the April 14 field visit the precipitation total for was 0.54", below the normal range of 1.67" for that time of year (Exhibit 10). Air temperatures were noted well above average prior and during the time of the April 2023 field visit (Exhibit 10). A soil temperature graph of the Rutland area indicated soil temperature above 41 degrees during the week of the field visit (Exhibit 10) for the upper 4''-6".

Table 2:Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical ClimatologyNetwork



Coordinates	42.867303, -89.311158
Observation Date	2023-04-14
Elevation (ft)	983.918
Drought Index (PDSI)	Not available
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-04-14	2.065354	3.822441	2.291339	Normal	2	3	6
2023-03-15	1.289764	2.432284	3.771654	Wet	3	2	6
2023-02-13	0.909055	1.838583	2.377953	Wet	3	1	3
Result							Wetter than Normal - 15

Figure and tables made by the **Antecedent Precipitation Tool** Version 1.0

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

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
STOUGHTON WWTP	42.9111, -89.2131	835.958	5.814	147.96	3.476	10409	90
DUNKIRK 0.1 NW	42.8836, -89.2106	849.081	1.904	13.123	0.882	6	0
EDGERTON 5.9 N	42.9222, -89.0925	905.84	6.15	69.882	3.197	2	0
MCFARLAND 0.8 E	43.0186, -89.2785	890.092	8.13	54.134	4.099	47	0
MCFARLAND 1.3 NE	43.0324, -89.2767	883.858	8.977	47.9	4.47	4	0
OREGON 0.7 SE	42.918, -89.3739	941.929	8.151	105.971	4.532	3	0
OREGON 0.4 SSW	42.9208, -89.3854	976.05	8.744	140.092	5.16	3	0
COTTAGE GROVE	43.0769, -89.1911	866.142	11.51	30.184	5.527	3	0
UW ARBORETUM - MADISON	43.0411, -89.4286	870.079	14.119	34.121	6.835	844	0
MADISON DANE CO RGNL AP	43.1406, -89.3453	858.924	17.206	22.966	8.138	32	0

Review of Existing Data Sources (Maps)

The United States Geological Survey (USGS) topographic map indicated no wetlands or water features within the project area limits (Exhibit 2). The USGS map though did indicate a quarry at the far northern portion of the project area. The NWI map did not indicate any wetlands within the project area limits (Exhibit 3). The WWI map (Exhibit 4) did not indicate wetlands,

water features, or any Maximum Extent of Wetland Indicators within the project area limits. The WWI did indicate a NRCS wet spot at the northcentral portion of the project area. The Flood Hazard Zones Map (Exhibit 5) did not indicate any mapped flood hazard zones within the project area limits. The NRCS Soil Survey (Exhibit 6) indicated the following soil type listed below in Table 3:

Table 3: Soil Summary

Soil Code	Soil Description	Hydric Status	Drainage Class
BoD2	Boyer sandy loam, 12 to 20 percent slopes, eroded	N	Well drained
DsB	Dresden silt loam, 2 to 6 percent slopes	N	Well drained
KeA	Kegonsa silt loam, 0 to 2 percent slopes	N	Well drained
QUA	Quarry	N/A	N/A
WvB	Westville silt loam, 2 to 6 percent slopes	N	Well drained
WxB	Whalan silt loam, 2 to 6 percent slopes	N	Well drained
WxD2	Whalan silt loam, 12 to 20 percent slopes, eroded	N	Well drained

Wetland Summary Results

The wetland investigation of the Center Road determined that no wetlands were present within the project area limits. The mapped NRCS wet spot was investigated and was determined to be a high spot in the landscape and formally dominated by a few bur oak *(Quercus macrocarpa)* trees. Data points were performed at this location and at other low spots within the project area limits and did not indicate the presence of hydric soils, a dominance of hydrophytic vegetation, or any hydrology indicators. There was no visual evidence of long term ponding at the low spots that were investigated in the agricultural field.

Upland Areas

The project area is dominated by active mining activities, spoil piles from the former WisDOT project, and an agricultural field (soybeans in 2022).

Farmed Wetland Determination Data

The WETS table for the Madison Dane County Regional Airport was referenced to determine the normal, wet, or dry periods for the slide reviews (Exhibit 10). All of the slides/aerials were examined and potential farmed wetlands (PFWs) meeting the criteria were noted on an aerial (Exhibit 11). The individual year aerial photographs for the normal and wet years are included as Exhibit 12. Each PFW was evaluated year-by-year (2000-2022) using the criteria set forth by FSA and USDA-NRCS standards. The results are summarized below and on the following page in Table 4 and the decision matrix. Not all slides were available online or from the NRCS office. Photographs (Exhibit 9) were also taken at each PFW location during the April 2023 field visit.

Table 4: Wetland Hydrology From Aerial Imagery-Recording Form

Project Name: Center Road			**4/10/2023**		**County: Dane**				**State: Wisconsin**		
Investigator: Hey and Associates, Inc			**Legal Description (Sec,T, R): 28, 5N, 10E**						**City/Town: Rutland**		
Year	**Image Source**	**Climate Condition (Wet, Dry, Normal)**	**Image Interpretation(s)**								
			Area 1	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**			
Jun-00	Google	Normal	NV	NV	NV	NV	NV	**CS**			
Jun-05	Google	Normal	NV	NV	**CS**	NV	NV	NV			
Sep-06	Google	Normal	NV	NV	**CS**	NV	NV	NV			
Sep-08	Google	Normal	NV	NV	NV	NV	**CS**	NV			
Jun-10	Google	Normal	NV	NV	NV	NV	NV	NV			
Jun-13	FSA	Wet	NV	NV	NV	NV	NV	NV			
Jun-14	Google	Normal	NV	NV	NV	NV	NV	NV			
Jun-15	FSA	Wet	NV	NV	NV	NV	NV	NV			
Sep-17	Google	Wet	NV	NV	CS	CS	NV	NV			
Sep-18	Google	Wet	NV	NV	DO	NV	NV	NV			
Jun-20	Google	Normal	**NC**	**NC**	NV	NV	NV	NV			
Sep-21	Google	Normal	**NC**	NV	NV	NV	NV	NV			
Jun-22	Google	Normal	NV	NV	NV	NV	NV	NV			
Summary Table											
			Area 1	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**			
Number of Normal Years			9	9	9	9	9	9			
Number of Normal Years with wet signatures			2	1	2	0	1	1			
% of Normal Years with wet signatures			22%	11%	22%	0%	11%	11%			

KEY		
WS-wetland signature	**SS- soil wetness**	**CS- crop stress**
NC- not cropped	**AP- altered pattern**	**NV- normal vegetation cover**
DO- drowned out	**SW- standing water**	**NSS- no soil wetness signature**

Decision Matrix					
Area	Hydric Soils present [1]	Identified on NWI or other wetland map [2]	Percent with wet signatures	Field verification required [3]	Wetland?
1	No	Yes, NRCS Wet Spot	22%	Yes	No, high spot
2	No	No	11%	No	No
3	No	No	22%	No	No
4	No	No	0%	No	No
5	No	No	11%	No	No
6	No	No	1%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropiately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Other local/regional maps available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per 87 Manual Regional Supplement.

Environmental Reviews

The Dane County Regional Planning map was reviewed and did indicate a Resource Protection Corridor within the far northern parcel (area of active mining).

No threatened or endangered species or their habitats were encountered during the 2023 site visit. It is recommended though that an Endangered Resources Review request be submitted to the WDNR early in the planning process.

SUMMARY AND CONCLUSIONS

The wetland investigation of the Center Road project area determined that no wetlands were present. The project area was dominated by active mining activities, spoil piles from the former WisDOT project, and an agricultural field (soybeans in 2022). A dominance of hydrophytic vegetation was not observed at any location within the project area limits. A data point was performed within the area mapped as a NRCS wet spot per the WWI map and was found to be a high spot in the landscape. This area also had the absence of hydric soil, hydrophytic vegetation, and hydrology (all data point locations are shown on Exhibit 7). Wetland hydrology indicators were not met at the data point locations. The only primary wetland hydrology indicator (surface water) that was observed within the project area was at the bottom of the active gravel pit (perched above the limestone rock). Representative photographs of the project area are provided in Exhibit 9.

Per the WDNR assured requirements, a copy of this assured wetland delineation report will be submitted within 60 days of completion to the WDNR for assured compliance. Since this report was completed by a WDNR Assured Wetland Delineator, a wetland boundary (if present) does not need WDNR concurrence.

Final rulings on the wetland boundaries (if present) are determined by the USACE and the WDNR. Wetland boundaries (if present) have the potential to change over time due to a variety of unforeseen factors such as a change in precipitation and weather patterns and/or local drainage alterations which can then affect the site's hydrology and vegetation characteristics after the site has been delineated. If the site characteristics change over time and a wetland has formed, a review agency may ask that the property be re-delineated.

References:

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

Guidance for Offsite Hydrology/Wetland Determinations (July 1, 2016) St. Paul District US Army Corps of Engineers.

Dane County Regional Mapping (DCiMap) Online

Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources. March 4, 2015 St. Paul District US Army Corps of Engineers.

NOAA Regional Climate Centers. Applied Climate Information System (Online)

USDA Natural Resources Conservation Service. 2010. National Food Security Act Manual 5th Edition (as amended). Washington, DC.

USDA Natural Resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States, A guide for Identifying and Delineating Hydric Soils, Version 8.2, Edited by L.M. Vasilas, Soil Scientist, NRCS, Washington, DC; G.W. Hurt, Soil Scientist, University of Florida, Gainesville, FL; and J.F. Berkowitz, Soil Scientist, USACE, Vicksburg, MS

USDA Natural Resources Conservation Service. Web Soil Survey (Online)

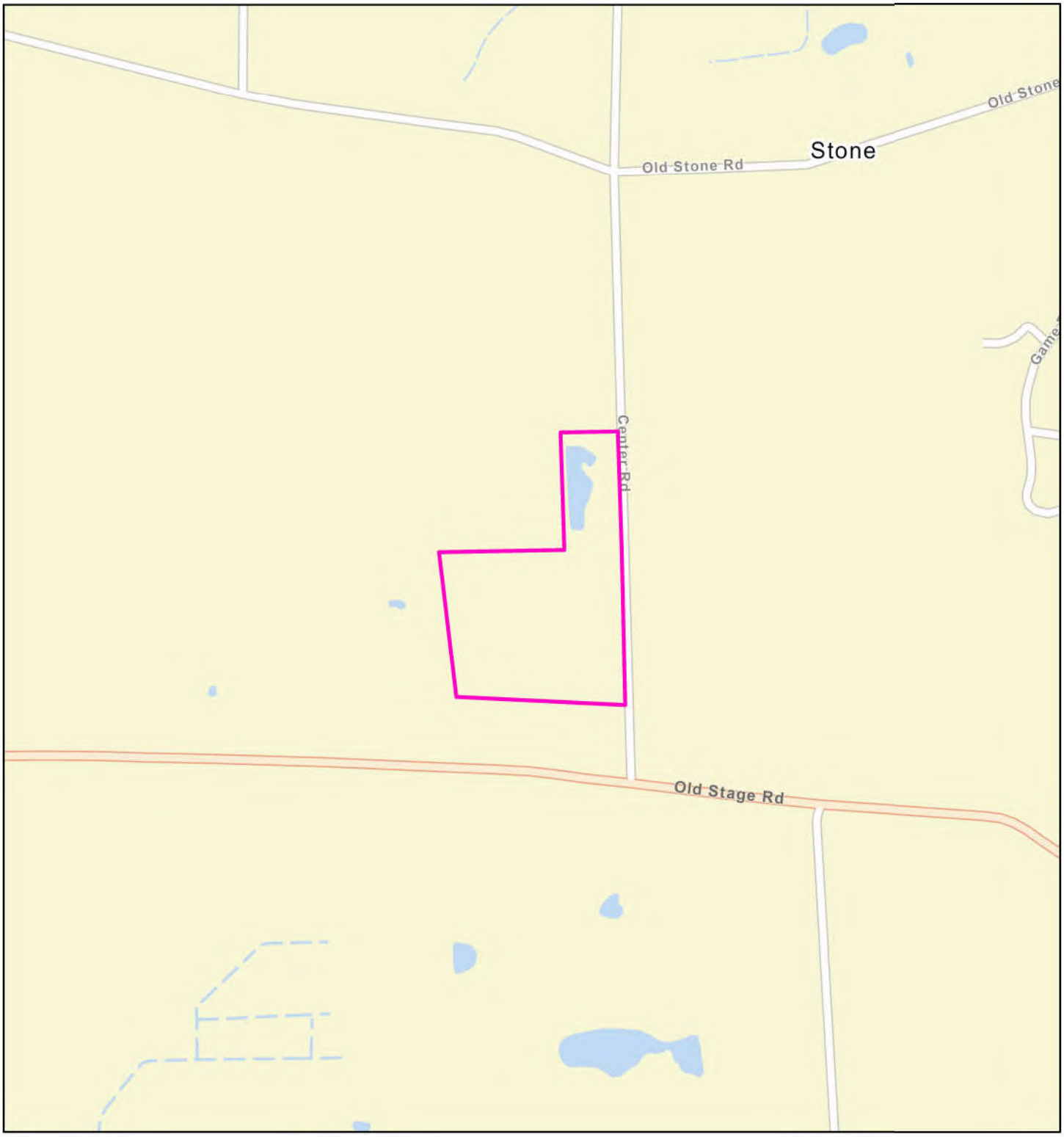
U.S. Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USACE Guidance for Offsite Hydrology/Wetland Determinations to USACE St. Paul District (July 1, 2016).

USACE The National Wetland Plant List Version 3.4: 2020 Wetland Ratings (Wisconsin).

USACE Antecedent Precipitation Tool (Jason Deters), Version 1.0.19

Wisconsin DNR Surface Water Data Viewer (Online)



0 1000 Feet

N
W E
S

Legend:
Project Boundary

Project Number: 23-0084

Date: 4/4/2023

Project Name:
Center Road - Rutland

Prepared for:
Mendota Consulting, LLC

Location Information:
T.5N, R.10E, Section 28

Exhibit Title:
Project Location

Exhibit:
1

Hey and Associates, Inc.
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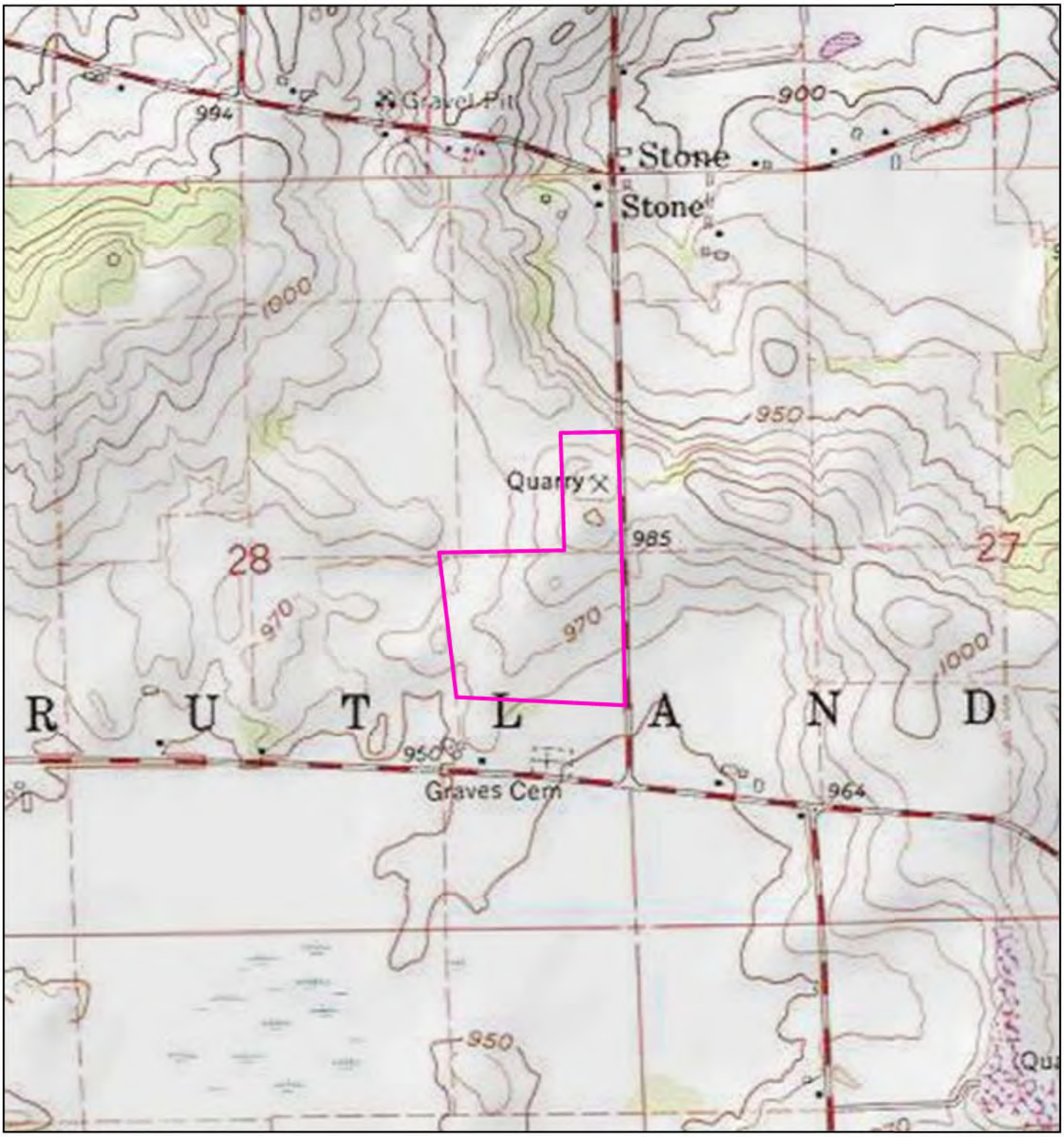


0 1000 Feet

N
W E
S

Legend:
Project Boundary

Project Name:
Center Road - Rutland

Project Number:23-0084

Prepared for:
Mendota Consulting, LLC

Date: 4/4/2023

Location Information:
Evansville Quadrangle

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Exhibit Title:
USGS Topographic Map

Exhibit:
2

0 400 Feet

N
W E
S

Legend:
Project Boundary
National Wetland Inventory

Project Number:23-0084

Date: 4/4/2023

Project Name:
Center Road - Rutland

Prepared for:
Mendota Consulting, LLC

Location Information:
Evansville Quadrangle

Exhibit Title:
National Wetland Inventory

Exhibit:
3

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

0 400 Feet

N
W E
S

Legend:
- Project Boundary
- Wetland
- Maximum Extent Wetland Indicators
- Rivers and Stream
- NRCS Wetspots

Project Number:23-0084

Date: 4/5/2023

Project Name:
Center Road - Rutland

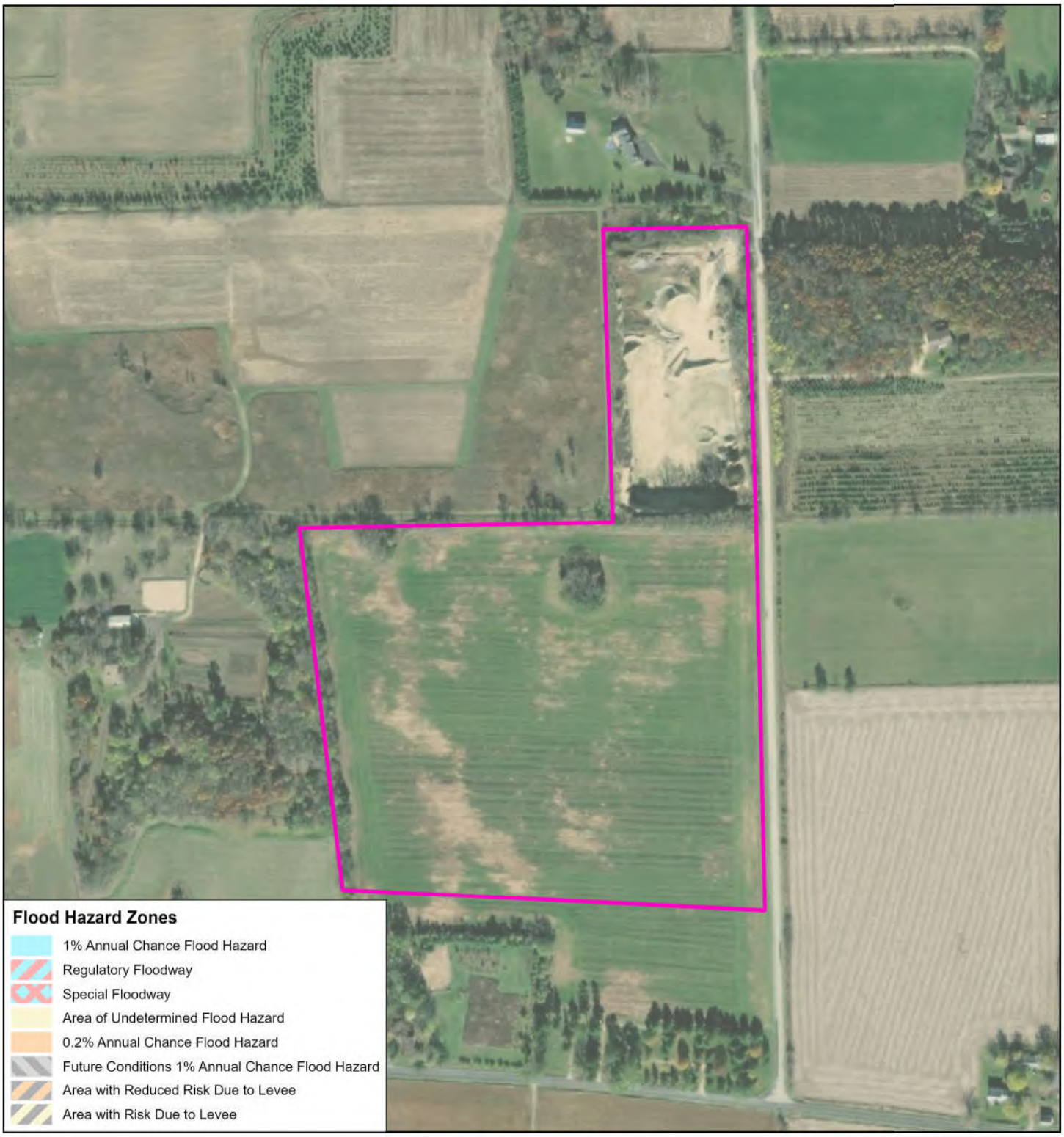
Prepared for:
Mendota Consulting, LLC

WWI Date:
2020

Exhibit Title:
Wisconsin Wetland Inventory

Exhibit:
4

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture



0 400 Feet

N W E S

Legend:

Project Boundary

Project Number:23-0084

Date: 4/4/2023

Project Name:
Center Road - Rutland

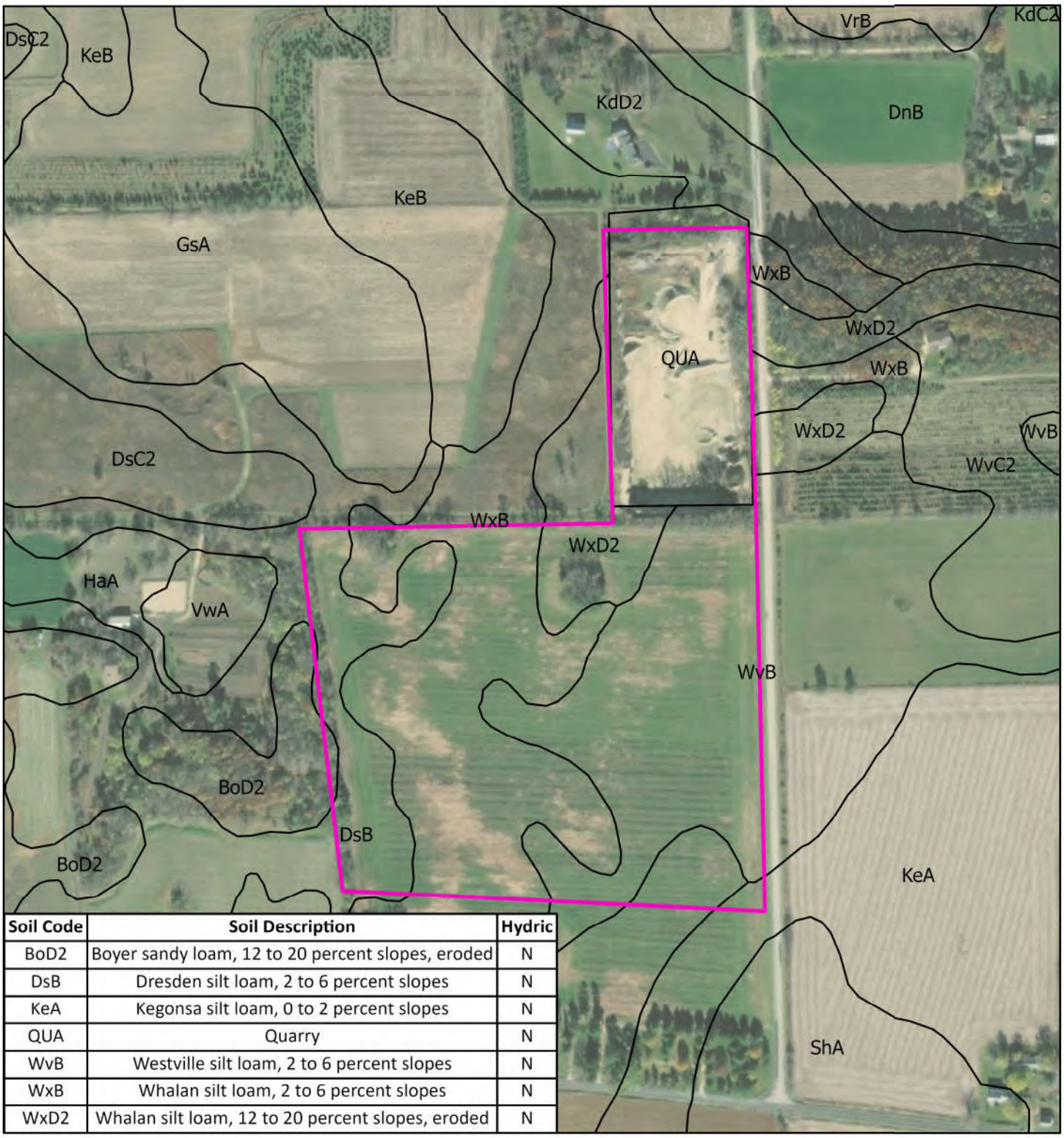
Prepared for:
Mendota Consulting, LLC

Effective Date:
5/18/2009
9/16/2015

Exhibit Title:
FEMA Flood Hazard Zones

Exhibit:
5

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture



Soil Code	Soil Description	Hydric
BoD2	Boyer sandy loam, 12 to 20 percent slopes, eroded	N
DsB	Dresden silt loam, 2 to 6 percent slopes	N
KeA	Kegonsa silt loam, 0 to 2 percent slopes	N
QUA	Quarry	N
WvB	Westville silt loam, 2 to 6 percent slopes	N
WxB	Whalan silt loam, 2 to 6 percent slopes	N
WxD2	Whalan silt loam, 12 to 20 percent slopes, eroded	N

0 400 Feet

N W E S

Legend:
- Project Boundary
- Soils Units
- Hydric Soils

Project Number:23-0084

Date: 4/4/2023

Project Name:
Center Road - Rutland

Prepared for:
Mendota Consulting, LLC

Soil Survey Date:
2019

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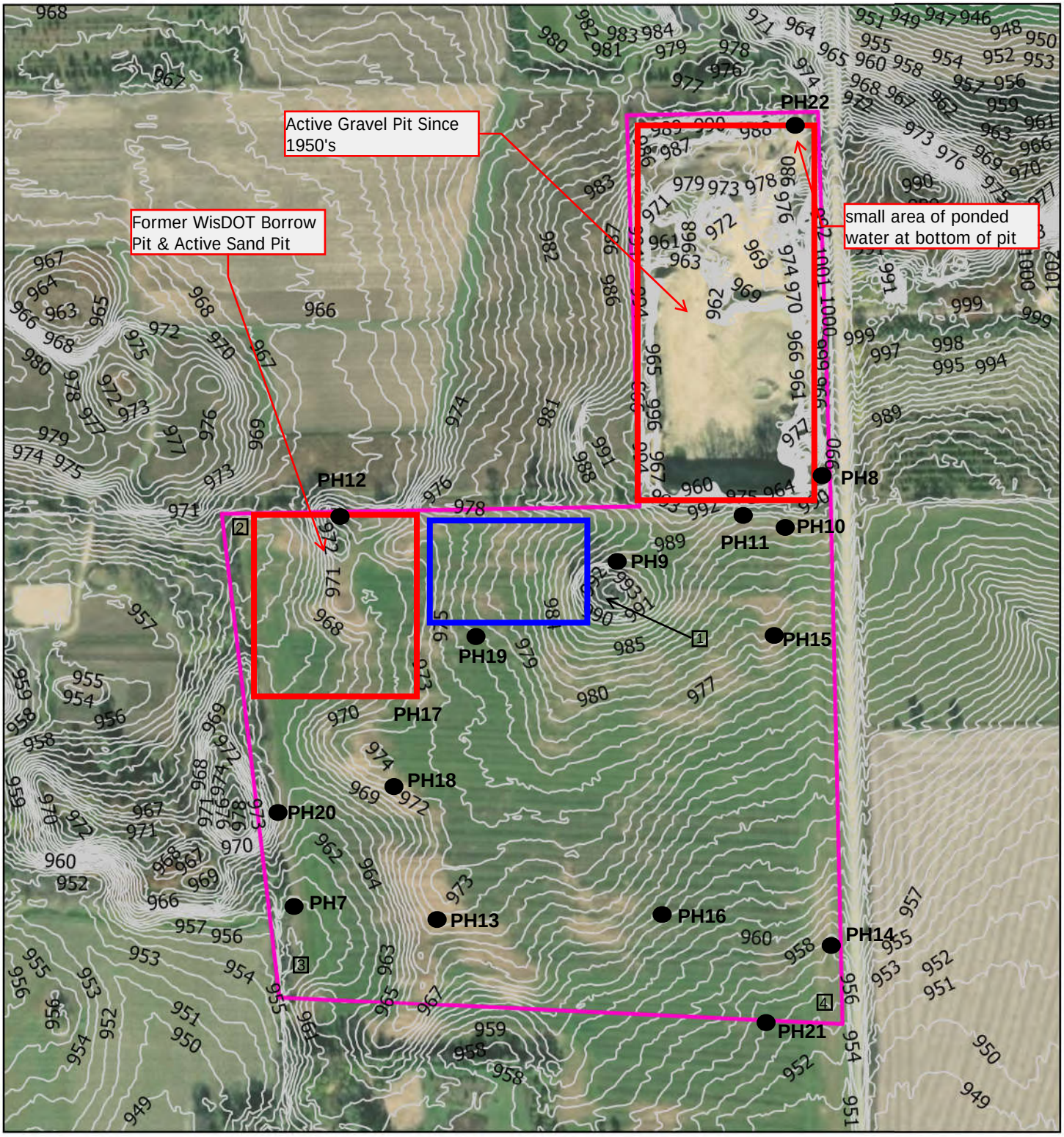
Exhibit Title:
NRCS Soil Survey

Exhibit:
6



0 300 Feet

N W E S

Legend:

- Project Boundary
- 1ft Contours
- Active Mining (Estimated)
- WisDOT Spoils Location (Estimated)
- Photo Location (PH)
- Data Point Location

Project Name:
Center Road - Rutland

Project Number: 23-0084

Prepared for:
Mendota Consulting, LLC

Date: 4/5/2023

Aerial Date:
2020

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Exhibit Title:
Wetland Boundary (No findings)

Exhibit:
7

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

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

Project/Site: Center Road Quarry Expansion Project City/County: Rutland/Dane Sampling Date: 4-14-2023

Applicant/Owner: K&D Stone LLC State: WI Sampling Point: DP1

Investigator(s): Hey and Associates, Inc. (Bob Kerpec) Section, Township, Range: 28, T5N, R10E

Landform (hillside, terrace, etc.): top of slope Local relief (concave, convex, none): convex Slope %: 6-8

Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.867303 Long: -89.311158 Datum:

Soil Map Unit Name: Whalan silt loam NWI classification: none

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Review of antecedent precipitation records indicated that is was wetter than normal for this time of year. Rainfall totals 2 weeks prior were 0.54" below the average of 1.67" this time of year. Air temperatures have been well above average the last 6 days. Today's temperature is 74F. Data point was chosen due to a mapped NRCS wet spot at this location. This location though is the highest spot within the project area at 993'. Soil temperature at 12" below the surface is 57.2F. Bud bursts were observed on the nearby boxelders and honeysuckle species. Data point is adjacent to a woody debris pile. This woody debris pile contains the trees/shrubs that have been recently removed (last 2 years). This location is also near a former WisDOT spoil piles. Larger trees/shrubs have been removed for the construction of the adjacent WisDOT borrow pit. Within area of Wetland Signature #1.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
Hydrology indicators were not met (on top of a hill)

VEGETATION – Use scientific names of plants. Sampling Point: DP1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	25	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rhamnus cathartica*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	20	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago canadensis*	25	Yes	FACU
2. *Dactylis glomerata*	25	Yes	FACU
3. *Bromus inermis*	25	Yes	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	75	x 4 =	300
UPL species	25	x 5 =	125
Column Totals:	120 (A)		485 (B)

Prevalence Index = B/A = 4.04

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criteria was not met. Larger trees/shrubs have been previously removed for adjacent borrow pit activity.

SOIL

Sampling Point: DP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 4/2	100					Loamy/Clayey	
2-15	10YR 5/4	100					Silty sandy loam	with rocks
15-24	10YR 4/4	100					Sandy loam	with rocks

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

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ High Chroma Sands (S11) (**LRR K, L)**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) (**LRR K, L**)
___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Red Parent Material (F21) **(outside MLRA 145)**
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Hyrdic soil criteria was not met.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

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

Project/Site: Center Road Quarry Expansion Project City/County: Rutland/Dane Sampling Date: 4-14-2023

Applicant/Owner: K&D Stone LLC State: WI Sampling Point: DP2

Investigator(s): Hey and Associates, Inc. (Bob Kerpec) Section, Township, Range: 28, T5N, R10E

Landform (hillside, terrace, etc.): near toe of slope Local relief (concave, convex, none): slightly convex Slope %: 2-4

Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.867303 Long: -89.311158 Datum:

Soil Map Unit Name: Whalan silt loam NWI classification: none

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Review of antecedent precipitation records indicated that is was wetter than normal for this time of year. Rainfall totals 2 weeks prior were 0.54" below the average of 1.67" this time of year. Air temperatures have been well above average the last 6 days. Today's temperature is 74F. Data point was chosen due to the dominance of a FAC species (old witch grass). Soil temperature at 12" below the surface is 52.7F. Bud bursts were observed on the nearby boxelders and honeysuckle species. This location is also near a former WisDOT borrow pit.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
Hydrology indicators were not met.

VEGETATION – Use scientific names of plants.

Sampling Point: DP2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1. *Panicum capillare*	60	Yes	FAC
2. *Erigeron canadensis*	30	Yes	FACU
3. *Setaria verticillata*	5	No	FACU
4. *Echinochloa crus-galli*	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	65	x 3 =	195
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	100 (A)		335 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criteria was not met.

SOIL

Sampling Point: DP2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 5/3	100					Loamy	
9-22	10YR 5/4	100					Loamy Sand	refusal at 22" (rocks)

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

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Hyrdic soil criteria was not met.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

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

Project/Site: Center Road Quarry Expansion Project City/County: Rutland/Dane Sampling Date: 4-14-2023

Applicant/Owner: K&D Stone LLC State: WI Sampling Point: DP3

Investigator(s): Hey and Associates, Inc. (Bob Kerpec) Section, Township, Range: 28, T5N, R10E

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

Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.867303 Long: -89.311158 Datum:

Soil Map Unit Name: Dresden silt loam NWI classification: none

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Review of antecedent precipitation records indicated that is was wetter than normal for this time of year. Rainfall totals 2 weeks prior were 0.54" below the average of 1.67" this time of year. Air temperatures have been well above average the last 6 days. Today's temperature is 74F. Data point was chosen due to a low point in the project area. Bud bursts were observed on the nearby boxelders and honeysuckle species. Atypical/not normal due to the presence of a crop (soybeans). Procedures in Chapter 5 were used.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
Hydrology indicators were not met.

VEGETATION – Use scientific names of plants. Sampling Point: DP3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criteria was not met. 2022 soybeans were noted at this location. No crop stress was noted or evidence of ponding.

SOIL

Sampling Point: DP3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	100					Loamy/Clayey	
8-16	10YR 5/3	100					Loamy Sand	
16-24	10YR 5/4	100					Loamy Sand	

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

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Hyrdic soil criteria was not met.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R

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

Project/Site: Center Road Quarry Expansion Project City/County: Rutland/Dane Sampling Date: 4-14-2023

Applicant/Owner: K&D Stone LLC State: WI Sampling Point: DP4

Investigator(s): Hey and Associates, Inc. (Bob Kerpec) Section, Township, Range: 28, T5N, R10E

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

Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.867303 Long: -89.311158 Datum:

Soil Map Unit Name: Dresden silt loam NWI classification: none

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

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

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

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

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

Remarks: (Explain alternative procedures here or in a separate report.)
Review of antecedent precipitation records indicated that is was wetter than normal for this time of year. Rainfall totals 2 weeks prior were 0.54" below the average of 1.67" this time of year. Air temperatures have been well above average the last 6 days. Today's temperature is 74F. Data point was chosen due to a low point in the project area. Bud bursts were observed on the nearby boxelders and honeysuckle species. Atypical/not normal due to the presence of a crop (soybeans). Procedures in Chapter 5 were used. Data point was within the area of Wetland Signature #4.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
Hydrology indicators were not met.

VEGETATION – Use scientific names of plants. Sampling Point: DP4

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation criteria was not met. 2022 soybeans were noted at this location. No crop stress was noted or evidence of ponding.

SOIL

Sampling Point: DP4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					Loamy/Clayey	
4-9	10YR 4/3	100					Loamy/Clayey	
9-16	10YR 4/4	100					Loamy/Clayey	
16-24	10YR 5/3	100					Loamy/Clayey	

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

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)
- ___ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Red Parent Material (F21) **(outside MLRA 145)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Hyrdic soil criteria was not met.

Project Number: 23-0084

Project Name:
Center Road - Rutland

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Exhibit Title:
Site Photographs

Exhibit:
9

Photograph 1:

View of Data Point 1 (upland) facing northwest. This area was removed of bur oaks and common buckthorn. Spoil piles (clay and woodchips) from a previous WisDOT project are noted to the west of this location.

Photograph 2:

View of Data Point 2 (upland) facing north.

Photograph 3:

View of Data Point 3 (upland) facing north.

Photograph 4:

View of Data Point 4 (upland) facing south.

Photograph 5:

View of soil temperature at the location of Data Point 1 (12” below surface).

Photograph 6:

View of soil temperature at the location of Data Point 2 (12” below surface).

Photograph 7:

View of boxelder bud bursts.

Photograph 8:

View of honeysuckle bud bursts.

Photograph 9:

View of wetland signature area #1 facing south. Area is at the highest point of the project site. Area was removed of vegetation (bur oaks and common buckthorns). Also noted within this area was a rock outcropping.

Photograph 10:

View of former WisDOT borrow pit access road and woody debris pile facing west. Woody debris pile is the location of the high spot in the landscape.

Photograph 11:

View of active mining area facing north.

Photograph 12:

View of oak woodland facing northeast (bur oaks).

Photograph 13:

View of wetland signatures #4 and #6 facing northeast. The area is an upland feature (ridge).

Photograph 14:

View of wetland signature area #2 facing north. This area only met 11% wetness signatures in the normal years that were reviewed. No crop stress was noted from the 2022 crop.

Photograph 15:

View facing southwest.

Photograph 16:

View of facing northwest. Noted in the distance is the high spot in the landscape that was designated as a NRCS wet spot.

Photograph 17:

View of the former WisDOT borrow pit and now currently an active mining pit (sand).

Photograph 18:

View of test pit facing southwest. Noted was a non-hydric soil profile (sandy loam).

Photograph 19:

View of spoil piles from former WisDOT project and current mining activities.

Photograph 20:

View of western project area boundary tree line. Dominate tree species are Siberian elm, boxelder, and black cherry.

Photograph 21:

View of southern limits of the project area facing west.

Photograph 22:

View of active mining pit facing southwest. Noted was ponded water (perched water table) at the bottom of the gravel pit. The bottom of the gravel pit was solid limestone. The ponded water was not observed in the review of aerials. The ponding is most likely due from the above average precipitation from the months prior.

Station name: Madison Dane RGNL AP
Station number: WI837
County: Dane, WI

	------ Actual Precipitation Data ------							---------- Precipitation Evaluations ----------							Aerial Photography Evaluation			
Year	March	April	May	June	July	August	Sept	March	April	May	June	July	August	Sept	June Evaluation (3 Months Prior to June - Wet, Dry or Normal?)	July Evaluation (3 Months Prior to July - Wet, Dry or Normal?)	Aug Evaluation (3 Months Prior to August - Wet, Dry or Normal?)	Sept Evaluation (3 Months Prior to August - Wet, Dry or Normal?)
1979	2.67	2.46	2.70	2.53	2.80	4.96	0.11	2	1	2	2	1	2	1	2	2	1	2
1980	0.68	2.36	2.08	3.43	2.67	9.49	7.84	1	1	2	2	1	3	3	1	2	1	2
1981	0.33	3.42	0.64	4.99	4.81	7.06	3.10	1	2	1	3	3	3	2	1	2	3	3
1982	2.11	3.26	4.34	3.40	3.47	2.67	1.42	2	2	3	2	2	1	1	3	2	2	1
1983	2.70	2.23	4.21	1.85	1.92	5.05	2.85	2	1	3	1	1	2	2	2	2	1	1
1984	1.15	3.86	3.32	7.01	1.96	1.89	2.79	1	2	2	3	1	1	2	2	3	2	1
1985	3.13	1.52	3.35	3.06	4.48	2.98	5.00	3	1	2	2	2	1	3	2	2	2	1
1986	1.55	2.27	1.97	3.24	4.31	4.38	6.82	2	1	1	2	2	2	3	1	1	2	2
1987	1.99	2.46	3.90	1.17	3.26	7.16	3.61	2	1	2	1	2	3	2	2	1	2	2
1988	1.20	2.65	0.92	2.06	2.44	2.95	3.33	1	2	1	1	1	1	2	1	1	1	1
1989	1.69	1.69	1.72	1.67	4.97	6.46	0.89	2	1	1	1	3	3	1	1	1	2	3
1990	4.18	1.90	5.35	4.88	2.61	6.03	1.64	3	1	3	2	1	3	2	2	2	2	2
1991	4.24	4.89	2.20	3.75	5.18	2.34	3.96	3	3	2	2	3	1	3	3	2	3	2
1992	1.90	3.17	1.12	1.53	5.54	2.48	5.99	2	2	1	1	3	1	3	1	1	2	2
1993	3.29	5.33	3.81	6.67	9.34	5.57	3.74	3	3	2	3	3	3	2	3	3	3	3
1994	0.46	2.57	1.33	5.66	4.10	4.56	6.14	1	2	1	3	2	2	3	1	2	2	2
1995	2.17	4.14	3.92	1.22	4.36	5.58	1.78	2	3	2	1	2	3	2	2	2	2	2
1996	0.82	2.76	2.95	9.69	4.08	1.84	1.07	1	2	2	3	2	1	1	2	3	2	2
1997	1.54	2.50	1.94	5.23	6.23	2.33	1.38	2	1	1	3	3	1	1	1	2	3	2
1998	5.46	4.10	4.58	7.46	2.50	4.24	2.48	3	3	3	3	1	2	2	3	3	2	2
1999	0.47	6.91	3.72	5.57	4.49	3.26	1.55	1	3	2	3	2	2	1	2	3	2	2
2000	1.17	3.18	9.63	8.63	3.27	3.94	3.59	1	2	3	3	2	2	2	2	3	3	2
2001	0.59	3.07	4.16	5.40	3.09	7.64	5.53	1	2	3	3	2	3	3	2	3	3	3
2002	1.70	3.45	2.92	3.70	2.06	3.04	2.74	2	2	2	2	1	1	2	2	2	1	1
2003	1.72	2.95	3.67	2.10	4.24	0.87	4.24	2	2	2	1	2	1	3	2	1	2	1
2004	3.61	1.76	10.84	3.93	6.05	3.96	1.00	3	1	3	2	3	2	1	2	2	3	2
2005	1.56	1.68	3.96	1.65	3.92	1.22	1.95	2	1	3	1	2	1	2	2	2	2	1
2006	2.34	5.04	4.61	2.29	4.45	5.43	3.33	2	3	3	1	2	3	2	3	2	2	2
2007	3.39	4.68	1.40	4.82	2.69	15.18	2.45	3	3	1	2	1	3	2	2	2	1	2
2008	2.47	6.43	2.55	10.93	5.62	1.41	2.23	2	3	2	3	3	1	2	2	3	3	2
2009	6.19	4.43	3.68	4.17	1.94	2.49	4.68	3	3	2	2	1	1	3	3	2	1	1
2010	0.71	3.65	3.79	8.38	7.98	3.92	2.65	1	2	2	3	3	2	2	2	3	3	3
2011	2.96	3.61	2.40	3.55	1.85	3.06	3.31	3	2	2	2	1	1	2	2	2	1	1
2012	2.61	2.85	3.19	0.31	4.00	1.58	1.33	2	2	2	1	2	1	1	2	1	2	1
2013	2.41	5.83	6.57	10.86	4.00	1.53	3.19	2	3	3	3	2	1	2	3	3	3	2
2014	1.26	5.13	3.47	9.55	1.08	5.43	1.84	2	3	2	3	1	3	2	2	3	2	2
2015	0.76	4.38	4.18	3.15	5.02	4.10	5.99	1	3	3	2	3	2	3	3	3	3	2
2016	3.96	2.11	2.22	5.35	5.23	7.87	8.46	3	1	2	3	3	3	3	2	2	3	3
2017	2.83	5.30	2.83	6.73	6.52	3.85	0.55	3	3	2	3	3	2	1	3	3	3	3
2018	0.74	2.14	9.78	5.67	3.12	10.40	5.46	1	1	3	3	2	3	3	2	3	3	3
2019	0.92	3.22	6.17	5.16	5.77	2.85	6.80	1	2	3	3	3	1	3	2	3	3	2
2020	3.47	2.04	5.42	5.07	7.59	2.88	3.41	3	1	3	3	3	1	2	2	3	3	2
2021	1.41	1.44	2.20	4.60	1.58	3.23	2.34	2	1	2	2	1	2	2	2	2	1	2
2022	4.67	3.50	2.54	4.02	5.42	**5.76**	**4.03**	3	2	2	2	3	**3**	**3**	**2**	**2**	3	3
								ERROR	ERROR									

1 = Dry, 2 = Normal, 3 = Wet
ERROR = Missing Data

Normals are for 1971-2000 data

Weights For Aerial Photo Use:
1st month prior = 3
2nd month prior = 2
3rd month prior = 1

In the Table Below,
"Dry" is ***less than*** the Lower Limit of the Normal Range
"Normal" is the Range from the Lower Limit to the Upper Limit
"Wet" is ***greater than*** the Upper Limit of the Normal Range

	Lower Limit of Normal Range	Upper Limit of Normal Range
March	1.22	2.78
April	2.54	3.91
May	2.05	3.92
June	2.36	4.92
July	2.88	4.62
August	3.07	5.12
Sept.	1.58	3.77

Monthly Total Precipitation for MADISON DANE COUNTY REGIONAL AP, WI

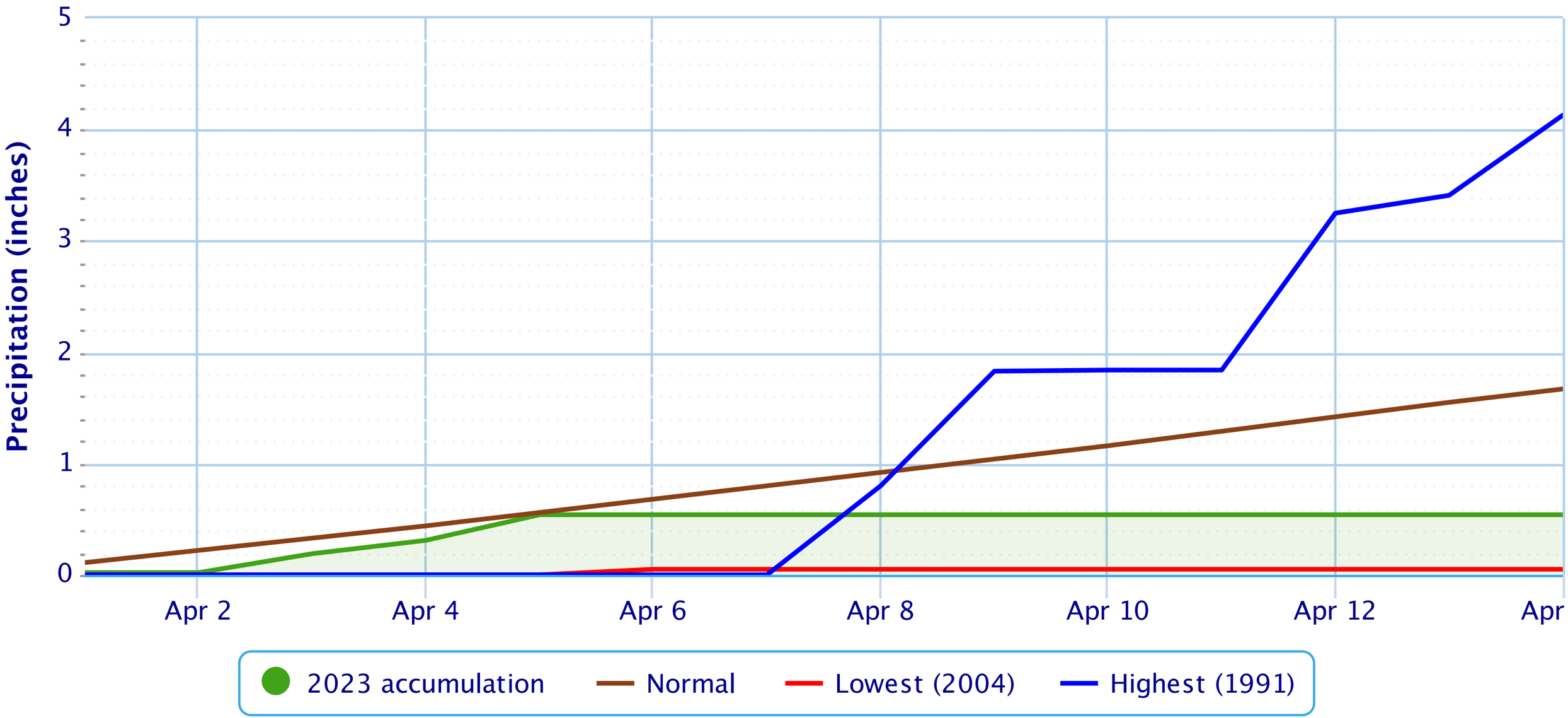
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	0.91	1.95	1.17	3.18	9.63	8.63	3.27	3.94	3.59	0.68	2.00	1.39	40.34
2001	0.99	2.64	0.59	3.07	4.16	5.40	3.09	7.64	5.53	2.62	1.59	1.13	38.45
2002	0.63	2.17	1.70	3.45	2.92	3.70	2.06	3.04	2.74	2.10	1.01	0.67	26.19
2003	0.36	0.50	1.72	2.95	3.67	2.10	4.24	0.87	4.24	1.60	7.49	2.00	31.74
2004	0.62	1.44	3.61	1.76	10.84	3.93	6.05	3.96	1.00	3.20	1.51	1.46	39.38
2005	2.20	1.45	1.56	1.68	3.96	1.65	3.92	1.22	1.95	0.76	3.36	0.99	24.70
2006	1.96	0.81	2.34	5.04	4.61	2.29	4.45	5.43	3.33	2.87	2.24	1.36	36.73
2007	0.84	1.59	3.39	4.68	1.40	4.82	2.69	15.18	2.45	3.35	0.39	3.63	44.41
2008	2.17	3.30	2.47	6.43	2.55	10.93	5.62	1.41	2.23	2.20	1.46	3.29	44.06
2009	0.54	1.91	6.19	4.43	3.68	4.17	1.94	2.49	4.68	3.80	1.32	3.20	38.35
2010	0.88	1.02	0.71	3.65	3.79	8.38	7.98	3.92	2.65	2.30	1.09	1.49	37.86
2011	1.27	1.59	2.96	3.57	2.40	3.55	1.85	3.06	3.31	1.35	3.35	2.23	30.49
2012	1.40	1.03	2.61	2.85	3.19	0.31	4.00	1.58	1.33	4.56	0.90	2.60	26.36
2013	2.87	2.41	2.41	5.83	6.57	10.86	4.00	1.53	3.19	1.89	2.20	1.62	45.38
2014	0.65	1.24	1.26	5.13	3.47	9.55	1.08	5.43	1.84	3.09	1.54	1.03	35.31
2015	0.66	0.54	0.76	4.38	4.18	3.15	5.02	4.10	5.99	2.73	4.75	3.33	39.59
2016	0.98	0.52	3.96	2.11	2.22	5.35	5.23	7.87	8.46	4.96	1.87	2.03	45.56
2017	2.76	1.94	2.83	5.30	2.83	6.73	6.52	3.85	0.55	3.56	0.68	0.73	38.28
2018	1.68	2.50	0.74	2.14	9.78	5.67	3.12	10.40	5.46	5.36	1.69	2.10	50.64
2019	2.56	2.94	0.92	3.22	6.17	5.16	5.77	2.85	6.80	5.85	2.63	1.52	46.39
2020	1.74	0.94	3.47	2.04	5.42	5.07	7.59	2.88	3.41	3.38	1.85	1.13	38.92
2021	1.27	0.86	1.41	1.44	2.20	4.60	1.58	3.23	2.34	1.84	0.36	1.69	22.82
2022	0.48	0.40	4.67	3.50	2.54	4.02	5.42	5.76	4.03	0.85	3.37	2.34	37.38
2023	1.82	3.00	3.63	M	M	M	M	M	M	M	M	M	M
Mean	1.34	1.61	2.38	3.56	4.44	5.22	4.20	4.42	3.53	2.82	2.12	1.87	37.36

Climatological Data for MADISON DANE COUNTY REGIONAL AP, WI - April 2023

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2023-04-01	43	28	35.5	0	0	0.02	0.1	0
2023-04-02	55	28	41.5	2	0	0.00	0.0	0
2023-04-03	56	34	45.0	5	0	0.17	0.0	0
2023-04-04	54	42	48.0	8	0	0.12	0.0	0
2023-04-05	56	32	44.0	4	0	0.23	0.0	0
2023-04-06	50	28	39.0	0	0	0.00	0.0	0
2023-04-07	54	27	40.5	1	0	0.00	0.0	0
2023-04-08	64	33	48.5	9	0	0.00	0.0	0
2023-04-09	68	36	52.0	12	2	0.00	0.0	0
2023-04-10	73	50	61.5	22	12	0.00	0.0	0
2023-04-11	76	51	63.5	24	14	0.00	0.0	0
2023-04-12	83	60	71.5	32	22	0.00	0.0	0
2023-04-13	82	57	69.5	30	20	0.00	0.0	0
2023-04-14	82	56	69.0	29	19	0.00	0.0	0
2023-04-15	82	53	67.5	28	18	0.33	0.0	0
2023-04-16	53	30	41.5	2	0	0.56	0.2	0
2023-04-17	M	M	M	M	M	M	M	M
2023-04-18	M	M	M	M	M	M	M	M
2023-04-19	M	M	M	M	M	M	M	M
2023-04-20	M	M	M	M	M	M	M	M
2023-04-21	M	M	M	M	M	M	M	M
2023-04-22	M	M	M	M	M	M	M	M
2023-04-23	M	M	M	M	M	M	M	M
2023-04-24	M	M	M	M	M	M	M	M
2023-04-25	M	M	M	M	M	M	M	M
2023-04-26	M	M	M	M	M	M	M	M
2023-04-27	M	M	M	M	M	M	M	M
2023-04-28	M	M	M	M	M	M	M	M
2023-04-29	M	M	M	M	M	M	M	M
2023-04-30	M	M	M	M	M	M	M	M
Average|Sum	64.4	40.3	52.4	208	107	1.43	0.3	0.0

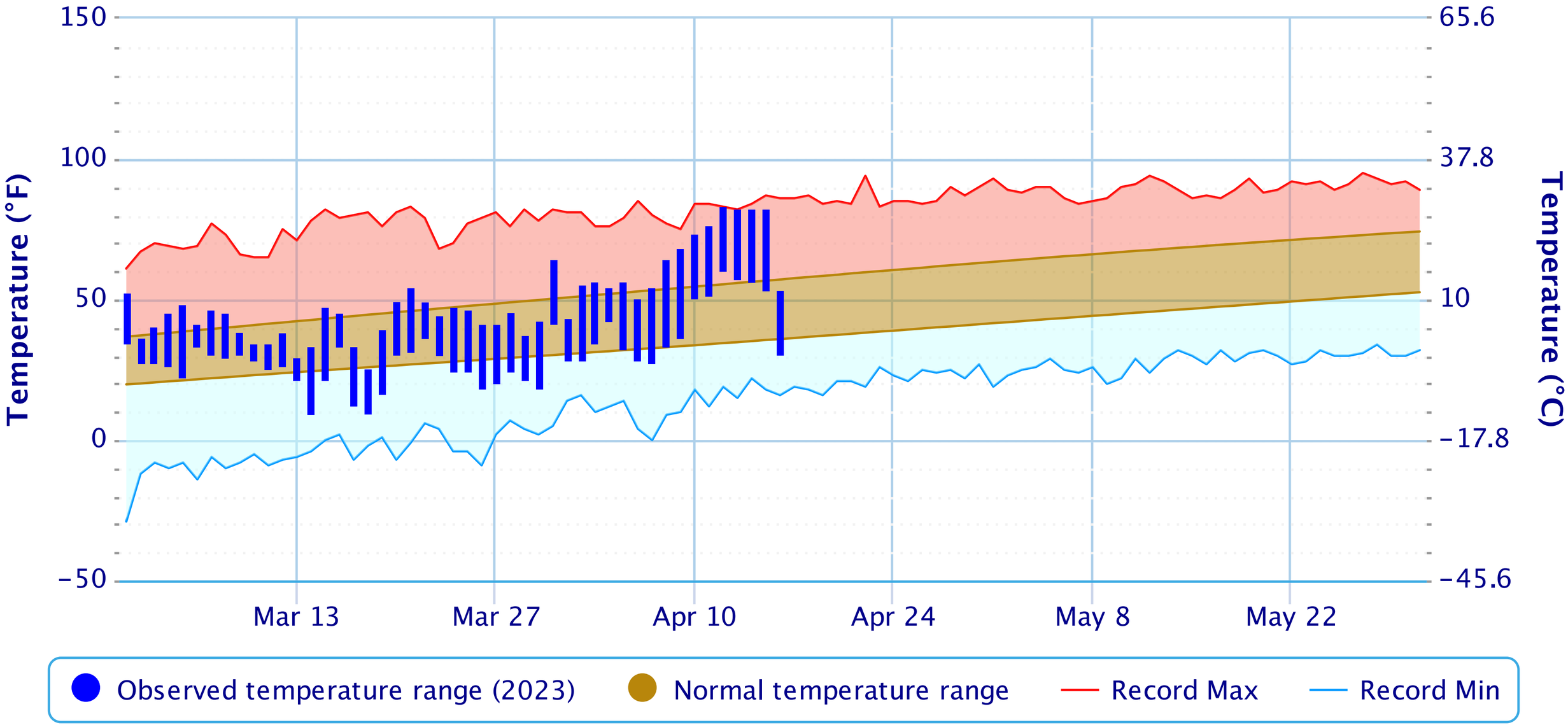
Accumulated Precipitation - MADISON DANE COUNTY REGIONAL AP, WI

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Daily Temperature Data - MADISON DANE COUNTY REGIONAL AP, WI

Period of Record - 1939-10-01 to 2023-04-16. Normals period: 1991-2020. Click and drag to zoom chart.



Powered by ACIS

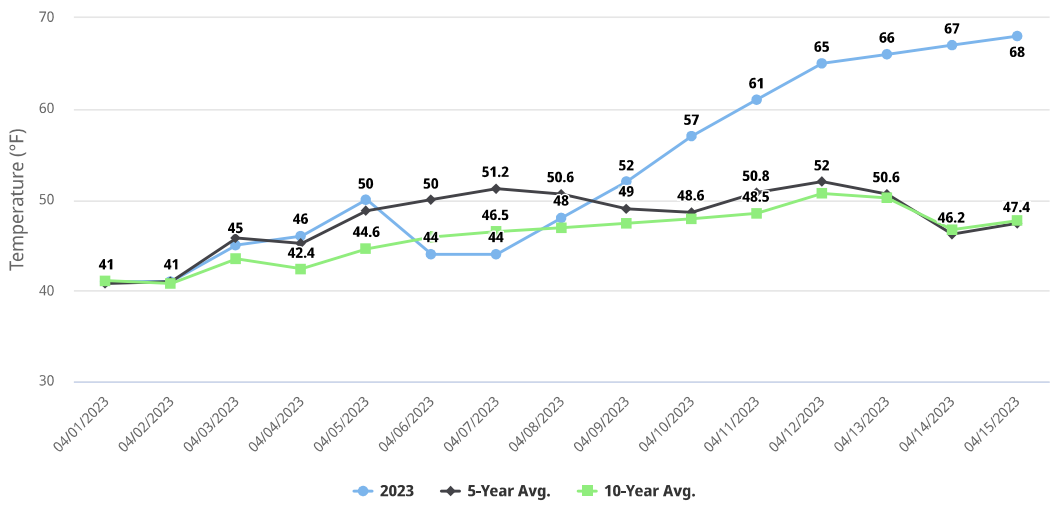
Soil Temperature Maps

Certain insects, weeds and diseases thrive in certain soil temperatures. Having updated information about your local soil temperature and the pests common to your area can help you prevent and treat for optimal turfgrass quality.

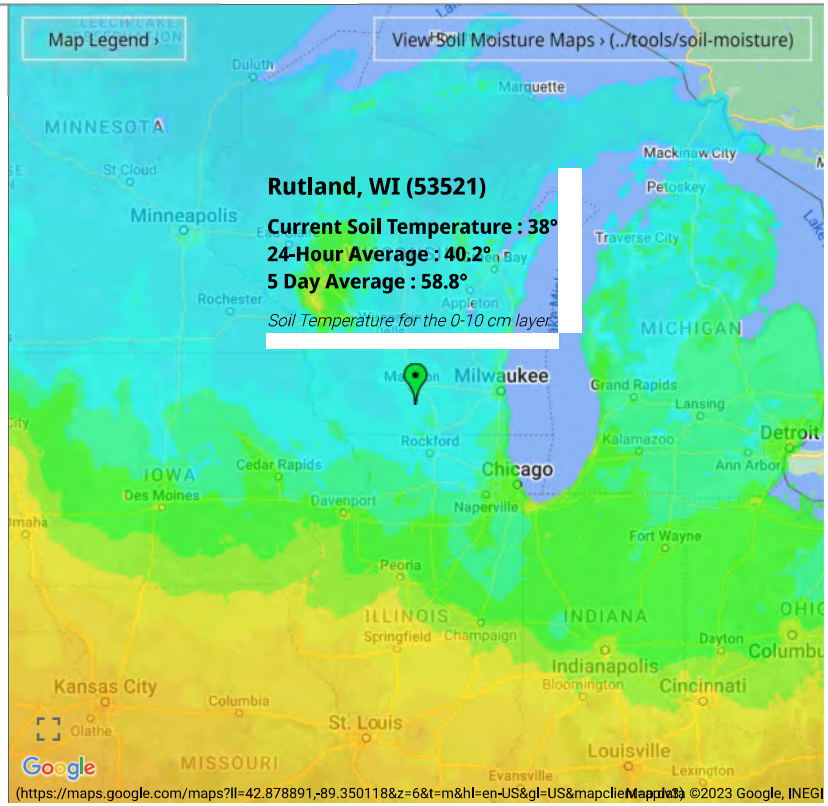
Location Search: Rutland, WI 53521, USA

Average Soil Temperature in Rutland, WI (53521)

04/01/2023 - 04/15/2023



Click on a legend item above to hide it from chart



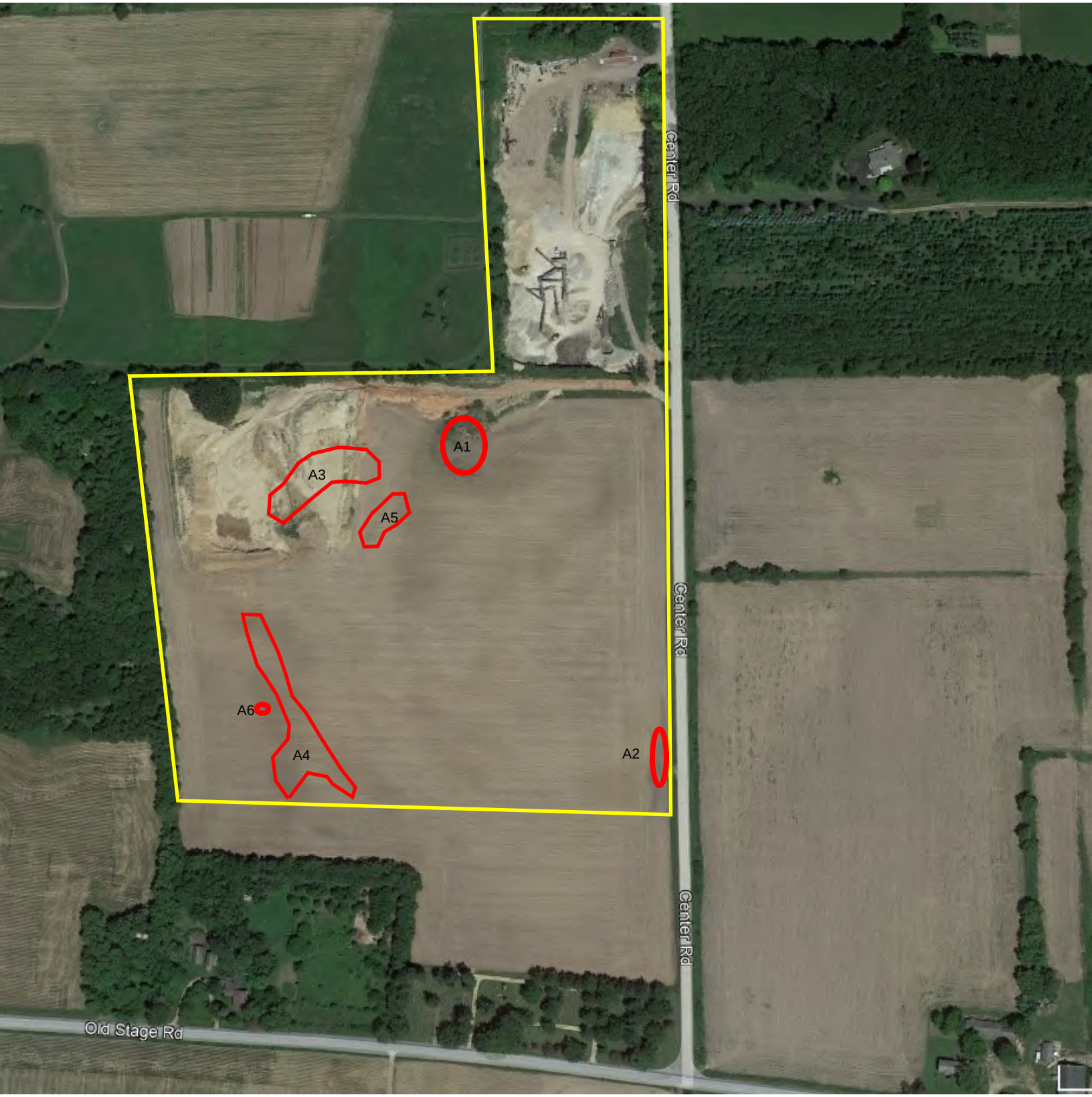
Project Number: 23-0084

Project Name:
Center Road - Rutland

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Exhibit Title:
Wetland Signatures on Aerial

Exhibit:
11


A1
A3
A5
A6
A4
A2
Center Rd
Center Rd
Center Rd
Old Stage Rd

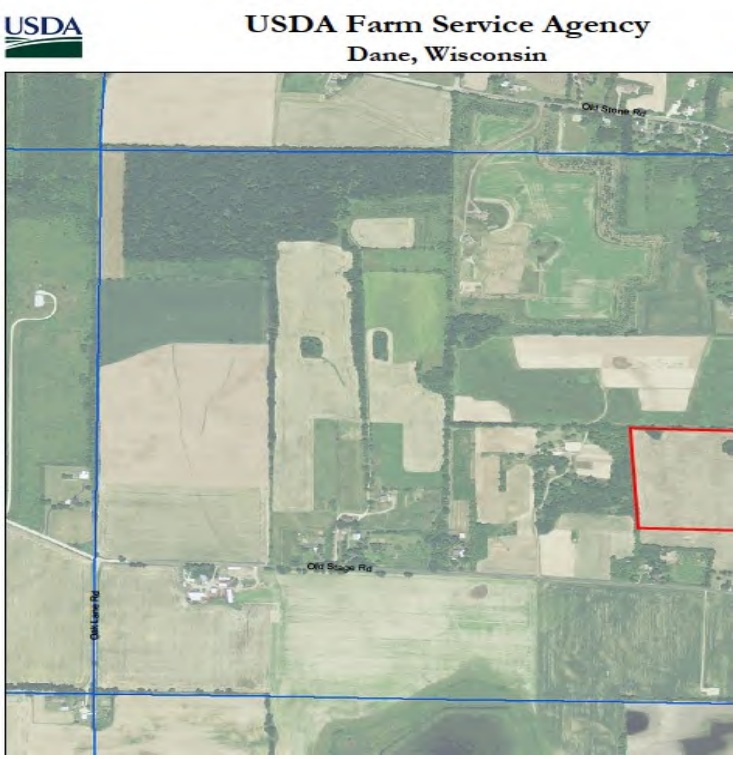
2000 Normal

2005 Normal

2006 Normal

2008 Normal

2010 Normal



2013 Wet

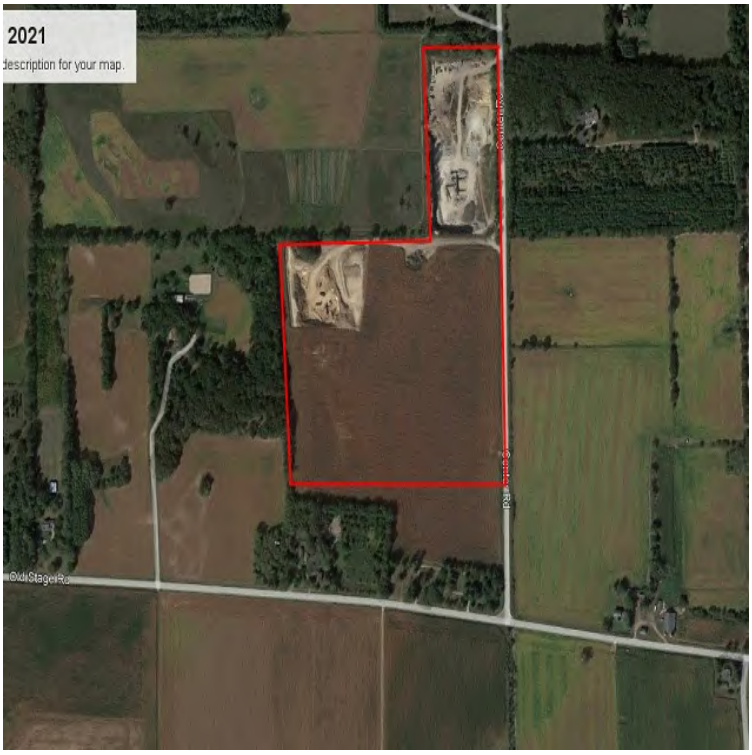
2014 Normal

2015 Wet

2017 Wet

2018 Wet

2020 Normal



2021 Normal

2022 Normal

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

TOPOGRAPHY

WISCONSIN
EVANSVILLE QUADRANGLE

PROJECT AREA

H. M. Wilson, Geographer.
Robert Muldrow, in charge of section.
Topography by A. T. Fowler and J. G. Staack.
Submerged contours by the Wisconsin Geological and Natural History Survey.
Triangulation by the U.S. Coast and Geodetic Survey.
Surveyed in 1904.

ENGRAVED APR. 1906 BY U.S.G.S.

Scale 1/62500

Contour interval 20 feet.
Datum is mean sea level.

Edition of Nov. 1906.

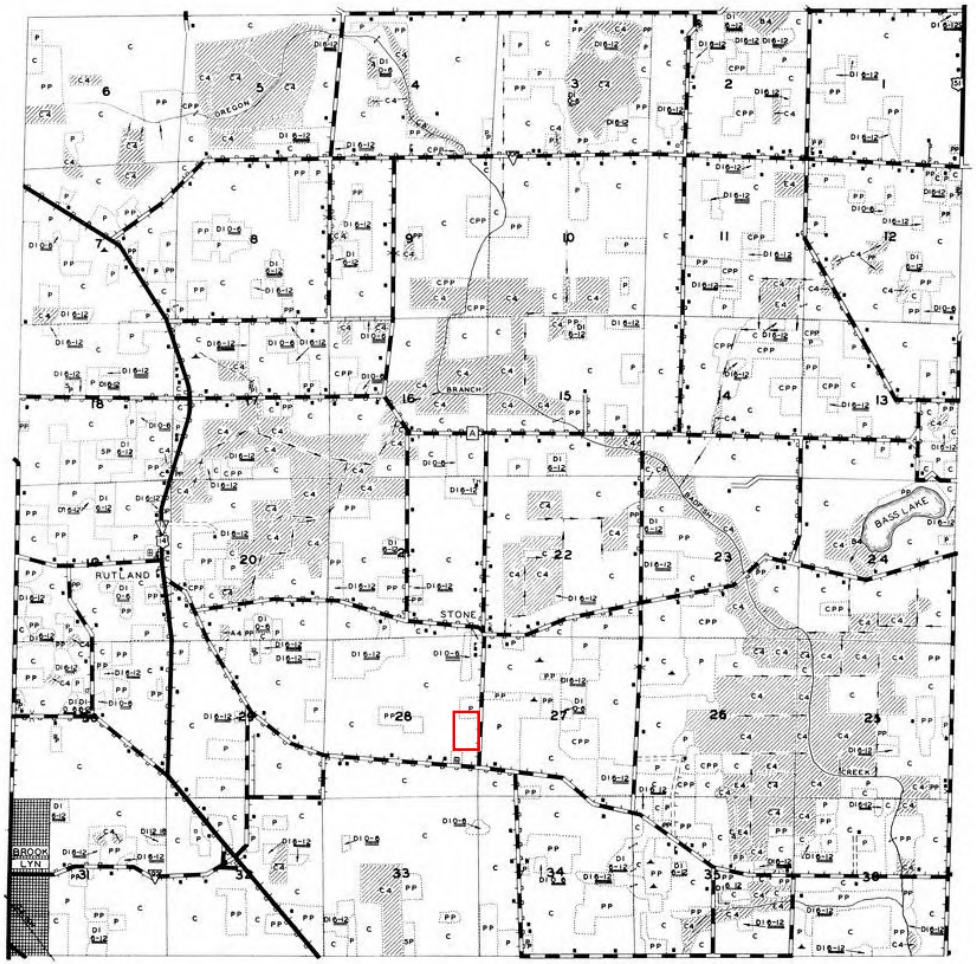
Evansville, Wis.


1937 AERIAL
Parcels

WISCONSIN LAND INVENTORY

LAND COVER MAP

TOWN OF RUTLAND — T. 5 N. R.10 E. — DANE COUNTY



LEGEND

UPLAND FOREST NUMERALS 1-2 | LOW LAND FOREST ALL NUMERALS 3-3 | NON-TILLABLE A-PP-CPP-SP-E-A4-C4-E4-▲ | INFERIOR FOREST POORLY STOCKED WOODLAND B1-C1-D5-D5 | OPEN SWAMP ALL NUMERALS 4-4 | TILLABLE LAND C-C5-P | ALL SWAMP LAND NUMERALS 5-5

FOREST PLANTING RECOMMENDED

LAND COVER

- COVER BOUNDARY
- A ABANDONED
- A1 UPLAND HARDWOODS
- A2 HEMLOCK WITH HARDWOOD
- A3 SWAMP HARDWOODS
- A4 TAGALDER, WILLOW, DOGWOOD ETC
- B BIRCH
- B1 HARDWOOD WITH CONIFERS
- B1 INFERIOR B1
- B2 WHITE PINE
- B3 WHITE CEDAR
- B4 CAT TAIL MARSH
- C CLEARED CROP LAND
- C1 POPPLE WITH WHITE BIRCH
- C1 INFERIOR C1
- C2 NORWAY PINE
- C3 TAMARACK
- C4 GRASS MARSH
- C4 SEDGE MARSH
- C5 CULTIVATED STUMP LAND
- CPP POOR LAND PREVIOUSLY CROPPED
- D SCRUB OAK
- D1 OAK-HICKORY
- D2 JACK PINE
- D3 BLACK SPRUCE
- D3 BALSAM
- D4 LEATHER LEAF
- D5 RECENT BURN
- D5 DEAD TIMBER
- E1 PIN CHERRY
- E4 WEEDY PEAT
- F4 CRANBERRY MARSH
- FP FOREST PLANTATION
- O OPEN
- P PASTURE
- PP PERMANENT PASTURE
- RC RED CEDAR
- SP STUMP PASTURE
- TG TRUCK GARDEN

ROADS

- 14 FEDERAL HIGHWAY
- V STATE HIGHWAY
- A COUNTY HIGHWAY
- HARD SURFACED ROAD
- IMPROVED GRAVEL ROAD
- UNIMPROVED GRAVEL ROAD
- IMPROVED DIRT ROAD
- UNIMPROVED DIRT ROAD
- TRAIL
- DRIVABLE FIRE LANE
- NON-DRIVABLE FIRE LANE
- TELEPHONE LINE
- POWER LINE
- RAILROAD
- ABANDONED RAILROAD

IMPROVEMENTS

- OCCUPIED HOUSE
- VACANT HOUSE
- SUMMER HOME
- OCCUPIED SCHOOL
- VACANT SCHOOL
- CHURCH
- TOWN HALL
- CHEESE FACTORY
- CREAMERY
- FILLING STATION OR GARAGE
- STORE
- TAVERN
- HOTEL
- SAW MILL
- GRIST MILL
- FARM BLDG LESS THAN 100 FT. FROM CENTER OF ROAD
- LOGGING CAMP
- INDICATES NO. OF HOUSES IN A GROUP
- 50 INDICATES THE NUMBER OF FEET BUILDING IS LOCATED FROM CENTER OF ROAD

MISCELLANEOUS SYMBOLS

- QUARRY
- GRAVEL PIT
- SPRING
- FUR FARM
- DRAINAGE DITCH
- CEMETERY
- NURSERY
- EROSION
- FIRE TOWER
- INTERMITTENT STREAM
- GC GOLF COURSE
- BD BEAVER DAM
- PD PUBLIC DUMP
- Y ORCHARD
- CIVIL TOWN BOUNDARY

WOODED AREAS

DENSITY OF STAND

IS INDICATED BY THE LINE OR LINES BELOW THE DIAMETER

- D1 6-12 ONE LINE = GOOD STAND
- D1 6-12 TWO LINES = MEDIUM STAND
- D1 6-12 THREE LINES = POOR STAND
- D1 6-12 FOUR LINES = SCATTERED

DIAMETER CLASSES

NUMERALS 0-3, 3-6 ETC. PLACED AFTER A TIMBER SYMBOL (D1 6-12) INDICATES IN INCHES THE AVERAGE DIAMETER OF THE TREES BREAST HIGH (4½ FT.) WITHIN A GIVEN COVER AREA.

N

ONE MILE

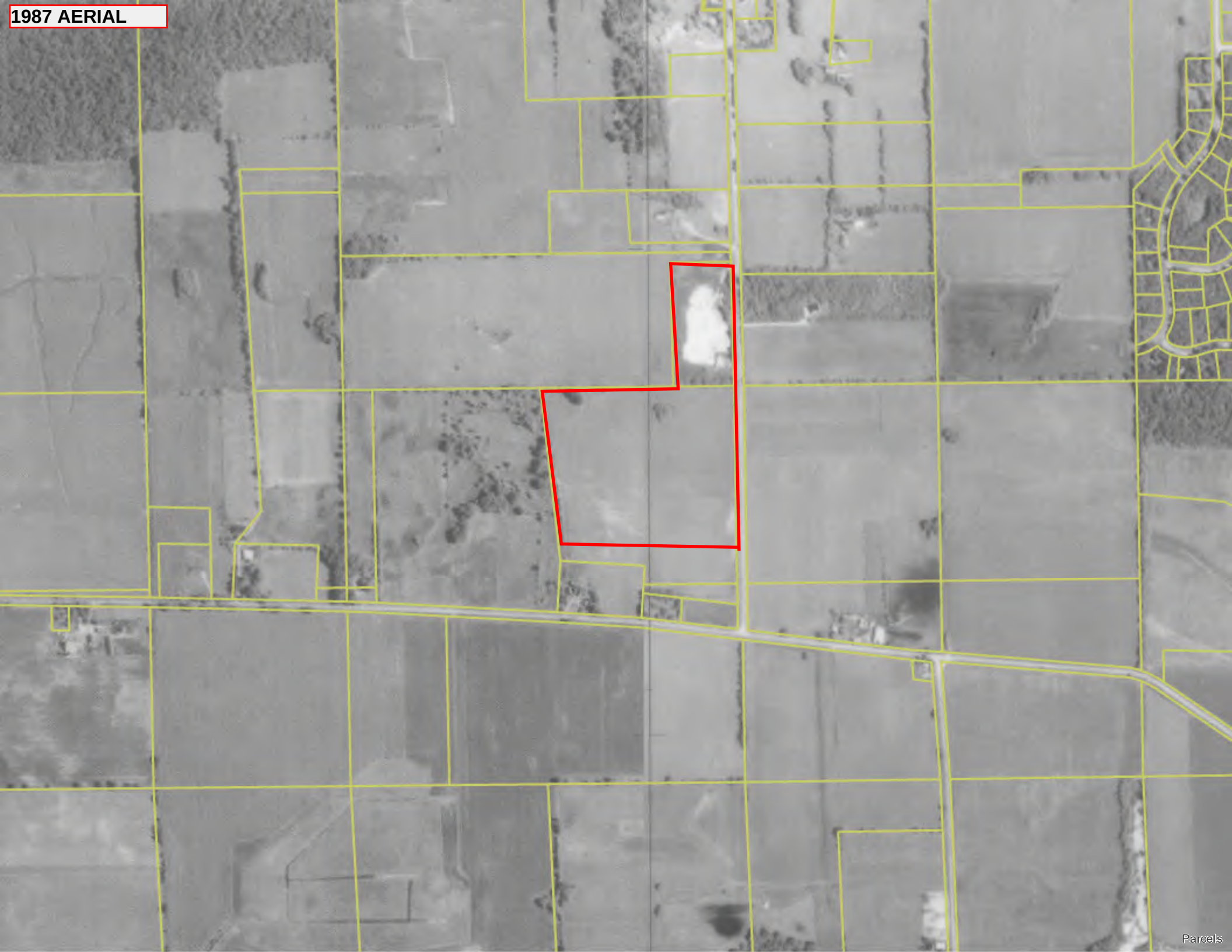
WISCONSIN STATE PLANNING BOARD — W.P.A. COOPERATING

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


1955 AERIAL
78
Parcels

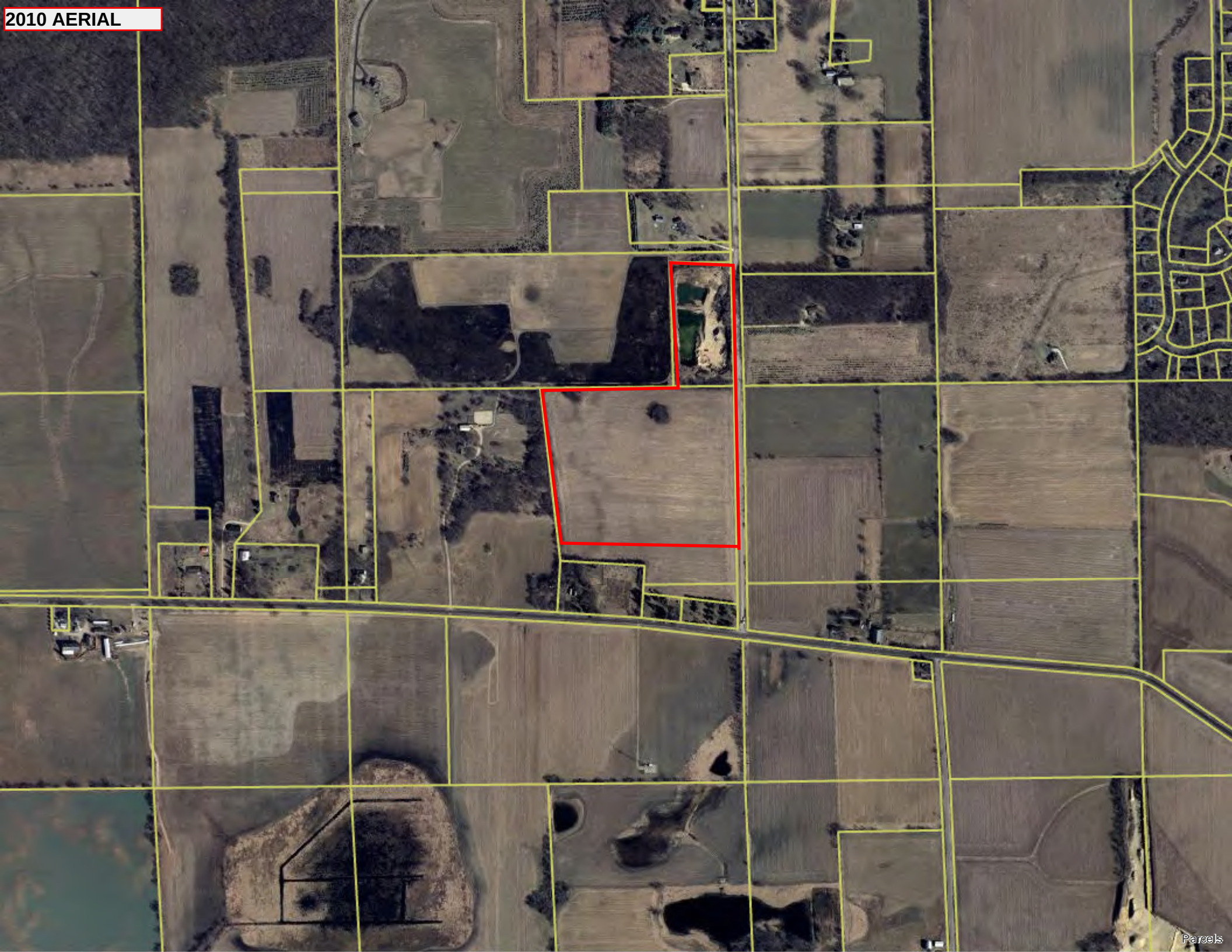

1968 AERIAL
Parcels

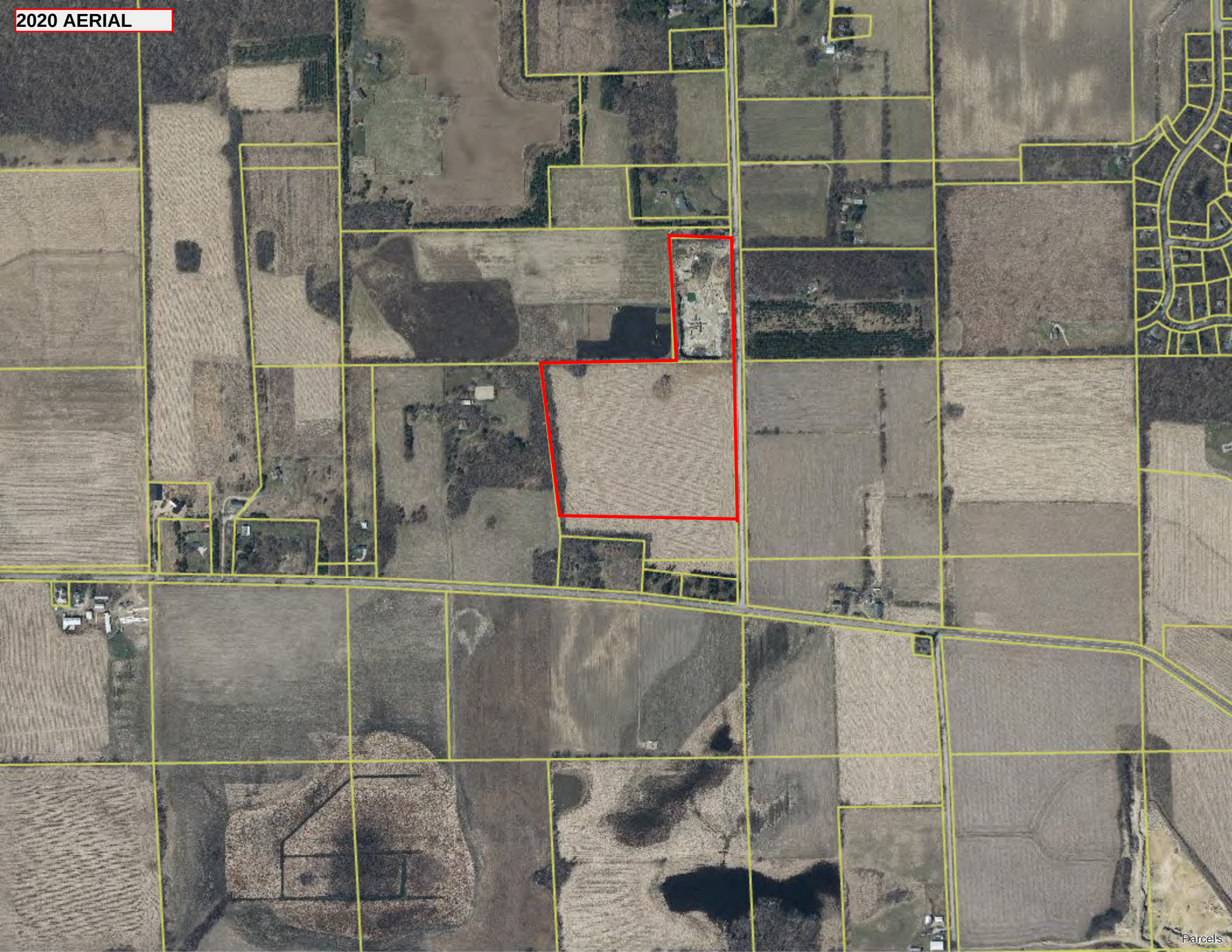

1976 AERIAL
Parcels


1987 AERIAL
Parcels

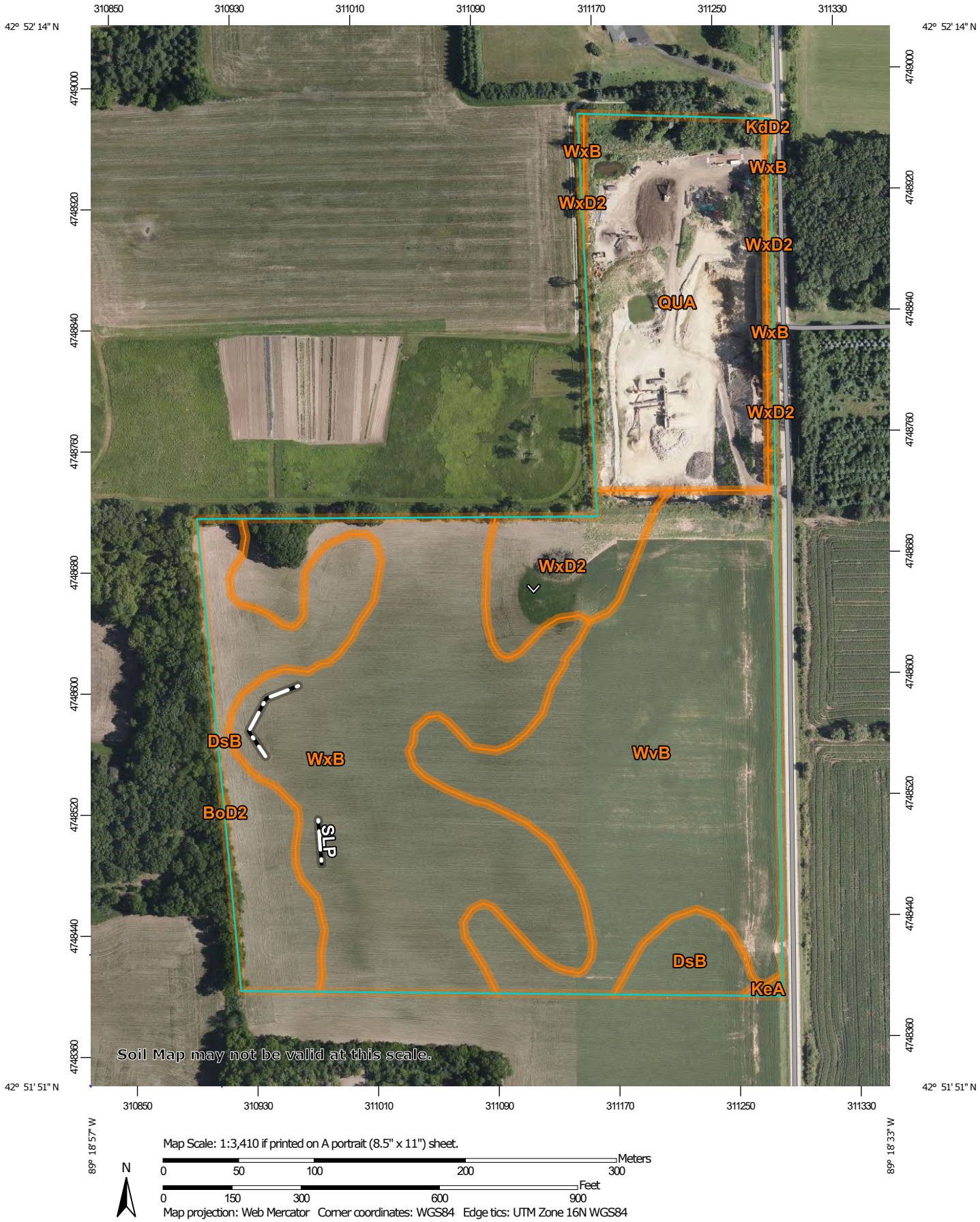

1995 AERIAL
Parcels


2000 AERIAL
Parcels


2010 AERIAL
Parcels


2020 AERIAL
Parcels


2022 AERIAL
Parcels



Map Scale: 1:3,410 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

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

Date(s) aerial images were photographed: Jun 13, 2020—Aug 4, 2020

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BoD2	Boyer sandy loam, 12 to 20 percent slopes, eroded	0.0	0.0%
DsB	Dresden silt loam, 2 to 6 percent slopes	4.7	12.7%
KdD2	Kidder loam, 12 to 20 percent slopes, eroded	0.0	0.0%
KeA	Kegonsa silt loam, 0 to 2 percent slopes	0.1	0.1%
QUA	Quarry	7.3	19.7%
WvB	Westville silt loam, 2 to 6 percent slopes	11.4	30.8%
WxB	Whalan silt loam, 2 to 6 percent slopes	11.5	31.2%
WxD2	Whalan silt loam, 12 to 20 percent slopes, eroded	2.1	5.5%
Totals for Area of Interest		**37.1**	**100.0%**

Dane County, Wisconsin

WxD2—Whalan silt loam, 12 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: t95y
Elevation: 800 to 1,210 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Whalan and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Whalan

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Thin loess over glacial till over dolomite

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 27 inches: sandy clay loam
2R - 27 to 79 inches: bedrock

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F095XB006WI - Shallow Upland
Forage suitability group: Mod AWC, adequately drained with limitations (G095BY006WI)

Other vegetative classification: Mod AWC, adequately drained with limitations (G095BY006WI)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

Dane County, Wisconsin

WxB—Whalan silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: t95w
Elevation: 850 to 1,230 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Whalan and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Whalan

Setting

Landform: Hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Thin loess over glacial till over dolomite

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 27 inches: sandy clay loam
2R - 27 to 79 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F095XB006WI - Shallow Upland
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)

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

Data Source Information

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

Dane County, Wisconsin

WvB—Westville silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: t95r
Elevation: 680 to 1,020 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 160 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Westville and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Westville

Setting

Landform: Moraines
Landform position (two-dimensional): Summit
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Thin loess over loamy glacial till

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 55 inches: clay loam
H3 - 55 to 60 inches: sandy loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F095XB010WI - Loamy and Clayey Upland
Forage suitability group: High AWC, adequately drained (G095BY008WI)

Other vegetative classification: High AWC, adequately drained (G095BY008WI)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

Dane County, Wisconsin

DsB—Dresden silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2wspv
Elevation: 610 to 1,180 feet
Mean annual precipitation: 31 to 35 inches
Mean annual air temperature: 43 to 48 degrees F
Frost-free period: 132 to 172 days
Farmland classification: All areas are prime farmland

Map Unit Composition

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

Description of Dresden

Setting

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

Typical profile

Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 25 inches: clay loam
2Bt2 - 25 to 33 inches: gravelly sandy clay loam
2C - 33 to 79 inches: stratified gravel to sand

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 30 to 40 inches to strongly contrasting textural stratification
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Forage suitability group: Mod AWC, adequately drained (G095BY005WI)
Other vegetative classification: Mod AWC, adequately drained (G095BY005WI)
Hydric soil rating: No

Minor Components

Casco

Percent of map unit: 8 percent
Landform: Outwash plains
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Hydric soil rating: No

Kegonsa

Percent of map unit: 7 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB010WI - Loamy and Clayey Upland
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

Dane County, Wisconsin

BoD2—Boyer sandy loam, 12 to 20 percent slopes, eroded

Map Unit Setting

National map unit symbol: t91f
Elevation: 600 to 1,200 feet
Mean annual precipitation: 28 to 33 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 135 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Boyer and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boyer

Setting

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

Typical profile

H1 - 0 to 7 inches: sandy loam
H2 - 7 to 20 inches: sandy loam
H3 - 20 to 60 inches: sand

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

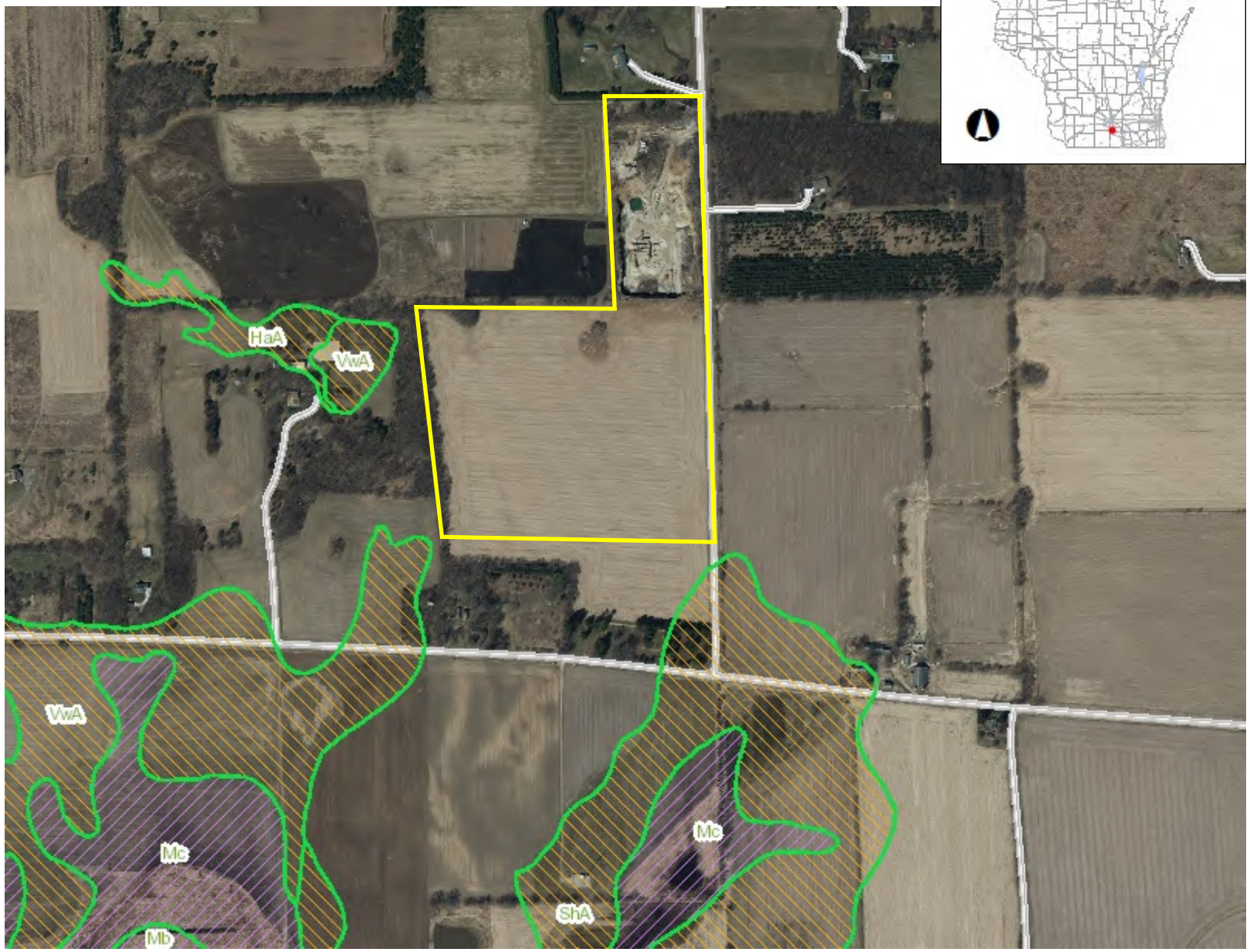
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: F095XB007WI - Loamy Upland with Carbonates
Forage suitability group: Low AWC, adequately drained with limitations (G095BY003WI)

Other vegetative classification: Low AWC, adequately drained with limitations (G095BY003WI)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 21, Sep 6, 2022

NRCS Hydric Soils Map



Legend

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

Municipality

State Boundaries

County Boundaries

Major Roads
- Interstate Highway
- State Highway
- US Highway

County and Local Roads
- County HWY
- Local Road

Railroads

Tribal Lands

Rivers and Streams

Intermittent Streams

Lakes and Open water

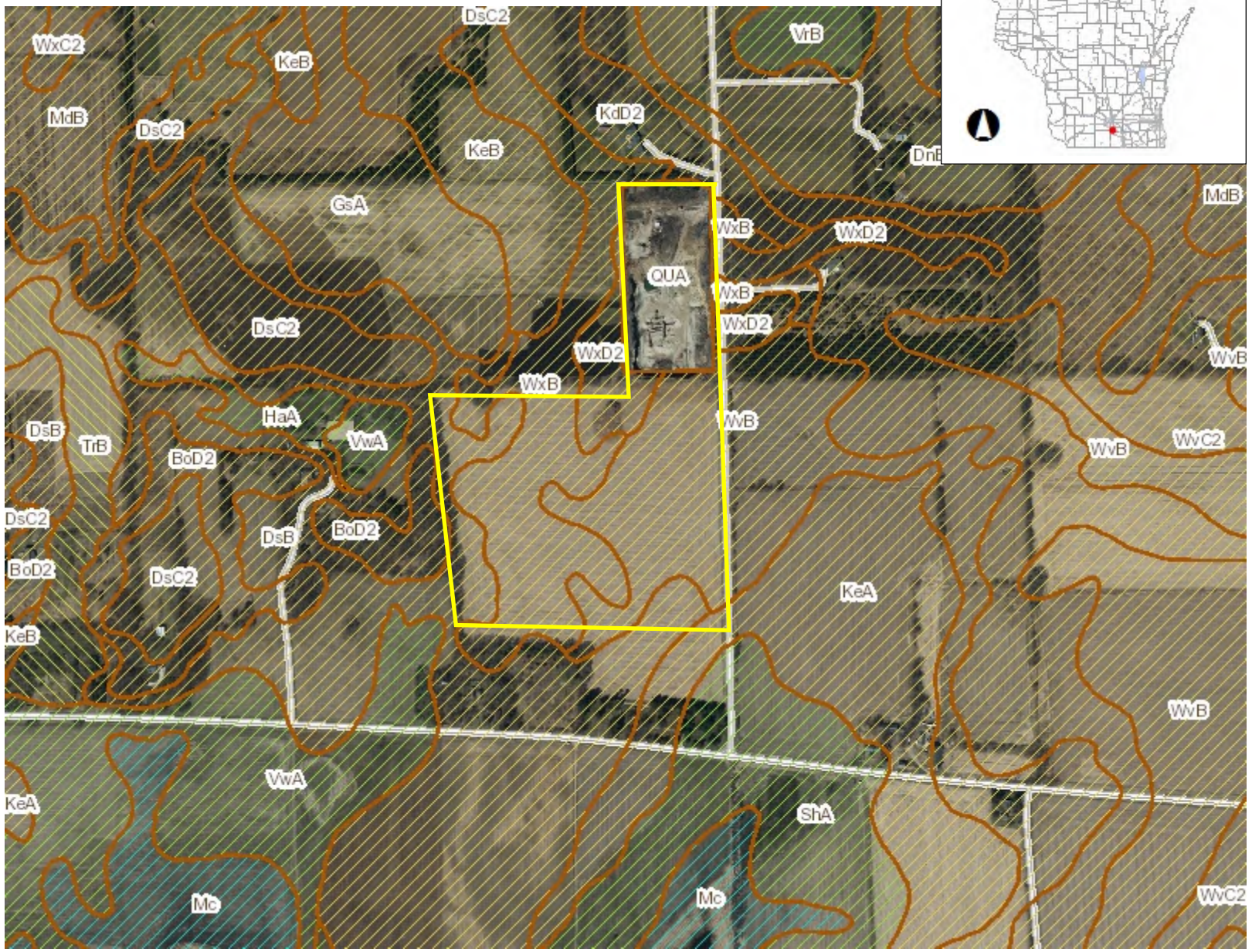
Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

NRCS Soils Drainage Class Map



Legend

NRCS Soil Drainage Classes

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained

- Municipality
- State Boundaries
- County Boundaries

Major Roads

- Interstate Highway
- State Highway
- US Highway

County and Local Roads

- County HWY
- Local Road

- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water

Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1: 7,920

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

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

WISCONSIN
DEPT. OF NATURAL RESOURCES

April 3, 2023

Bob Kerpec
Hey & Associates, Inc.
P.O.Box 757
Oak Creek, WI 54703

Subject: 2023 Assured Wetland Delineator Confirmation

Dear Mr. Kerpec:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2023 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: http://dnr.wi.gov/topic/wetlands/assurance.html.

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

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

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

Sincerely,

Kara Brooks
Wetland Identification Coordinator
Bureau of Watershed Management

Wetland Identification Requests

General Information

Complete all sections, **Save** your work, **Move** between tabs, **Pay** online by credit card, debit card or e-check. (You must use this system to pay all application fees), **Include** your digital signature, **Submit** the Application to the DNR.

NOTE: Missing or incomplete fields are highlighted at the bottom of each page. You may save, close and return to your draft permit as often as necessary to complete your application. If there are **no** updates in 90 days, your draft is **deleted.**

Project Information

Wetland ID Activity:	Assured Delineator Report Submittal
Project Name:	Center Road Quarry Expansion Project

Required Attachments and Supplemental Information - Not Started - Required

Assured Delineator Report Submittals

- ***Report Documentation*** - Introduction, Methods, Results, Discussion, Literature Cited and Delineator Qualifications sections
- ***Delineation Data Forms***
- ***Site Photos***
- ***Topographic Map*** -Best available, 2 foot contour is recommended
- ***WWI Map*** - Wisconsin Wetland Inventory Map
- ***Soil Survey Map***
- ***Wetland Delineation Map*** - Map of the delineated wetland and/or non-wetland area(s)
- ***Off-Site Aerial Imagery Review*** - Farm Service Agency (FSA) Slide Review
- ***Other Items*** (Optional)

Contact Information

Notice: This form is to be included with all requests that are submitted to the Department's Wetland Identification Program. Failure to submit all of the requested information to the Department may delay our response to your request. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

Requester's Information

Last Name:	Kerpec
First Name:	Robert
Title:	
Organization:	Hey and Associates, Inc.
Address:	P.O. Box 757
City:	Oak Creek
State:	WI
Zip Code:	53227
Email:	bkerpec@heyassoc.com
Phone Number:	224-213-0586 **xxx-xxx-xxxx**

Site Owners Information ☐ Select if same as Requester:

Last Name:	Hahn
First Name:	Kevin
Title:	
Organization:	
Address:	427 Center Road
City:	Oregon
State:	WI
Zip Code:	53575
Email:	nelsonexcavatingandson@gmail.com
Phone Number:	608-333-5697 **xxx-xxx-xxxx**

Site Information - Complete

Address:	427 Center Road
City:	Rutland
State:	WI
Zip Code:	53575
Acreage:	38.385
Government Lot #:	

Site Map ID5900-Center-Road-Quarry-Expansion-P

April 24, 2023

1:7,920

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Wisconsin DNR, Wisconsin Regional Orthophoto Consortium (WROC), 2010.

You must include a map showing the exact location of the parcel(s) of land for your request. If you do not wish to have an entire area considered, you must indicate on the map the exact location of the area(s) for your request.

Legal Description

County:	Dane
Municipality:	○ City ○ Township ○ Village of RUTLAND;T
Quarter-Quarter:	SW
Quarter:	NW
Section:	27
Township:	05 **N**
Range:	10 ○ **East** ○ **West**

(PLSS information filled in by the site map created on this page)

Required Attachments and Supplemental Information - Not Started - Required

A complete submittal with detailed drawings will help us make a decision about your permit application. Any applicable statutory review times do not begin until the application is received by the Department and is determined to be complete.

Assured Delineator Report Submittals

- ***Report Documentation*** - Introduction, Methods, Results, Discussion, Literature Cited and Delineator Qualifications sections
- ***Delineation Data Forms***
- ***Site Photos***
- ***Topographic Map*** -Best available, 2 foot contour is recommended
- ***WWI Map*** - Wisconsin Wetland Inventory Map
- ***Soil Survey Map***
- ***Wetland Delineation Map*** - Map of the delineated wetland and/or non-wetland area(s)
- ***Off-Site Aerial Imagery Review*** - Farm Service Agency (FSA) Slide Review
- ***Other Items*** (Optional)

Upload Required Attachments (15 MB per file limit) - Help reduce file size and trouble shoot file uploads
*Required Item
Note: To replace an existing file, use the 'Click here to attach file ' link or to delete an item.

Delineation Report (written portion)

File Attachment

23-0084WetlandDelineationReport.pdf

Proof of Ownership

File Attachment

Agricultural or Roadway Use Aerial Map

File Attachment

Wetland Delineation Map

File Attachment

23-0084Exhibit7WetlandsNoFindings.pdf

Soil Survey Map

File Attachment

23-0084-Exhibit6-Soils.pdf

Wisconsin Wetland Inventory Map

File Attachment 23-0084-Exhibit4-WWI.pdf

Topographical Map

File Attachment 23-0084-Exhibit2-Topo.pdf

File Attachment 23-0084Exhibit7WetlandsNoFindings.pdf

Other Site Maps

Select Map Type: ...Select Map Type

File Attachment

Other Attachments

File Attachment

(Click insert to add additional Other Items or Site Photos. Use your cursor to hover over the file name field. When the drop down arrow appears, select insert or remove item)

Sign and Submit Your Application

Steps to Complete the signature process

1. Read and Accept the Terms and Conditions
2. Press the Submit and Send to the DNR button

NOTE: For security purposes all email correspondence will be sent to the address you used when registering your WAMS ID. This may be a different email than that provided in the application. For information on your WAMS account click HERE .

Terms and Conditions

Owner Certification: I certify that I have completed a wetland delineation that is compliant with the assured delineator standards outlined in my annual Assured Wetland Delineator Concurrence Letter.

Authorized Signature.

☑ I accept the above terms and conditions.

Signed by : i:0#.f|wamsmembership|bkerpec27 on 2023-04-24T15:16:43

You have already signed and submitted this application to the DNR. Please contact the Wisconsin DNR for assistance.

After providing the final authorized signature, the system will send an email to the authorized party and any agents. This email will include a copy to the final read only version of this application.

PROJECT INFORMATION - Center Road Quarry Expansion Project

Project Description:

Geographical Management Unit:	https://permits.dnr.wi.gov/water/Lists/Public%20Issues/Attachments/1694/GMU%20Map.pdf
Wetland Bank Service Area:	
County:	Dane
Municipality:	○ City ◉ Township ○ Village of RUTLAND;T
Quarter-Quarter:	SW
Quarter:	NW
Section:	27
Township:	05 **N**
Range:	10 ◉ **East** ○ **West**
Latitude:	42.867565102
Longitude:	-89.312627410

(PLSS information filled in by the site map created on this page)

PROPOSED UNAVOIDABLE WETLAND IMPACTS BY COVER TYPE AND DELINEATED ACREAGE

Wetland Cover Type	*Acreage (to nearest 0.01)*
Shallow, Open Water:	
Deep and Shallow Marshes:	
Sedge Meadows:	
Fresh (Wet) Meadow:	
Wet to Wet - Mesic Prairie:	
Calcareous Fens:	
Bogs (Open or Coniferous):	
Shrub - Carr or Alder Thicket:	
Hardwood or Coniferous Swamps:	
Floodplain Forests:	
Seasonally Flooded Basins	